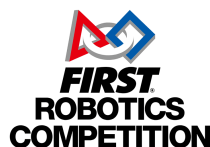




# TEAM HANDBOOK



FIRST ROBOTICS COMPETITION TEAM 8117  
THE EASTON ROBOROVERS  
EASTON AREA HIGH SCHOOL

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THE ROBOROVER FOUNDATION

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# 1. Welcome!

Welcome to the Easton RoboRovers! We are excited to invite you onto the team. This handbook contains the key policies, goals, and expectations of our team and its members along with other information you will need. The success of our robotics team and its numerous other activities are all thanks to the dedication of our members. Your participation is essential to fulfilling our program's goals. Every member's commitment and responsibility keeps our team running smoothly. We hope that as part of the Easton RoboRovers, you will acquire life skills that you will continue to use throughout college and in your future career.

## 1.1 Authority of the Handbook

The rules and policies set forth in this handbook are binding and must be followed by all team members. The handbook may contain appendices including the Team Identity Standards. These documents are binding as well. The leadership team has the authority to modify this handbook at any time. Team members will be notified of any modifications.

## 1.2 Contacts

Easton Area High School  
2601 William Penn Hwy, Easton, PA 18045  
(610) 250-2481  
<https://www.eastonsd.org/>  
<https://eahs.eastonsd.org/students/clubs-activities>

The Easton RoboRovers  
2601 William Penn Hwy, Easton, PA 18045  
<https://www.eastonrobotics8117.org/>  
[FRC8117@Gmail.com](mailto:FRC8117@Gmail.com)

## 2. About

### 2.1 Mission Statement

The Easton Area School District respects the diversity of its student population and is dedicated to the importance of developing our students into responsible citizens. We will provide each student with an academically challenging program that enhances creativity, develops an ability to use technology, and encourages critical thinking and problem solving.

### 2.2 Team History

Team 8117 was founded in the fall of 2019, with the goal of competing in the FRC 2020 season. By the end of February 2020, their very first robot was complete and ready for competition. A few weeks later, the world shut down the day of their first competition in response to the COVID pandemic. It was not until 2022 when the team could take their robot on the field for competition for the first time. Today, the RoboRovers continue to compete in the *FIRST* Mid Atlantic District and work within the community at local STEM outreach events.

- **2019: FRC Team 8117 was founded**
- **2020: Infinite Recharge (1)**
  - COVID-19 Pandemic, Events Canceled
- **2021: Infinite Recharge (2)**
  - COVID-19 Pandemic, Events Canceled
- **2022: Rapid React**
  - Creativity Award sponsored by Rockwell Automation - FMA Seneca
- **2023: Charged Up**
- **2024: Crescendo**
  - Creativity Award sponsored by Rockwell Automation - FMA Mount Olive
  - Finalist - FMA Warren Hills
- **2025: Reefscape**
  - Team Spirit Award - FMA Springside Chestnut Hill

### 3. Frequently Asked Questions

**What is *FIRST*?**

A global robotics community preparing young people for the future, *FIRST* Robotics is:  
For Inspiration and Recognition of Science and Technology

**Who can join the RoboRovers?**

We welcome all students grades 9 thru 12 within the Easton Area School District, including home school and private school students within the EASD community.

**When does Team 8117 meet?**

With enough projects and opportunities to keep us busy throughout the year, Team 8117 meets once a week during the regular school year. Not all meetings are mandatory but consistent participation is greatly encouraged.

During the late winter and early spring, the Build & Competition season starts on the first Saturday in January. Build meetings take place throughout the week and Saturdays until the Competition season ends in mid April.

**Where are the meetings?**

Right at school! But Competitions do offer the opportunity to travel around Pennsylvania and New Jersey, with the World Championship in Texas.

Other off season field trips have included programming boot camps in Philadelphia and local factory tours in the Lehigh Valley.

**Why should I join?**

FIRST inspires 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.

## 4. Joining the Team

Team membership is open to all high school level students in the Easton Area School District, including home school and private school students. All interested students are invited to attend the informational meetings held at the beginning of the school year to talk with team members and learn about all the aspects of the team. Prospective members must submit an application to join the team.

Members from the previous year must also reapply by submitting an application to rejoin the team. Decisions regarding acceptance of returning members are based on the member's prior year's level and quality of participation, behavior during meetings and builds, and their overall dedication to the team.

### 4.1 Eligibility Requirements

In order for students to be eligible to participate and remain on the team, they must:

- Comply with the rules established in the Team 8117 Handbook and the EAHS Student-Parent Handbook (<https://eahs.eastonsd.org/students/student-handbook>)
- Maintain a GPA above a 2.0
- Complete membership application, required by new and returning members each year
- Complete Safety Training before deadline
- Submit dues payment before the deadline, see Team Dues below

### 4.2 Expectations of Team Members

- Active team participation as required per:
  - Mandatory Team Events
    - Safety Training, Kick Off, Competitions, ect.
  - Sub Team Role and Responsibilities
    - Engineering Team - Build days, Business Team - Fundraisers or Outreach, ect.
- While attending team meetings or events, students should be entirely focused on the task at hand, or actively seeking out more work. Students spending time on their phones, playing video games, or who are otherwise distracted or engaged in unsafe behavior may have their build hours canceled, be temporarily suspended, or be dismissed from the team.
- The Easton RoboRovers expects that all members behave maturely and professionally at all times and comply with the standards of the Easton Area School District and *FIRST*. Members whose behavior is below the standards of the team will face disciplinary action or dismissal from the team.
- It is important that all team members remember that whenever they are engaged in a team-related activity, whether online or in person, they are representing Easton Area School District, The Easton RoboRovers and the FIRST community. Their actions will reflect upon the team, the school and our sponsors. Team members should treat their teammates, mentors, faculty advisors, members of other teams, and the general public with kindness and respect at all times.
- At competition, those who are not members but are cheering for or representing the team in any way, such as parents and friends, must adhere to these guidelines as well.

Not following the expectations and requirements outlined above, or failure to, can result in disciplinary action, including temporary suspension from robotics activities or removal from the team.

### 4.3 FIRST Registration

All members, students and mentors, are required to register with FIRST Robotics:

<https://my.firstinspires.org/AccountManager/Account/Register>

All Mentors must complete the additional volunteer requirements as per EASD:

<https://www.eastonsd.org/departments/human-resources/how-to-volunteer>

### 4.4 Team Dues

Team dues are \$100 per member per year to help offset the costs associated with the robotics program. This non-refundable fee completes the student's acceptance onto the team. The team dues are not refunded if a student leaves or is removed from the team (for any reason and at any time).

Team dues may be self funded or sponsored by local businesses. Please see a mentor or faculty advisor for more details regarding Sponsorship.

### 4.5 Team Meetings

Standard team meetings will be scheduled on the Band app calendar. Calendar and schedule change notifications will be sent to all members and parents/guardians via email and through the Band app.

Special Project and sub-team specific meetings may meet at other times outside of standard team meetings. These schedules will be posted in the Band app calendar as well.

### 4.6 Team Season Example

- Off Season
  - May thru September
    - Meetings 1-2 per month
    - Events 1-2 for entire Post Season
      - Local Community Outreach
      - NJ RoboCon (September)
- Pre Season
  - October thru December
    - Meetings 1x per week, typically weekday after school
      - Fundraising and Sponsor engagement
      - Safety Training (could be scheduled for 1x weekend)
      - Sub Team Workshops
- Build Season
  - January thru early March
    - Meetings 2-4x per week, typically weekdays after school and Saturdays.
      - Robot Design, Develop, and Build
      - Fundraising and Sponsor engagement
      - Team Imagery Design
- Competition Season
  - Mid March thru early April
    - District Event, ~1hr travel typical, Saturday and Sunday event, 2x events total.
    - District Championships at Stabler Arena, 1x Friday and Saturday (if qualified)
    - World Championships in Texas, 1x Wednesday thru Saturday (if qualified)

## **5. Communication**

All members are required to have an active email address that is registered with the team. They must also check emails sent to this address daily. Messages will be communicated to members through meetings, emails, and Band.

### **5.1 Team Website**

The team website is located at <https://www.eastonrobotics8117.org/>. All members must create a website account with the team. Members must also have at least one parent create an account on the team website to receive important parent-specific communications.

### **5.2 Email Group**

When a parent or member creates an account on the team website, that member will be added to the team mailing list and will begin receiving email updates from the team. Only students and parents who are registered on the website will receive team emails. Failure to check email is not an excuse to miss required activities or deadlines.

### **5.3 Band.us**

The team maintains an active account with the messaging app [Band.us](#), all members and at least (1) parent or guardian are required to have a Band account

## **6. Identity**

### **6.1 Identity Standards**

The team has developed a set of comprehensive identity standards to help maintain and preserve our strong team identity. The policies outlined in the identity standards are binding and must be followed for all team appearances and communication.

### **6.2 Dress Code**

The dress code must be maintained at competition, all off-season events, and robot demonstrations. Maintaining the dress code is encouraged on the school days before and after a robotics competition in order to raise awareness at school. For more detailed information, see the Identity Standards.

### **6.3 Photography & Media**

All members must be willing to be photographed and appear in team-related publications. When appearing in team photos or videos, team members must refrain from using hand signs or other gestures since these may be offensive to others.

### **6.4 Submissions & Publications**

To maintain the team's high standards of quality and imagery, the leadership team, including faculty advisors and mentors, must approve any documents or media pertaining to the team prior to their release. This includes award submissions, publicity materials, news articles, pictures, videos, posts to social media, discussion forums, and the website.

## **7. Facilities & Safety**

### **7.1 RoboRovers Robotics Lab**

The RoboRovers Robotics Lab is a shared space located in the lower K-Wing.

Room K105 - Primary meeting room and computer lab, All Team & Business Team

Room K103 - Secondary meeting room and computer lab, Engineering Team

Room K107 - Workshop, Engineering Team

### **7.2 Rules & Guidelines for the Robotics Lab**

All members must complete lab safety training and basic tool training, and turn in a signed lab safety contract. Members must follow all rules outlined in the safety training including (but not limited to) those listed below.

- No member can work in the lab without a mentor or faculty advisor on site.
- A mentor or faculty advisor must be in the Workshop when any machine tools are in use.
- Food and drink are not allowed inside team facilities.
- When a member is finished using a tool, it must be returned to its designated location in the lab.
- At the end of every work session, all tools and materials must be put away.
- Cleanup checklists should be followed at the end of each build.
- If a member leaves before a build session is over, that member must clean for at least fifteen minutes before leaving.
- Members are not allowed to leave the lab before notifying and signing out with a mentor or faculty advisor.
- For safety, if a member needs to leave the lab after dark to go to another part of campus, they must be accompanied by another student, or a mentor or faculty advisor.
- If a power tool malfunctions or breaks, it must be reported to a mentor or faculty advisor immediately.
- Electrical devices of any kind may never be powered by daisy-chaining cords or power strips.
- Always wear safety glasses and other pertinent safety equipment when operating power equipment or when near somebody who is operating power equipment.
- Loose hair and long or loose clothing must either be tied back or removed before a member is permitted to use any machine tools.
- Close-toed shoes must be worn in the lab.
- Members must partake in a robotics related activity if they are in the lab. If a member is not participating during a work session they will be asked to leave the lab. Horseplay and games will not be tolerated.
- Members may not remove any equipment or material from the robotics lab for use at another location, including home use, without permission from a mentor or faculty advisor.
- Faculty and mentors always have the final word in any situation where safety is at stake.
- All applicable rules of Easton Area High School apply at any location where robotics work is taking place. Failure to comply with the established robotics lab safety rules will result in disciplinary action.

## **8. Travel & Competition**

### **8.1 Eligibility**

Eligibility for overnight robotics tournaments is determined by the faculty advisors & mentors. They review a member's participation, skills and contributions throughout the semester. All members are encouraged to attend local tournaments.

### **8.2 Payment**

Certain competitions require travel which will require payment from members for airfare, hotels, buses, meals, etc. If cost is an issue, please speak with a faculty advisor regarding financial assistance. Members who withdraw from a travel tournament will only be refunded if another member takes their spot.

### **8.3 Participation**

Prior to competition, members will be divided into roles needed for the particular tournament, such as drivers, pit crew, scouts, strategy, alliance readiness, videography, etc. It is vital to the success of the team that members maintain the roles that they are given.

When at competition, members are encouraged to watch matches, meet other people, and look at other team's robots. members are not permitted to engage in unrelated activities without express permission from a mentor.

### **8.4 Behavior**

Behavior that is deemed below the standards of the team or the school will result in disciplinary action. Severe infractions may result in an immediate flight or bus trip home at the expense of the team member, and/or dismissal from the team.

### **8.5 Local Events**

Events within the Lehigh Valley may not have transportation scheduled by the team. For these events, it is the member's responsibility to arrange transportation.

### **8.6 Travel Tournaments**

For events outside of the local area, the RoboRovers will arrange all transportation, accommodation and meals (as required) to and from the tournament. All student members participating in a travel tournament must travel with the team. Team members may be required to arrange their own transportation to the airport. Members must sign up in advance for all travel tournaments.

### **8.7 School Absences**

If a member will miss school due to a robotics event, it is that member's responsibility to inform teachers of an absence at least one full week ahead of time and arrange for completion of missed work.

If a student misses school due to illness, they may not attend any robotics activities later that day.

Students may not miss school after the day after a tournament due to fatigue or postponed homework. Any such absences will be unexcused.

## **9. Team Leadership**

The Easton RoboRovers is managed by a leadership team consisting of student leaders, adult mentors, and EASD faculty. The leadership team's duties go beyond those of regular members. This team makes administrative decisions, plans events, and manages projects. Every member of the leadership team puts in hundreds of hours of work behind the scenes to ensure that the team operates smoothly.

### **9.1 Leadership Meetings**

The leadership team meets year-round, typically weekly. Leadership meeting attendance is restricted to the leadership team, but the meeting minutes will be publicly available to team members. However, students are encouraged to approach the leadership team with any and all relevant concerns.

### **9.2 Leadership Selection**

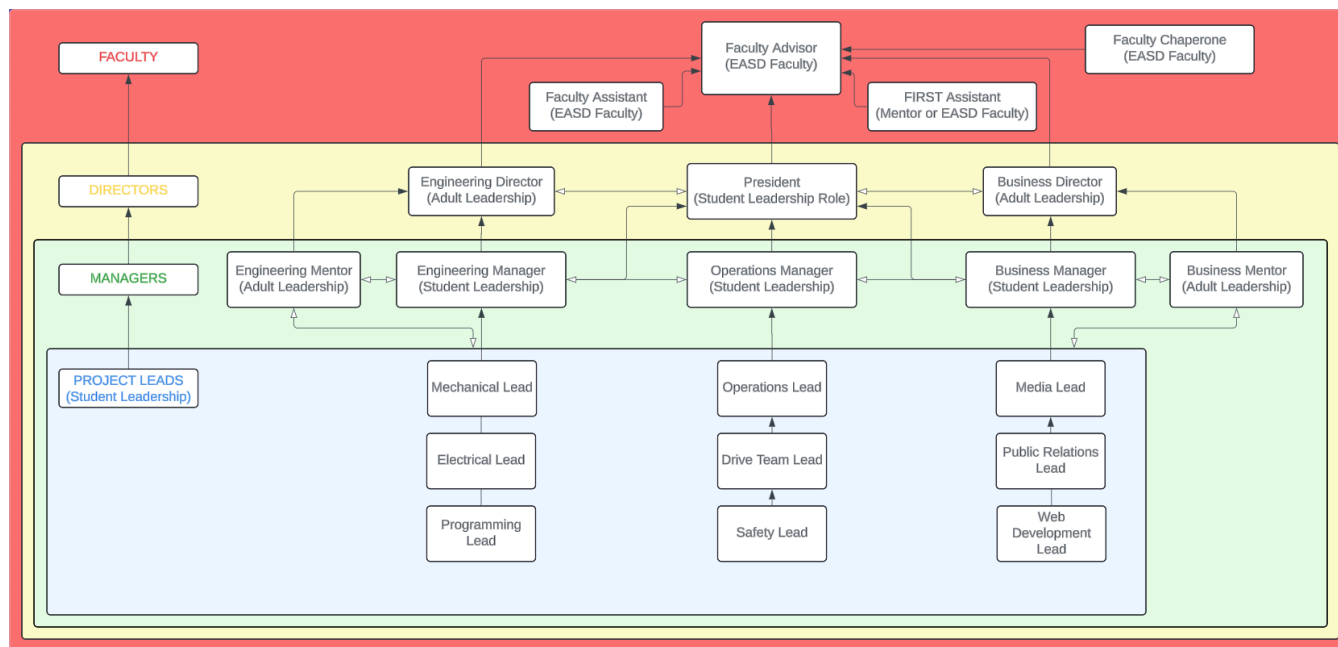
At the end of each school year, a selection committee consisting of mentors and faculty advisors will choose next year's leadership team. The selection process is based on previous leadership experience, dedication, expertise, and a written application. Leadership roles are updated as needed and published every year. Any team member may apply to be a team leader.

### **9.3 Contacting Leaders**

Leaders, faculty advisors and mentors can be reached by messaging them through Band or sending an email to [FRC8117@gmail.com](mailto:FRC8117@gmail.com)

## 10. Roles & Responsibilities

### 10.1 Organization Chart



### 10.2 Sub-teams

Many leadership roles include management of a sub-team of students who work with the leader on team projects. Students are assigned to a sub-team based on their application preferences. They will have obligations to this primary sub-team and be responsible for completing action items delegated to them. In addition, students are encouraged to join and participate in additional sub-teams, as long as they fulfill their obligations to their primary sub-team.

## **10.3 Operations Team**

### **10.3.1 Faculty Advisor** - Adult Leadership, EASD Faculty Member

Primary contact for all business relations between EASD & FIRST. Final say in all team decisions.

### **10.3.2 Faculty Assistant** - Adult Leadership, EASD Faculty Member

Assists Faculty Advisor and Team with all business related to EASD.

### **10.3.3 FIRST Assistant** - Adult Leadership, Mentor or EASD Faculty

Assists Faculty Advisor and Team with all business related to FIRST.

### **10.3.4 President** - Student Leadership, previous team membership required.

Primary student representative and spokesperson for the team.

Oversees student leadership team. Reports to Faculty Advisor and Lead Mentors.

### **10.3.5 Operations Manager** - Student Leadership, previous team membership required.

Responsible for FRC competition preparation including scouting, pit construction, and FRC team member participation at tournaments (including drive team). Oversees Operation and Drive Team Leads.

### **10.3.6 Operations Lead** - Student Leadership, multiple Leads possible.

Assist Operation Director and oversees various Operation projects, including scouting, pit construction, and FRC team member participation at tournaments.

### **10.3.6 Drive Team Lead** - Student Leadership

Assist Operation Director and Engineering Director. Oversees Drive Team and game strategy development.

### **10.3.7 Faculty Chaperone** - Adult Leadership, EASD Faculty, multiple Chaperones possible.

Supervise team meetings and events, ensuring students are staying on task within team expectations.

## **10.4 Engineering Team**

**10.4.1 Engineering Director** - Adult Leadership, technical background required.

Primary contact for all business related to Engineering, including mechanical and electrical. Final say in all team decisions related to Engineering.

**10.4.2. Engineering Mentor** - Adult Leadership

Assists Lead Engineering Mentor and Team in business related to Engineering, including mechanical and electrical.

**10.4.3 Engineering Manager** - Student Leadership, previous team membership required.

Oversees robot design process and technical aspects of FRC as well as organizing workshops and ensuring that team members are adequately prepared for the season.

**10.4.4 Mechanical Lead** - Student Leadership, multiple Leads possible.

Oversees the design and build projects concerning one or more particular subsystems of the robot.

**10.4.5 Electrical Lead**- Student Leadership, multiple Leads possible.

Oversees electrical projects of one or more particular subsystems of the robot, including sensors and vision systems.

**10.4.5 Programming Lead**- Student Leadership, multiple Leads possible.

Oversees programming projects of one or more particular subsystems of the robot.

## **10.5 Business Team**

**10.5.1 Business Director**- Adult Leadership, business background required.

Primary contact for all Business relations, including Media, Public Relations, and Web Development.

Final say in all team decisions related to Business.

**10.5.2 Business Mentor** - Adult Leadership

Assists Lead Business Mentor and Team in Business relations, including Media, Public Relations, and Web Development.

**10.5.3 Business Manager** - Student Leadership, previous team membership required.

Oversees team projects related to media, public relations and web development.

**10.5.4 Media Lead** - Student Leadership, multiple Leads possible.

Oversees projects related to social media, photography, videography, graphic design and imagery.

**10.5.5 Public Relations Lead** - Student Leadership, multiple Leads possible.

Oversees projects related to fundraising, sponsorship, and public outreach events.

**10.5.6 Web Development Lead** - Student Leadership, multiple Leads possible.

Oversees projects related to the team website, including website design, calendars, email lists, blogs, media, and resources.

## 11. Acknowledgement and Agreement

By signing below, I acknowledge that I have read the Team Handbook and agree to abide by the rules and policies set forth.

Student First Name: \_\_\_\_\_

Student Last Name: \_\_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Parent/Guardian First Name: \_\_\_\_\_

Parent/Guardian Last Name: \_\_\_\_\_

Parent/Guardian Email: \_\_\_\_\_

Parent/Guardian Phone Number: (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

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FOR ADVISOR OR MENTORS

Received By: \_\_\_\_\_

Received Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_