Degrees of Freedom Team Handbook

(Version 1.0)

The following handbook is designed to provide team members with a comprehensive understanding of how the team works. It is an evolving document and can change to meet any new dynamics that may require modification to help make the team successful.

Introduction Section

Welcome!

Congratulations on being a member of Team 6413, Degrees of Freedom (DoF)! This handbook will help you "Be The Best DoF Member You Can Be" with explanations of our Mission, Goals, Values, Expectations, and Operations along with sharing the Degrees of Freedom History and Family.

It is important that this handbook, a living document, is very thorough with correct information so new team members can learn about Degrees of Freedom along with what is expected as a team member. When we set out to develop a brand-new team handbook, we wanted to learn what some of the best teams in the world do that make them world-class. DoF was fortunate to be invited to visit Team 118 The Robonauts' build space in Spring 2025 when they traveled to Houston for the FRC World Championship. This gave the team some insights into how one of the top teams is structured and operates. As such, we decided to base our new team handbook off of Team 118 The Robonauts' Handbook. We are grateful to them for making their handbook publicly available for other teams to reference or modify. We also referenced handbooks from 3 other world-class teams and would like to acknowledge them as well: 254 Cheesy Poofs, 1678 Citrus Circuits, 2910 Jack in the Bots.

The DoF mentors and SSPF staff have worked hard to review each section of this handbook and to embed our own modification or additions where necessary. However, it is possible that there are sections where we may have missed editing out something that does not apply to us or adding in something that does. If anyone has any questions, comments, or concerns about what is in this handbook, please contact the DoF Head Mentor(s) or SSPF CEO.

One last thing to note: besides being a member of Degrees of Freedom, you are also a member of the Si Se Puede Foundation (SSPF). SSPF is a non-profit organization that sponsors DoF, providing funding as well as a physical meeting and build space called the STEM Center. It is important to realize that you represent both DoF and SSPF whenever you participate in outreach events, competitions, travel, or other activities with the team. Welcome to Degrees of Freedom and to the Si Se Puede Foundation!

When there is a conflict regarding the interpretation of this Handbook, the DoF Head Mentor(s) and SSPF CEO will determine which interpretation is correct.

Program Organization

The Si Se Puede Foundation

The **Si Se Puede Foundation (*SSPF*)** is a 501(c)(3) nonprofit widely recognized as a **STEM** (Science, Technology, Engineering, and Mathematics) education organization, is headquartered in Chandler, AZ, and serves the surrounding communities. SSPF's Mission is to ***bridge the STEM divide in underserved populations in our communities to prepare them for the 21st century workforce***.

SSPF has served Chandler and Phoenix's East Valley communities since 1998. Today, we help local youth gain higher education and workforce readiness while building their competence, self-confidence, and leadership skills in an inclusive, challenging, and creative environment, serving over 700 students annually.

To further this mission, we provide free, year-round STEM programming, including robotics, in our 5,200-square-foot STEM Center. This facility boasts a Fabrication Lab with manufacturing equipment and tools, 3D printers, Computer-Aided Design (CAD) computers and software, a video studio, and a classroom. With the guidance of dedicated mentors and coaches, our students gain confidence, resilience, and a passion for lifelong learning. Through their commitment to their projects and passion for STEM, our robotics teams have earned recognition in regional and international robotics competitions. Si Se Puede offers robotics teams for junior high, high school, and college students. Degrees of Freedom is one of SSPF's robotics teams.

STEM Programs

The main type of STEM programs that Si Se Puede Foundation runs are centered around robotics. Currently, there are 3 robotics programs:

- FIRST Tech Challenge (FTC), which is open to 7th-12th grade students. SSPF sponsors 1-2 FTC teams, depending on how many students are interested in joining. Da Geese of Freedom (Team 18312) and Binary Bots (Team 18445) are the names of these teams.
- FIRST Robotics Competition (FRC), which is open to 9th-12th grade students. SSPF sponsors Degrees of Freedom (Team 6413).
- Desert WAVE (Women in Autonomous Vehicle Engineering) is the name of our all-women collegiate-level underwater robotics team. They compete in the RoboSub competitions.

The STEM Center

The Si Se Puede Foundation STEM Center is the base of operations for multiple teams and programs, not just Degrees of Freedom. DoF does have an assigned pit area and storage for equipment, tools, and materials, However, other groups can and do use the STEM Center so all areas must be kept clean and ready for use by others at all times.

The ***STEM Center Health and Safety Handbook*** (**still in development, so won't be a requirement to acknowledge it yet**) provides more information about the STEM Center, safety requirements, locations of fire extinguishers and first aid kits, etc. Please review it carefully as you must abide by the expectations in that handbook as well as this one. In addition to e-signing this Team Handbook, you will be expected to e-sign the Health and Safety Handbook.

Bridging The Divide

Tuition-Free Community Robotics Team

Participation in the Degrees of Freedom robotics team offers students tuition-free, high-quality STEM education that rivals the paid programs in our community. For the equivalent experience, some FRC teams charge individual students nearly $3,000 a year to help cover registration and travel expenses. We provide access to a fully-equipped Fabrication Lab featuring industry-grade tools such as CNC Router, CNC Mill, Lathe, Laser Cutter, 3D Printers and more. Similar access at local maker spaces and innovation centers cost $75 to $175 per month with usage limits. For example, Phoenix Forge limits users to 6 machine hours per month for $75 per month, and ASU Chandler Innovation Center charges up to $125 per month.

In addition to tools and training, students benefit from free, ongoing education and mentorship from experienced professionals. Our mentors include industry experts and academic professionals who generously donate their time to teach, guide, and inspire. For comparison, workshops at local institutions like the Arizona Science Center charge $150 for a 3-hour woodshop class and $35 for a single 3D printing session. On our team, students receive continuous, project-based instruction and mentorship—completely free.

Our robotics program is more than just access to tools, it's an empowering real-world education in engineering, design, teamwork, and leadership, available to every student regardless of financial background. This is how we prepare students for the 21st century workforce.

Scholarships

The experiences gained through participation in this robotics team also make students exceptional candidates for scholarships. While scholarship funding isn't guaranteed as part of participation in this program, historically, DoF's graduating class receives an average of 270% more scholarships than the average student of the graduating class at Chandler High School.

In addition, there is a scholarship given out at each Arizona FRC regional competition each year in March (total of 2 scholarships per year). The "Steve Sanghi Scholarship Award" is given to high school seniors on an FRC team intending to pursue a major or degree program, in engineering, mathematics, or science, at a college or university in the United States. It is for $5,000/year and renewable for up to 4 years. A Degrees of Freedom student has won one of these scholarships for each of the past 2 years (2024 and 2025).

Finally, Si Se Puede Foundation has a partnership with Arizona State University (ASU), whereby we offer scholarships to ASU students every year. Even though these scholarships are open to any incoming or current ASU student, highest priority is given to students who are or have participated in our STEM programs, including Degrees of Freedom. Over $250,000 in ASU scholarships have been given out since 2018, with at least 6 Si Se Puede students receiving scholarships. These scholarships can be renewed annually, so the benefit to students can be substantial. This is a unique and incredible opportunity available to students of Si Se Puede Foundation.

Team Dynamics Section

Mission, Values, and Priorities

Degrees of Freedom's Mission

Degrees of Freedom has adopted Si Se Puede Foundation's Mission, which is to ***"bridge the STEM divide in underserved populations in our communities to prepare them for the 21st century workforce."***

Degrees of Freedom's Core Values

Degrees of Freedom has adopted the 6 Core Values of Si Se Puede Foundation:

- **Leadership**: We prepare our staff, volunteers, and the youth of today to be tomorrow's leaders by giving them opportunities to find their authentic voices.
- **Inclusion**: We value the diversity found in every human and welcome everyone in a safe, nonjudgmental environment.
- **Community**: We exist to serve our communities, especially those underserved, to strengthen them, educate them, and provide them with valuable life skills and opportunities.
- **Education and Learning**: We believe that Science, Technology, Engineering, and Mathematics (STEM) proficiency is a gateway to success in the 21st century economy and work to build appreciation, experience, and recognition of education and learning in our participants.
- **Integrity**: We strive to be exemplary role models to our communities, donors, and to each other by conducting ourselves with the highest integrity, values, and transparency in what we say and do.
- **Curiosity**: We foster an environment that enables participants to unlock their curiosity and inspiration, to explore the unknown, and to solve problems by discovery.

Degrees of Freedom's Top Priorities

Degrees of Freedom expects all members to adhere these priorities in order: **Health > Family > School/Work > Robotics**.

Degrees of Freedom's Goals

The Degrees of Freedom foundation is based upon our Four Goals:

- **Educate our Students in the Fields of Robotics and Engineering.**
  - This includes developing professional skills like public speaking, communication, and leadership.
  - We bridge the STEM divide by providing high-quality STEM education to those who may not otherwise have access to it.
- **Engage our Community in Robotics and Engineering Education**. **(Outreach)**
  - Outreach is important to growing the STEM community and exposing young people to it will give them more opportunities to explore these fields, including potentially joining Degrees of Freedom in the future.
- **Field a Competitive Team.**
  - A competitive team is one where students consistently prepare, perform, and improve in ways that maximize and reach its potential. Rather than focusing solely on winning, a competitive team is committed to mastering the skills, strategies, collaboration, and professionalism needed to understand and achieve success. This includes effective planning, iterative design, rigorous testing, continuous learning, and strong communication—both within the team and with the wider community. In this mindset, competition becomes more than a scoreboard, it becomes a catalyst for growth and excellence.
- **Grow and Nurture the DoF Family.**
  - Nurture and empower students into becoming well-rounded, compassionate, and resilient adults.

Guiding Principles

Each year, the team highlights a new Guiding Principle to focus on and grow from, while continuing to carry forward the principles established in previous years. Together, these Guiding Principles shape and strengthen DoF's culture over time. DoF's Guiding Principles are:

2025 Student additions:

- **Grit Mindset -** An attitude and mindset that is characterized by perseverance and passion for long-term goals, even in the face of obstacles, failures, or slow progress. It combines resilience, determination, and sustained effort over time.

- **Continuous Improvement -** As a team and as individuals, we strive for excellence and improvement in all aspects of our lives. If there is something that can make us even 1% better, we should go for it!

- **Student-Focused** - Students are empowered to take the lead in designing, building, programming, and contributing to team operations, while mentors provide guidance, expertise, and structure to support those efforts. Students are encouraged to take initiative, problem-solve, and participate in planning, while developing leadership and technical skills. Mentors act as coaches and role models—sharing knowledge, ensuring safety, and helping align the team's efforts with its goals and values. While student input is valued and collaboration is encouraged, final decisions rest with mentors to ensure consistency and uphold the team's overall mission. This approach balances student ownership with adult support, creating an environment where students can confidently learn, grow, and thrive.

- **Gracious Professionalism -** Compete with integrity, treat others with respect, and always be willing to help fellow teams and community members.

- **Growth Over Glory -** Focus on learning, skill development, and personal growth—not just competition outcomes. Every challenge is an opportunity to improve.

- **Team First -** Prioritize collaboration, communication, and unity within the team. Every role matters, and every member contributes to success.

- **Fail Fast, Learn Faster -** Embrace failure as part of the innovation process. Test boldly, iterate quickly, and use setbacks as fuel for improvement.

- **Inclusive by Design -** Welcome all students regardless of background or experience. Celebrate diverse ideas, voices, and talents.

- **Community Impact -** Use our skills and platform to give back—through outreach, mentorship, and service projects that promote STEM and inspire others.

- **Sustainability Matters -** Build systems—technical, operational, and organizational—that can endure and improve across seasons and generations of students.

- **Respect the Process -** Value planning, documentation, and reflection as much as performance. Excellence is built through consistent, thoughtful effort.

- **Have Fun and Stay Curious -** Celebrate the joy of discovery. Let curiosity, creativity, and camaraderie drive everything we do—on and off the field.

Wings Up!

"Wings Up!" is the team cheer. We enthusiastically perform this cheer at competitions to boost team morale and show our appreciation for each other. The cheer goes as follows:

Call: “**Wings**”
Answer: “**Up!**”

Call: “**Hearts**”
Answer: “**Out!**”

Call: “**Reach**”
Answer: “**High!**”

Call: “**Degrees of**…”
Answer: “**Freedom!**”

In addition to the cheer, there are also associated hand gestures that go along with it. See the GIF below for a demonstration.

Outside of our team cheer, a lead may shout “Wings!” to get the team to come together and focus.

Expectations

Degrees of Freedom team members achieve our Four Goals by working together to meet our expectations while upholding our Values. The following are the expectations for our team members, including students and mentors. More details of student and mentor roles and responsibilities are defined later in the handbook.

DoF Team Members are expected to advance, follow, and uphold the following:

- DoF's Mission and Values
- DoF's Four Goals
- DoF's Guiding Principles
- Gracious Professionalism
- DoF members shall adhere to the See-Something-Say-Something Policy
- DoF members shall be an Active Team Member
- DoF members shall follow the DoFs Workspace Cleanliness Plan
- DoF members shall participate in the Concern Resolution Process
- DoF members shall abide by the Digital Communication Policy
- DoF members shall perform Competition Roles and Responsibilities
- DoF members shall abide by the DoFs Travel Requirements
- DoF members shall participate in the DoFs Handbook Review Process
- DoF members shall use the AMPS Test to guide them in all technical and non-technical activities. The AMPS Test is "If your actions were emailed to the Alumni, Mentors, Parents, and Students, would anyone have major concerns?"
- DoF members shall abide by the Student-Mentor Ratio Requirement
- DoF members shall abide by the Student-Mentor Interaction Policy
- DoF members shall abide by the DoF Health and Safety Policy
- DoF members shall abide by the DoFs Social Media Policy
- DoF members shall abide by the DoF's Photography Policy
- DoF members shall abide by the DoF Dress Code

Additional Expectations for all **DoF Students**:

- **Health > Family > School/Work > Robotics:** This is the priority order for all participants of Si Se Puede Foundation's programs, which includes both students and mentors.
- **Be Prompt**: Students should ensure they arrive on time for the beginning of meetings and that their rides are available to pick them up promptly at the end of each meeting.
    - Students are not able to remain on the SSPF property unsupervised and need to leave the premises if instructed by a mentor at the end of the meeting.
    - For students who drive themselves to meetings, they need to leave the property at the end of the meeting, including the parking lot.

- **Raise Any Concerns**: Students should bring any concerns (e.g. direction of the team or behavioral issues of other team members/mentors) directly to the team's Head Mentor(s) or SSPF CEO directly as soon as possible. Less urgent concerns can be submitted via the **DoF Anonymous Feedback Form**.
- Students will not meet outside of team meetings to discuss team-related business.
- **Dedication:** In order to be considered a team member in good standing, individual students are encouraged to attend scheduled team meetings; these may be during in-person team meetings, competitions, outreach events, and any work dedicated at home in the case of extraneous circumstances. See the Attendance section for further expectations.
- **Academic Standing:** Students must be in good standing at their respective schools to participate and travel.
- **Work while Here**: Students are expected to be productive at meetings. Breaks are acceptable; however, students are expected to come to the STEM Center and participate. If at any moment a student needs a break, they shouldn't distract others. Phones should be kept away except for emergencies and robotics-related purposes. If the phone is not being used for those purposes, the student should stay in the lobby. Students should make the most of their time during meetings. Mentors are not expected to offer meeting times outside of the designated meeting schedule.
- **Gracious Professionalism:** Students must be respectful to all other students, their families, SSPF mentors, sponsors, and the communities we serve and represent. Exemplifying *Gracious Professionalism* is of utmost importance. Gracious Professionalism is a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community. This includes dressing appropriately, avoiding inappropriate language, gossip (team and/or non-team-related), etc.
- **Teamwork:** Students are expected to maintain a team-oriented attitude. DoF's successes and failures are a result of a collaborative team effort, meaning students are expected and encouraged to put what's best for their team ahead of any individual goals (as they relate to the team/robot).
- **Coopertition:** Although DoF competes as an independent team within the Arizona FIRST community, students are expected to help one another and be friendly with other teams. We share knowledge, machinery, practice space, tools, and many other resources to collectively improve the STEM ecosystem in Arizona.
- **Ambassadors:** Students understand that their behavior and actions reflect their team, SSPF, and themselves. This includes on and off the field, as well as in and out of the STEM Center. As representatives of DoF and SSPF, students will refrain from engaging in any activities that reflect negatively on the individual and the team as a whole.
- **Integrity:** Students are expected to be honest with each other and mentors alike, and not try to cover up any mistakes or errors in fear of judgment. Part of providing a safe learning environment includes mentor support to help you succeed. With guidance, failure can stem into success, so it is important for students to communicate any issues or mistakes with their mentors.

- **Tolerance:** Mistreating or bullying any students, mentors, parents, or people we serve in the community (e.g. not respecting reasonable boundaries established by others) is unacceptable. It will not be tolerated and will be immediately addressed by mentors and the SSPF.
- **Sustainability:** Seasoned students are highly encouraged to actively involve, reach out, guide, and help new students (rookies) on the team. Success of the team depends heavily on teamwork and collaboration, helping make sure no teammate feels left behind.
- **Responsibilities:** Students are expected to meet team deadlines and stick to the team timeline. If for any reason students are unable to complete any deadlines or fall behind, they are expected to communicate with their team and mentors to ask for help, or adjust the scope of their project to something more feasible. There is no penalty or punishment in asking for help and guidance.
- **Making Amends and Apologizing:** Students should acknowledge that everyone may act or speak in ways we didn't intend due to being hungry, angry, lonely, or tired (HALT). When this occurs, it is important to take responsibility and offer a sincere apology.
- **Student Leadership:** If a student is selected into a leadership position, they are expected to comply and fulfill the respective duties and responsibilities of that role. Leadership positions and their responsibilities are listed below under the Student Leadership section.
    - If any extenuating circumstances prohibit this student from fulfilling their obligation, the student is expected to communicate this with their mentors. Together, students and mentors will work together to find a solution.
- **Respect Leadership Decisions**: All final, team-related decisions that overlap DoF and SSPF values or priorities will be made by the SSPF leadership team (Head Mentor(s), SSPF CEO). Examples of these include which competition events to attend, where to travel, personnel decisions, disciplinary actions, and code of conduct policies. In an effort to maintain transparency, relevant information will be communicated to students and parents about decisions that affect them. Students may ask for more clarification from the Head Mentor(s) or the SSPF CEO, however, complete transparency may not be possible if a topic is sensitive or due to legal reasons. Once an explanation is provided, it is final. Students should respect the decisions made.

Additional Expectations for all **DoF Parents**:

- Ensure that their student(s) follow the DoF priorities of **Health > Family > School/Work > Robotics**
- Ensure that their student(s) have a ride and are promptly picked up at the end of the meeting.
- Any bullying or disrespectful behavior to another parent, student, mentor, or attendees at any event that DoF is participating or sponsoring will not be tolerated.
- Parents engaging in behavior at events that are not consistent with the values of SSPF or the team, as well as with the FIRST Core Values and Gracious Professionalism, may jeopardize the ability for their student to remain a member on the team.

- Parents should ensure that their child is in good academic standing before they are allowed to participate on the team
- Parents must bring any team-related concerns directly to the team's Head Mentor(s) or SSPF CEO as soon as they become aware of them.

Additional Expectations for all **DoF Mentors**:

- Please refer to the ***SSPF Mentor's Handbook*** for additional expectations that apply to mentors. All DoF mentors will be required to acknowledge they have read and will abide by the expectations in the ***SSPF Mentor's Handbook***.

Attendance

Attendance Policy for Team Travel Eligibility

To ensure team success and individual accountability, all student members of Degrees of Freedom are expected to be active and consistent participants throughout the season.

Minimum Attendance Requirement for Travel Eligibility:
To be eligible to travel and represent the team at official competitions, each student must attend **at least 70% of all:**

- **Build Season** scheduled team meetings, build sessions, outreach events.

Additional Guidelines:

- **Attendance Tracking:** All attendance needs to be recorded. It is the student's responsibility to sign in via the lobby iPad or on their phones. They must communicate in advance to the Head Mentor(s) if they will miss a session. This can be done via Slack or email.

- **Excused Absences:** Absences due to illness, family emergencies, or unavoidable school conflicts may be considered excused if communicated to the Head Mentor(s) in a timely manner. These will be reviewed on a case-by-case basis and may not count against the attendance percentage.

- **Team Commitment:** Travel spots are limited and reserved for those who demonstrate commitment, reliability, and contribution to team goals, both in person and in effort.

- **Exceptions and Appeals:** Students falling slightly below the attendance threshold may request an exception by submitting a written explanation to the Head Mentor(s). Exceptions are not guaranteed and will be evaluated based on circumstances and overall contribution.

By meeting the attendance requirement, students demonstrate their readiness to represent Degrees of Freedom with professionalism, teamwork, and responsibility.

Outreach

Engaging our community in robotics and engineering education, which we also simply call “outreach”, is one of our team’s four goals, and has been integral to the success and reputation of DoF. Each year, DoF team members are expected to give back to their community by serving at least 50 robotics outreach hours. This requirement is used to determine eligibility for travel, not whether or not they are allowed to stay on the team.

Serving and Logging Robotics Community Outreach

- Robotics outreach opportunities are available on the SSPF Public Calendar on our website, and any hours served with these activities should be communicated to the Head Mentor(s). Any team member can propose non-listed, robotics outreach opportunities that would benefit our community. Please bring the details to the attention of the Head Mentor(s) to be discussed, reviewed, and approved to become a DoF outreach opportunity.
- Hours should be logged as soon as reasonable, ideally within 2 weeks of when they are served. Our outreach log can be found here:

  Degrees of Freedom Volunteer & Outreach Hour Log

Beak Squad

Beak Squad is a group of FRC students and mentors who leverage their experience and resources to support all Arizonan FRC teams. Inspired by FRC 4118: Roaring Riptide's F.L.O.A.T. program, it was established in 2022 by FRC 6413: Degrees of Freedom to support FRC teams in Arizona that struggled with recovering from the COVID-19 pandemic. By sharing resources, Beak Squad looks to make FIRST more accessible to students in Arizona by providing free services and resources to remove obstacles that can prevent teams from participating in FRC. Beak Squad is supported by sponsors in the nonprofit and corporate realms. By supporting both new and existing teams, Beak Squad is helping to provide sustained growth of FRC in Arizona.

Mission

Beak Squad's mission is to promote the spirit of Cooperation in the AZ FIRST community by providing support to all teams competing in the Grand Canyon State. By leading through example, the Beak Squad looks to create a support network of FRC teams that inspire the generation of new teams and the long-term sustainability of existing ones in Arizona.

Beak Squad's Relationship to Degrees of Freedom

As the founders of Beak Squad, DoF students and mentors work with individuals from other teams throughout the season to support others. This includes everything from allowing teams to utilize our practice field, to helping teams design and program their robots, to even helping transport their materials to competitions. Beak Squad partners with AZ FIRST to have a Help Desk at the AZ Regionals. Students who help other teams in an official capacity via Beak Squad will earn outreach hours. Through our combined efforts, Beak Squad has helped over 75+ teams from around the world since November 2022!

History Section

Team History Summary

Degrees of Freedom (DoF) is a Si Se Puede Foundation-sponsored high school robotics team. Founded in 2016, DoF began as an all-girls team competing in the FIRST Robotics Competition (FRC) program to provide young women with access to STEM opportunities. During the 2021 FRC season, DoF's brother team, 5465 Binary Bots, merged with DoF as it was no longer sustainable for SSPF to support two teams. While the team is no longer an all-girls team, it retains its identity of supporting young women in STEM. All new students are made aware of the team's origins at a team orientation and the importance of providing a space for all genders to learn engineering. Students who identify as part of the gender majority (i.e. males) in engineering are encouraged to be allies to support their fellow teammates who may identify differently. As STEM thrives on new and diverse ideas, allies are important in ensuring that all ideas are heard. All team members wear the signature white bow as part of their team uniform as a show of solidarity and support for gender minorities in STEM.

2016

Founded in 2016 under the Si Se Puede Foundation, DoF began as an all-girls FIRST Robotics Competition (FRC) team to provide young women with access to STEM opportunities. “Degrees of Freedom” is an engineering term and is defined as the number of independent ways by which a dynamic system can move without violating any constraint imposed on it. DoF (the team) serves as an environment free from the traditional constraints that women of color face in STEM. Many of the young women who founded the team were FIRST Lego League (FLL) alumni and continued their FLL involvement by mentoring FLL teams at Hartford Elementary School. The team colors (Gryffindor red and Ravenclaw blue) and imagery were heavily influenced by their love of the Harry Potter series as well as leaning into the “Freedom” motif (Uncle Sam hats, eagle images, etc.) which is where the stars in the logo come from. The hands are a symbol of unity and support and were modeled after a founding member’s own hands.

Back Left to Right: Mentor Samantha Mott, Mentor Ronnie Brownlie, Brianna Harder, Valeria Trevino, Madeline Badger, Harley Martinez, SSPF CEO Alberto Esparza, Camila Trevino. Front Right to Left: Head Mentor Dave Hurt, Mentor Bill Badger, Jessica Sarinana, Stephanie Moreno, Sheyla Ortega Rivera, Unknown, Beilee Kagen

2017

DoF competed in their first FRC season, FIRST ***STEAMWORKS*** in 2017. In their rookie season, DoF was sponsored by NASA, ASU, TechShop, State Farm, CUSD, and General Motors. They built their robot, Dumbledore, in TechShop and competed at two regional events. At the Arizona North Regional, they earned the Rookie All-Star Award which qualified them to compete in the World Championship. DoF competed in the Turing Division at the World Championship in Houston and later that fall, they were invited to compete at the Sanghi Foundation FRC AZ State Championship.

Front Laying: (Left) Valeria Trevino, (Right) Camila Trevino
Second Row (Kneeling) Left to Right: Madeline Badger, Maria Raygoza, Sheyla Ortega Rivera, Unknown, Mariia Shevchenko, Beilee Kagen
Third Row (Standing) Left to Right: Brianna Harder, Jessica Sarinana, Harley Martinez, Stephanie Moreno, Yeimi Lozano Rivera
Back Row Left to Right: Mentor Carolyn Reoyo, Head Mentor Dave Hurt, Mentor Fabio Honigmann, Mentor Nandkishore Malviya, Mentor Bill Moses, Mentor Bill Badger.

2017 Awards:

- Rookie All Star Award - Arizona West Regional
- Qualified for the World Championship - Competed in the Turing Division

2018

In 2018, DoF competed in the FIRST ***Power Up*** season. During this season, they split their time between Gangplank and Chandler High School's Robotics space to build their robot Tina (the Iron Lady). The team competed at two regional events including the Arizona West Regional where they earned the Engineering Inspiration Award which qualified them for the World Championship once more. At the World Championship in Houston, they competed in the Carver Division. To get to the World Championship, the team took a charter bus with Firebirds, team 3019. That Fall, they got a new mentor (Dr. Dan) who introduced them to Assistive Technology (AT) and taught them how to leverage their engineering skills to support their community. As one of their first AT projects, DoF created a PVC submarine that would be used as an adapted pool toy for the students of ACCEL.

Front: Valeria Trevino
2nd Row (kneeling) Left to Right: Harley Martinez, Mariia Shevchenko, Stephanie Moreno, Jessica Sarinana, Maria Raygoza, Sheyla Ortega Rivera
3rd Row Left to Right: Beilee Kagen, Yeimi Lozano Rivera, Mentor Megan Cheng, Madeline Badger, Camila Trevino, Mentor Samantha Mott, Mentor Carolyn Reoyo, Brianna Harder
Back Left to Right: Head Mentor Dave Hurt, Mentor Bill Badger

2018 Awards:

- Regional Engineering Inspiration Award - Arizona West Regional
- Qualified for the World Championship - Competed in the Carver Division

2019

In 2019, DoF competed in the FIRST ***Destination Deep Space*** season. The team built their robot named “Betty” (or “Ugly Betty”) at Gangplank. They began taking a more unified approach to team imagery, using bright red for their primary team color and black pants for the team uniform. Bows also became a more prominent feature. At the Arizona North Regional, DoF earned the Chairman’s Award for the very first time and once again qualified for the World Championship in Houston where they competed in the Hopper Division. After their season, they participated in NURC (National Underwater Robotics Challenge) with their robot affectionately called “SS Selena”. For the Arizona State Championship Sanghi Invitational, DoF built a new robot that could climb onto the hab platform for the end-game. Due to the low profile of the new bot, they named her “Cassie the Chassis”.

2019 Awards:

- Regional Chairman’s Award - Arizona North Regional
- Team Spirit Award - Arizona West Regional
- Qualified for the World Championship - Hopper Division

2020

DoF started off 2020 preparing to compete in the FIRST ***Infinite Recharge*** season. Their build space was primarily the Live Love House in Chandler where they would build in the living room. They built their robot, Minervathena ("Minnie" for short), but Minnie didn't get to play on a competition field that year since their season was unfortunately cut short by the COVID-19 Pandemic. DoF was meant to compete at the Arizona North Regional and the Las Vegas Regional. Although their season had come to an end, they used their skills to help develop face shields and ear-savers for frontline workers. To keep the team engaged during quarantine, DoF started an FTC team, Da Geese of Freedom. They created the "sisterhood of the travelling bot," where the robot and tools travelled from house to house, with each student working on it. Since they never met in person as a group, communication was extremely important to ensure everyone was on the same page with the robot design. To document the process, they started an engineering notebook where everyone would update their progress. Their hard work and dedication paid off as the rookie FTC team was celebrated with various awards across the 5 remote events they participated in, including the team's very first Dean's List Finalists, Natali and Khushi. All the lessons that the team learned during their time as an FTC team were carried with them into the next FRC season.

2021

In the 2021 FRC season, FIRST had the “FRC at Home” challenges, most of which involved things that Minnie wasn’t designed to do (pick game pieces off the ground and launch balls into the high goal). Therefore, DoF decided to redesign the robot to launch the power cells instead. Later that year, DoF’s FRC brother team, 5465 Binary Bots, merged with DoF as it was no longer sustainable for SSPF to support two FRC teams. While the team is no longer an all-girls team, it retains its identity of supporting young women in STEM. 2021 was also a historic year as the formation of the SSPF STEM Center dream came true, and DoF finally had a permanent build space and home. That Fall, DoF was able to compete at the AZ State Championship Sanghi Invitational.

2022

In the 2022 FIRST ***Rapid React*** season, DoF was rebuilding their team and in-person events were back. Having previously paid for 3 regionals across the past two seasons (2020 and 2021) with no in-person events, DoF was financially depleted and could only afford to attend one regional. Through their hard work and dedication, DoF managed to qualify for the World Championship in Houston through the Chairman's Award. DoF competed in the Galileo Division with their robot, "Redbull". That summer, DoF competed in new Arizona Robotics League (ARL) off-season events to develop their skills. They acquired their first set of swerve modules and began to develop those skills. During ARL, Minnie finally got to play on a real competition field for the very first time. DoF even lent Minnie out to a pre-rookie team (9059 Coltech) to give them an opportunity to cultivate their skills prior to the upcoming season.

2022 Awards:

- Regional Chairman's Award (2nd time!)- Arizona Valley Regional
- Qualified for the World Championship - Competed in the Galileo Division

2023

In the 2023 FIRST ***Charged Up*** season, DoF continued to help rookie teams and developed a budding friendship with Team A.W.E 9091. That season, they also hosted Team Pi 6968 from the Netherlands as they competed at the Arizona regionals. That year, DoF earned the Impact Award (formerly the Chairman's Award) and went on to compete at the World Championship in Houston in the Curie Division fielding their most competitive robot to date, "Sleeper".

Students helped remotely referee a FIRST Lego League (FLL) event held in Ghana, Africa, connected with students interested in creating their own FIRST Tech Challenge (FTC) team in Colombia, and locally spread awareness of STEM at the Chandler Farmers Market. DoF was among a handful of other AZ FRC teams invited to be recognized on the field at an Arizona Diamondbacks game in May. Thanks to their partnerships with sponsors like General Motors (GM) and Intel, DoF has had the opportunity to bring their robots to demo at notable events where they inspire the next generation of innovators. The team showcased their robot at the GM "Bring Your Kid to Work Day" event, the GM "Geek Girls" event where the team gave a robot demo to Girl Scouts, the Cox "Smarter Arizona" showcase, and the Intel Employee Day at the Arizona Science Center. DoF member, Ben, was selected as the first Arizona Robotics League All-Star, recognizing a student for "their outstanding contributions, attitude, embodiment of FIRST values, or other notable effort at the event."

2023 Awards:

- Regional Impact Award (3rd time!) - Arizona East Regional
- Qualified for the World Championship - Competed in the Curie Division
- Winner - Arizona Robotics League Championship

2024

During the 2024 ***Crescendo*** season, DoF had a tremendous year with expansions of their outreach efforts more than doubling the outreach hours of the 2023 season. Team 4111 Some Assembly Required (SAR) from ASU Poly Prep, could no longer compete so some of their students decided to continue their FRC journey with DoF. These students were already familiar with DoF from when DoF, via their Beak Squad initiative, visited SAR's build space to help them with their robot. The team earned their first robot-related award, the Excellence in Engineering Award. Rodrigo is the first DoF student to receive the Steve Sanghi Scholarship for his college expenses. At the AZ Valley Regional at Chaparral High School, 7th-seeded DoF reached the finals for the first time ever and won a finals match before being defeated by just one point in a nail-biting tie-breaker match against the #1-seeded alliance. At the AZ East regional at Corona Del Sol High School, DoF reached the finals for the second consecutive time, falling again to the #1-seeded alliance. At the AZ East Regional, DoF earned the most coveted award of the competition, the Impact Award, an honor given to the team that best exemplifies the core values of FIRST Robotics, including its impact on the community. At the World Championship, DoF also earned the Engineering Inspiration Award in the Milstein Division and Elizabeth became the team's first Dean's List Winner. To cap off a successful season, DoF won the AZ State Championship as an alliance captain.

2024 Awards:

- FIRST Dean's List Finalist - Arizona Valley Regional
- Regional Finalist - Arizona Valley Regional
- Excellence in Engineering Award - Arizona Valley Regional
- Regional Impact Award (4th time!) - Arizona East Regional
- Regional Finalist - Arizona East Regional
- Qualified for the World Championship - Competed in the Milstein Division
- Engineering Inspiration Award - Milstein Division of the World Championship
- Dean's List Winner Award - World Championship
- Winner - Arizona State Championship

2025

During the 2025 ***Reefscape*** season, DoF competed in Flagstaff for the Arizona North Regional for the first time since 2019. They also competed in Tempe for the Arizona East Regional. DoF was proud of its overall 5th-place ranking in the state of Arizona (according to Statbotics) following strong performances at both these regional competitions. Additionally, DoF received well-deserved recognitions in 2025. At the Arizona North Regional, one of DoF's Head Mentors, Carolyn Reoyo, was awarded the Woodie Flowers Finalist Award for her dedication to FIRST and her team. Another individual award titled the Dean's List Finalist Award was received by 11th grader, Audi, for her outstanding leadership and dedication. To top it off, the team as a whole earned the Gracious Professionalism Award for their outstanding efforts in sportsmanship and collaboration. Finally, senior Darsh won the Steve Sanghi Scholarship at the Arizona East Regional! On the robotics side, at the Arizona North Regional, DoF finished as the 15th ranked team out of 40 teams, advancing to semi-finals with Alliance 5. At the Arizona East Regional, DoF captained the 6th Alliance before being eliminated in the playoffs. DoF's showing against the top teams in the world at the World Championship in Houston was not as strong, but being among the best of the best gave everyone great insights into how to improve for next season. Off-the-field, DoF also had further exceptional achievements. Since 2023, DoF has been able to help 75 teams! At both regionals, DoF held a Beak Squad booth, helping teams with a variety of things, such as helping run spare parts, providing support with programming, electrical, and load-in. With Beak Squad, DoF was able to host two international teams, 8806 from Taiwan and 7333 from the Netherlands. Another DoF initiative that was able to expand was their Impostor Syndrome Initiative. This initiative inspired 4118 to raise awareness about impostor syndrome at their Orlando Regional, combined we were able to reach over 100 people with this initiative!

2025 Awards:

- Woodie Flowers Finalist Award - Arizona North Regional
- FIRST Dean's List Finalist - Arizona North Regional
- Gracious Professionalism Award - Arizona North Regional
- Qualified for the World Championship - Competed in the Johnson Division

Awards and Recognitions

2017

- Rookie All Star Award - Arizona West Regional
- Qualified for the World Championship - Competed in the Turing Division

2018

- Regional Engineering Inspiration Award - Arizona West Regional
- Qualified for the World Championship - Competed in the Carver Division

2019

- Regional Chairman's Award - Arizona North Regional
- Team Spirit Award - Arizona West Regional
- Qualified for the World Championship - Competed in the Hopper Division

2020 - 2021

- No in-person competitions due to the COVID-19 pandemic

2022

- Regional Chairman's Award (2nd time!)- Arizona Valley Regional
- Qualified for the World Championship - Competed in the Galileo Division

2023

- Regional Impact Award (3rd time!) - Arizona East Regional
- Qualified for the World Championship - Competed in the Curie Division
- Winner - Arizona Robotics League Championship

2024

- FIRST Dean's List Finalist - Arizona Valley Regional
- Regional Finalist - Arizona Valley Regional
- Excellence in Engineering Award - Arizona Valley Regional
- Regional Impact Award (4th time!) - Arizona East Regional
- Regional Finalist - Arizona East Regional
- Qualified for the World Championship - Competed in the Milstein Division
- Engineering Inspiration Award - Milstein Division of the World Championship
- Dean's List Winner Award - World Championship
- Winner - Arizona State Championship

2025

- Woodie Flowers Finalist Award - Arizona North Regional
- FIRST Dean's List Finalist - Arizona North Regional
- Gracious Professionalism Award - Arizona North Regional
- Qualified for the World Championship - Competed in the Johnson Division

Banners

Blue Banners are an indication of an FRC team's sustained excellence. DoF is proud of the banners we've achieved in our history.

Degrees of Freedom Family

The Degrees of Freedom family is large and complex! Students, Mentors, Parents, Alumni, and Sponsors are all part of our family and we have countless family friends, including our fans and members of other Si Se Puede Foundation Teams. Having a close-knit family is the foundation that makes the Degrees of Freedom successful. Growing and nurturing the Degrees of Freedom's Family is one of our four goals, and is integral to the success and reputation of the Degrees of Freedom.

Wall of Faces

Traditionally, Degrees of Freedom performs at its best when all team members know one another. To help build this sense of connection, the team has implemented the “Wall-of-Faces.” Photos of students and mentors—along with their names—will be displayed prominently at the STEM Center. All photos must follow a consistent format, and the final presentation should reflect the team’s commitment to excellence.

Every member of Degrees of Freedom is responsible for uploading a current upper-body photo of themselves, looking at the camera (similar to a school portrait), along with their name, to the **#get-to-know-me** Slack channel. They can also ask a mentor to take a photo of them at the STEM Center if they’d prefer.

Student/Mentor Section

Mentors

Mentors are a group of adults with a wide set of technical and nontechnical skills that come from a variety of backgrounds including industry and academia that dedicate their time to help the students develop into future STEM leaders.

There are four categories of mentors:

- **Head Mentor**: Degrees of Freedom is led by 1 or 2 Head Mentors. These are the program leads who help choose the Core, Non-Core, and Rising Mentors, delegate tasks and responsibilities as necessary to the other mentors or students, determine the decision-making processes, and are overall in charge of the Degrees of Freedom team. From a hierarchical perspective, the Head Mentor(s) report directly to the SSPF CEO.
- **Core Mentor**: A Core Mentor is constantly working side-by-side with the students and is guiding the development of the robot and, more importantly, the direction of the team. Often a core mentor is leading a subsystem or a major activity. They report directly to the Head Mentor(s).
- **Non-Core Mentor**: A Non-Core Mentor supports the team periodically, usually because their schedules do not allow for as frequent participation as a Core Mentor. Often a Non-Core Mentor is helping subsystems with the engineering process and is often working side-by-side with students but defers to the Core Mentors when appropriate. They report directly to the Head Mentor(s).
- **Rising Mentor**: A Rising Mentor is someone who is new to FIRST and/or being a mentor and is serving in a probationary capacity. They serve a supplementary role and work with Core Mentors in an apprenticeship relationship as they learn the skills to transition into a Core Mentor. They report directly to the Head Mentor(s).

Onboarding

Si Se Puede Foundation has a formal application and onboarding process for anyone interested in becoming a team mentor. The first step is to apply by filling out the Si Se Puede Program Mentor Volunteer form. Once the application has been received, SSPF staff will reach out to the applicant to set up an interview. If the interviewers agree that the applicant is a good fit for the program, a background check request will be sent to the applicant. Upon successful review and approval, the applicant will be notified and be officially added to the team's roster.

Once added to the team roster, the mentor will need to register as an official FIRST mentor in the FIRST portal and be assigned to Team 6413 at https://www.firstinspires.org/. Finally, they will be required to read, understand, and agree to uphold the Si Se Puede Foundation's Code of Conflict, including the ***SSPF Mentor's Handbook*** and this Team Handbook, by digitally signing the acceptance form.

The Si Se Puede Foundation Mentor's Handbook

In addition to this Team Handbook, the Si Se Puede Foundation also created an ***SSPF Mentor's Handbook***, which outlines additional criteria, guidelines, and expectations for those who mentor with this team or any of SSPF's other programs. All team mentors must familiarize themselves with the ***SSPF Mentor's Handbook*** since it contains much more information about the role of being a mentor for this team.

Conflict of Interest

Mentors may not serve on the team while there is a conflict of interest with any of the students. This includes situations such as (but not limited to) having a child or other family member as a student on the team or mentors that have a relevant outside relationship with a current student. Conflicts of interest are determined by a committee consisting of the team's Head Mentor(s) and SSPF staff. More information can be found in the ***SSPF Mentor's Handbook***.

Mentor-Student Dynamic

The mentor-student dynamic is what sets FIRST Robotics apart from any other experience students will have in high school. Students get the opportunity to work alongside FIRST Alumni and industry professionals who help guide and support the students on their engineering journey. FIRST was originally envisioned to be a competition of teams composed of high schools partnered with engineering companies and organizations with their employees working ALONGSIDE students as team mentors.

Mentor Roles and Descriptions

Cooperative Mentorship implies that all official SSPF mentors work together to maintain, teach, and organize the students across the programs in the STEM Center.

DoF may assign mentor leads to different subgroups. A mentor lead will work closely in giving students under those subgroups guidance and the necessary tools to succeed. Collectively, mentor leads will be in charge of giving updates on subgroup progress during mentor meetings, and updating absent students within that subgroup, ensuring that no student is left behind. Other individual responsibilities are listed below for each lead. Please read the descriptions. We may also have committees for various different initiatives to ensure support from multiple mentors, maintain accountability, and transparency. Please note that not all mentor leads listed below may be filled.

Note: While prior experience in any of the team's subgroups is valuable and encouraged, lack of specific knowledge, experience, or formal education should not deter new or current mentors from applying for leadership roles. We welcome mentors who express interest in leadership and demonstrate a willingness to learn, adapt, and prioritize the needs of students.

Head Mentor (Program Lead)

The Head Mentor (aka Program Lead) is the team leader of their respective robotics program. Given the large amount of responsibility in running a robotics team, it is encouraged, but not required, that the team have 2 program leads. They are responsible for overseeing and managing the team. The Head Mentor is in charge of setting the tone of the team and making sure that the team represents the Si Se Puede Foundation in the best light possible while maintaining the gracious professionalism standard that is the hallmark of the FIRST program. The Head Mentor also has the responsibility of making the team as self-sustaining as possible. Examples include fundraising, doing outreach events, ensuring veteran students train and pass on their knowledge to newer students, etc. The team must learn to advocate for itself to potential donors, supporters, and the community and the Head Mentor is responsible to see that this happens. The Foundation will assist in fundraising where the team may fall short. Other responsibilities of the program lead include:

- Ensure the team is student-focused.
- Ensure mentors follow mentor guidelines as set forth by SSPF leadership.
- Communicate with SSPF staff through the proper channels set forth by SSPF leadership.
- Lead, organize and participate in fundraising for the team and SSPF.
- Get approval for fundraising from SSPF leadership prior to fundraising.

- Recruit more team members as needed to maintain a 25 active team member limit.
- Attend all SSPF mentor meetings and provide updates of team status.
- Help draft the agenda for weekly mentor meetings.
- Work with the student Team Captain to draft agendas for team meetings.
- Communicate all updates to SSPF leadership weekly via mentor meetings and group collaboration software such as Slack, OpenProject, GitHub, or Zoom.
- Ensure that all mentors have been formally approved, have successfully completed and passed the required background checks, and have read and acknowledged both this Team Handbook and the ***SSPF Mentor's Handbook***.
- Help support the basic mentor positions, Programing, Mechanical, Electrical, Non-Technical, Drive Coach, etc. Help fill positions if they become vacant.
- Ensure the safety of all mentors and students at all times.
- Ensure that there are always two mentors present when working with students.
- Report any transgressions by mentors or students to SSPF management through proper channels regardless of how small the transgression. It is not up to the Head Mentor(s) to decide, only an obligation to report.
- Role model growth and experience for both students and mentors.
- Maintain proper communication with parents of students.
- Ensure all communication between mentors and students is transparent to the Head Mentor(s) and to SSPF leadership.
- Provide a yearly report to the SSPF leadership and SSPF board.
- Evaluate student nominations and select student leadership roles accordingly. Have student leadership report team status updates at meetings.
- Ensure that all social media activity aligns with SSFP's values and standards. Head Mentors must have administrative access to all team-affiliated social media accounts to supervise and manage content. Leadership from SSFP must also be granted access as needed. All posts must represent SSFP's mission and values, and should remain free from personal beliefs or opinions.
- Ensure that SSPF logo and title are included with team branding/logos and social media.
- Ensure that the team meets all the requirements and deadlines for entering and competing in any competitions.
- Support the team in performing to the best of its ability and striving for excellence at competitions.
- Coordinate competition roles and schedule.

Mechanical Lead Mentor

The Mechanical Lead Mentor works closely with students on the mechanical team, providing guidance and support to help them succeed throughout each season. They'll help keep the

subgroup on-track so they can meet team objectives for the robot. Before the season, they should be working with the students to teach them how to effectively design and build a robot. The Mechanical Lead Mentor should teach the students how to properly use tools in the Fabrication Lab, effectively design and create a CAD file, how to 3D print necessary parts, and teach the students how to properly use design software such as OnShape. They should also teach the students how to maintain a safe and organized working environment. Other responsibilities include:

- Ensure that the engineering notebook is updated on the Mechanical Team's progress for each meeting.
- Work with the Programming, Electrical, and Drive Teams to ensure students are communicating and collaborating on the robot.
- Make sure all equipment and tools are labeled, well organized and easily accessible.
- Make sure all equipment, tools, and parts are returned to their correct locations prior to the end of each meeting.
- Make sure the students' working places are tidy and clean, and that any metal, plastic, or wood shavings are vacuumed up prior to the end of each meeting.
- Lead packing in the subgroup's materials for competition and outreach events.
- Help students maintain a safe and productive learning environment.
- Support and guide students in developing technical competencies with the goal of fostering self-sufficiency. Work with the Head Mentor(s) to select which mechanical team members will be in the pit during competitions.
- During build season, promote timely completion of the CAD work and collaborate with the team to ensure fabrication deadlines are met.
- Ensure all transgressions are reported to the Head Mentor(s) and escalated directly to the SSPF.
- Create and maintain a purchase list for mechanical components for competition/season expenses.

Electrical Lead Mentor

The Electrical Lead Mentor works closely with the students on the electrical team, providing guidance and support to help them succeed throughout each season. They'll help keep the subgroup on-track so they can meet team objectives for the robot. Before the Build Season, they should be working with the students to teach them how to effectively design the electrical connections and wiring of the robot. The Electrical Lead Mentor is responsible for instructing the students on proper use of tools in the Fabrication Lab, guiding them in effectively learning KiCAD for circuit design and creating a wiring layout, and providing training on 3D printing essential parts.

Other responsibilities include:

- Ensure that the engineering notebook is updated on the Electrical Team's progress for each meeting.

- Acts as the bridge between the mechanical and programming elements of the robot.
- Work with the members of the Electrical and Mechanical Teams to develop a safe and functional electrical board for the robot that meets the team's objectives.
- Design and create an electrical wiring diagram to ensure the wiring is easily understood and followed.
- Maintain and organize robot batteries by performing routine battery health assessments at regular intervals.
- Use KiCAD.
- Participate in design reviews.
- Create and maintain a purchase list for electrical components for competition/season expenses.
- Work with the Programming, Mechanical, and Drive Teams to ensure students are communicating and collaborating on the robot.
- Make sure all equipment, tools, and parts are returned to their correct locations prior to the end of each meeting.
- Make sure the students' working places are tidy and clean, and that any metal, plastic, or wood shavings are vacuumed up prior to the end of each meeting.
- Help students maintain a safe and productive learning environment.
- Support and guide students in developing technical competencies with the goal of fostering self-sufficiency. Work with the Head Mentor(s) to select which Electrical Team members will be in the pit during competitions.
- Lead packing for the subgroup's materials for competition and outreach events.
- During build season, promote timely completion of the KiCAD work and then the prompt execution of electrical wiring and connections on the robot.
- Ensure all transgressions are reported to the Head Mentor(s) and escalated directly to the SSPF.

Programming Lead Mentor

The Programming Lead Mentor is responsible for training the students on how to effectively code. They'll help keep the subgroup on-track so they can meet team objectives for the robot. Before the build season, their focus is on helping students develop and expand their programming skills with emphasis on writing clean, efficient robot code and other competencies such as proper code repository maintenance. Other responsibilities include:

- Ensure students are communicating with other sub-teams on the robot's design, function and control.
- Ensure all programing students are consistently using GitHub to log their code, while emphasizing the importance of code backups and maintaining a clear development history.
- Help students maintain a safe learning environment where they can freely ask questions.

- Ensure all transgressions are reported to the Head Mentor(s) and escalated directly to the SSPF.
- Ensure that the engineering notebook is updated on the Programming Team's progress for each meeting.
- Lead packing for the subgroup's materials for competition and outreach events.

Strategy Lead Mentor

The Strategy Lead Mentor works directly with the Strategy Captain to set the goals of the Strategy sub-team. They are the primary person responsible for communicating and negotiating with the other sub-teams.

- Coordinate closely with the Head Mentor(s).
- Ensure that the engineering notebook is updated on the Strategy Team's progress for each meeting.
- Responsible for gathering and analyzing data from all of the matches in order to effectively select alliance partners during competition playoffs.
- During the build season, the student Strategy Captain is responsible for presenting the initial game analysis and the Strategy Lead Mentor will provide guidance in shaping and refining our team's overall competition strategy.
- Following Kickoff, the Strategy Lead Mentor is responsible for monitoring the robot build's progress in relation to the team's strategy and supporting build teams in making decisions that align with strategic goals. When necessary, they are also responsible for refining or adjusting the strategy to ensure effectiveness.
- In competition season, the Strategy Lead Mentor and the Strategy Team will develop the overall team's competition strategy.
- Communicate directly with the Drive Team in order to create customized strategies for each match and coordinate with the rest of the team to ensure the matches get recorded so they may later be reviewed.
- Lead packing for the subgroup's materials for competition and outreach events.
- Ensure all transgressions are reported to Head Mentor(s) and escalated directly to the SSPF.

Impact Lead Mentor

This is a role specific to the FIRST Robotics Competition (FRC) robotics team. The Impact Lead Mentor works directly with the Impact Captain to ensure award submissions are crafted and deadlines are met. They are the primary person responsible for leading the Impact Presenters. Before the Build Season, they should teach students how to share the team's history and outreach through verbal and written communications, as well as evaluate the team's past efforts for community impact and team sustainability.

Other responsibilities include:

- Ensure all team awards (including the Impact Award) are submitted on time.
- Guide students as they craft written materials and presentations about the team.
- Assist in the collection and analysis of the team's numerical impact.
- Responsible for items used at competition to convey the team's efforts.
- Helping ensure the Outreach Log is filled out properly and promptly.
- Help students maintain a safe learning environment where they can freely ask questions.
- Ensure all transgressions are reported to the Head Mentor(s) and escalated directly to the SSPF.

Outreach Lead Mentor (Optional)

The Outreach Lead Mentor works directly with the Impact Captain to help them coordinate outreach initiatives. They should work collaboratively with the Impact Captain ongoing basis to develop and maintain a comprehensive schedule for outreach events throughout the season. The mentor is responsible for ensuring that outreach initiatives are realistic in scope and are adequately supported for their successful execution. They should be included in all communications with external partners for transparency and support. The Impact Captain should be driving these initiatives while the mentor supports them and verifies that the events/initiatives are reasonable and appropriate. The mentor retains final approval over all events before DoF commitment is guaranteed.

- Coordinate closely with the Head Mentor(s) regarding outreach initiatives.
- Work with the team to verify that there is sufficient student/mentor support and availability for outreach events.
- Make sure all team members are aware of outreach events so they can participate.
- Help collect and confirm outreach metrics here (hours, attendance, people reached etc.).
- Coordinate with Electrical, Mechanical, and Programming Teams to ensure the robot is available, safe, and stable to demo.
- Working with the Impact Lead to update the Impact Documentation Form.
- Ensure all communication between student lead and outreach partners is transparent and accessible.
- Lead packing for the subgroup’s materials for competition and outreach events.
- Ensure all transgressions are reported to the Head Mentor(s) and escalated directly to the SSPF.

Note: Subject to mentor availability, an Outreach Lead Mentor may not be assigned. In such cases, these responsibilities will be distributed among other team members.

Social Media Lead Mentor (Optional)

The Social Media Lead Mentor works directly with students to help maintain social media channels and an active posting schedule. They should be consulted in all communications with external partners for transparency and support. The students should be driving these initiatives while the mentor supports them and verifies that the posts/initiatives are reasonable and appropriate and comply with SSPF values and goals. The mentor retains final approval over all content before it is published or executed.

- Coordinate closely with the Head Mentor(s).
- Make sure events, meetings, and competitions are well-documented through photos/videos in a proper format for social media platforms.
- Help collect and confirm social media metrics (follow, likes, people reached etc.).
- Ensure all communication between students and external entities is transparent and accessible.
- Ensure all transgressions are reported to the Head Mentor(s) and escalated directly to the SSPF.

NOTE: Subject to mentor availability, a Social Media Lead Mentor may not be assigned. In such cases, these responsibilities will be distributed among other team members.

Logistics Lead Mentor (Optional)

The Logistics Lead Mentor is tasked with planning and coordinating specific logistical and/or travel details of any internal or external events the team participates in. The bulk of responsibilities and largest time commitment for this role will occur whenever the team needs to travel for competitions. Most likely, this will occur in the springtime for FIRST Robotics Competition (FRC) Regional events in Arizona or nearby states and potentially the FIRST World Championships, when applicable. The mentor must balance identifying accommodations that are comfortable and safe, while ensuring timely travel to events, all within the constraints of available budget and other limitations. Strong organizational, communication, and multitasking skills are necessary for this role. Given the heavy workload and short timeframe for travel arrangements, it is strongly recommended that this mentor enlist support from other mentors to share responsibilities.

- Coordinate closely with the Head Mentor(s) for any team travel.
- Research, organize, and book transportation modes for all travelers, including air travel, ground transportation, public transit, or other modes of transportation.
- Arrange transportation and coordinate any additional logistics of the team's robot and any corresponding accessories (tools, pit components, etc.) to events.
- Research and book hotels or lodging for all travelers to any events that require overnight stays.

- Understand any dietary, lodging/sleeping, and medical restrictions or concerns of students, parents, and mentors and help provide reasonable resolutions or accommodations.
- Assign students and mentors to respective hotel rooms.
- Research, purchase, and distribute food or make restaurant arrangements for any and all meals provided during events
- Stay within the given budget for events.
- Keep track of the various travel, lodging, and meal expenses and pay for them, if necessary, using the given budget.
- Responsible for providing timely communications of travel logistical details to students, parents, and other mentors.
- Delegate any of these responsibilities to other mentors as needed.

NOTE: Subject to mentor availability, a Logistics Lead Mentor may not be assigned. In such cases, these responsibilities will be distributed among other team members.

Lead Historian Mentor (Optional)

The Lead Historian is primarily responsible for maintaining our Google Drive folder structure and files as well as maintaining and updating the team's Google Calendar.

- Ensure key team documentation is stored in the proper Google Shared Drive folders.
- Keep the team's Google Calendar up to date.
- Responsible for ensuring Mentor Meeting minutes are taken (the minutes can either be taken by the Lead Historian or delegated out).

NOTE: Subject to mentor availability, a Lead Historian Mentor may not be assigned. In such cases, these responsibilities will be distributed among other team members.

Student Evaluations

The Head Mentor(s) is responsible for ensuring the students have recurring assessments and for supporting their ongoing development. These evaluations serve as a tool for student accountability and professional growth and they often play a significant role in determining leadership positions, competitions assignments, travel eligibility, and nominations for team awards.

The following rubric is used by mentors to evaluate each student:

1. Exceptional Performance: Exceeds expectations consistently; demonstrates outstanding initiative, quality, and impact.
2. Admirable Performance: Meets and occasionally exceeds expectations; shows strong effort and positive progress.
3. Acceptable Performance: Meets basic expectations; performance is adequate and progressing appropriately.
4. Under Performance: Falls short of expectations; requires additional support and improvement.
5. Unacceptable Performance: Significantly below or ignores expectations; negatively impacts the team and may warrant reconsideration of involvement.

While every effort will be made to conduct evaluations on a regular cadence, different phases of the season may require adjustments in frequency. The timing and frequency of evaluations will ultimately be determined at the discretion of the Head Mentor(s). Feedback from any additional mentors who have worked closely with the students will be collected and included in the overall evaluation.

An individual's evaluation rating may change from evaluation-to-evaluation and is not shared with the team. However, a student can request a performance review and the mentors will share feedback to the student individually. For students encountering challenges or falling short of expectations, providing constructive one-on-one feedback is encouraged to support their improvement.

Student Leadership

The team includes three (3) titled student leadership roles (Team Captain, Impact Captain, and Strategy Captain), which are determined by the Head Mentor(s). However, we operate as a flat organization. These student leadership roles carry additional responsibilities - NOT authority. Holding a student leadership position does not grant student decision-making power, such as final "say so" or veto rights (see the decision-making process for details). Student leaders are expected to serve the team through initiative, accountability, and supportive efforts.

Leadership responsibilities must be earned. No student is entitled to a position. In the event that the Head Mentor(s) do not feel that a suitable candidate is available (e.g. no interested student either possesses the qualities needed for the position nor demonstrates the ability to develop these qualities quickly), the leadership position will remain vacant until a suitable candidate is identified. Some examples include:

1. The only student who is nominated for a position does not possess the experience to be able to effectively fulfill the requirements of the role.
2. The only student who is nominated for a position has demonstrated behavior that has not lived up to the expectations for a DoF student, and thus would not be a good role model for the rest of the team.

Everyone on the team has the opportunity to lead, with or without a title. This can range from leadership on a subsystem to simply setting an example of attitude. Respectful leaders consistently treat their teammates with dignity and refrain from speaking negatively about them or taking any harmful actions toward them. They stay positive, take initiative, follow policies, help educate others, include everyone, and keep the workspace clean and professional. True leadership is respected and valued by everyone. Leadership on the team is not about titles — **no one needs a title to lead!**

Above all, we aim for every Degrees of Freedom team member—students and mentors alike—to serve as ambassadors who represent our goals, core values, philosophies, processes, experiences, and enthusiasm beyond the Degrees of Freedom community. Ambassadors are informed, experienced, well spoken, positive, friendly, and engaging.

The student leadership positions include:

Team Captain

The Team Captain is nominated by their teammates, themselves, or mentors, selected by the Head Mentor(s), and announced in the fall semester. The primary responsibilities of the

Team Captain are to work with the Head Mentor(s) to help educate, engage, and unite the team and role-model our priorities of **Health > Family > School/Work > Robotics**.

EDUCATE

- Help ensure the students know and understand, and live by the policies in this ***Degrees of Freedom Team Handbook***.
- Encourage students to review and understand the RAP Robotics Design Guide.
- Help ensure all students are learning about engineering and robotics, including the engineering process.

ENGAGE

- Help keep the team focused on our goals and core values, with special attention to our goal of engaging our community in engineering and STEM education.
- Support the Outreach team by being a cheerleader for outreach efforts, especially focusing on our most important activities: SSPF robotics teams and tournaments, and Beak Squad.
- Be the best Degrees of Freedom ambassador you can be, and help your teammates do the same.

UNITE

- Help students bring forth their concerns and follow the concern resolution process.
- Foster team unity and positive morale.
- Lead the coordination and planning of team-wide team bonding activities.
- Support an inclusive environment and help ensure all students feel engaged and empowered to contribute in team meetings and activities.
- Help encourage teammates to invite their parents to come to special events.
- Help the students and mentors engage former students, parents, mentors, sponsors, donors, and the FIRST community in the happenings of our team.
- To support and carry out the lead mentors' final decisions with professionalism and respect.

Impact Captain

The Impact Captain is nominated by their teammates, themselves, or mentors, selected by the Head Mentor(s), and announced in the fall semester. The Degrees of Freedom Impact Captain will work with the Impact Lead Mentor to help lead the efforts of fulfilling our goals of "*Engaging the Community in Robotics Education*" and "*Growing and Nurturing the Degrees of Freedom's Family*". The primary responsibilities of the Impact Captain are to:

- Ensure all team awards (including the Impact Award) are submitted on time.
- Support and grow community outreach within our greater community and FRC community.
- Strengthen the DoF team sustainability via community outreach.

- Promote and help Degrees of Freedom students in supporting SSPF robotics teams and activities (e.g. FLL Summer Camp, Mobile STEM Center, etc.).
- Encourage all Degrees of Freedom team members fulfill volunteer duties at SSPF tournaments (e.g. FLL, NURC) and support them in meeting outreach hour requirements.
- Make sure that all Impact documentation is kept up to date (e.g. Impact Documentation Form).
- Keep the Degrees of Freedom Family engaged and informed.
- Support students as needed working with the Beak Squad.
- Be the best Degrees of Freedom ambassador you can be, and help your teammates do the same.
- Work with the Team Captain to support an inclusive environment to ensure all students feel engaged and empowered to contribute to team meetings and outreach activities.
- Support and carry out the lead mentors' final decisions with professionalism and respect.

Strategy Captain

The Strategy Captain is nominated by their teammates, themselves, or mentors, selected by the Head Mentor(s), and announced in the fall semester. This student will work with the Strategy Lead Mentor in the overseeing and the creation of the scouting system for that season, work with all those interested to define the desired scouting data, design the scouting sheets, define the driver scouting system, ensure the scouting database and website are set up as desired, train the entire student body on how to scout, prepare scouting materials before each competition, coordinate the scouting section in the stands at competitions, and help to lead the scouting meeting at competitions. The Strategy Captain helps to lead the effort on our team's goal of "Fielding a Competitive Team." The primary responsibilities of the Strategy Captain are to:

- Gather and analyze data from all of the matches in order to effectively select alliance partners during Playoffs and to create effective strategies during qualification matches.
- Lead the initial game analysis and the development of our team's overall strategy at the start of the Build Season.
- After Kickoff, monitor how the build progresses towards fulfilling that strategy and help build teams make decisions related to achieving the strategy. When necessary, they are also responsible for working on adjustments to the strategy.
- Lead the development of the overall team's competition strategy.
- Communicate directly with the drive team in order to create customized strategies for each match.
- Lead pre-scouting efforts before competitions to make sure we are aware of what other teams are capable of.
- Specify the contents and requirements of the scouting system and train others on how to use the system.

- Since this role requires active participation at competitions, accepting this role makes a student ineligible for taking on any other competition roles during the season in which they accept even if they later resign the role.
- To support and carry out the lead mentors' final decisions with professionalism and respect.

Nomination and Selection of Captains

The Team Captain, Impact Captain, and Strategy Captain will be nominated by their teammates, mentors, or themselves, selected by the Head Mentor(s), and announced in the fall semester. Students may be nominated for captain positions by themselves, their peers, or mentors, through a Google Form that will be open for 3-5 days. Nomination and selection of these roles will have timelines that differ year-to-year based on interview availability and other factors. See Google nomination form for deadlines. After nominations are concluded, nominees will be informed and given the opportunity to accept or decline their nomination and rank their position preferences if they're nominated for multiple positions. Once nominees have been finalized, the Head Mentor(s) will receive input from other mentors who have worked closely with those nominated, along with the student evaluations, to help inform their decision. Nominees will primarily be interviewed and chosen by the Head Mentor(s). Core Mentors may also be invited to the interviews. Nominees may also provide the Head Mentor(s) with supplemental information such as a resume to help advocate for why they are the best fit for their desired role. In the event the Head Mentor(s) cannot reach a consensus in choosing a particular captain, the SSPF CEO will act as a tie breaker. If deemed necessary, the Head Mentor(s) may choose to appoint a Vice Captain to support the Team Captain in their role. Serving as a Captain in the past does not automatically ensure selection for the position again in the future. Interested students must reapply for any Captain position each year they remain active members of the team. In the interest of team sustainability, the Vice Captain and Captain shouldn't both be seniors. The Vice Captain role is also not guaranteed to become the Team Captain's successor upon their graduation.

Other Degrees of Freedom Student Opportunities

Chief Engineers

The Chief Engineers ("Chief-E") are chosen by majority vote by the Core Mentors and usually announced near the end of the build season. Three Chief Engineers are selected: Electrical, Mechanical, and Programming. They are responsible for everything robot-related, especially functionality of the robot at competitions. Prior to competition, the Chief-Es develop a checklist to test every robot function. At the competition, the Chief-Es work with the Drive Team Technician to execute the "checklists before and after each match and work very closely with the Pit Boss and the rest of the pit crew to repair and improve the robot throughout the competition.

The Chief Engineers help to lead the effort on two of our team's goals, "Fielding a Competitive Team" and "Educating Our Students in the Field of Engineering". The Chief Engineers also help train the rest of the team on the important features of the robot and how to speak to the public about them. Chief-E students will be selected by majority vote by the Core Mentors towards the end of build season and announced prior to the first regional competition. If too many candidates are eligible, then an interview, along with the review of past student evaluations, may be implemented by the Head Mentor(s) and the respected Core Mentors (Electrical, Mechanical, and Programming).

Degrees of Freedom Council

The Degrees of Freedom Council (DoFC) is a group of both student and mentor representatives, working to address issues that are proving to be difficult to solve at the full-team meetings. ***Members of the DoFC are nominated by their teammates, themselves, or mentors, selected by the Head Mentor(s), and announced in the fall semester.*** Additional students may subsequently be added to the DoFC as the season proceeds.

The DoFC membership will be as follows:

- Minimum of 2 Mentors, Maximum of 3
- Minimum of 4 Students, Maximum of 6
- Student Captains (Team Captain, Strategy Captain, Impact Captain) **will not** be part of the DoFC
- Head Mentor(s) **will not** be a part of the DoFC

The DoFC will meet as needed (recommended monthly). Meeting times and dates are still TBD, but should be outside regular team meeting times. The DoFC may invite Student Captains and Head Mentor(s) as needed if additional information is necessary for recommendations.

The DoFC will be assembled to solve team problems as needed. The DoFC will also be leaned upon to do the following tasks:

- Promote DoF's activities and volunteer opportunities.
- Assist students in bringing their concerns forward and follow the Concerns Resolution Process.
- Be active on Slack along with encouraging others to actively participate.
- Be active at the team meetings.
- Ensure everyone abides by the DoF's safety policies.
- Ensure our team workspace is clean and presentable to the public (keeping the STEM Center clean and tidy is EVERYONE'S responsibility. DoFC will help support these efforts and keep us accountable).
- Provide recommendations to the Head Mentor(s) regarding how to resolve difficult issues related to the team.

NOTE: as the DoFC is a new concept and we've not had a chance to implement it yet, the details around how DoFC operates may change as the season progresses.

Mentor-Student Interaction Policy

To maintain a safe, respectful, and professional environment conducive to learning and teamwork, all mentors are expected to engage in appropriate and respectful interactions with students at all times. This policy outlines expectations regarding physical, verbal, and digital contact between mentors and students participating in Si Se Puede Foundation programs, including Degrees of Freedom and affiliated teams. Violations of this policy may result in disciplinary action in accordance with the team's code of conduct and applicable organizational policies

Physical Contact

Physical contact between students and mentors is strictly limited to the following circumstances:

- A mentor is providing necessary first aid or medical assistance to a student.
- When brief, appropriate gestures such as a high five, fist bump, or handshake are exchanged.
- Incidental and unintentional physical contact may occur between students and mentors due to close proximity during robotics activities and does not constitute inappropriate behavior.

Verbal, Written, and Digital Interactions

- All communication by both mentors and students—whether verbal, written, or digital—must be respectful, inclusive, and appropriate. This applies to in-person interactions as well as all team-related communication platforms, including but not limited to Slack, SSPF email, and other designated tools.

The following behaviors are strictly prohibited:

- Name-calling, teasing, bullying, or any form of discriminatory, harassing, or offensive language.
- Inappropriate, harassment, or exclusionary messages, including those sent via digital platforms.
- Any communication and behavior that creates a hostile, intimidating, or unsafe environment for others.

Disagreements must be handled calmly and respectfully. Mentors are expected to resolve conflicts constructively and are encouraged to seek support from the Head Mentor(s) or SSPF CEO when needed.

All communication must adhere to the same standards of conduct, regardless of the format.

This policy is intended to clearly define appropriate boundaries between students and mentors in alignment with current best practices. As such, forms of contact such as hugs, pats, or other physical gestures not listed above are not permitted between students and mentors. Violations of this policy may result in disciplinary action and/or permanent dismissal in accordance with the team's code of conduct and applicable organizational policies. This policy does NOT apply to physical contact between students, which is addressed separately in the Student-Student Interaction Policy section of this handbook.

Student-Student Interaction Policy

To maintain a safe, respectful, and professional environment conducive to learning and teamwork, all students are expected to engage in appropriate and respectful interactions with one another at all times. This policy outlines expectations regarding physical, verbal, and digital contact between students participating in Si Se Puede Foundation programs, including Degrees of Freedom and affiliated teams. Violations of this policy may result in disciplinary action in accordance with the team's code of conduct and applicable organizational policies

Physical Contact

- Physical contact between students must always be appropriate, respectful, and non-invasive.
- Unwanted or inappropriate physical contact is strictly prohibited. This includes, but is not limited to: pushing, hitting, hugging without clear, voluntary and mutual consent, or any contact that causes discomfort or makes another person feel unsafe.
- Actions such as horseplay, roughhousing, or physical joking, regardless of intent, that have the potential to cause harm, discomfort, or violate personal boundaries is not permitted in the STEM Center, at competitions, or during any team-related activity.

Verbal, Written, and Digital Interactions

- All student communication—whether verbal, written, or digital—must be respectful, inclusive, and appropriate. This applies to in-person interactions as well as all team-related communication platforms, including but not limited to Slack, SSPF email, and other designated tools.

The following behaviors are strictly prohibited:

- Name-calling, teasing, bullying, or any form of discriminatory, harassing, or offensive language.
- Inappropriate, harassment, or exclusionary messages, including those sent via digital platforms.
- Any communication or behavior that creates a hostile, intimidating, or unsafe environment for others.

Disagreements must be handled calmly and respectfully. Students are expected to resolve conflicts constructively and are encouraged to seek support from mentors or program leaders when needed.

All communication must adhere to the same standards of conduct, regardless of the format.

Boundaries and Consent

- Every student has the unequivocal right to establish personal boundaries, which must be respected at all times without question or dispute. Explicit consent is required prior to any physical interactions including but not limited to: hugs or close physical proximity.
- Students are encouraged and supported to promptly voice any discomfort or concerns regarding the behavior of others, and report such issues to mentors, SSPF staff, or designated authorities without fear of retaliation.

Reporting and Resolution

- Any concerns regarding inappropriate or unwelcome student-to-student contact must be reported to a mentor, SSPF staff, or designated authorities immediately.
- All reports will be handled through a fair, timely, and confidential process consistent with the Si Se Puede Foundation's Code of Conduct and FIRST Youth Protection Policy.
- Repeated or serious violations may result in disciplinary actions, up to and including suspension or permanent dismissal from the program, in accordance with organizational policies and procedures.

Degrees of Freedom Season Section

Degrees of Freedom Season

The Degrees of Freedom FRC program operates year-round, with two distinct “seasons”: an Offseason (June – December) and a Build Season (January – May). The Offseason marks the informal start of a new team year, leading up to the competitive events that conclude the Build Season.

The Offseason (June - December)

The Offseason is our main “learning season”, where mentors help students learn about robotics, designing, mechanics, manufacturing, competition, strategy, and other topics they’ll need during the Build Season. It begins after the conclusion of the previous Build Season, following the regional tournaments, the FRC World Championship, and graduation of the team’s senior class. While The Offseason is a long period, it plays a critical and important role for preparing the team for the Build Season’s Kickoff in January.

During the Offseason, the focus will be on several things:

- **Leadership:** The Offseason is an opportunity for both students and mentors to develop leadership skills and begin preparing students for the roles they will take on during the Build Season.
- **Learning New Skills:** This is the time to learn and practice building mechanisms and technologies that the team is not yet proficient with (e.g. turrets, advanced visioning, autonomous routines, etc.). New systems or components should not be introduced during the Build Season unless the team has gained prior experience with them during the Offseason.
- **Failing:** This is the time when everyone should embrace failures as a learning opportunity and to develop the judgment needed to balance calculated risks with conservative approaches. Failing during the Offseason is low risk, safe, and encouraged. In contrast, failing during the Build Season carries greater consequences and should be minimized through preparation and informed decision-making.
- **Practice:** This is the time to give prospective drivers as much practice as possible on our existing robot(s). Hands-on driving experience is essential for developing the skills needed for competition and provides valuable experience. To support this, we should always prioritize maintaining at least one (1) functioning robot at all times for driver practice.
- **Recruitment:** The Offseason also serves as the primary recruitment period, during which the team focuses on welcoming new members and filling roles left by graduating seniors.
- **Fundraising:** DoF, while sponsored by the Si Se Puede Foundation, is expected to raise funds for any anticipated travel. DoF has been fortunate to have traveled to Houston, TX

from 2022-2025 for the World Championships, which involves significant costs that require dedicated fundraising efforts.

The Offseason is the ideal time to assemble the Impact Team and begin planning our Impact presentation for the upcoming season. If time allows, preliminary work on the essay or video may also commence. Outreach activities should be prioritized during the Offseason, as this period provides additional time to dedicate to them and outreach is a critical component of the Impact Award.

Leadership, Learning, Preparation, and Recruitment are the key objectives of the Offseason.

Build Season (January - May)

The period between Kickoff and the graduation of high school seniors is referred to as the "Build Season.” The Build Season is our “execution and competition season,” where mentors guide students in applying the skills they developed during the Offseason to design, build, and compete at the highest level possible. Due to its compressed timeline, the Build Season prioritizes execution over learning new skills.

Robot-wise, the Build Season is a very intense time period dedicated to brainstorming, prototyping, building, wiring, programming, and testing the competition robot(s). Build activities will continue after competing in our first regional of the season, but will be focused on selective repairs and incremental improvements.

Impact-wise, the Build Season is when the Impact Team is fully assembled. They work to develop a presentation highlighting our outreach initiatives, with an emphasis on the most recent outreach activities. The Impact Team will create a cohesive theme along with an oral presentation, supported by props, to effectively communicate our outreach impact with the FRC Judges.

During the Build Season, the primary focus will be on quick planning, rapid prototyping, building, and timely execution. While these activities provide valuable learning opportunities, the pace of work may not always allow for in-depth training of less-experienced students. Students who join the team later in the Offseason or during the Build Season are encouraged to begin as observers and assistants, allowing them to gain valuable experience and better prepare for future responsibilities. This approach helps keep the team on schedule and ensures a high standard of quality. At the same time, the most experienced students will lead the critical aspects of robot design and construction and hold key roles during competitions.

Execution, Keeping on Schedule, Quality, and Strong Performance Mindset are the key objectives of the Build Season.

Build Season Milestones

NOTE: this is Robonaut's schedule. For now, we will use this as an example or guideline for us. We will work to modify it to fit our needs as Build Season approaches.

Each Build Season, the team follows a calendar of activities, which include practices, outreach events, tournaments, etc. The team schedule created in project management tools serves as a supplement to the main calendar, helping the team stay on track with deadlines. It is maintained by the Head Mentor(s) and reviewed during team meetings to monitor progress.

The following are the Build Season Milestones:

- Robot Will List ..... Friday of Week 1 - KickOff+6
- Robot Will List Finalized…… ..... Friday of Week 2 - KickOff+13
- Krayon CAD Review ..... Saturday of Week 2 - KickOff+14
- Integrated Design Review ..... Saturday of Week 3 - KickOff+21
- Software Robot..... Saturday of Week 5 - KickOff+35
- Test Robot in Game ..... Friday of Week 6 - KickOff+41
- REVEAL ..... Friday of Week 7 - KickOff+48

Build Season Timeline

The schedule below represents the ideal timeline. The Team will make every effort to complete tasks ahead of schedule and will adapt as needed.

- Week 1: Game reveal, requirements development and prototyping
    - Day 1: Game Reveal/Kickoff, rules review, and game strategy session (Saturday)
    - Day 2: More rules review and strategy development, beginning of "robot will" list
    - Day 3: Continue "robot will" list, develop list of prototypes. Break into prototype teams. Software and electrical break out to start planning the season and supporting prototype development
- Week 2: Prototype
    - Prototyping teams iterate on robot concepts at component and system level
    - Programming
        - Begin developing autonomous paths
        - Develop vision software
        - Remaining programmers: learning and supporting prototyping
    - Electrical
        - Training new students
        - Adding connectors to new batteries

        - Supporting prototyping
    - End of week 2
        - "robot will" list completed
        - Krayon CAD review laying out general robot systems
- Week 3: Robot design
    - Higher fidelity prototyping (motor/sensor integration, wire harnessing and software)
    - Robot design and layout
    - Overall robot code development
    - End of week 3:
        - Integrated design review
- Week 4: Manufacturing and assembly
    - Completion of design
    - Part manufacturing
    - Mechanical assembly
    - Validate robot code
- Week 5: Robot comes to life
    - Complete assembly early in week
        - Start and complete wiring
    - End of week 5:
        - Start software bring up on the robot
- Week 6: PLAY THE GAME
    - Robot
        - Software integration
        - Drive it, fix it
    - Throughout week 6
        - Opportunistically filming for reveal video content
        - Start training drivers
    - End of week 6
        - Run cycles/practice matches
- Week 7: Robot
    - Drive, repair, improve
    - Filming reveal video
- Week 8: Preparing for the season
    - Driver training
    - Drive, repair, improve software

Meetings Section

A Typical Work Day

NOTE: this is modified from Robonaut's schedule. For now, we will use this as an example or guideline for us. We will work to modify it to fit our needs as Build Season approaches.

DoF members' work schedule throughout the Build Season is (generally): weekday evenings and weekend mornings/afternoons for approximately 20 hours a week. There are some additional meetings built into the schedule to help us meet our internal deadlines and to ensure we are prepared for upcoming competitions. This section outlines a typical day's schedule but may be adjusted as needed to accommodate the demands of the Build Season.

Here is a typical weekday schedule:

- 4:50pm - 5:00pm: Everyone arrives at the SSPF STEM Center
- 5:00pm - 5:10pm: Full team meeting
    - Beak Squad issues **if any** (Students or Mentors)
    - Concerns **if any** (Students or Mentors)
    - Outreach or Impact Award topics **if any**
    - Robot updates- issues- on schedule etc…
- 5:10 PM – 5:12 PM: Align with your team members and subsystem groups. Review goals and assign tasks for the day.
- 7:40pm - 7:50pm: Cleanup our entire workspace
- 7:50pm - 8:00pm: End of the Day Review and Team Discussion
    - Demonstrations
    - Announcements
    - DoF huddle
    - Go home
- 8:00pm - 8:15pm: Mentor Meeting
    - Mentors to discuss team operations
        - Student feedback (first 10 mins) **if previously requested by students and approved by the Head Mentor(s)**.
        - Meeting time extended for mentor only discussion as needed.

Here is a typical Saturday schedule:

- 9:50am - 10:00am: Everyone arrives at the SSPF STEM Center
- 10:00am - 10:10am: Full team meeting
    - Beak Squad issues **if any** (Students or Mentors)
    - Concerns **if any** (Students or Mentors)
    - Outreach or Impact Award topics **if any**

    - Robot updates- issues- on schedule etc…
- 10:10pm - 10:12pm: Align with your team members and subsystem groups. Review goals and assign tasks for the day.
- 1:40pm - 1:50pm: Cleanup our entire workspace
- 1:50pm - 2:00pm: End of the Day Review and Team Discussion
    - Demonstrations
    - Announcements
    - DoF huddle
    - Go home
- 2:00pm - 2:15pm: Mentor Meeting
    - Mentors to discuss team operations
        - Student feedback (first 10 mins) **if previously requested by students and approved by the Head Mentor(s)**.
    - Meeting time extended for mentor only discussion as needed.

Here is a typical Sunday Schedule:

- 11:50am - 12:00pm: Everyone arrives at the SSPF STEM Center
- 12:00pm - 12:10pm: Full team meeting
    - Beak Squad issues **if any** (Students or Mentors)
    - Concerns **if any** (Students or Mentors)
    - Outreach or Impact Award topics **if any**
    - Robot updates- issues- on schedule etc…
- 12:10pm - 12:12pm: Get on the same page with your team members and subsystems. Assign tasks for the day.
- 3:40pm - 3:50pm: Cleanup our entire workspace
- 3:50pm -4:00pm: Wrap-up Meeting
    - Demonstrations
    - Announcements
    - DoF huddle
    - Go home
- 4:00pm - 4:15pm: Mentor Meeting
    - Mentors to discuss team operations
        - Student feedback (first 10 mins) **if previously requested by students and approved by the Head Mentor(s)**.
    - Meeting time extended for mentor only discussion as needed.

Hands Up

When “raising our hands,” DoF uses a finger system - often referred to as the Hands Up Finger rule where the number of fingers displayed has different meaning during meetings or group discussions. The following are our Hands Up Finger Codes:

- **5 Fingers:** Indicates a raised hand to ask a question, cast a vote, or make a general contribution to the discussion.
- **4 Fingers:** Serves as a reminder to stay aligned with the DoF **Four Team Goals**.
- **3 Fingers:** A respectful request for a short break, typically used in a longer team meeting or discussion.
- **2 Fingers:** A suggestion to move on to the next topic, often used when the discussion has become unproductive or overly-time consuming.

For 2 Finger and 3 Finger Hands Up, the discussion/meeting leader whoever is leading the discussion will take the gesture into consideration and determine to proceed, change topics, or take a short break.

Mentor Meetings

After the conclusion of most team meetings, the mentors will gather to debrief and discuss ongoing team operations. The students may attend the beginning of this meeting (first 10 minutes) to share with the mentors any positive or constructive feedback, relevant updates, or input. Students need to make a request and get an approval from the Head Mentor(s) before being allowed this opportunity. After the student portion concludes, mentors will discuss topics such as finances, logistics, student performance or conduct (student evaluations), scheduling, and other operational matters. During this time, Head Mentor(s) may also share relevant submissions of the DoF Anonymous Feedback Form with the mentor team, if appropriate.

Policies & Guidelines Section

Concern Resolution Process

Degrees of Freedom (DoF) is committed to addressing concerns raised by any team member in a timely, respectful, and structured manner. There are four different methods depending on the situation, nature of the concern, urgency, privacy, etc. Concerns are handled through the following processes to ensure fairness, transparency, and inclusivity:

Team Meetings

1. Any team member may raise their concern during the first 10 minutes of a team meeting and be encouraged to propose a potential resolution when appropriate.
2. The team is given an opportunity to ask clarifying questions to fully understand the concern.
3. The Head Mentor(s) will determine whether the concern requires an immediate collective resolution.
4. If the concern is acknowledged as valid and requires an immediate collective resolution, efforts are made to resolve it promptly and collaboratively.
5. If the Head Mentor(s) determines no action is required, then the concern will be noted but not pursued further.
6. If consensus on a resolution cannot be reached, the Degrees of Freedom Council (DoFC) will be convened to develop and propose potential solutions.
7. Any proposed solutions from the DoFC must be presented to and approved by the Head Mentor(s) before implementation.

Slack

For concerns that arise outside of regular meetings (e.g., during the Offseason), this process may be facilitated through the team's Slack channel. In such cases, the team member should post their concern in **#dof-concerns** using **@channel** and starting the message with "CONCERN:". We will then follow steps 2-7 above via Slack to address the concern.

Anonymous Form

If a concern is sensitive in nature or the individual wishes to remain anonymous, they may submit it through the DoF Anonymous Feedback Form. The Head Mentor(s) will review and address these concerns at the next mentor meeting to determine appropriate next steps or resolutions in accordance with the DoF and SSPF policies.

Open Door Policy

If a concern is personal and/or sensitive in nature and the individual would prefer to have a direct discussion with someone in leadership, please note the hierarchy of the team and SSPF organization. Also note that Core, Non-Core, and Rising mentors are not permitted to discuss or resolve team concerns directly with students. Individuals with concerns should reach out to any of the following (either via Slack or in-person), depending on the nature of the concern, their comfort level discussing it, etc. ***to schedule a meeting to discuss the concern:***

- DoF Head Mentor(s) →
- SSPF CEO →
- SSPF Board of Directors Chairperson

Students should provide a summary of topics or a highlight of their concern(s) ahead of the meeting. The topics should not be related to issues that have already been addressed and resolved by the team. The DoF and SSPF priorities of Health > Family > School/Work > Robotics will be considered when scheduling a time to meet.

Decision-Making Process

There are different processes and models that teams can use for making decisions. Sometimes different models are more appropriate than others, depending on the situation or type of decisions that need to be made. This section describes some of the models Degrees of Freedom may use.

When making decisions regarding the direction and strategy of the robot, DoF utilizes a simple decision making framework called the **RAD Model**, which is adapted from the corporate RAPID Model The RAD Model utilizes 3 types of roles:

- Recommender: Typically, a single individual who is responsible for gathering inputs from relevant involved parties, evaluate competing perspectives, and develop an unbiased recommendation based on facts, data, and insights. **The Recommender is expected to remain objective and impartial throughout the process.** For direction and strategy of the robot, the Strategy Team has this role.
- Activators: These individuals are responsible for implementing the final decision. Activators should be among those consulted by the Recommender during the input-gathering phase. Everyone who is on the team that is neither a Recommender nor a Decider has this role.
- Decider: Preferably a single individual, but potentially a small group or committee, the Decider is tasked with making the final decision based on the feedback provided by the Recommender. The Decider should give due consideration to the Recommender's input, and in most cases should follow the recommendation. If multiple options are presented, the Decider will evaluate them and select the most appropriate course of action. The Head Mentor(s) have this role.

Other decisions may employ a "majority vote" or a vote between curated options. Some decisions may be solely made by the Head Mentor(s) and/or SSPF staff. When appropriate, there may be opportunities where students will have the opportunity to vote on non-robot related decisions for the team (e.g. the Robot's name or which t-shirt design we will use for the season). In these situations, students will be presented with all options in advance and have a reasonable amount of time to vote for their choice. The choice with the most votes will be selected after final approval by the SSPF CEO.

See-Something-Say-Something Policy

All team members are expected to uphold and adhere to the **See-Something-Say-Something Policy,** which promotes accountability, safety, and continuous improvement within DoF. Under this policy, any members who observe behavior or actions that are inconsistent with the ***Degrees of Freedom Team Handbook***, are responsible for reporting their concern through either the Concern Resolution Process or DoF Anonymous Feedback Form." Timely reporting of such inconsistencies can help:

- Prevent potential harm or safety issues
- Improve team operations and performance
- Support positive relationships within the DoF community
- Enhance the learning environment for students and mentors
- Contribute to the team's overall success

In many cases, issues are the result of simple oversights and can be quickly resolved once brought to attention.

Student-Mentor Ratio Requirement

The relationship between mentors and students is a foundational element of Degrees of Freedom's success. Equally important is our shared responsibility to protect the safety and well-being of both students and mentors. Consistent with widely recognized youth protection policies, including those established by the Si Se Puede Foundation and FIRST, Degrees of Freedom (DoF) follows the guidelines below for mentor–student interactions:

Supervision Requirements:
When mentors and students are working together—whether in person or virtually—there must always be a **minimum group size of three** (e.g., 1 student and 2 mentors, or 2 students and 1 mentor). In the case of the latter, a second mentor or SSPF staff member must be within eyesight and earshot of the smaller group. Whenever possible, larger group sizes are preferred.

Workspace Expectation:
All DoF participants are expected to work in **shared, common areas** such as the STEM Center rooms, FabLab Build Space, Competition Gym, or Commons.

Use of Smaller Rooms:
When using enclosed spaces such as Conference Rooms, the CAD/Video Studio, the 3D Printing Room, or Break Room, small groups may form. In these situations, mentors and students must take extra care to maintain the required group ratio and ensure **doors remain open** to maintain visibility and transparency.

Public Setting Interaction (Brief one on one):
In public environments where other adults or students are nearby—such as competitions, outreach events, hotel lobbies, or restaurants—brief, incidental one-on-one interactions between a DoF mentor and student (lasting only a few minutes) are permitted. However, such interactions should be **limited in duration**, **visible to others**, and **avoided when feasible**.

Mentors from Other Teams:
While collaboration with mentors from other teams is welcomed—particularly during competitions or outreach events—Degrees of Freedom (DoF) maintains clear boundaries to ensure the safety and comfort of their students.

- Mentors from other teams **do not serve in an official capacity for DoF** unless formally approved by the Head Mentor(s) and the Si Se Puede Foundation CEO.
- They **should not engage in one-on-one interactions** with DoF students **except in brief, incidental situations** (e.g., answering a question or offering a quick comment in a public area).

- **Extended or private conversations** with a single student should be avoided unless another DoF mentor is present.
- If a mentor from another team is invited to assist in a more involved capacity (e.g., technical consultation), a DoF mentor must be present during the interaction.
- At a DoF event or competition, students should not meet privately with other adults unless it is with family members. They should decline the offer and immediately report it to the Head Mentor(s).

This policy helps ensure that all adults working with DoF students meet our standards for safety, professionalism, and accountability.

Acceptable Situations (when brief, in public, or with transparency):

- Mentor and Student walking through the competition together
- Mentor and Student collaborating in another team's pit area (e.g. Beak Squad)
- Mentor and Student working together at the practice field
- A mentor briefly remaining alone in a public demo area while a student uses the restroom during an outreach event
- Mentor and Student interacting with the Student's parent or legal guardian present

Inappropriate Situations (even if unintentional):

- Mentor and Student walking around alone through n sparsely populated areas of a venue
- Mentor and Student together in a closed-door room (e.g. STEM Center room, Green Room, Classroom, Conference Room, etc.)
- Mentor and Student eating together one-on-one at a restaurant
- Mentor and Student driving or riding one-on-one in a vehicle together
- Mentor and Student meeting and conversing inside a bathroom
- Mentor and Student alone in a parking lot
- Mentor and Student sitting together away from the team at a competition or other DoF events
- Mentor and Student alone in a hotel lobby or hallway
- Mentor and Student alone in a virtual space, such as Teams, Zoom, or Discord without another team member present.

As a general policy, Degrees of Freedom recognizes and trusts the support of robotics mentors and event volunteers—many of whom have completed Youth Protection Program (YPP) training—to help ensure the safety of our students. However, we do not permit or rely on members of the general public to take responsibility for student supervision or safety under any circumstances.

Digital Communication Policy

Degrees of Freedom follows the rules outlined by FIRST via the Youth Protection Program (YPP) Guide. If a situation arises that isn't addressed by the information outlined in this handbook, refer to the YPP guide or SSPF leadership for guidance.

All communications conducted through official and affiliated platforms such as DoF Slack workspace, Arizona FIRST Discord, SSPF email accounts, Twitch streams, Chief Delphi, Social Media platforms must remain respectful, inclusive and appropriate at all times. Team members are expected to communicate professionally and avoid any language, tone, or insinuations that could be perceived as offensive, inappropriate, or exclusionary. All digital interactions must reflect the values of Degrees of Freedom and comply with the team's Code of Conduct and Youth Protection policies.

When engaging on public-facing social media platforms, team members are considered informal representatives of both Degrees of Freedom (DoF) and the Si Se Puede Foundation (SSPF). As such, all communications should reflect professionalism, integrity, and alignment with team values. Team members are expected to use good judgment and adhere to the standards outlined in the Social Media Policy.

Direct one-on-one communication between a mentor and a student is strictly prohibited, except in clearly defined extenuating circumstances (e.g., medical or safety emergencies). All mentor–student communication must include at least two adult mentors. When possible, it is considered best practice to include one or more Head Mentor(s) in the communication.

Including Head Mentor(s) ensures transparency and central oversight of all correspondence, which is essential for documentation, safety, and compliance with youth protection protocols. All communications must adhere to Degrees of Freedom's Code of Conduct, Youth Protection Policy, and applicable organizational guidelines.

Slack is DoF's primary form of digital communication among team members. As a best practice, all team related communication should occur in Slack Channels to promote transparency and inclusivity. Slack Direct Messaging (DM's) should be limited to situations where channel-based communications are not appropriate or practical. All communications on Slack are subject to the DoF Code of Conduct and Youth Protection guidelines. The graphic below explains how to setup and use Slack.

GETTING STARTED WITH SLACK

SLACK IS A CENTRAL COLLABORATION HUB FOR ALL THE SI SE PUEDE FOUNDATION ROBOTICS TEAMS

1) COMPLETE YOUR PROFILE

Update your profile information & add a picture of yourself! Also, introduce yourself in the #get-to-know-me channel!

2) USE CHANNELS TO CONNECT

Channels are context-based conversations where groups can communicate & interact with information related to a common topic. Respect the intended topic of the channel by keeping conversations relevant. There are channels for every team & subgroup.

3) DIRECT MESSAGES

You can have private 1:1 communications between you and anyone else on our Slack except for mentors, when messaging privately with mentors you must have 2 mentors in your communications.

4) LEVERAGE THREAD MESSAGES

Respect to messages using a thread. Threads let you respond directly to messages in a channel, keeping replies organized in a thread conversation

5) REDUCE NOISE WITH NOTIFICATION PREFERENCES

Customize your notification settings to control the noise. Slack notifications keep you informed about things that need your attention

6) SET DO NOT DISTURB HOURS

Establish do not disturb hours for when you're at work, in class, or unavailable so your notifications are muted.

7) REPLY WITH SEND TO CHANNEL

When a major decision or a change is arrived at in a discussion thread, click the Also send to #channel checkbox below your message to post your reply to the entire channel. This way, folks who aren't following the thread are more likely to see the message.

8) STAR MESSAGES AND CONVERSATIONS

Starring messages & conversations allows you to find them easily. You can also bookmark for later if you're not able to respond right away.

9) COLLABORATE WITH KINDNESS

Be kind to yourself and others. Tone isn't something that can easily be conveyed through text so try to assume positive intent when interacting with others.

Dress Code

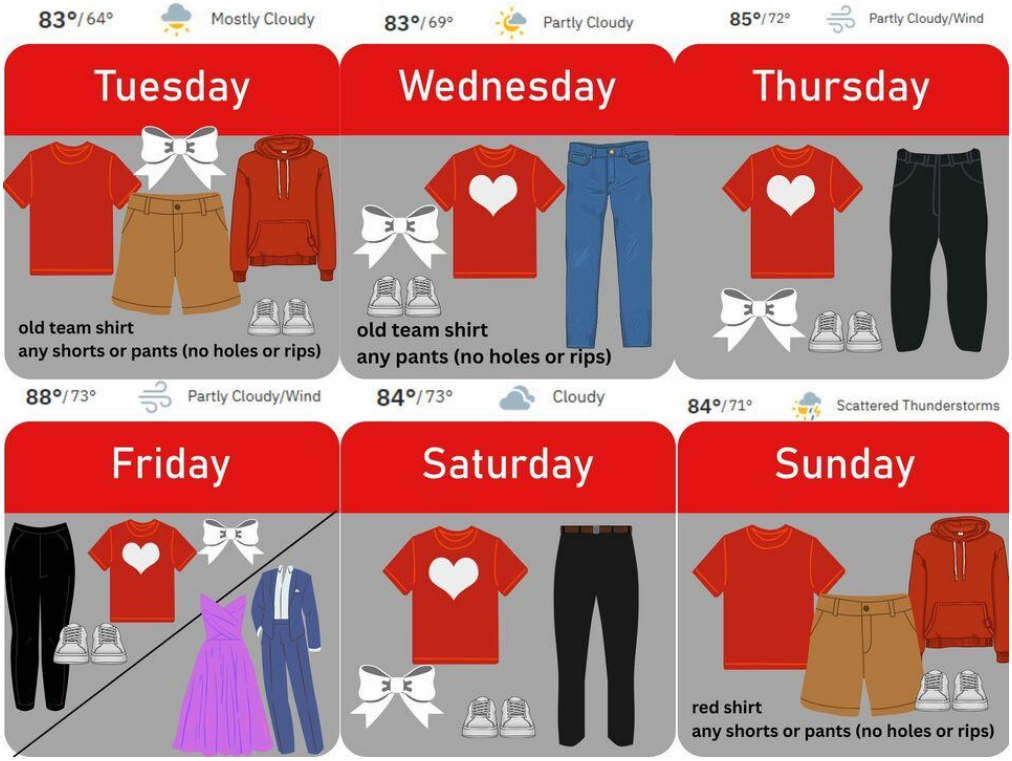
- As we strive to be a well-recognized and respected team, presenting ourselves with professionalism is essential. Consistent and appropriate attire reflects unity, discipline, and commitment to excellence. The way we dress—whether at competitions, while traveling, volunteering, or during practice—contributes to team identity, safety, and overall efficiency. While **traveling, volunteering, or competing**, team members are expected to wear official team attire to promote a cohesive and professional appearance.
- While **practicing or working**, clothing should be functional, comfortable, and safe for a hands-on environment.
- **Hats are not permitted** while in uniform, unless required for safety or weather-related reasons.
- If temperatures are low during competitions, you may wear a **white or black long-sleeve shirt** underneath your team shirt. Team hoodies are permitted **to and from the venue** and **when outdoors**, but not while competing or in official team photos.
- **Face masks are optional**. If a mask is worn, please use the designated team mask. If you do not have one, you may request one from a mentor.

In general, our dress code aims to promote a professional appearance by discouraging attire that intentionally or unintentionally draws undue attention. The following are the dress codes for various situations:

Dress code during Travel:
If we are doing an activity as a team (e.g. going on a tour or loading in equipment at the event venue), wear a DoF shirt and black pants. If we are just traveling from home to hotel or from competition to home, casual attire is acceptable, including properly fitting sweatpants, shorts (at least mid-thigh length), and yoga pants/leggings.

Dress code for Competitions:
Every student will receive two standard DoF T-shirts each season. Students will also be given a team bow and a nametag at the beginning of the season. Students are expected to wear the DoF-T-shirt, black pants with no holes or rips, white bow, name tag, and fully-enclosed shoes.

Multi-Day Events (i.e. Regionals, World Champs):
Most multi-day events (like Regionals or World Championships) begin on a Tuesday or Wednesday. For those events, the graphic below provides the guidelines for the dress code for the various days of the event.



For outerwear at the competition, DoF items should be worn. If you desire to add layers under your Degrees of Freedom uniform for warmth, you may do so, but a DoF uniform shirt or jacket should be the outermost item. You should always be wearing your uniform at competitions; so, for example, when we take pictures, we will remove our outerwear so everyone has a uniform dress.

Dress code for Outreach Events, and Open House: Students will wear their DoF team shirts, black pants, white bow, and nametag, unless otherwise specified. In some cases, shorts (without rips or holes) may be permitted, such as if participating in an outreach event outdoors.

Note: If specific attire is needed for an event (such as competitions) or expectations differ from what is documented in this handbook, a message will be sent out in Slack and/or email to highlight what is expected to be worn.

Degrees of Freedom Branding

The Degrees of Freedom branding is more than a source of identification, it represents our pride, history, accomplishments, core values, goals, etc. To preserve its value, The DoF Brand should only be used in ways that reflect and reinforce our core values. Official artwork can be found in the DoF Artwork Repository and the DoF Branding Guide provides guidance on the appropriate use of The Degrees of Freedom brand.

The following are some DOs and DON'Ts of how to present, promote, and protect our brand.

Best Practices - DO's:

- **Use and promote** the DoF brand proudly.
- **Feel empowered** to wear DoF-branded clothing, even outside official DoF activities.
- **Use the DoF brand** for approved external activities.
- **Use the correct red color**: HEX: #ff0000 RGB: 255,0,0
- **Strive for artwork that stands out** and reflects quality.
- **Use the correct font**: Segoe UI Semibold.
- **Choose themes** that complement the artwork and enhance visual consistency.

DONT's:

- **Don't associate** the DoF brand with controversial topics or activities.
- **Don't wear** DoF-branded clothing to controversial events or during adult activities.
- **Don't alter** the brand colors unless there's a clear, approved reason.
- **Don't clutter** the space around the artwork.
- **Don't distort or squish** the artwork—except when resizing with a valid purpose (e.g., print fit).
- **Don't delete or add elements** to the official logos.
- **Don't apply effects** like glow, gradients, drop shadows, or filters to the logos.
- **Don't use the DoF brand** for commercial purposes without approval.
- **Don't associate** the brand with products or services that don't align with our team's values
- **Don't share original artwork files** with anyone outside the DoF family without team permission.

Social Media Policy

Degrees of Freedom utilizes many social media platforms including but not limited to Facebook, Instagram, and YouTube to share ourselves with the world. Upholding our Social Media Policy is imperative to maintain our reputation and brand. Each DoF member, whether using a personal or DoF-led account, is held to a higher standard of conduct. As representatives of DoF at all times, team members must ensure that public profiles and posts reflect our Core Values. Always keep in mind: when you post publicly on behalf of the team, you're representing the entire Degrees of Freedom community.

Online Forum Specific Policy

- Discord – If your profile or username associates you with Degrees of Freedom, you are expected not to speak or make claims on behalf of the team without authorization. When sharing technical content, ensure all information is accurate and well-supported.
- Chief Delphi (CD) / Reddit – Do not post opinion-based or non-technical content without prior approval through the designated review process. All responses must remain technical, objective, and accurate. Any non-technical responses require formal approval before posting.

Expectations of Degrees of Freedom on Social Media

- DoF Head Mentor(s) or the Social Media Lead Mentor's (if available) approval is required before a student is allowed to create a social media post on behalf of the Si Se Puede Foundation or Degrees of Freedom team.
- Approval Process – If you're unsure about any team facts or think a post might be controversial, consult with the Head Mentor(s) before posting or responding. When in doubt, assume it is controversial. For potentially sensitive topics, raise them during a team meeting for discussion and approval.
- AMPS (Alumni, Mentors, Parents, and Students Test)– Keep AMPS in mind when posting content on personal and public profiles and forums. This is especially true if you list your association to the Degrees of Freedom in your profile.
- Avoid Oversharing – Do not share photos or information about the robot before its official reveal. This applies to all platforms, including Instagram, Facebook, Snapchat, BeReal, and others.
- Maintain a Positive Tone – Avoid posting negative or critical content.
- Be Professional – Ensure all communication reflects the professionalism expected of the team.
- Share World-Class Content – Only post content that meets the high standards and quality representative of Degrees of Freedom.

Degrees of Freedom Specific Social Media and Password Sharing

- Password Sharing – Students are prohibited from sharing passwords without mentor approval. All students and mentors with password access must be documented in our password sharing system.
- Password Reset – Each year the passwords for social media platforms must be reset before Kickoff.

Photography Policy

Photography and Media Policy

As participants in **FIRST Robotics Competition**, team members will naturally be present in **public settings** – including competitions, outreach events, and build sessions – where photography and videography are common and often beyond our control. Media coverage, social media posts, and promotional materials from other teams, sponsors, and the general public may feature images of our students.

Team Media and Photography

Degrees of Freedom regularly takes photos and videos for use in:

- Team promotions (e.g., website, social media, newsletters)
- Documentation and sponsorship reports
- Outreach and event publicity
- Celebrating achievements and milestones
- And other team/Foundation related activities

By joining the team, members acknowledge and accept that their image may be captured and used for these purposes.

Respectful Representation Clause

While we celebrate our team's work and spirit through photography, we also strive to present every member with **dignity and respect**. If a team member identifies a team-taken photo or video that they prefer not be made public or kept on the team's Google Workspace repository because it portrays them in an **unfavorable or embarrassing situation** (e.g., awkward posture, bending over, mid-sneeze, etc.), they may request its removal.

- Requests should be made respectfully to a mentor or Social Media Lead Mentor (if applicable).
- Reasonable effort will be made to remove the content from team-controlled platforms and archives.
- This policy does not extend to third-party media or public posts beyond the team's control.

By honoring these requests, we maintain a team culture that values **professionalism, respect, and mutual support**.

Workspace Clean Up Plan

Our team workspace is visible to the public during tours of the SSPF STEM Center. As representatives of SSPF, we must maintain a workspace that reflects professionalism and productivity at all times. Every team member is responsible for ensuring the workspace is clean, organized, and up to standards before leaving each day. To support this, Head Mentor(s) and team Captains will conduct daily inspections to ensure tidiness and thorough cleanup.

- **Machining Areas** (includes mill, lathe, CNC router, CNC mill, band saw, and laser cutter) - pick up large debris by hand, clean the machines, and sweep the floor.
- **General Team Areas** (FabLab shelves and bins, team pit area including tool cabinets, practice field, 3D printing room, classroom *if used,* and CAD room) - throw away trash, put away workspace tools (measuring tapes, calipers, pens, nuts, bolts etc.), tidy all the organizers and clean the floors and carpets as needed.
- **Computers** - tidy keyboards/mice, shut down and put away laptops and other supplies as needed.
- **Subsystem or Work in progress tables** - tidy papers, organizers, supplies on tables, throw away trash, tidy underneath each table, and sweep the floor at the end.
- **Trash** - gather the trash from all around the workspace, and take the trash cans, if full, to the dumpster out back. Be sure to empty the small trash cans in the workspace, as well.

Degrees of Freedom STEM Center Cleaning Responsibility- Housekeeping

With three levels of robotics housed at the STEM Center, each program will be assigned one week a month for general cleaning responsibilities. Please refer to the whiteboard in the bullpen near the restroom for the current cleaning schedule. During their assigned week, each program must complete the following cleaning tasks at least once:

- Vacuum all carpet areas, practice field, 3D printer room, CAD room, conference room
- Mop all floor areas, FabLab, classroom, kitchen area, lobby
- Empty all trash cans
- Check refrigerator to remove old food or containers, wipe surface and handles
- Wipe down microwave inside and outside
- Clean kitchen sink
- Clear countertop of debris
- Clean both bathrooms toilets and sinks

Health and Safety Policy

The safety and well-being of all Degrees of Freedom team members is our highest priority. We are committed to maintaining an environment that protects every individual from physical and emotional harm. We recognize that injuries—both physical and emotional—can have lasting effects, including permanent consequences such as vision loss resulting from eye injuries. Ensuring a safe and supportive environment for all team members is fundamental to our mission. The Si Se Puede Foundation maintains a ***STEM Center Health and Safety Handbook*** detailing specific policies and guidelines. All individuals working at the STEM Center are required to comply with these established standards.

The following are the tenets of The DoF Health and Safety Policy:

- Students must abide by all the Health and Safety policies included in this ***Degrees of Freedom Student Handbook***
- DoF Members must abide by the SSPF Health and Safety Requirements documented in the ***STEM Center Health and Safety Handbook***
- DoF members must abide by the FabLab safety rules
- Once a year, mentors must conduct General Health and Safety Training for the team and must include
    - Location of safety assets (Emergency Exits, First Aid Kit, Fire Extinguishers, etc.)
    - Emergency Event Process (Call 911 - Administer Care - Notify Mentor)
    - Eye Protection (Safety Glasses) Policy Review
    - Evacuation Plan
    - Power and Hand Tool Safety
    - Battery Safety
    - General Shop Safety
    - Ladder Safety
    - Electrical Safety including power strips and extension cords
    - Fire Safety
    - Hazardous Materials Safety
- Students must get parental approval before using shop equipment (mill, drill press, sander, band saw, etc.)
- Designated Supervisors must maintain equipment Hazard Analyses and Training Records
- SSPF staff must maintain First Aid Kit

Disciplinary Actions

Students are expected to comply with all behavioral expectations outlined in this handbook. In the event of a violation or failure to comply, disciplinary actions will be taken based on the severity of the incident. The following outlines the progressive discipline process that may be used:

- **Verbal Warnings:** If a student fails to meet behavioral expectations, a verbal warning may be issued by a mentor or SSPF staff member. The incident will be documented in the Student Disciplinary Record (each program will maintain its own file), and the mentor or staff member will report the matter to the Head Mentor(s) and all relevant mentors. Clear communication among mentors is essential to ensure consistent monitoring and support of the student's behavior.
    - After a **third verbal warning** without observed improvement, the matter will escalate to involve the student's parent(s)/guardian(s).
    - Link to FRC's Student Disciplinary Form
- **Parent Involvement:** If a student receives three verbal warnings or engages in conduct that warrants immediate escalation, the Head Mentor(s) and/or SSPF staff will arrange a meeting with the student's parent(s)/guardian(s) to address ongoing concerns. Mentors involved in the incidents should participate to provide context and share concerns. The meeting and any agreed-upon outcomes will be documented.

Following the meeting, and depending on the severity and persistence of the behavior, additional consequences may include (but are not limited to):

- Restrictions from travel and competition opportunities
- Removal or disqualification from leadership roles
- Disqualification from competition-related responsibilities
- Temporary or permanent removal from the team

Disciplinary decisions will be made by the Head Mentor(s) in consultation with SSPF staff, based on a full review of the incident(s).

- **Expulsion:** If a student engages in egregious behavior—such as placing others in immediate danger, engaging in harmful or inappropriate conduct, or repeated and serious violations of this Handbook—expulsion from the program may be considered. This decision will be made at the discretion of the Head Mentor(s), with approval from SSPF staff, and based on written reports from all involved parties. Expulsion may result from behavior occurring at the STEM Center, during official events, or from conduct outside of the program if it is brought to the attention of mentors or staff and is deemed to conflict with the safety or values of the program. SSPF places the highest priority on maintaining a safe, respectful, and supportive environment for all students and staff.

Competition Section

Kickoff

The following schedule is a guideline and can be modified as needed to fit the given situation.

Kickoff, typically the first or second Saturday of the year, is the most anticipated day of the year for FRC teams since FIRST reveals the season's challenge on Kickoff. Kickoff is the official start of the Build Season throughout the world. For DoF, we strive to have a great Kickoff, including preparing for Kickoff, because it sets the tone for our entire season. Our Kickoff Goal is to have a solid initial Robot "will list" on Sunday evening, the day after Kickoff. Our robot "will list" that we develop on Kickoff Weekend will then evolve, informed by prototyping and discussions, into the Degrees of Freedom Robot "will list" for the year.

The schedule surrounding Kickoff is generally:

- Wednesday before Kickoff
    - Clean and organize our facility. There is typically a well-developed to-do list on a white board at the facility that is also shared on Slack so the entire team is on the same page as to what has to be done before Kickoff to get ready for the season.
- Thursday before Kickoff
    - Clean and organize our facility.
- Friday before Kickoff
    - Super clean and polish our facility, along with making our facility presentable
    - (Optional) Attend or actively run workshops at the Pre-Kickoff event hosted in the evening by AZ FIRST at a location in the valley.
- Kickoff (Saturday)
    - Attend the Regional Kickoff at the designated location. Students may travel with the SSPF van or use pre-approved transportation arranged by a parent or guardian. Return to the SSPF STEM Center and have a working lunch to discuss the rules and the challenge. Mentors, parents, and other volunteers who are building the field, gather to develop a strategy and collect materials for building the field.
    - **"Read the Rules — Know the Rules — Understand the Rules."** Review the rules. Team members, one-by-one in a line at the front of the team, read the rules aloud and we discuss so we all develop a good understanding of each and every rule. This is often where we find rule nuggets … a robot can do this, a robot can't do that, etc. We could break the team into smaller groups if we have a very large team.
    - Review the scoring matrix for the challenge and develop a scoring spreadsheet.
    - Develop Robot Can List
- Sunday after Kickoff
    - Gather as a team in the early afternoon on Sunday.

- Provide the opportunity for any team member who wants to share their thoughts along with what they think, believe, or feel. Although this sharing is mostly robot-centric, it can be about anything to do with our Four Goals. This is often where we hear what the winning strategy will be, what the best autonomous routines in the world will be, and what the Einstein alliances will be doing. By the end of this activity, each team member will have practiced sharing in front of the entire team—helping everyone become more comfortable and confident with public speaking. Discuss the challenge along with updating the Robot Can List.
- Conduct simulations, if possible, of the game play on the playing field with the elements that the mentors, parents, and other volunteers have built. We break into like-minded, strategy-wise groups and develop full-match strategies (a winning strategy along with a “crazy” strategy) with an emphasis on great autonomous modes. The groups then present to the team sometimes using human-powered chairs for robots. This is an engaging way to learn a great deal about different strategies that stimulate our imaginations on how to play the game.
- Develop the Degrees of Freedom robot “will list” that will be refined over the next week being informed by prototyping.

We then enter the next weekday meeting ready to identify the prototypes that we are going to pursue. Individually, this is the time of the year where you need to remember to focus on your priorities, **Health > Family > School/Work > Robotics**, and dedicate ourselves to these four things.

The Robot

"Educate our Students in the Fields of Robotics and Engineering," along with *"Field a Competitive Team,"* are two of our team's four goals, and have been integral to the success and reputation of Degrees of Freedom. Prototyping, designing, manufacturing, integrating, maintaining, and operating our robot is at the heart of accomplishing these goals. To be successful on the field, the Degrees of Freedom lean on our three pillars of competitive success.

The three pillars of competitive success are:

- Robot — "Build a robot that can play the game well!"
- Strategy — "Make a plan to maximize the abilities of our robot and team members!"
- Execution — "Do your job and do your job well!"

It has often been said that if we have 80% Robot, 80% Strategy, and 80% Execution, we can win regional and district events; and if we develop that into 90% Robot, 90% Strategy, and 90% Execution, we can win State and World Championships. Equally important, the robot-building process serves as a platform to educate students in engineering, design, and hands-on problem-solving—ensuring they gain real-world skills while contributing to a competitive and innovative machine.

We must have a really good **Robot**, but it is much more involved than that. We need a really good **Strategy** for the drivers to execute and for the team to select the right partners for eliminations. These decisions are formed using scouting data. Ultimately, we must have really good **Execution** in all areas to be successful on the field. At competitions, we take things "one match at time" to optimize our performance.

Robot Reveal Video

Traditionally, our robot reveal video is released prior to the first official match of the FRC season. Purpose of reveal video:

- Share what we have created with the DoF family along with the FRC community.
- Excite ourselves and our families about the upcoming competition season.
- Provide the team with an Arbitrary Inflexible Deadline (AID), a fixed internal deadline that helps ensure the robot is ready to compete well ahead of the first event.
- Provide drive practice.
- Ensure we clean our facility.
- Provide students the opportunity to film and edit a video.
- Inspire students to participate in robotics and engineering.

The following are guidelines for the reveal video. The reveal video shall:

- The video must reflect DoF's high standards and be directed creatively with team input.
- All media must be royalty-free or properly licensed and approved by SSPF.
- The filming area and robot must be clean and presentable; the film crew ensures this.
- Showcase all subsystems positively; mentors oversee accuracy.
- The video should be fast-paced, match the song's beat, and follow a team-approved shot list.
- No sped-up footage; shots begin with the robot in motion.
- Failures may appear only for comic relief, not showing subsystem errors; director decides.
- Follow all FRC safety rules.
- Backup the final high-res video on the team's Google Drive.

Competition Roles and Responsibilities

Always remember that the top priority at competitions is **sportsmanship** — it is essential and non-negotiable. Success depends on consistent **execution**, which is supported by sportsmanship and sustained through focus, patience, proper nutrition, rest, and team unity. Every team member must perform their role to the best of their ability: the Impact Team must represent the team confidently, the Pit Crew must expertly maintain and repair the robot, the Scouting Team must accurately evaluate other teams to select the best alliance, and the Drive Team must skillfully execute the strategy and operate the robot.

In addition to fulfilling your role to the best of your abilities, remember you are representing not only the current DoF Members but the legacy that the team has built over the last decade, remember to always be professional and practice exceptional sportsmanship.

The following are the competition roles:

Strategy Team

At competitions, the Strategy Team has the responsibilities of collecting match data (scouting), analyzing data to determine strategies for upcoming matches, and generating an alliance pick list. It will consist of scouters, the Strategy Captain, the Strategy Mentor and other students. The basis of scouting is real-time match data on every robot we compete against. This is crucial to the success of our team. We also have a pit scouting group which will go to all the other teams and gather supplemental information on robots. Scouting is used for both match-by-match strategy and alliance selection. Teams are ranked in a pick list at the Friday night scouting meeting. Scouting takes tons of work and preparation, but is very important.

The Strategy Team is in charge of scouting each team, preparing match strategy, and selecting alliance partners. Immediately after each of our matches, the Strategy Captain, Strategy Mentor, and Drive Team meet in a designated location to review the previous match. In addition, they meet before our next match to share the strategy for our next match.

The Strategy Mentor is responsible for helping the scouters in the collection of scouting data and deliverance of match strategy to the Drive Team. They often sit in the stands alongside the scouters at every event and are responsible for being a relief scouter if a student on a scouting rotation must leave during an emergency. They are also responsible for the finalization of the picklist right before alliance selection.

Drive Team

The Drive Team is responsible for the robot during all matches. Before each match, they talk about the upcoming match using scouting data and work with our alliance partners in order to come up with the best strategy to achieve our team goals. The Drive Team consists of the Driver, Auxiliary Driver, Human Player, Operator/Technician, and Drive Coach, and possible backup drivers. All members of the Drive Team are expected to be good communicators, with each other, as well as other teams and embody the DoF Core Values.

Drivers
Our Drivers operate the robot. The drivers can be from any grade, but generally have worked with the Drive Team or Strategy Team in a previous season. Drivers are chosen using a driver selection process. The most important trait for a driver is the ability to perform reliably under stress. The Driver will control the drive train (driving), as well as a few other essential functions. The Auxiliary Driver (Aux) controls basically everything else.

Human Player
The Human Player(s) controls certain field elements that interact with the robot. The human player is usually someone who has previous competition experience and understands match strategy. They can also act as a second drive coach that can talk to other teams and work on match strategy.

Technician
The Technician position is typically filled by whichever student is needed at the field to solve pressing robot issues at the time. This role is usually filled by one of the Chief Engineers or the Backup Driver and can change from match to match.

Drive Coach
The drive coach is the mentor who is responsible for the on-field performance of the alliance during the 2:15 second competition match. They often are coaching our alliance partners during a match as well as our own drivers. In between matches, they review match video with the Drive Team, discuss match strategy with alliance partners, go over match strategy delivered by the Strategy Team, and communicate with the Pit Boss robot performance issues and desired improvements. When not at a competition, they are responsible for training drivers.

Strategic Videographer -This person is outside the Drive Team but is up on deck when the Drive Team is competing. This can be a student or a mentor.

The Strategic Videographer stands fieldside during our matches to record close-up footage of our robot for the Drive Team, Pit Crew, and Strategy Team to review. They use our team's event media pass.

Pit Crew

The Pit Crew performs maintenance and upgrades the robot to get it ready for the matches. Students are chosen for the pit using a Pit Crew Selection Process. At some events, there are pit rotations that allow more students to gain experience working on the pit crew. **The Chief Engineers (students) and Pit Boss (mentor) are always in or near the pit regardless of pit rotations.** To keep the pit area safe and organized, students who are not part of the current pit rotation and have not been invited by a mentor may be kindly asked by the Pit Boss to step outside.

For pit rotations, students will be instructed to write their name on a whiteboard or react to messages in Slack to indicate interest. If you are indicating interest to be in the pit, the expectation is that you will not JUST be outreach and not JUST be pit crew. Those in the pit are expected to know information about the team's outreach efforts and also be able to contribute to the pit environment. Those selected for pit rotations are all expected to be well-rounded representatives of DoF and well versed in the four goals. You will be given training on pit-behavior expectations.

Pit Boss

The Pit Boss is the **mentor** responsible for preparing the robot for matches at a competition. They work very closely with the Chief Engineers to solve robot problems during the very quick turn-arounds between matches. They also create the pit rotation (working with others if necessary) using the Pit Crew Selection Process and help manage the chaotic 10ft X 10ft pit space at competitions. At home, they are responsible for the maintenance and stocking of the pit toolboxes to allow us to perform any repair or upgrade to our robot and work with the Beak Squad team to have parts in the pit to repair any robot at an event. They are also usually responsible for assisting in the packing and unpacking of the team's trailer.

Beak Squad Crew

The Beak Squad is a group of DoF students and mentors that provides support and assistance to other teams in need of parts or fixing their robot. We do this to assure that all teams can participate in the competition and enjoy the experience. This is important as it shows the spirit of Gracious Professionalism and allows all teams to experience all that FRC has to offer. Students participating in Beak Squad must exercise strong tact and Sportsmanship when offering

assistance to other teams and shouldn't impose or press to help teams that do not desire our assistance.

Impact Team

At a competition, the Impact Team is in charge of presenting for the Impact Award and helping with Pit Talking.

There are three Impact Presenters that are selected from the Impact Team by the relevant mentor(s) using the Impact Presenter Selection Process. These Presenters go into the "Impact Room" at competitions and give a presentation and answer questions in a Q&A session for a panel of 2 or 3 FRC judges. These speakers are well-versed on the details and history of our team, and are chosen as ambassadors of our program.

The Impact Team is also responsible for Pit Talking. These students will be near the DoF pit for the sole purpose of talking to anyone who has questions, including judges. This may not seem like a necessary task, but there can be large crowds of people around our pit, wanting to see our robot. This role keeps our pit crew free to work on the robot, and it ensures that our most passionate, trained representatives are talking with spectators, judges, and other teams.

The Impact Lead Mentor is responsible for helping the Impact Presenters prepare for the interview at the event. They also are the only other team members allowed in the interview room with the Presenters and work to take notes and feedback on the Impact presentation. Prior to competitions, they lead the Impact Team in developing the concept for our Impact Presentation and video, select the Impact Presenters using the Impact Presenter Selection Process, and select the Pit Talkers.

Execution is key to our success. At competitions, every role matters, from Scouting to Pit Crew to Drive Team. When each student commits to their responsibilities with focus and energy, we maximize our potential as a team and create an environment where everyone can shine. Consistent execution builds trust, reflects our professionalism, and helps us compete at the highest levels.

To help us maintain this standard, all team members are expected to:

- Arrive on time and be fully present for assigned shifts or rotations
- Stay alert and engaged, whether you're scouting, presenting, or supporting from the stands
- Use phones only when appropriate and avoid distractions during active team responsibilities
- Communicate clearly with mentors and teammates if you need a break or encounter an issue

- Provide accurate and thoughtful input, especially when gathering or recording data
- Support each other in staying focused and accountable

When we all execute at our best, we not only perform better — we grow stronger together as a team.

Travel Requirements

DoF team members are expected to give back to their community by serving at least 50 outreach hours (at team-sanctioned events). This requirement is used to determine eligibility for travel, not whether or not they are allowed to stay on the team. Students are also required to attend at least 70% of meetings during the build season (January-March) in order to travel with the team to out-of-town competitions. These requirements are implemented to ensure that the students who have earned the privilege of traveling with the team have dedicated time towards team improvements.

While traveling, there will be additional procedures, specific to locations and events that students will be required to follow. For out-of-state travel, students are expected to be with a buddy at all times. Travel to competitions is a privilege - not a right. Serious infractions of team rules and competition rules/expectations could likely cause a student to be asked to leave the event. If this happens, the family will be responsible for providing the transportation necessary to get their child back home.

All students are expected to be in their assigned roles, and not leave their assigned task, unless it is approved by the mentor. Students travel as a group with the team to events. Students who are traveling with the team cannot make arrangements on their own, outside of the team.

While at competition, students are expected to be professional, work hard, and exhibit good sportsmanship. Students who are competing with the team are representing Degrees of Freedom, the Si Se Puede Foundation, the team's sponsors, and themselves. Your conduct directly impacts the reputation and legacy of both organizations. Therefore, it is essential to exercise vigilance and uphold the highest standards of behavior at all times to protect and honor that legacy. Our team is proud of our professional appearance and our demeanor during competition. We want to compete in a way that inspires others. When traveling, all of your time, focus, and energy should be on our Four Goals.

You are expected to meet all of the Handbook Expectations along with these specific travel expectations:

- Perform competition roles and responsibilities on schedule.
- Check Slack frequently for team updates and activities.
- Exhibit Gracious Professionalism
- Be SUPER respectful and KIND to volunteers.
- Be VERY respectful of the hotel staff, property, and other hotel guests.
- Students shall not leave the assigned place (competition venue, hotel, team restaurant, etc.) without mentor permission and escort. If you desire to leave the assigned place, request permission from mentors in-person or via Slack. If the mentors do not respond, the desired activity is prohibited. The message must contain the following information.

  - WHO is leaving (It is STRONGLY recommended that 3 or more DoF students be in the group if not leaving with a parent).
  - WHY the group is leaving.
  - WHERE exactly is the group going?
  - WHEN exactly is the group leaving and WHEN does the group expect to return.
  - HOW is the group getting there — walking, with parents, etc.

Upon the return of the group, a message must be sent to announce the group's return in the same direct message that was used for permission.

- Students may not be in hotel rooms other than their assigned room. Exceptions to this expectation will be made for activities such as team scouting, Impact Award practice, strategy sessions, etc. if there is not a common area in the hotel to conduct the activity and mentors must be present.
- Students may be in the hotel hallways or lobby to do school assignments, have some quiet/alone time, do quiet group activities (i.e. play cards), etc. DO NOT DISTURB HOTEL GUESTS.
- Curfew, unless otherwise directed, is 9:30 PM, at which point every student shall be in their assigned room. Lights-out is at 10:00 PM. Once curfew is in place, no student may leave their assigned room for any reason (aside from an emergency or emergency drill) without asking permission from the Head Mentor(s) via Slack.
- Transportation etiquette should be followed — some examples are:
  - Proper hygiene (showered, deodorant, etc.)
  - Be respectful of others space
  - Let people sleep
  - No stinky shoes
- Dress appropriately: refer to Dress Code section

Travel Team Selection Philosophy and Process

DoF occasionally travels outside of the Chandler area to attend competitions. When planning for distant events, the following factors are considered:

- How much school will the students miss?
- How it fits within our local events.
- The competition week.
- Confidence that we can get into the event.
- The travel distance along with whether we would travel by bus or plane.
- The logistics of transporting the robot and pit between back-to-back events (the robot has to be driven to an event even if the team flies).
- Information about the competition, including level, number of teams, and opportunities to connect with friends and new teams.

When determining how many team members are selected for the Travel Team, the following factors are considered:

- Cost (primarily travel and hotel rooms).
- Number of students required and needed at the event.
- Is it the “Spring Break” event?

When determining which students are selected to the Travel Team, the following factors are considered:

- Attitude
- Attendance (have they met the attendance requirements and/or outreach hour requirements)
- Commitment and Criticality (outreach, Four Goals, drive team, Chief-Es, know everything about a subsystem, team captain, etc.)
- Seniority
- Availability
- Student evaluations

For a student who is not selected to the Travel Team due to insufficient funding and desires to attend the event, the following is required:

- The student must communicate with the Head Mentor(s) after the Travel Team is announced that they would like to attend the event and will pay their own way.
- For consideration, the student must be in good standing with the team and meet all minimum travel eligibility requirements applicable to the rest of the travel team.
- The student must actively and fully participate with the team. The student must take on Competition Roles and Responsibilities while at the event but it is understood that Health, Family and School/Work come first. The Core Mentors are responsible for gathering input and selecting the Travel Team for each distant event. The Travel Team should be announced no later than two weeks before the team travels.

Any additional travel and logistics updates, clarifications, additions, or changes to these requirements will be communicated to parents/guardians and students prior to any travel events via email from the Head Mentor(s).

Impact Award

The Impact Award is the most prestigious award in FRC. Degrees of Freedom competes for this award annually at each regional event we attend. Upon winning the Impact Award at a regional event, we then compete at the FRC World Championships against all the other Impact Award winners. We compete with the oral presentation that we developed during the Build Season, which highlights our outreach efforts.

This is how FIRST describes the Impact Award:

The FIRST Impact Award (formerly the Chairman's Award) is the most prestigious award at FIRST; it honors the team that best represents a model for other teams to emulate and best embodies the mission of FIRST. It was created to keep the central focus of FIRST Robotics Competition on the ultimate goal of transforming the culture in ways that will inspire greater levels of respect and honor for science and technology, as well as encouraging more of today's youth to become science and technology leaders.

DoF has earned the Regional Impact (formally Chairman's) Award the following seasons:

- 2019 - Arizona North Regional
  - Team Essay and Executive Summary Questions
  - Team Video
  - Team Presentation
- 2022 - Arizona Valley Regional
  - Team Essay and Executive Summary Questions
  - Team Video
  - Team Presentation
- 2023 - Arizona East Regional
  - Team Essay and Executive Summary Questions
  - Team Video
  - Team Presentation
- 2024 - Arizona East Regional
  - Team Essay and Executive Summary Questions
  - Team Video
  - Team Presentation

The winner of the World Championship Impact Award is honored with admittance into the FIRST Hall of Fame. You can learn more about these role-model teams by visiting the FIRST Hall of Fame website.

Team Support Section

Parent Organization: The Wind Section

The Wind Section is a family-powered organization that works in tandem with the team, providing support through assisting in fundraising, logistical planning, materials purchasing, and of course, cheering at team events. The Wind Section also acts as a bridge between the team and families, helping to organize family support and communicating routinely. Parents and families are vitally important to DoF. We would not be a successful team without the support of our parents. The parents' moral support of their student scholars and the giving of their time and talent to the team is much appreciated! The parents help construct our field elements, provide meals, keep our priorities straight (**Health > Family > School/Work > Robotics**), and SO MUCH MORE! Our Wind Section, made up of only parents or relatives, does a phenomenal job of organizing the parent corps along with logistics and financial coordination for everything we do — planning meals, planning fundraisers, and on and on. Our parents are the BEST!

Sponsors

Sponsors support the team in a variety of ways, including, but not limited to, monetary gifts, equipment and materials donation, manufacturing support, and mentorship. Sponsors will be recognized on the season's competition robot, on our official team shirts, and on our website.

The primary sponsor of Degrees of Freedom is the Si Se Puede Foundation (SSPF), which provides significant support including a dedicated facility and financial assistance. Secondary sponsors also play a vital role in elevating the team. For example, Microchip generously provides space for our annual Robot Reveal event. Other sponsors such as General Motors, Arizona State University (ASU), and Intel employ many of our mentors and allow them to contribute valuable time to supporting Degrees of Freedom and SSPF. Additionally, AZ FIRST plays a key role in facilitating robotics events across the state.

Over the years, we have also received support from NASA, Microchip, Jamba Juice, Goodwill, Boeing, and many families. Along with generous in-kind contributions that support meals and uniforms, our sponsors provide essential funding for registration fees (approximately $15,000), transportation and lodging (approximately $40,000), and materials for robot construction and outreach activities (approximately $10,000). Our sponsors share a commitment to preparing students to address some of the world's most pressing challenges, making their support a valuable investment in the future.

Alumni

Once you are part of the DoF Family, you are always a part of the DoF Family!!! We stand on the shoulders of those who have come before us and we have great thanks for the foundation our alumni have established that enables us to continue building such a great legacy. The alumni often return as mentors, provide us moral support, and are an example to the students of what they can accomplish in the future. DoF Alumni, THANK YOU!

Supplemental Section

Advice For Making the Most of Your Robotics Journey

Note: The following section offers advice and insight to help students get the most out of their experience on the Degrees of Freedom team. While this section is not a list of required rules or policies, students are encouraged to reflect on these ideas as part of their personal and professional growth within the team.

- This team is based on a relationship between mentors and students. It is not purely student driven; it is not purely mentor driven. Mentors and students share the responsibilities, work, and rewards.
- This team does not have a classroom environment. The mentors do not come to each meeting with a lesson plan, the way a classroom teacher does. It is important to understand that most of the things you learn on this team are achieved through experience. To learn, you must commit yourself to showing up nearly all the time and staying engaged.
- Don't be afraid to ask questions, get out of your comfort zone, share your thoughts, or to try new things.
- Don't get overwhelmed; you have the entire team supporting you. An entire robot is a big proposition, but everyone contributes and we take everything one step at a time.
- Don't waste time — anyone else's or your own. There's always lots to do or things to learn to help accomplish our goals.
- Embrace the DoF Family. We spend a lot of time together and your teammates can become some of your closest friends.
- The legacy you leave is up to you. Find the mark you want to make on the team and figure out how you're going to make it happen.
- Pay attention to the details — the details matter a lot.
- Enjoy the team. If you are not enjoying your time on the team, then make a change — the team will support you.
- Learn from the past — stand on the shoulders of those who came before you.
- Be transparent — upfront and honest.
- Patience is key — almost nothing we do here is something that can be accomplished instantaneously.
- You get out as much as you put into the program.
- Being a successful DoF team member begins with the right mindset.
- You need to be engaged, passionate, and excited. The most straightforward way to be engaged is to be at the majority of the meetings and to be productive while you are there.
- Being brand new on a team like this can be scary, but being a hard worker is one of the best traits to have on DoF.

- We strive to have a world-class mentality, which means doing the best you can do. For every action, you should ask “is this my best?”
- The Build Season, especially, is extremely fast paced. Understanding and adapting to this competitive nature can help motivate you to become the best engineer you can be.
- Now is your time to explore. Open up, get out there, make friends, ask tons of questions, and have fun!

Glossary

The following terms are commonly used on the team; the list may grow over time:

- **Adult Use Only: Chop Saw** — A “chop saw”, more officially called a compound miter saw, is a power saw that cuts wood and aluminum stock to length with varying angles. Chop Saws are very powerful, fast, and useful. BUT, if not maintained and operated properly, are VERY dangerous. For example, severe lacerations can result from not securing the material properly or using a saw blade that has a damaged tooth. **Since the saw can be very dangerous, only authorized mentors are allowed to cut with the Chop Saw.**
- **Adult Use Only: Lathe** — A Lathe is a machine tool used to shape materials—typically metal, wood, or plastic—by rotating the workpiece against a cutting tool. The main purpose of a lathe is to remove material to create objects with symmetrical shapes, such as cylinders, cones, or threads. BUT, if not maintained and operated properly, are VERY dangerous. **Since the Lathe can be very dangerous, only authorized mentors are allowed to cut with the Lathe.**
- **AMPS Test** (Alumni, Mentors, Parents, and Students Test) — A litmus test of an action to determine if the action is acceptable or not by pondering, "What if your actions were emailed to the Alumni, Mentors, Parents, and Students, would anyone have major concerns?"
- **Core Mentors** — Those mentors who work directly with students and are at most all of the team meetings, tournaments, and activities.
- **Coopertition** — From the FIRST website: “Coopertition fosters innovation by promoting unqualified kindness and respect in the face of intense competition. At FIRST, Coopertition means that teams help and cooperate with each other, even as they compete. It’s about learning from teammates, teaching others, collaborating with mentors, managing and being managed. Coopertition embodies the spirit of competing while assisting and enabling others whenever possible.”
- **Dean Kamen** — Dean is an engineer and inventor who is the co-founder of FIRST. Dean has invented many medical devices such as the portable insulin pump.
- **Gracious Professionalism** — a term coined by Dr. Woodie Flowers. From the FIRST website: “Gracious Professionalism is part of the ethos of FIRST. It’s a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community. Through Gracious Professionalism, fierce competition and mutual gain coexist. Participants compete intensely while treating each other with respect and empathy. There is no trash talking, nor disingenuous platitudes. Knowledge, competition, and empathy are comfortably blended.”
- **Kickoff** — Kickoff is the Worldwide event held by FIRST to unveil the challenge for the current season along with distributing team kits. The Kickoff is broadcast via the internet

from FIRST Headquarters home in Manchester, New Hampshire with remote locations throughout the World for viewing and kit distribution. DoF gathers at the AZ FIRST location to watch the Kickoff broadcast together as a team and broader AZ FRC community. It is there that we obtain our kit of parts for the season.

- **Parent** — The term “parent” refers to the parent, legal guardian, any person granted some other type of lawful control of a student.
- **Robot Can List** — The list that we develop in the first week of the build season that describes everything that a robot can do to “play the game” for a season’s challenge. Not everything on this list may be on our Robot “will list.”
- **Robot Will List** — The list that we develop in the first week of the build season that are our robot requirements. The requirements are independent of how the robot is going to accomplish the requirements. For example, a requirement would be, “The DoF 2026 robot will move cubes”.
- **Woodie Flowers** — MIT engineering professor and co-founder of FIRST. Woodie created the term “Gracious Professionalism" and the Woodie Flowers award was named in his honor and he was its first recipient. Dr. Woodie Flowers passed away in 2019. A Mobius bearing trophy is awarded to every Woodie Flowers Finalist Award Winner and every Woodie Flowers Award Winner.

Resources

The following Resources may be helpful in your journey as a DoF team member. If you believe there should be a resource included in this section, please propose adding the resource using the DoF Handbook Review Process.

DoF Website: https://dof6413.org/

- Our official website with team information from past seasons.

DoF's Google Drive Folder:

- All students will have access to the FRC Degrees of Freedom Google Drive. If you cannot access the Google Drive Folder, please work with a mentor to obtain access. PLEASE do not share this folder or any of its contents with anyone outside our team. If you desire to share something with someone outside the team, ask on Slack in **#degrees-of-freedom** or by using the Concern Resolution Process.

Chief Delphi: www.chiefdelphi.com

- A forum where FIRST people come to talk about FIRST.

The Blue Alliance: www.thebluealliance.com

- Well-organized data and match scores for all FRC competitions; useful to check during the competition season.

Statbotics: www.statbotics.io

- A site that calculates the Expected Points Added (EPA) metric used when during match strategy and pick list discussions

FRC Website: https://www.firstinspires.org

- FIRST official website.

FRC Blog: www.firstinspires.org/robotics/frc/blog

- Official FIRST Robotics Competition blog, with all sorts of cool info.

FRC Related Scholarships: https://www.firstinspires.org/alumni/scholarships

- Scholarships available to students participating in FIRST.

NASA Robotics Alliance Project FRC Robotics Design Guide: https://robotics.nasa.gov/nasa-rap-robotics-design-guide/

- This Design Guide was originally compiled by alumni Ryan Stockton and Ethan Reed and later adopted and expanded by the NASA House Teams. It has since become a valuable

resource published by the NASA Robotics Alliance Project. All team members are encouraged to read—or at least skim—this guide. It contains a wealth of robotics design knowledge and includes numerous linked resources in its appendices. These materials are highly recommended and can significantly support your growth as a robotics designer.

FAQs

The following Frequently Asked Questions will hopefully help you to garner knowledge about the team. If you believe there should be a question and answer included in this section, please put forth the question to the lead team mentors.

What if I don't like/am not interested in what I'm doing on the team?
Don't ever feel like you are being forced into being on a specific subsystem or group. You can bounce around subsystems until you find what you love. Just make sure to talk to a mentor before you switch. Engineering is not for everyone, and not all types of engineering are for everyone, and that's okay. We need all kinds of people in this world!

What if I need to study/do homework at a meeting?
This is perfectly fine. On our team, we know our priorities are **Health > Family > School/Work > Robotics**. Don't let the excitement and fun of the robotics season distract from your studies. That being said, if you are primarily doing homework or socializing at every meeting, you will not enjoy or benefit from your time on the team. If you need help with time management, ask a friend or veteran. We all want you to succeed.

Will being in robotics affect my grades?
Only if you let it. We have had students graduate as valedictorians, but we have also had students fail classes and become ineligible for travel and competing with the team. If you commit to having good time management and an efficient work ethic, you can meet your academic goals while spending ~20 hours a week on the team.

Twenty hours a week seems like a lot; what if I can't manage it?
It is a lot. Don't worry though, most people feel a bit overwhelmed at the beginning of the season because it is difficult to manage everything. However, as the season progresses, most people are able to find a good balance. Always remember: **Health > Family > School/Work > Robotics**.

Degrees of Freedom Team Handbook Review Process

The ***Degrees of Freedom Team Handbook*** is a living document that guides the team. It is essential that every team member reads, understands, and follows the handbook. If a member believes there is an issue or misguidance in the handbook, they are encouraged to initiate the Concern Resolution Process to address it. The goal is to resolve all handbook concerns before Kickoff, and Slack is often used to facilitate this process.

Shortly after the team is formed in the fall, all members of Degrees of Freedom should carefully review and understand the handbook. Each team member must commit to upholding the ***Degrees of Freedom Team Handbook*** and sign the student contract for each appropriate year before being allowed to attend meetings.

Revision History

Version #	Published Date	Key Changes
0.9	N/A	Initial Draft Version
1.0	8/23/2025	First Published Version

Student and Parent Contract

To accept a position on Degrees of Freedom (FRC Team 6413), both the student and a parent/guardian must sign this contract. *Incomplete or unsigned contracts will not be accepted. Team 6413 reserves the right to contact parent/guardian for any reason.*

By signing below, I, **the student**, agree with the following:

- I have read and understood the current Team Handbook, especially the Student Attendance, Travel Requirements, Student-Student Interaction Policy, and Expectations sections.
- I have read and understood the current STEM Center Health and Safety Handbook (once published - it still may be in development at the time of this Team Handbook's publication).
- I understand that Head Mentor(s), in coordination with the Si Se Puede Foundation, reserve the right to remove me from the team at their discretion for any behavior that violates the policies, expectations, or values of FIRST, the Si Se Puede Foundation, or the Degrees of Freedom team.
- I commit to attending a high percentage of meetings per the attendance policy. I understand the consequences for not meeting this requirement.
- I understand it is my responsibility to check Slack daily and year-round for team communication.
- I will behave in a responsible, mature, and graciously professional manner in person and online.
- I understand that I can bring problems to the attention of the Head Mentor(s) or SSPF CEO to help work it out.
- I understand and accept that participation in team activities—including travel, fabrication, competitions, and other events—involves inherent risks. I voluntarily assume all risks associated with participation and agree to release the Si Se Puede Foundation, Degrees of Freedom team, and all affiliated mentors, staff, and volunteers from any liability for injury, loss, or damage incurred while participating.
- I agree to follow all safety guidelines and instructions provided by mentors and staff while participating in team activities. I understand that failure to comply with safety policies may result in removal from the activity or team.
- I authorize team leaders and designated personnel to seek medical treatment on my behalf in case of emergency during team activities.
- I agree to uphold the team's behavior and conduct expectations at all times, understanding that violations may result in disciplinary action, including removal from the team.

Student Name: _____ Date: _____

Student Signature: _____

By signing below, I, **a parent/guardian** of the student above, agree with the following:

- I have read and understood the current Team Handbook, especially the Student Attendance, Travel Requirements, Student-Student Interaction Policy, and Expectations sections.
- I understand that Head Mentor(s), in coordination with the Si Se Puede Foundation, reserve the right to remove my student from the team at their discretion for any behavior running contrary to FIRST, the Si Se Puede Foundation, and/or team requirements and expectations.
- I understand what is expected of me as a parent/guardian of a team member, especially the DoF priorities of **Health > Family > School/Work > Robotics.**
- I understand my student has committed to attending a high percentage of meetings per the attendance policy. I understand the consequences for not meeting this requirement.
- I understand it is my student's responsibility to check Slack daily and year-round for team communication.
- I understand it is my responsibility to keep my current email address and phone number on file with the team and to check regularly for family-related communication.
- I understand that my student is expected to be respectful, mature, and responsible for themselves, both in person and online.
- I acknowledge that participation in team activities—including fabrication, travel, competitions, and other events—carries inherent risks. I accept these risks on behalf of my student and agree to release the Si Se Puede Foundation, Degrees of Freedom team, mentors, staff, and volunteers from liability for any injury, loss, or damage incurred during participation.
- I authorize team leaders and designated personnel to seek emergency medical treatment for my student if necessary, and I agree to be responsible for any related medical costs.
- I understand that my student must follow all safety rules and the team's behavior and conduct expectations, and that violations may result in disciplinary action, including removal from the team.
- I acknowledge that my student's travel arrangements—whether via team-provided transportation or independently arranged—must be communicated to and approved by the team leadership in advance.
- I consent to my student's image and work being used in team media, promotional materials, and social media, consistent with the team's media policy.

SPECIAL CONSIDERATION:

- I _____ give _____ do not give
  my student permission to use shop equipment (mill, drill press, sander, band saw, etc.) once they have been properly trained and vetted to use such equipment. In all cases, students using electric shop equipment must be supervised by adult mentors. In no case is a student allowed to use the manual router or chop saw (these can only be used by adult mentors).

Parent/Guardian Name: _____ Date: _____

Parent/Guardian Signature: _____