FRC Team 2135
Presentation Invasion

Student Team Handbook

September 15, 2019

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1. FIRST

FIRST (For Inspiration and Recognition of Science and Technology) is a nonprofit organization dedicated to inspire K-12 students to excel in areas of science, technology, engineering, and mathematics in preparation for STEM careers through programs such as FIRST Lego League (FLL), FIRST Technology Challenge (FTC), and FIRST Robotics Competition (FRC). FIRST was founded by Dean Kamen (inventor of the Segway) in 1989 and has since become one of the largest international organizations reaching thousands of students from elementary school through high school. For more information about FIRST, visit http://firstinspires.org.

1.1. FRC - FIRST Robotics Competition

FRC is the original and highest level robotics program in FIRST targeted at high school age students. It is designed to incorporate an annual rigorous engineering challenge with learning valuable life skills such as leadership, collaboration and cooperation, and project management at a professional level. There are over three thousand teams worldwide ranging from only a few students to more than one hundred members who learn from the guidance and support of adult mentors. Over the duration of build season starting in early January, FRC teams prototype, design, build, and program a new robot each year to compete in the annual challenge with other teams from all over the world in a sports-oriented format. For more information about FRC, visit https://www.firstinspires.org/robotics/frc.

1.2. Gracious Professionalism

As part of its mission to emphasize collaboration through rigorous robotics challenges, FIRST promotes Gracious Professionalism as one of its key core values in every level of competition. From the FIRST website:

"With Gracious Professionalism, fierce competition and mutual gain are not separate notions. Gracious professionals learn and compete like crazy, but treat one another with respect and kindness in the process. They avoid treating anyone like losers. No chest thumping tough talk, but no sticky-sweet platitudes either. Knowledge, competition, and empathy are comfortably blended."

2. FRC Team 2135 - Presentation Invasion

FRC Team 2135 - Presentation Invasion is an all-girls team based at Presentation High School in San Jose, California. The team consists of high school students from grades 9-12 who attend Presentation High School with a strong interest in STEM activities and a desire to work together in a competitive team atmosphere.

2.1. Mission Statement

FRC Team 2135 is dedicated to creating a safe and supportive environment for our student members to learn about STEM-related careers while building robots and developing life skills. Through designing, manufacturing and programming robots, FRC Team 2135 is actively involved in shaping the female engineers of tomorrow through inspiration and innovation.

2.2. Team History

Started in 2006 by two sophomores with a passion for robotics, FRC Team 2135 has grown to become a team with more than 30 dedicated student members and has won multiple awards. During the early years, the team worked in classrooms and hallways until moving to the Jenvey House and building a well-equipped machine shop and design workroom. Notable accomplishments and awards:

- 2019 FRC Central Valley Regional - Spirit Award
- 2019 FRC Central Valley Regional - Quarter-finalist
- 2018 FRC Silicon Valley Regional - Semi-finalist
- 2017 FRC Championship Houston - Galileo Division
- 2017 FRC Central Valley Regional - Winner
- 2016 MadTown ThrowDown - WOW Factor Award (pre-season event)
- 2016 Chezy Champs - Winner (pre-season event)
- 2016 FRC Central Valley Regional - Semi-finalist
- 2015 MadTown ThrowDown - Gracious Professionalism Award (pre-season event)
- 2014 MadTown ThrowDown - Spirit Award (pre-season event)
- 2014 Chezy Champs - Finalist (pre-season event)
- 2014 FRC Championship St Louis - Galileo Division
- 2014 FRC Silicon Valley Regional - Semi-finalist
- 2014 FRC Central Valley Regional - Winner
- 2007 FRC Silicon Valley Regional - Rookie Inspiration Award

Over the years, our robots have been named by the team for how they look or function based on the game theme. Starting in 2014, the team has built two robots during build season to allow for more testing and training during the competition season as well as providing another robot at some pre-season events. Names of our most recent robots are:

- 2019 - Nebula / Bebula
- 2018 - Felix / Belix
- 2017 - Crush / Brush
- 2016 - Max / Baymax
- 2015 - Archie / Anarchie
- 2014 - Atlas / Batlas
- 2013 - Steve
- 2012 - Moe

3. Team Organization

Team leadership is conducted through a council of student Technical Directors and Leads and the lead mentor. Leadership meetings are usually held weekly where activities are planned and delegated through consensus-driven decisions. This student Leadership Team is selected from student members who have demonstrated a strong work ethic, invested in learning their technical areas of interest, and worked well with others in a team environment. Other student members work on subteams that address mechanical design, manufacturing, machining, control system and programming, scouting, marketing and publicity.

3.1. Mentors

FRC Team 2135 mentors consist of a group of approximately seven non-student engineers or area experts who volunteer their time to share their knowledge and experience with the student members. The primary responsibility of a mentor is to teach, guide, and help lead the team while working alongside the students as they grow their technical expertise. Mentor experience from industry professionals greatly expands the team knowledgebase and capability.

3.2. Student Leadership Team

Student-led leadership consists of a Leadership Team selected from highly-involved team members that have become technical experts and are also area Technical Leads. These students are selected by mentors to be the decision-making body and lead the team throughout the year. Each Leadership Team member actively directs and is a key contributor to their area subteam of students. All Leadership Team positions require a student to have been a Team Member the previous year and are therefore available to students in grades 10-12.

3.3. Technical Directors and Leads

Technical Leads are expected to organize and run their areas of responsibility. This includes frequently attending meetings, volunteering for new tasks, and communicating openly with mentors and their teammates. All Technical Leads are expected to:

- Attend every robotics competition and all team events.
- Commit to spending more hours at the shop than most student Team Members.
- Earn their position through hard work and dedication to the advancement of the team.
- Communicate with all team leaders, mentors, teammates, and other teams in an appropriate manner whether in person or online.
- Be friendly, approachable and helpful to everyone in the shop.
- Have developed technical expertise and take time to teach skills to others.
- Represent the team in a positive manner at all team events.
- Organize and communicate clearly with their subteam area of expertise.
- Promote “Gracious Professionalism” and “coopertition” by setting a good example at all times.
- Acknowledge every success as a team effort.
- Maturely accept both personal and team mistakes and recognize them as opportunities for learning.
- Uphold and enforce the safety standards at all times both in the shop and during competition.

Technical Directors set and oversee the direction of a specific technical area and work with other directors to make team decisions. Technical Directors may oversee one or more Technical Leads.

3.4. Area Subteams

There are currently six area subteams: Control Systems and Programming, Mechanical Design, Manufacturing/Machining, Scouting, Marketing/PR, and Safety. Each year these subteams are reviewed and new ones may be added. Each of the subteams has representation on the Leadership Team through one or more Technical Leads or Technical Directors. Every subteam is assisted by one or more mentors and is responsible for completing their tasks to keep the team moving forward. Student members may be asked to participate on any of the different subteams when needed to ensure work gets completed. Team success depends entirely on a student's commitment to place the needs of the team first.

In their first year, members will work in the main shop using hand tools, making robot parts, and in assembling robots. Students who are committed and able to develop their experience during this time will have additional opportunities to grow in other areas that requirement more commitments such as the Mechanical Design team or Control Systems/Programming team.

Some subteams are critical dependencies to team success in designing and building a robot during the year. To join these subteams, a student is required to have a minimum level of meeting attendance to be able to actively participate on these subteams. At this time, Mechanical Design and Control Systems/Programming require an attendance of at least 75% of the hours or meetings each week.

3.5. Competition Event Roles

Competition events require additional roles beyond those needed during regular shop meetings. The following roles are chosen by the mentors and Leadership Team shortly before a competition starts:

- Event Coordinators - create signups, create communications, and organize planning
- Scouting Leads - create scouting forms, train team, run scouting team during event
- Media Coordinator - manages media pass and documents the event with photos/video
- Pit Lead - supervises pit work and robot preparedness for each match
- Drive Team - plan strategy, drive and operate the robot
- Safety Captain - reviews and updates the Safety Manual, interacts with event Safety Judges, and educates other teams about 2135 safety culture

Depending on the size and capabilities of the team, assistants and additional roles may be added.

3.6. Leadership Team and Event Role Selection

To be chosen and successful in these roles, there are common characteristics that are required in a candidate for both the Leadership Team and competitive event roles, and all four of the following characteristics are considered in selecting candidates for each position. The Leadership Team also provides input before any decisions are finalized.

1) Commitment to the Team - This focuses on the total number of hours invested and how engaged the student is in the shop. Attendance is not required at every meeting, but students who have larger numbers of hours tend to grow to be stronger candidates and adept in taking on additional responsibility. A large number of logged hours does not solely represent student engagement. It can be demonstrated by a positive attitude in learning and completing tasks that the team needs to get done--particularly when working independently. The mentors recognize overall student engagement much more than attendance.

Candidates for the Leadership Team are expected to attend a minimum of 2 meetings per week in the fall and 3 meetings per week during build season. Strong Leadership Team candidates attend all meetings.

2) Knowledge of the Robot - While hours spent in the shop lead to increased experience and knowledge, all leadership positions are expected to know our robot very well. Scouts need to be able to compare robots from other teams against our robot; the drive team needs to know how to deal with unexpected events on the field; the pit lead must understand our robot thoroughly to prepare before every match.

Candidates for the Leadership Team are expected to understand and be able to explain most subsystems on the robot. Strong Leadership Team candidates also are able to identify problems with those subsystems and be able to repair them.

3) Knowledge of the Rules - Immediately after kickoff, the team dedicates time to ensure the whole team learns and understands the rules. This is not only to enable everyone to participate in design and strategy discussions, but also is vital to being a competitive team at an event. Teams that know the rules get through inspection quicker and get the robot on the field faster. Knowing the rules allows scouts to identify key behaviors of other teams during qualification matches--or even pick up a new strategy from another team that could also be used by our team. And the drive team needs to know the rules to avoid fouls, make the best decisions to maximize points, and even to challenge rulings with the head referee after the match if needed.

Candidates for the Leadership Team are expected to understand large areas of the game manual and be able to ensure our robot complies with the rules. Strong Leadership Team candidates will master the game rules and be able to evaluate competitive strategies necessary for team success.

4) Experience, Skill, and Ability to Handle Situations - There is only one way to gain experience—by participating, but there can be large differences in basic skill levels for new members. Nearly all of the team positions can be taught and practiced, however having previous experience or an assigned role on the team does not guarantee that a student will retain that role in the future. For competitive events and high intensity roles, a person must also be able to handle the required pressure. Being the pit lead can be tough when the robot needs to be in queue and its parts are laying on the floor; driving the robot looks easy until you have a couple of teammates and two other alliances yelling strategy and commands nearby for 150 seconds straight; and scouting to build the perfect "pick list" for a winning alliance is a huge decision-making process that will determine the overall success of the team. A student's ability to communicate and perform well under these situations is a highly valued characteristic and will develop an appropriate amount of *earned* respect.

Candidates for the Leadership Team are expected to treat everyone with respect and accept responsibility for their actions at all times. Strong Leadership Team candidates will also be able to help others during difficult situations and turn them into positive learning and team-building opportunities.

Examples of questions mentors use to evaluate candidates:

- How would the student handle making an occasional wrong decision? Do they take responsibility? Do they find excuses? Do they analyze both good and bad performance to try to do even better?
- How does the student interact with teammates when under pressure? Do they maintain respect? Do they have listening skills--or only talking skills? Can the student be flexible yet state their position?
- How do teammates react to the student when under pressure? How does a student react when their teammates are under pressure?
- Can the student set aside personal opinions/desires to do what is best for team success when the consensus goes against them? Or do they keep a personal agenda?

It is not expected that every student has the perfect personality for each position--since no one person will. These are all growth opportunities for the students. However, the goal is to ensure students are not placed in positions they are not ready to grow into--for their own benefit and the team--so the entire team will be challenged, have fun, and do well.

To summarize, ALL FOUR of these characteristics are considered in varying degrees. Selection is based on merit, technical expertise, personal initiative (to learn rules, etc.), and also minimal skill level that can be built upon.

4. Membership Status

Anyone within grades 9-12 at Presentation High School is eligible to join the team as a student member. No prior experience is required to become a member, and incoming members range from having no prior experience to having participated on previous robotics teams. The team supports both a casual and a more dedicated participation by having three levels of student membership: Club Member, Team Member, and Traveling Team Member.

All membership levels require payment of the annual activity fee prior to the due date at the beginning of the year. If a student joins the team after this date, the activity fee is due no later than two weeks after the first meeting they attend. The annual activity fee covers some of the cost of team t-shirts, suspenders (in the first year), safety glasses, team lunches on weekends, and materials used in the shop each year to build the robots. Activity fees do not cover lodging or travel expenses beyond use of the school vans to drive to nearby events.

4.1. Club Members

Club Members attend approximately 0-1 meetings per week and have paid the activity fee. They may qualify to go to local competitions, but do not meet the requirement to be on the Traveling Team or receive transcript credit. A student's Fall semester participation level will determine eligibility to sign up for Spring semester transcript credit.

4.2. Team Members

Team Members attend 2-3 meetings per week, and are more heavily involved during build season. These members meet the eligibility requirements to be selected for the Traveling Team and to sign up to receive transcript credit. All Leadership Team and Technical Directors and Leads must maintain Team Member status at all times in order to be able to fully participate in team decision making activities. Students selected for event-specific responsibilities such as Drive Team or Pit Lead at competitions are required to be Team Members.

Team Members have the opportunity to signup and earn transcript credit for the spring semester for hours invested in the shop and at competitions. To qualify for transcript credit, students must sign up at the beginning of the semester and complete a designated number of hours for a pass/no-pass grade and 2 credits. See Transcript Credit Requirements near the end of this handbook for more information.

Achieving Team Member status does not carry over for any time period beyond the attendance time period mentioned below--including for the following year. Current attendance within the last 4 weeks is always used to determine membership status and failure to meet all Team Member requirements will result in the student having Club Member status.

Pre-season (Aug-Dec): Failure to maintain at least 5 logged shop hours per week over the previous 4 weeks will result in a Team Member becoming a Club Member.

Build/Competition season (Jan-Apr): Failure to maintain at least 10 logged shop hours per week over the previous 4 weeks will result in a Team Member becoming a Club Member.

4.3. Traveling Team Members

The Traveling Team is selected by the mentors from the Team Members who have paid all fees and returned completed parent permission forms to allow travel to competition events outside of the San Jose area. Not all eligible Team Members may be selected for the Traveling Team for an event depending on the number of students that can be supervised on that trip. The Leadership Team and Technical Directors and Leads always meet the requirements to be selected for the Traveling Team. Other Team Members selected to join the traveling team will be notified approximately two weeks in advance to allow for schedule planning.

If open spots on the Traveling Team are available after all eligible Team Members have been selected, Club Members *may* be given an opportunity to attend on a waitlist basis.

The Traveling Team will be re-evaluated and reselected for every event. Being selected for one event does not automatically qualify that Team Member for re-selection to the Traveling Team at a later event. Meeting attendance, work ethic and teamwork in the shop are all used to select the Traveling Team roster.

5. Student Expectations

All student members are expected to be helpful, friendly, responsible, and professional at all times in the shop, at team events, when traveling with the team and interacting with other students, mentors, and parents. Expectations for student members of FRC Team 2135 include those in the Presentation High School Student Handbook. Additional team expectations are described within this handbook. Students shall:

- Communicate clearly and respectfully with all student members
- Ask questions when needed
- Be gracious and respectful
- Have a positive attitude
- Take initiative to start tasks and participate when asked/needed to
- Stay focused on completing tasks
- Operate tools and behave safely
- Maintain a positive image of the team
- Obey team rules and take direction from team leadership

Student members must remember they are representing FRC Team 2135, Presentation High School, FIRST, team sponsors, and our community. Treat everyone with utmost respect, kindness, and gracious professionalism. Student members' behavior reflects upon the entire team, not just themselves. Not only words, but also expressions and body language can all bring unwanted negativity and cause bad impressions.

5.1. Collaboration and Cooperation

Students are expected to work together with all other members to further the goals of the team. This includes creating a welcoming and inclusive work environment for new members. Actions that are divisive, non-collaborative, bullying or harassing will not be tolerated under any circumstances. At events, students are expected to make every effort to sit together as a team and discouraged from separating into smaller groups away from the team.

Event and team meeting activities are planned and directed by the Leadership Team, and all student members are expected to cooperate with them and all Technical Directors and Leads with an appropriate level of respect that they have earned.

When sessions are being directed by students to perform training or tool certification, participating students are expected to be *attentive* and assist in keeping the instruction on topic--not helping it to drift off to non-relevant topics or turn into a social conversation.

5.2. Physical Behavior

All students are expected to respect the personal space of other members and act professionally. The team frequently works in close quarters with limited access to the robot, tools, chairs in the Jenvey House, room in the pits, or seats in the stands. Sharing chairs, leaning/hanging on other members, whether invited or uninvited is never acceptable around the shop or at events. PDAs are not appropriate at any time between members of our team or other teams, and respect for personal space of all members should always be maintained.

5.3. Academic Requirements

All student members are required to meet academic expectations and must maintain a 2.0 collective GPA or higher in all subjects. Failing to meet these academic expectations, members may be asked to take a break from the team and return once their grades have met the requirement.

5.4. Online Communication and Behavior

FRC Team 2135 communicates with mentors, leadership, and student members through team group emails for sign-ups, team events, build updates and meeting notes. All members must read emails daily and respond promptly. The official team emails are the following:

Mentors:	frc-2135-mentors@googlegroups.com
Leadership:	frc-2135-leadership@googlegroups.com
Members:	frc-2135-students@googlegroups.com
Marketing/PR:	frc-2135-prmarketing@googlegroups.com
Parents:	frc-2135-parents@googlegroups.com

Note that the first three email groups are hierarchically inclusive. While the mentor group only includes mentors, the leadership group also includes mentors, and the student group includes both mentors and leadership.

Student members have the ability to edit, modify and add documents in the "Team Docs" shared Google Drive folder accessible using their school email credentials. When adding documents, follow the existing organization of folders and documents and use the guideline of prefixing the document name with "YYYY-MM-DD" with the title name afterward. When posting new photos or video captured at events, add these files to the "Media" folder in folder named for that event but maintain the original filenames.

There are official and unofficial methods of communication with other FIRST mentors and students such as Chief Delphi, FIRST Forums and direct email. If and when members utilize these services, they are expected to professionally represent the team through proper etiquette and respectful language. Any action taken online reflects the whole team, so always be respectful and courteous to other teams and opposing opinions.

The team maintains a Technology Usage Guideline document that describes more details about computer usage, Google Drive usage, team website, Instagram account, etc. All student members are expected to read and follow the usage guidelines at all times.

5.5. Dress Code Requirements

Students are expected to abide by the dress codes whether in the shop, at competition or at outreach events. It is crucial in order to both ensure safety and maintain a consistent team image at all the events. Failure to do so demonstrates a lack of commitment to the team and respect for other student members and may result in the loss of eligibility to participate in team activities and events.

The basic elements of the full team uniform are long pants (non-ripped jeans, khakis, thick joggers), closed-toe shoes, a team uniform t-shirt, and team uniform yellow suspenders. Yellow suspenders are given to student members in the first year they register and pay activity fees. One team t-shirt of each

design for the current school year are included in the annual activity fee. Students may purchase the team sweatshirt and shirts from previous seasons at team meetings. All sweatshirts and legacy teamwear is sold approximately at the original cost to the team.

The team maintains a Safety Manual which details the team safety rules and these must be followed at all times. The topics below are a summary of the safety rules in the Safety Manual.

5.5.1. Shop Dress Code

During weekly shop sessions, student members are not required to wear the full team uniform, but the standard level of safety attire must be worn. This consists of wearing long pants, closed toed shoes and a shirt that covers upper torso and shoulders entirely. Hair length at or below the neck or that falls into eyes must be tied in a ponytail or bun which is above their shoulders. Safety eyewear must be worn in the machine shop at all times. Some longer length hair may require being tied back more than once to stay above shoulder level. Dangling jewelry, strings or ties are not allowed at any time.

In the case that a photoshoot is scheduled, all team members attending the meeting are required to wear FRC Team 2135 apparel. The team will be notified in advance of any photoshoot dates and the selected team t-shirt to wear.

From the last school day of Spring Semester through the first school day of Fall semester the requirement for long pants during weekly sessions is relaxed to allow capris or walking shorts due to the warmer temperatures. All other safety requirements remain the same.

5.5.2. Competition Event Dress Code

During competition, members are required to wear the full team uniform including the team t-shirt designated by the Leadership Team and yellow suspenders. These two elements are the foundation of the team identity and must be worn appropriately during the event. FRC Team 2135 is well known for our navy blue t-shirts and yellow suspenders. Dangling suspenders are not allowed: this is not only a safety hazard but also represent the team poorly in photos and videos. Members may also wear the team sweatshirt during cooler weather, but not as a replacement or cover up for the t-shirt and suspenders. For cooler events, a long sleeve shirt layered under a visible team t-shirt and suspenders should be used to present a more professional look and display the team brand properly.

The safety requirements for pants and hair ties are identical to that required in the shop dress code with the additional need to wear safety glasses anywhere in the pit areas or near the field of play. At FIRST events, the entire team is judged on its Safety Manual and safe practices by Safety Judges and other teams.

5.5.3. Outreach Dress Code

At Outreach and publicity events, members are required to wear the full team uniform including the t-shirt designated by the Leadership Team. The requirement for suspenders during these events may be removed only if specified by email for that specific event. Members may also wear the team sweatshirt during cooler weather, but not as a replacement or cover up for the t-shirt and suspenders. For cooler events, a long sleeve shirt layered under a visible team t-shirt and suspenders should be used to present a more professional look and display the team brand properly.

Safety attire is identical to that required in the shop dress code during Outreach events and must be worn at all times when working within 20 feet of the robot or its intended operating area such as when launching game pieces.

5.6. Safety Manual

FRC Team 2135 has a Team Safety Manual as required by FIRST. All student members are expected to read and understand all rules within the Safety Manual during their first few weeks on the team each new school year.

FIRST competition events have judged awards for team safety, and the Safety Manual is submitted as part of the process.

5.7. Technology Usage Guidelines

FRC Team 2135 has created a Team Technology Usage Guideline document. All team members are expected to read, understand and follow all guidelines within the document during their first few weeks on the team each new school year.

5.8. Transcript Credit Eligibility and Requirements

Team Members are eligible at the beginning of the Spring semester to sign up to receive transcript credit for their hours spent after January 1st and up until the last school day before Spring finals. Fall semester hours in the shop are not eligible.

The current requirement for receiving 2 hours of credit with a pass/no-pass grade is:

- Sign up for transcript credit at the beginning of the semester prior to the final deadline (approximately the third week of January)
- Spend a minimum of 65 logged hours in the shop between the eligible calendar dates
- Logged hours at competition events are capped at a maximum of 2 hours per day regardless of actual time spent at the event (6-8 hours per event)
- This is treated just like any other class on the curriculum--failure to reach the minimum number of hours will result in a no-pass grade for the semester

5.9. Senior Banners

Team members who are in their senior year may be eligible to receive a photo banner that is displayed in the school hallways during the competition season. In order to be eligible for a senior banner, the senior must maintain Team Member status during the entire Fall semester and through the decision date in January when senior banners will be purchased. Failure to maintain this level of commitment may result in not receiving a senior banner.

5.10. Senior Awards

Team members who are in their senior year may be eligible to receive one of two Robotics program awards at the Awards Assembly in May. The two awards are:

- Excellence in Robotics
  - The recipient of this award actively works in shaping the female leaders of tomorrow through inspiration and innovation. She is a dedicated member who utilizes her

knowledge to improve both the team and also the community by volunteering at STEM-based institutions. By guiding her teammates, she is committed to helping them become well-versed in the various aspects of robotics.
    - This award will be decided by the Robotics Program Director with input from the other mentors.

- Exceptional Robotics Member
    - The recipient of this award puts in relentless effort and time into improving the robotics program. She uses her expertise to educate and train other students to develop skills in order to think more critically to solve challenges. When faced with hardships, she always puts an optimistic attitude forward and promotes a positive team culture. She is consistently respectful towards others and represents the team professionally at all events.
    - This award will be team nominated. The idea is for current members of any grade level to nominate a senior who they directly work with and describe how they have impacted them (via Google Form). Seniors are allowed to self-nominate. The Robotics Program Director will review the responses, with input from the other mentors, and make the final decision.
    - In the event of no nominations, the Robotics Program Director, with the input of the other mentors, will make the final decision.

6. Robotics Shop Expectations

The Presentation High School Robotics Shop used by FRC Team 2135 is located directly across from Presentation High School on the corner at 1547 Jenvey Avenue. The Jenvey House Shop is a meeting workspace provided by Presentation for the equipment, materials, and workspace required by the team. The Shop has a fully equipped machine shop with a CNC mill, NC lathe, CNC table router, bandsaw, and various hand tools. In addition, parts storage, a programming/assembly room with desktop computers, and a design room containing CAD workstations are available to the students. All students are expected to maintain team safety standards and respect the Jenvey House property provided to the team.

6.1. Safety Basics

Safety is always the highest priority. The Jenvey House Shop is a place for learning and team building, and in order to achieve that goal, the requirement to use safe practices is heavily enforced. When these safety rules are broken, members may be asked to leave for the day if not dressed in the proper attire or if engaging in inappropriate behavior. Basic rules in the shop are:

- No cell phones
- No horseplay
- No running
- No yelling
- Safe and appropriate attire as listed in safety manual

6.2. Media Usage

One of the main rules in the shop is no cell phones for both safety and privacy of shop activities. FRC Team 2135 takes inappropriate cell phone behavior very seriously, and the activities in the shop are not to be shared by individual student members. Posting videos or photos on personal Snapchat, Instagram, Facebook, Twitter, or any other social media for any reason during the year are not allowed. Student members should recognize the difference between the responsibility of the Marketing and PR subteam in documenting team activities through media and their own individual personal social media use. Team confidentiality is an important practice for all members to maintain privacy. Team confidentiality includes not disclosing any information on team strategy or decisions made about building a new robot each build season.

6.3. Preparedness

Students are expected to arrive, sign in, and immediately be ready to participate in the planned activities of the day. Once signed in, students should not be working on homework or other non-robotics related activities. Students are expected to make good personal choices to finish homework and/or have extended social time outside of robotics meetings and the Jenvey House shop area. This includes planning for any necessary meals or snacks outside meeting times for after school meetings unless medically necessary, since these sessions are short.

Weekend meetings that extend through lunch will include a team-provided lunch. In order to ensure the student will receive a lunch, students must either be in the shop or email the designated mentor by 11 am that day to request that lunch be ordered for them. While the team will attempt to accommodate dietary restrictions, the student must clearly inform the mentor of exact nature of these restrictions. Extreme dietary restrictions may be better served by students bringing their own food for lunch.

6.4. Jenvey House Neighborhood Activities

The Jenvey House is located in a residential neighborhood across from Presentation High School. Activities in the Jenvey House affect the entire neighborhood and the team works very hard to be a good neighbor. Shop tools such as the CNC table router and CNC mill can be loud and very noticeable by the neighbors. The Jenvey House will not be scheduled for use by the team after 8PM on any weeknight or 6pm on weekends, and weekend meetings will start no earlier than 10AM to keep noise down outside of these hours. In addition, all team members are expected to be picked up and dropped off in the school lot or in front of the school on Plummer Avenue and never to interact with any of the neighbors or their pets at any time. If students are able to drive themselves to robotics, they must park in the school lot to minimize parking congestion and traffic.

During normal hours the team should always make an effort to do most activities inside the Jenvey House or backyard. Activities performed in front of the house should be done with respect for any parked vehicles and minimize unnecessary noise in completing the work.

Due to the location of the Jenvey House in a residential neighborhood, students are expected to have their parents pick up/drop off in front of the school on Plummer Avenue to reduce traffic and congestion in front of the house. This includes weekday and weekend meetings and is especially true if the team is returning to the house after 7PM. It is critical that there be no exceptions to this rule as it reflects upon the entire school.

7. Team Meetings and Events

Student members may choose to attend as many meetings as they can fit in their schedules. The more they can attend, the more they learn and get out of the program. The goal of every student should be to attend as many meetings as possible to keep up with team updates and contribute to the team. It is recommended that students should plan their schedules carefully ahead of time to complete both their personal and team goals.

7.1. Meeting Schedule

Fall Semester: Veteran students and mentors build up the team's shop skills through a tool certification process and robot know-how to compete in pre-season competitions that use the robot from the prior year's challenge. Meetings are typically Mondays and Thursdays after school (3:30 PM - 6:00 PM) and on Saturdays (10:00 AM - 4:00 PM).

Winter/Spring Semester: In early January, the new challenge is announced by FIRST and the six-week build season starts--followed by the six-week competition season. Meetings are five days per week during build season usually held on Tuesdays, Wednesdays, and Thursdays after school (3:30 PM - 7:00 PM) and Saturdays and Sundays (10:00 AM - 6:00 PM). After Stop Build day in late February, meetings adjust back to 3 days per week similar to the Fall schedule. Note that FIRST will be retiring its Stop Build day but the team plans to maintain this deadline as part of its project plan. The team usually competes at two FRC Regional competitions within California during March and April.

Summer: In the beginning of June, after Spring finals, the team holds some Saturday meetings to prepare for the next year. It is an opportunity for the team to wrap up the season and prepare for new students and the beginning of the pre-season in the Fall. These meetings are held on selected Saturdays from 10AM - 3PM.

7.2. FRC Kickoff

All student members are expected to attend the FRC Kickoff in early January. This is the event where the new game challenge is presented by FIRST headquarters to all teams to begin build season. The team immediately breaks down the rules and forms strategies for the robot to compete with. Prototypes are constructed and the design process begins in earnest. Failure to participate in this early activity places those student members at a significant disadvantage and burdens other team members with the responsibility to bring them up to speed.

7.3. Team Recruiting and Community Events

Members of the team are expected to participate in recruiting and community events throughout the year. Some events require more students to staff than others, but all members are expected to share in this responsibility during the year. Recruiting and community events include but are not limited to:

- PHS Back to School Night - August
- PHS Club Day - August
- FRC Team 2135 Open Shop - September
- PHS Open House - October/November
- PHS Freshman BBQ - May
- Outreach events
- Social events with other teams

8. Team Competition Events

Team Members may have the opportunity to travel and/or go to local FRC competition events as part of the team. Local competitions within the San Jose area open to all members and require personal transportation by the student or their parents. Out of area competitions where the team must travel and stay overnight are available to those members who qualify and are selected to be part of the Traveling Team. Transportation for out of area events will be provided for events within driving range, but a fee is required in order to pay for overnight lodging that is shared among the student members. Student members are always required to bring enough cash to pay for their own meals during the entire trip. If the school vans and mentor vehicles are insufficient to carry all students to an out of area competition, parent volunteers may be asked to drive and carry more students to the event.

8.1. Major Competitions

Fall Semester/Off Season: Student members participate in pre-season events where they play the game from the previous season and expose new student members to FRC events in preparation for the upcoming competition season regional events. Typically, the team attends 2-3 pre-season events such as:

- Chezy Champs at Bellarmine College Preparatory in San Jose, California - September
- Capital City Classic in Sacramento, California - October
- Madtown ThrowDown in Madera, California - November

Spring Semester/Competition Season: Student members participate in FIRST regional competition events, which have the opportunity to qualify the team for FRC World Championships in April. The team attends 2 regional events and, if qualified, the FRC championship in Houston, Texas. Regionals attended in the past include:

- Central Valley Regional (CVR) in Madera, California - early March
- Sacramento Regional (SacReg) in Davis, California - mid March
- Arizona North Regional (ANR) in Flagstaff, Arizona - early March
- Silicon Valley Regional (SVR) in San Jose, California - late March

8.2. Student Expectations

When attending competitions, all members are expected to abide by the following rules to maintain the team image and ensure safety.

Team Rules at Event Venue:

- Stay with the group and do not wander off on your own. If you need to briefly leave the group area, be sure to inform a mentor and take another student member. Do not leave the venue without informing and receiving approval from a mentor or unless doing so with the entire group.
- Be on your best behaviour as a representative of our team and our school. Be polite, considerate to teammates, other teams, and your roommates. Use “inside” voices in `restaurants, hotels, competition areas. No running, yelling, hanging on each other or other inappropriate behavior and follow all the rules specified in the Team Handbook and Safety Manual.

- Before the competition, members will be assigned roles such as Drive Team, Pit Lead, Head Scout, Safety Captain, Pit Crew, and Scouts. Members must stay in their assigned roles unless told otherwise by a mentor or one of the Technical Leads. This is essential to functioning smoothly in competition.
- In addition, students should not engage in completing other assignments including and not limited to school work, excessive social media, or disturbing those around them at the event. However, students are encouraged to cheer *appropriately*, interact with other teams and learn about other team's robots. When cheering, screaming tends to be annoying to other spectators and is strongly discouraged.

Team Rules In the Hotel Rooms:

- Roommates will be assigned by mentors. Room assignments are not to be changed by the students. Be considerate of your roommates. Don't grab the best spots for your stuff. Share the room nicely.
- It is highly recommended that roommates plan ahead for the morning get-ready bathroom schedule so everyone can be ready on time. This will help ensure that students are down for breakfast on time and ready to leave for the competition each morning.
- It is expected that students navigate the hotel and reside in their rooms with quiet voices, quiet walking, no loud TV or music; do not disturb the people in the room around you or anywhere else in the hotel.
- If you are hoping to get to sleep early, plan to bring an eyeshades and earplugs especially if you cannot sleep when there is light or noise. It is a *shared* space.
- DO NOT leave your rooms after the evening room-check. This is to ensure all students are safe and accounted for. If there is an emergency and it requires you to leave your room, notify a mentor immediately.

If students fail to abide by the rules, students may or may not receive an initial warning before more serious action is taken--depending on the severity of the infraction. Serious infractions or continued failure to follow the rules will result in an immediate call to parents to retrieve the student from the event. This may affect that student's future eligibility to travel, attend competitions, or even result in a dismissal from the team depending on the severity.

9. Outreach and Volunteer Work

Outreach is an essential aspect of our team in order to promote both the Presentation High School motto of "Not Words, but Deeds," and STEM to the community. Team members are expected to attend and participate in outreach events and volunteer at FIRST events. Some of the outreach events Team 2135 participates in includes the following: Toys 4 Tots, Sunday Friends STEM Fair and volunteering at other events and competitions. All members of the team are expected to actively fulfill at least 8 hours of STEM related community service outside of team activities over the course of each school year.

10. Fundraising

FRC Team 2135 is sponsored primarily by Presentation High School and supplemented with major corporate sponsors, local businesses, families, and in-kind donors. Funds required to run the team are significant and the team is expected to participate in fundraising to help offset the costs of running the team. Some of the fundraising that team participates in includes the following: corporate seminars and events, identifying grant opportunities, restaurant profit-sharing nights, and running in-school events such as bake sales. All team members are expected to attend and participate in fundraising activities including bringing materials, supplies, food, or customers as needed.

11. Team Supporters and Visitors

FRC Team 2135 relies on parents, friends, and volunteers for our success. Student members are expected to encourage our supporters to assist when needed, to attend competitions and cheer, and help the team promote FIRST awareness in the community.

11.1. Parents

Parents have an important role in our team and are vital to our success, and the team welcomes their support and help. There are many opportunities available for parents to help the team, and they are communicated through the team parent email group. These have included helping to build game pieces or providing team lunches. Parents can also be involved with the team by providing transportation for local events or simply dropping their child off at every meeting. Parent support in all aspects of the team is a key factor in the motivation and success of their child.

Parents are expected to provide at least one valid email address for the team parent email group to facilitate communications about the team activities.

Due to the location of the Jenvey House in a residential neighborhood, parents are requested to pick up/drop off students in the school lot or in front of the school on Plummer Avenue and never across the street of the Jenvey House in order to reduce traffic and congestion in front of the house. This includes weekday and weekend meetings and is especially true if the team is returning to the house after 7PM. It is critical that there be no exceptions to this rule as it reflects upon the entire school.

11.2. Guest Expectations

All guests that attend events or competitions are expected to maintain a respectful behavior at all times and shall not engage in any disrespectful behavior towards other members of the team or other FRC members. As a supporter of FRC Team 2135, they also represent the team and form part of its image. Guests are expected to understand and respect the environment they are in. This includes wearing proper safety attire such as long pants and safety glasses, and having an encouraging attitude, and they will be asked to stop or leave by a Technical Director or Lead or a mentor if they fail to meet these expectations.

12. Contact Information Summary

Team Technical Directors and Leads

frc-2135-leadership@gmail.com

Control Sys/Programming Director - Rithu Paramesh
Control Sys/Programming Lead - Nitya Girase

Mech Design Director - Kiana Layam
Mech Design Leads - Anagha Sikha, Jadelynn Dao, Grace Nguyen

Marketing/PR Director - Sarah Ungerer
Marketing Lead - Sowmya Shankar

Safety Director/Mech Design Lead - Zara Shariff
Safety/Mechanical Design Lead - Neha Rachapudi

Manufacturing Director - Anika Adulla
Manufacturing Leads - Niki Modi, Isabella Correa

Scouting Director - Pallavi Saksena

Team Email Groups

Mentors:	frc-2135-mentors@googlegroups.com (open)
Leadership:	frc-2135-leadership@googlegroups.com (open)
Marketing/PR:	frc-2135-prmarketing@googlegroups.com (open)
Members:	frc-2135-students@googlegroups.com (closed)
Parents:	frc-2135-parents@googlegroups.com (closed)
Alumni:	frc-2135-alumni@googlegroups.com (closed)

Team Slack Workspace

Channel name: frc2135.slack.com

Team Mentors

Jeff Mullins
jmullins@presentationhs.org
robotics@presentationhs.org
Ramesh Adulla
Allen Baker
Brian Fox
Timothy Goodman
George Mao
April Mullins
Jeanne Mullins
David Simpson

13. Student/Parent Contract

Student leadership and mentors have the authority to modify or change any part of this handbook. If modified, students will receive an email notification of any change.

The annual robotics team Activity Fee is: $125.00
Check payable to Presentation High School with Memo: Robotics Activity Fee

Please sign below to confirm ALL of the following:
(1) the team handbook has been read and understood,
(2) student and parent will follow the team rules and expectations given, and
(3) permission is granted to use student photos in team promotional materials

_____ _____
Student Signature Date

_____
Student Printed Name

_____
Student Cell Phone Number

_____ _____
Parent Signature Parent Signature

_____ _____
Parent Printed Name Parent Printed Name

_____ _____
Parent Email Parent Email

_____ _____ _____ _____
Parent Phone Number Date Parent Phone Number Date

Y N Add to parent email group (circle one) Y N Add to parent email group (circle one)