# FIRST Robotics Competition (FRC) Team 2992 The S.S. Prometheus



Team Handbook 2024-2025

# Table of Contents

## **Section 1: Introduction**

To new members, welcome to Team 2992! We are so excited to see what you bring to this team. If you are worried about not knowing anything about robots, DON'T BE! We will teach you all you need to know. Every person brings something new and interesting to a team like 2992. We encourage you to speak up and offer opinions; they are just as valid as those of the four-year seniors! We cannot wait to see what this new year brings!

To returning members, welcome back! We can't wait to start another great season with you! Now that you've got some experience on the team and with FIRST, we challenge you to reach out and pass on knowledge that you have acquired in your time on the team. This is vital to our continued existence. We also challenge you to branch out and try something new! Learn a new skill or become an expert in a subject you know only a little about. This team thrives on self-motivation.

# Section 2: About Team 2992

We are FIRST Robotics Competition (FRC) Team 2992, The S.S. Prometheus based out of Mandeville High School.

## Section 2.1: Vision

Team 2992 strives to educate and inspire the next generation of STEM and business professionals and spread interest in STEM to our entire community through outreach and gracious competition.

## Section 2.2: Mission

Team 2992 pursues our vision by creating a fun environment for peers to learn, meet new people, share ideas, and work for self-betterment while learning to overcome and enjoy challenges.

## Section 2.3: History

In 2008, Mandeville High School founded a competitive robotics team, started by a former member of Team 1477 Texas Torque. In our rookie season, 2009, we successfully qualified for the FRC Championships.

Our original team name was Prometheus, donning orange and white colors. Since Mandeville High is the home of the Skippers, the school requested we alter our theme, leading to the creation of the name we bear today: The S.S. Prometheus. Our team's success has grown with the addition of new members, mentors, and sponsors. Over the years, we have gained new experiences and have found new ways to overcome challenges even in the toughest of seasons. In the 2015-2016 season, we partnered with the City of Mandeville, who graciously agreed to lend us space in the Public Works Building for a shop. The new location stimulated the team's growth in the mechanical field. This has enhanced our ability to give back to the community.

Every season is a unique and vital portion of our history. Our continued dedicationWe're looking forward to yet another exciting year!

#### Section 3: About FIRST and FRC

FIRST, or For Inspiration and Recognition of Science and Technology, is a global nonprofit organization to further interest in STEM (Science, Technology, Engineering, and Math) in youth. But of course, no one explains it more accurately than the organization itself:

"The mission of FIRST is to inspire young people to be science and technology leaders and innovators, by engaging them in exciting Mentor-based programs that build science, engineering, and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership."

FIRST Robotics Competition (FRC) includes nearly 92,000 student participants in over 3,600 teams in 27 different countries, not to mention the 25,000+ mentors and adult supporters, all coming together to further interest in engineering on an international scale. Dubbed the "Varsity Sport for the Mind,"<sup>™</sup> FRC combines the excitement and team mentality often associated with athletics to the mental rigors of science and technology. Participants are given a meager six weeks to design, prototype, build, program, and become comfortable driving a robot to compete in an alliance-based competition. During those six weeks, teams are also pressed to submit award applications for endeavors ranging from outreach to marketing.

FRC is a year-round program that operates under the same principles of a small business, with departments for robot design and manufacturing,fundraising, community outreach, and media. No team can function without engineers, writers, entrepreneurs, graphic designers, and others. Anyone and everyone can find a place on an FRC team.

FIRST has also coined two terms as a part of their philosophy: *Gracious Professionalism* and Coopertition®. Our team, like all FIRST Robotics teams, has adopted and fosters these philosophies in our members.

*"Gracious Professionalism* is a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community. 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. Knowledge, competition, and empathy are comfortably blended. In the long run, *Gracious Professionalism* is part of pursuing a meaningful life. One can add to society and enjoy the satisfaction of knowing one has acted with integrity and sensitivity.

*Coopertition*® produces innovation. At *FIRST*, *Coopertition* is displaying unqualified kindness and respect in the face of fierce competition. *Coopertition* is founded on the concept and a philosophy that teams can and should help and cooperate with each other even as they compete. *Coopertition* involves learning from teammates. It is teaching teammates. It is learning from Mentors. And it is managing and being managed. *Coopertition* means competing always, but assisting and enabling others when you can."

Year	Event	Award
2009	Bayou Regional	Quarterfinalist, Highest Rookie Seed, Rookie All Star
	World Championship	Curie Division
2010	Bayou Regional	Winner, Imagery Award
	World Championship	Curie Division
2011	Bayou Regional	Quarterfinalist, Imagery Award
2012	Bayou Regional	Finalists, Industrial Design Award
2013	Bayou Regional	Quarterfinalist, Judges Award
2014	Rock City Regional	Finalist, Gracious Professionalism Award
	Bayou Regional	Quarterfinalist
2015	Bayou Regional	:(
	World Championship	Tesla Division

# **Section 4: Past Achievements**

2016	Bayou Regional	Quarterfinalist
2017	Rock City Regional	Quarterfinalist, Creativity Award
	Bayou Regional	Semifinalist
	Lone Star North Regional	Semifinalist, Team Spirit Award
	World Championship	Carver Division Finalist
2018	Rock City Regional	Quarterfinalist
	Bayou Regional	Finalist, Creativity Award
	World Championship	Hopper Division Quarterfinalist, Ranked 5 (best any LA team has done!)
2019	Rock City Regional	Winner, Autonomous Award
	Bayou Regional	Finalist, Judges Award
	World Championship	Hopper Division Finalist
2020	Rock City Regional	Semifinalist, Judges Award
2021	Infinite Recharge at Home	Sodium Group Winners
	Game Design Challenge	Design Award
2022	Tallahassee Regional	Chairman's Award, Finalist
	Bayou Regional	Dean's List Finalist, Woodie Flower's Finalist, Finalist
	World Championship	Hopper Division Quarterfinalist
2023	Magnolia Regional	Finalists, Excellence in Engineering
	Bayou Regional	Gracious Professionalism Award
	World Championship	7th Alliance Captain, Semi Finalists
2024	Magnolia Regional	Winner
	Arkansas Regional	Judges Award

# **Section 5: Team Structure**

**Mechanical** – Responsible for designing, manufacturing, wiring and plumbing the robot during build season as well as maintaining and refurbishing robots used for demonstration in the community.

**Programming** – Responsible for programming teleoperated (human operated) and autonomous (code operated) modes for the robot and all subsystems in Java. Works closely with the Mechanical subteam and drivers to ensure the program is running smoothly and effectively.

CAD – Responsible along with Mechanical team for robot design and Computer Aided Design of robot along with CAD drawings required for fabrication of robot parts.
 Outreach - Plans community outreach events to share our love for STEM. Keeps kids curious and interested in science, technology, engineering, and math through fun events. Ensures all parts for submission for awards are finished and turned in on time.
 Fundraising - Raises money for the team through maintaining and acquiring sponsors

and planning fundraiser events.

**Media/PR** – Maintains the team website and social media profiles, designs T-Shirts, flyers, and team logos, takes picture and video documentation at all events for team use.

**Spirit** - Works to help the team act as a single unit through team building activities and social events. Makes chants and signs to use at competition and keeps the energy level up at competition. Keeps the stands fun and engaging during competitions.

**Strategy-** Using the information gathered throughout the competition to make informed decisions that will set the team up for success.

# **Section 6: Member Expectations**

## **Section 6.1 General Meetings**

For the first thirty minutes of each Monday Build meeting, each team member will have an opportunity to speak freely and uninterrupted about any ideas, questions or concerns they have regarding the team. Officers will be present to give updates on each subcommittee.

## Section 6.2: Dues

All members must pay their \$50 dues to be a part of the team. Dues must be paid on My Payments Plus. Once you have paid your fees, that is step one to being added to the team roster. Step 2 is that you have registered at FIRSTInspires.org. Once both of these tasks have been completed, you will be added to our team's official roster.

### **Section 6.3 Communication**

Intra-team communication will occur through the BAND app. Team members must turn on notifications and check communication threads routinely. There is no excuse for not knowing information.

### Section 6.4: STIMS

Team members must officially sign up for the team through FIRST on STIMS (youth registration system) once it is opened. This includes the registration AND parent consent form. We will help students start the process at the first general meeting.

### Section 6.5: Team Culture

The statements below have been inspired by and adapted from Team 1678 Citrus Circuits' Team Handbook. We feel as if it is a good, concise list of what our team values and as such have included it in our handbook.

Show Up. I will be here and on time.

Speak Up. I know the team values my ideas, so I will share them.

**Listen Up.** I respect others and their ideas and will be conscious of when it is time to listen.

Smarten Up. I will aggressively learn as much as I can.

**Step Up.** I will take initiative to find work that needs to be done and guidance to do it well.

Grow Up. By acting like an adult, I will earn my right to be treated like one.

**Clean Up.** I will clean up at every meeting because I understand that the cleanliness of our workspace affects our safety and productivity.

**Hurry Up.** I know that time is a scarce resource for a team like ours, so I will have urgency in everything I do.

**Live it Up.** I recognize that Robotics is the hardest fun that I'll ever have, and I will make the most of my time here and enjoy it.

Never Give Up. I will never stop searching for ways to improve both myself and my team.

You are your own best advocate. No adult mentor or student captain will 'make' a student do something. This is a **self-motivated** program. If you want to learn, ask a mentor or captain. Do not wait around for someone to give you a job. We will make every effort to encourage involvement by all students, but in the end **it is up to you**. If you are not sure where you fit in, or are not sure of what can be done, talk to a Mentor or Captain. The most successful members on this team are those who **do not wait to be asked** to complete a task; they do not spend their time at build in the corner on their phone. Self-motivation is what drives 2992.

## Section 6.6: Voting

Any student in "good standing" may bring issues up to the executive board. Officers will then decide whether this issue warrants a vote. And vote to make changes to the handbook or other aspects of the team will require a  $\frac{2}{3}$  majority.

## Section 6.7: Behavior

As a member of this team, you are expected to act a certain way. Students on our team not only have good grades, but they behave appropriately both inside and outside of school. When a member of our team has any discipline earning a consequence of 3 hours on Friday or greater they will not come to meetings, build or competitions for 45 days for each occurrence. The lead mentor employed by MHS may use discretion to increase, but never decrease, any consequence.

# Section 6.8: Competition Behavior

While at competitions, you will be asked to perform various tasks. When you are asked to complete a task, such as scouting, you will recognize that this is a task required by your team. No one will complain about being given a task.

Excused days are given for students who attend the competition for the entire time it is being held. When your name is put into the computer for an excused absence, it is assumed that you will be there with your team. Any student who habitually arrives late and leaves early will have the "excused" portion of the absence removed.

# **Section 7: Competition and Events**

## Section 7.1: Travel requirements

Missing school for an event, whether it be for competition or outreach, is a privilege! The requirements for travel privileges are:

- Members must have attended a total number of 60 hours of any subteam meetings or events (at least 15 of those hours must be outreach). There will be a check on hours on the Saturday of Week 3. All students wishing to travel to competitions with the team must have at least 20 hours at that time.
- 2. Students must also maintain a 2.5 GPA.
- 3. Students may not have *any disciplinary actions* taken (detentions, suspensions, etc.)
- 4. All students missing school must also ensure they make up any schoolwork missed.

## Section 7.2: Code of Conduct

You are representing our team, our school, our community, our sponsors, and yourself whenever and wherever we travel. Treat others with respect and kindness. Your behavior impacts everyone that you represent. What you say to another team member and how you say it may be overheard by a judge, potential sponsor, or member of another team. Even the expressions on your face and body language may bring unwanted negative attention and bad impressions. Any guests you invite or bring must understand this and behave accordingly.

Do NOT wear a team shirt or any piece of team gear while behaving in an inappropriate manner. Even if you're just wearing it to school, you are representing our team.

While at competitions, remember gracious professionalism, and always be respectful. Stay with the group; if you need to go anywhere, let the people in charge know and find a reasonable time to do so. If you're needed and you're not there, it will reflect poorly on you. Stay on task and fulfill your role at competition and follow the Dress Code.

#### Section 7.3: Dress Code

The shop is an extension of our school. The same dress code rules apply. (See the school hand book for these rules.) There will be dress code violation-detention forms at the shop. They will be given to school administration for processing. Dress code violations are considered a disciplinary action.

Dress Code for any outreach or competition event will be specified by the Team Captain or Outreach Captain. Team members must adhere to whatever shirt you are asked to wear. In addition, close-toed shoes are always required for your safety.

## Section 7.4: Cell Phones

Cell phones can be confiscated if a mentor or officer deems the students' use of it excessive and unrelated.

## Section 7.5: Summer Camps

Summer camp is our largest fundraiser. We rely on camp to fund much of our team operations throughout the year. It is expected that all officers attend summer camp unless they have a legitimate excuse. Camp dates are published well ahead of summer months so it should be expected that most officers will be able to plan accordingly. General members are not required to work at our camp, but as highly valued members, we appreciate their help. In addition, all incoming 10th graders are welcome to help with camp. It is difficult to organize our camp when students cannot commit to all five days. Groups are formed, robots are being built based on the counselors that are assigned to each group.

# Section 8: Leadership positions

# Section 8.1: Requirements

- Those interested in being a Captain on the team must be a **dedicated**, knowledgeable member of the team and overall must be ready and willing to work hard.
- All leaders must be able to fulfill all their duties (as listed below) for the entire duration of their term. If a leader is not living up to expectations of team leadership, the captains may hold a vote to bring the issue up with an adult mentor. The mentors have the final say on replacing a leader.
- As the role models for the team, all leaders must maintain a 2.5 GPA average or better in all classes
- All leaders must have maintained **"in good standing status"** during the current school year (the year the election/appointment is being held/occurring). "In good standing" means student a) has not been recommended for expulsion; b) has not been disciplined (suspension, in school suspension, or detention) for any offenses. Officers are subject to removal from office for failure to maintain "in good standing" status. Subsequent years' election eligibility will be determined by MHS faculty mentor.

- In order to hold the position of Team, Build, Outreach, or Fundraising Captain, the student may not hold any major office of another extracurricular organization during his/her term of office.
- It is imperative that each position is filled by the most qualified candidate. Therefore, each person running for team captain or secretary, whether running opposed or not, will give a speech during elections/interviews. In addition to any student questions, the MHS faculty mentor reserves the right to ask questions of each candidate at the conclusion of each speech. All other positions will be appointed by adult mentors. Students will be prepared for the interview.
- There will be a Band app group specific to the newly elected/appointed officers. Removal of yourself from this group indicates an unwillingness to work with others and will result in a removal from office.
- More than one unexcused (as defined by the MHS handbook) absence from an officer meeting will result in removal from office. It is understood that some students have jobs. But, every effort must be made to attend.

## Section 8.2: Elected positions

**Team Captain** – Ensures the team runs smoothly, efficiently, and in a timely manner. Is in charge of ensuring all deadlines are met by captains, checking the team email, sending team updates, plan and run officer meetings, works with captains to plan and run general meetings and, if need be, acts as the main liaison between all departments. Is the official face of the team. This person will be a junior or senior, will have held at least one other leadership position on the team, and will have been involved with the team for at least two years.

**Secretary-Treasurer** – Attends all general meetings and captains' meetings to keep the minutes and works with the Team Captain and department captains to ensure the entire team is aware of upcoming events. Also keeps track of any and all monetary transactions that the team makes or receives, keeping a running tab on how much money is in the team's account.

## **Section 8.3: Appointed Positions**

**Outreach Captain** - Organizes all outreach events, searches for new opportunities to help our community and fellow FIRST teams, and records team member outreach hours. The Outreach Captain is also in charge of the Impact Award submission and presentation. This person will have at least 12 months experience on the team. Their experience must include full attendance at all camps and 75% of outreach events or have mentor approval.

**Fundraising Captain** - Contacts current sponsors and potential sponsors to renew sponsorship and/or to raise additional money the team may need for future competitions and other expenses. Also helps plan and run fundraiser events with the Booster Club. Works with a booster club member assigned to help navigate this difficult job. This person will have at least 12 months experience on the team, or have mentor approval. This person must be able to drive or have reliable transportation, as much of fundraising occurs at the sponsors' places of business.

**Media Captain** – Runs Media team meetings by organizing a list of objectives every week for the media team to achieve. They will not wait to be asked by a subteam or mentor. Objectives include design of team shirts and other outerwear, maintaining and updating the team website, and running social media.

**Design Lead** - Organize the development of robot parts through CAD while working with build captains to design efficient parts for the robot. Leads all CAD meetings and teaches new members how to CAD.

**Build Captain**- Organize all build meetings, and make sure that the robot is built and works well. Works alongside the programming team to ensure the robot moves as intended. This person will have at least 12 months experience on the team or have a build mentor's approval.

**Fabrication Captain-** Oversees and assists with the production of all parts of the robot. This position reports to the Build Captain.

**Assembly Captain-** Oversees and assists with the assembly of parts, subsystems and the final robot. This position reports to the Build Captain.

**Programming Lead** – Leads all programming meetings and teaches new members how to code. Ensures due dates are met, the robot program is finished before competition.

**Scouting/Strategy Lead(s)** - Creates the pit and match scouting sheets for the team, makes sure all students understand how to scout, makes scouting schedules, and runs scouting meetings. At competition, they ensure the drive team knows who their allies and opponents are and their strengths, weaknesses, and typical strategies, and aids in making our own strategies based off of the information provided.

**Quartermaster** - Makes sure the shop is clean and organized while working closely with the build captains to organize build meetings as well as keeping inventory of needed materials and equipment in the shop. Works with the fundraising team to purchase new needed materials and equipment.

**Spirit Lead** - Organizes and runs all spirit team meetings. Ensures the signs are brought to competition and that the team knows the chants for our matches. They are also in charge of planning team socials.

## **Section 8.4: Competition Specific Appointments**

**Drive team** - Participates in the match by driving or operating the robot or working as the Human Player during the match. Brings the robot to the field and ensures the robot is set up in the correct configuration and ready to play. (Note: By team rules, 1st year team members are NOT eligible for certain drive team positions.)

## Drive Coach -

**Pit Crew** - Stays in the pit to make sure the robot is fixed and ready for the next match, speaks to, answers questions, and helps any judges or other teams that come to our pit. Keeps the pit clean and organized. Also responsible for load-in and load-out at each event.

**Pit Scouts** - Talk to other teams about their robot to get an idea of how we can possibly play with or against them. Should possess good communication and people skills.

# **Section 9: Booster Club**

The Mandeville High School (MHS) Robotics Booster Club provides support for Team 2992 and their mission of promoting FIRST programs and interest in STEM and inspiring young students to be science and technology leaders. The Booster Club has no rights and/or authority in team and daily operations.

## Section 9.1: Booster Club Membership

Building a robot has become increasingly more expensive. Our team relies on donations, sponsorships and student fees. All parents/guardians will join the Booster Club with payment of the \$150 annual dues.

## Section 9.2: Booster Club Meetings

Booster Club meetings shall be held at the beginning of each school year and as needed throughout the year as determined by the Booster Club Executive Board.

## Section 9.3: Miscellaneous Support

The Booster Club helps organize fundraiser events along with the Team Fundraising Captain and helps coordinate team meals during build season and travel arrangements for out-of-town competitions. The Booster Club relies on help from parents throughout the year. Please sign and detach this page to be returned to Ms. Casey in Room 801. No paperwork or fees will be accepted at the shop.

I certify that I have **read** this **entire handbook**, understand all the rules and guidelines described in it, and will strive to live up to the expectations of my team.

Student name: \_\_\_\_\_

Student signature: \_\_\_\_\_ Date:\_\_\_\_\_

I certify that I have read this handbook with my child and understand what is required of him/her. I will support them in any way I can.

Parent name:	
--------------	--

Parent Signature: Date:
-------------------------

# Welcome to Team 2992!