FIRST Team 1511
Rolling Thunder
Team Member Handbook
2026 – 2027





Revised 9/29/2026

FIRST Robotics Team 1511 in one page or less!

What do we do? We design and build a really cool robot and compete against other robots in a game that's different each year! But it's more than just building a robot – our team operates like a small business and feels like a family. We have different "subteam" groups that handle everything from marketing and fundraising to mechanical design and electrical work. Even if you have no idea how to hold a wrench, there's something for you here, and we'll teach you how!

Why? Because it's FUN! *FIRST* is all about having fun while learning, and so are we! Along the way, you can learn technical skills from mechanical and electrical work and computer programming, but you'll also learn about teamwork, leadership, respect, and integrity.

What are the basics? *FIRST* Team 1511 works with engineering and business mentors (some of them from one of our main sponsors, L3Harris). During the fall, we have "subteams" that learn about specific things we'll need when it comes to building the robot and running the team. In early January we learn what this year's game will be, and from then through mid-February we design and build our robot! During March and April, we travel to competitions and have a great time meeting other teams, checking out all the different robots that have been built, and of course cheering for our robot. Once the competition season is done, we do fun events over the summer, and plan for the next year.

What do team members do? Participate - your participation (see Achievements on page) determines your travel costs to travel to the competitions, where the big excitement is! But don't worry if your schedule doesn't allow a huge time commitment. You can be on the team to whatever degree your schedule allows – the only difference is that you may need to contribute to the travel costs if you go to the competitions. (As with any school team, you'll need to keep your grades up and behave appropriately.)

When do we meet? We meet almost EVERY Tuesday from 6pm to 8pm, all year round, at Penfield High School. We do NOT meet during winter break or when school is cancelled (i.e., due to weather). Meetings are open to students, parents, and other interested, potential members.

What's in it for you? Besides building a really cool robot, you mean? How about hands-on learning from people who do real-life engineering and business management every day? Or great experiences with a team of fun students? Or lots of college scholarship opportunities? Over **$100 million** of scholarship money is available to students who participate in *FIRST* robotics during high school! It looks great on your college application, too – and your mentors can write recommendation letters and be job references for you!

Where can I find more info? On the web, our team's website is www.penfieldrobotics.com. You can get information on the FIRST organization at www.firstinspires.org. More information (and useful forums) is at www.chiefdelphi.com.

Welcome to *FIRST* Robotics!!!

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Table of Contents

1. Introduction 6
   1.1. Mission 7
   1.2. Vision 7
   1.3. Core Values 7
   1.4. FIRST Team 1511 Goals: 7
   1.5. History / Awards 8
2. Basic Schedule and Information 12
   2.1. Team Calendar 12
   2.2. Preseason 12
   2.3. Build Season 13
   2.4. Competition Season 13
   2.5. Summer 14
3. Student Expectations 14
   3.1. Student Commitment 14
   3.2. Achievement Levels 15
      3.2.1. Achievements Outlined in Detail 15
      3.2.2. Contract and Application 15
      3.2.3. Team Meetings 15
      3.2.4. Subteam Participation (Preseason) 16
      3.2.5. FIRST Outreach 17
      3.2.6. Fundraising 17
      3.2.7. Patron Drive 18
      3.2.8. FIRST Support 18
      3.2.9. Parental Involvement 19
      3.2.10. Family Provides a Meal 19
      3.2.11. FIRST Registration 20
      3.2.12. Game Test 20
      3.2.13. Tools and Component Test 20
      3.2.14. Safety Training 21
      3.2.15. Inability to Complete Achievements 21
   3.3. School Eligibility 21
      3.3.1. Ineligibility 21
      3.3.2. Help Available 21

3.3.3. School Takes Precedence 21
3.4. Team Rules 21
3.4.1. Behavior 22
3.4.2. Disciplinary Action 22
3.4.3. Safety 22
4. Adult Member Expectations 23
4.1 Mentor Roles and Responsibilities 23
4.1.1 Commitment 23
4.1.2 Leadership 23
4.2 Parents/Guardians 23
4.3 Teacher Roles/ Responsibilities 24
4.4 College Student & Alumni Volunteers 25
4.5 Team Alumni Involvement 25
4.6 Impact Team 25
5. Team Structure 26
5.1. Team Leadership 26
5.2. Subteams 27
5.2.1. Preseason 27
5.2.2. Build season 28
5.3. Integration 30
5.4. Communication 30
6. Team Hosted Events 30
6.1. Rochester Rally 30
6.2. Rah Cha Cha Ruckus 30
6.3. Penfield FLL Qualifier 31
7. Fundraising 31
7.1. Fundraising Process 31
8. Travel/ Competition 32
8.1. Schedule 32
8.2. Rules 32
8.3. Uniforms 32
8.4. Health 33
8.5. Forms 33
9. College and Career Opportunities 34

9.1. Scholarships 34
10. Student Application Process 34
11. Important Contacts 34
NEW STUDENT ACHIEVEMENTS SHEET 35
RETURNING STUDENT ACHIEVEMENTS SHEET 36
BONUS ACHIEVEMENTS SHEET 37

1. INTRODUCTION

Welcome to *FIRST* (For Inspiration and Recognition of Science and Technology), the world's pre-eminent robotics competition for high school students. The message of *FIRST* is to inspire young people, their schools, and communities with an appreciation of science and technology. You'll learn to perform high quality, well-informed work while learning and competing passionately, but treating one another with respect and kindness in the process – this is called "Gracious Professionalism." As a member of the *FIRST* family, you will enjoy the satisfaction of knowing that you have acted with integrity and empathy. *FIRST* is not just about robots; it's about ideas and people, too.

***FIRST* Robotics Competition (FRC)**

The *FIRST* Robotics Competition is an exciting, international competition that teams professionals and young people to solve an engineering design problem in an intense and competitive way. The program is a life-changing, career-molding experience—and a lot of fun! The competitions are high-tech spectator sporting events, the result of a lot of focused brainstorming, real-world teamwork, dedicated mentoring, project timelines and deadlines. There is more to FRC than building a robot. It's a complex exercise in project management, which entails a lot of work that doesn't require a technical background.

***FIRST* redefines "Winning."** Teams are rewarded for excellence in design, demonstrated team spirit, gracious professionalism, maturity, and ability to overcome obstacles. Scoring the most points is a secondary goal. "Winning" means learning, being inspired, and building partnerships that last.



Rolling Thunder is *FIRST* Robotics Team 1511, of **Penfield High School** in Penfield, New York. It was founded in the spring of 2004 through a partnership with **L3Harris**.
L3Harris, located in Rochester NY, is a leading supplier of secure voice and data communications products, systems and networks to military, government, and commercial organizations worldwide.

1.1. Mission

FIRST Team 1511 Mission Statement - ***"We develop confident and resilient student leaders, who are building a better world that embraces STEAM, to expand and sustain transformative opportunities for all."***

1.2. Vision

FIRST Team 1511 Vision Statement – ***"To transform our world to have a greater appreciation of science and technology. To inspire alumni to positively and productively contribute to their community and to be champions of FIRST Robotics and STEAM initiatives."***

1.3. Core Values

- Innovation
- Determination
- Collaboration
- Leadership
- Sprit
- Inclusivity

1.4. FIRST Team 1511 Goals:

- To develop **leadership** within all our students.
- To focus on promoting ***FIRST*** in elementary and middle school aged students around Rochester. Establishing a progression of FIRST programs K-12 in the Penfield School District.
- To involve our team in the **community**, promote a sense of responsibility in our team members.
- To focus on **organization and communication** to make our team more efficient and effective.
- To promote **education** through the Penfield School system and through our team. Schoolwork is a priority, and we will help every student succeed, in addition to providing them with education on robotics, science and technology.
- To put focus on the **Engineering Design Process** and develop our team and build season around this process.
- To promote **student growth**, the growth of the team, and to build the sense of family and morale within our team.
- **Raise funds** to support our team and keep it self-sustained for many years to come. Funds also support our FIRST Tech Challenge (FTC), *FIRST* LEGO League (FLL), and *FIRST* LEGO League Explore and Discover initiatives.
- To create an **Inclusive** environment where everyone is welcome, and everyone can contribute to the team.
- To have **LOTS OF FUN!** Our team is a family of friends, and we all love to have fun together.

1.5. History / Awards

FIRST Team 1511 started in February of 2004 with a small core team of two parents, teacher Linda Sterber (PHS Technology Teacher), and *FIRST* alum/mentor, Kim O'Toole Eckhardt. The group laid the groundwork for the foundation of the team in the fall of 2004 with the new student class. Each year since, the team has recruited a strong freshman class, and several mentors from L3Harris and the community. In 2009, Larry Lewis became the team leader and has continued *FIRST* Team 1511's traditions.

The team is proud of the variety of awards it has received as it shows the strength and well-roundedness of the team. Our three highest awards are the Regional Impact, Rookie All Star, and Engineering Inspiration awards.

Impact: *FIRST*'s most prestigious award, it honors the team that best represents a model for other teams to emulate and best embodies the purpose and goals of *FIRST*. The award helps keep the central focus of the *FIRST* Robotics Competition on the goal of inspiring greater levels of respect and honor for science and technology.

Engineering Inspiration: Celebrates outstanding success in advancing respect and appreciation for engineering within a team's school and community. This is the second-highest award a team can garner.

Rookie All Star: Celebrates the rookie team exemplifying a young but strong partnership effort, as well as implementing the mission of *FIRST* to inspire students to learn more about science and technology.

Each year, the team has competed in various Regional events plus the Championship event. The awards won each year are listed below.

2026 Awards

Finger Lakes Regional	Rochester, NY	Regional FIRST Impact Award
		Volunteer of the Year – Josh Goodman
Greater Pittsburgh Regional	Pittsburgh, PA	Regional Engineering Inspiration Award
World Championships	Houston, TX	Team Sustainability Award

2025 Awards

Finger Lakes Regional	Rochester, NY	Leadership Award Finalist – Coleston Gill
		Creativity Award
Buckeye Regional	Cleveland, OH	Regional FIRST Impact Award

2024 Awards

Finger Lakes Regional	Rochester, NY	Volunteer of the Year – Jason Kuberka
New York Tech Valley Regional	Albany, NY	Imagery Award in honor of Jack Kamen

2023 Awards

Finger Lakes Regional	Rochester, NY	Regional FIRST Impact Award
New York Tech Valley Regional	Albany, NY	Regional Engineering Inspiration Award

2022 Awards

Finger Lakes Regional	Rochester, NY	FIRST Dean's List Finalist – Nick Vessa
		Excellence in Engineering Award
Greater Pittsburgh Regional	California, PA	Chairman's Award
World Championships	Houston, TX	Championship Chairman's Award Finalists

2021 Awards

INFINITE RECHARGE at Home	Chromium Group	Quality Award
FIRST Innovation Challenge	Oxygen Group	Semi-Finalist Award
Game Design Challenge	Cobalt Group	Concept Award
NY & Quebec Region		Dean's List – Nicole Leute

2020 Awards

Miami Valley Regional	Dayton, OH	Chairman's Award

2019 Awards

Festival de Robotique a Montreal Regional	Montreal, QC	Regional Finalists
		Imagery Award in honor of Jack Kamen
Finger Lakes Regional	Rochester, NY	FIRST Dean's List Finalist - Kyle Berg
		Team Spirit Award

2018 Awards

Midwest Regional	Chicago, IL	Imagery Award in honor of Jack Kamen

2017 Awards

Finger Lakes Regional	Rochester, NY	Chairman's Award
		Dean's List Finalist – Jordan Sayegh
		Woodie Flowers Award – Cynette Cavaliere
Midwest Regional	Chicago, IL	Engineering Inspiration
		Regional Winners
World Championships	St. Louis, MO	Curie Subdivision Winners

2016 Awards

Greater Toronto Central Regional	Toronto, ON	Chairman's Award
		Regional Finalists
Finger Lakes Regional	Rochester, NY	Woodie Flowers Award
		Dean's List Finalist – Amal Elhelw
		Imagery Award
World Championships	St. Louis, MO	Curie Subdivision Winner

2015 Awards

Festival de Robotique	Montreal, QC	Chairman's Award
Finger Lakes Regional	Rochester, NY	Spirit Award
		Dean's List Finalist - Tess Kremer

2014 Awards

New York Tech Valley Regional	Troy, NY	Engineering Inspiration
Finger Lakes Regional	Rochester, NY	Chairman's Award

2013 Awards

Finger Lakes Regional	Rochester, NY	Gracious Professionalism Award
		Woodie Flowers Award – Larry Lewis
		Dean's List Finalist – Ciana Robertson
Boston Regional	Boston, MA	Gracious Professionalism Award
		Safety Award
		Regional Winner

2012 Awards

Finger Lakes Regional	Rochester, NY	Innovation in Controls
		Woodie Flowers Award – Jeff Downs
		Volunteer of the Year – Larry Lewis
		Dean's List Finalist – Justin Byers
Northeast Utilities Regional	Hartford, CT	Engineering Inspiration

2011 Awards

Finger Lakes Regional	Rochester, NY	Gracious Professionalism Award
		Dean's List Finalist – Jason Kuberka
Washington DC Regional	Washington DC	Chairman's Award

2010 Awards

Finger Lakes Regional	Rochester, NY	Engineering Inspiration
		Chairman's Award
Boston Regional	Boston, MA	Regional Finalist (2nd Place)
		Coopertition Award
		Dean's List Finalist – Crystal Vongnaphone

2009 Awards

Finger Lakes Regional	Rochester, NY	Entrepreneurship Award
		Regional Finalist (2nd Place)
Chesapeake Regional	Annapolis, MD	Chairman's Award
		Imagery Award
		Website Award
Championships	Atlanta, GA	Judge's Award

2008 Awards

Finger Lakes Regional	Rochester, NY	Engineering Inspiration
Philadelphia Regional	Philadelphia, PA	Imagery Award
		UL Industrial Safety Award

2007 Awards

Finger Lakes Regional	Rochester, NY	Chairman's Award
Boston Regional	Boston, MA	Team Spirit Award
		Website Award

2006 Awards

Finger Lakes Regional	Rochester, NY	Engineering Inspiration
Boston Regional	Boston, MA	Imagery Award

2005 Awards

Finger Lakes Regional	Rochester, NY	Rookie All-Star Award
Buckeye Regional	Cleveland, OH	Highest Rookie Seed
Toronto Regional	Toronto, ON	Rookie Inspiration
		Team Spirit Award
		Regional Winner
Championships	Atlanta, GA	Championship Rookie All-Star

While the awards are amazing, the real success is the number of students we have inspired in science and technology. Many of our graduating seniors have gone into fields related to science, technology or business, and a growing number of team alumni stay involved with the team in some way.

2. BASIC SCHEDULE AND INFORMATION

2.1. Team Calendar

The **Team Calendar** is officially hosted on Google.

https://calendar.google.com/calendar/u/0/embed?src=team1511@gmail.com&ctz=America/New_York

This is the most accurate and up-to-date listing of team activities.

The Robotics Team meets year-round with varying levels of involvement by the "seasons," defined as preseason, build, competition, and summer. Throughout the seasons, there will be events such as FIRST outreach participation, demonstrations, community service, and fundraising. Students are encouraged to be involved in all seasons to optimize their experience on the team (one of our mottos is "You get out of it what you put into it."). However, we understand that students have other interests and activities. We also require students to put school first!

2.2. Preseason

- September to December
- 6:00 PM - 8:00 PM on Tuesdays at Penfield High School
- Approximately 15 weekly team meetings



The team will use the preseason as a time to do team building, fundraisers, FIRST outreach, and to learn about the necessary skills needed for the upcoming build season.

2.3. Build Season

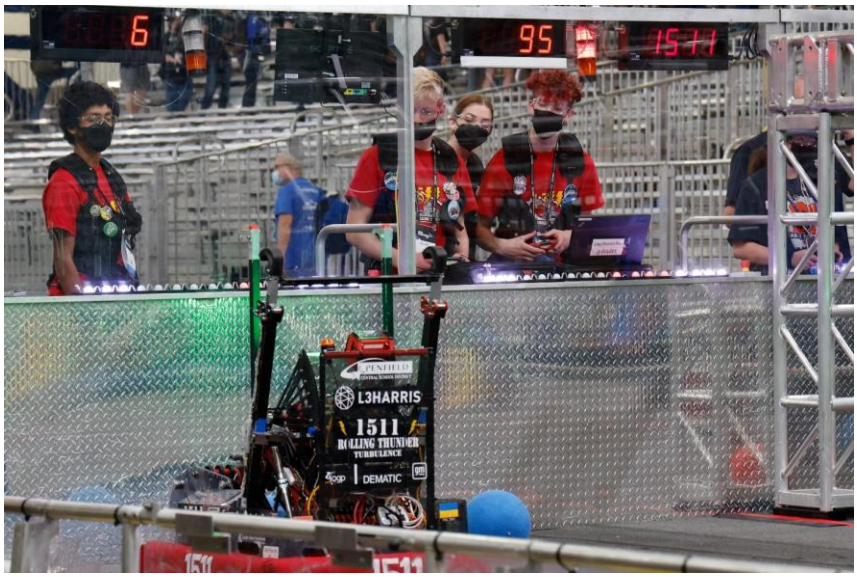


January through March

- Kickoff (when the game is revealed) is usually the first Saturday of January
- 5:00PM – 10:00PM Tuesdays through Thursdays
- 10:00AM – 11:00PM Saturdays
- 10:00AM – 10:00PM Sundays

Team members do not have to attend every meeting but are expected to put in productive hours helping to design and build the robot. The team will also host the Rochester Rally pre-ship event for local area teams (see Hosted Events in section 6).

2.4. Competition Season



- March through April
- Meeting times usually follow the build season schedule in order to prepare for upcoming events, but will be determined on an as-needed basis

The robot and the team travel to regional competition sites, usually within a 10-hour driving distance. Typically, the team will compete in the Finger Lakes Regional at RIT, another March travel event, and if we qualify, the World Championships in Houston, Texas in mid-late April. This is the height and excitement of the robotics season!!

Revised 9/29/2026

2.5. Summer

- May through August
- 6:00 PM - 8:00 PM on Tuesdays at Penfield High School

Summer is a great time to get started on activities and projects prior to preseason, and a good time to do demonstrations, fundraising and FIRST outreach. The Leadership team (see section 5.1) will be formed at the end of the competition season to take full advantage of summer to plan the next season.

3. STUDENT EXPECTATIONS



Students on *FIRST* Team 1511 should be **actively involved** with the team. Depending on school and extracurricular schedules, some students may be able to participate at different levels than others. **The level of participation determines what proportion of a student's trips will be paid for during competition season.** Students are expected to show up **on time** for team meetings and events and remain for the duration of these.

Students will put priority on their grades over any team need. **School is the most important thing.** We do offer homework help, especially during build season when we are putting in long hours.

All members are encouraged to participate in **FIRST Outreach (demonstrations, community service), FIRST Support (FIRST LEGO League, FIRST Tech Challenge)** and **fundraising** activities throughout the year. These activities are vital for the success of the team – and they're a great way to have fun with your teammates!

3.1. Student Commitment

The more you put into the *FIRST*, the more you will get out of *FIRST*.
It starts with YOU!

Participating in *FIRST* requires energy and time, but the effort will make a positive impact in the lives of many other people. The amount of time that your student participates is up to them. We welcome participation at all levels of involvement.

Attendance is taken at all activities, and it is the **student's responsibility to sign in** in order to receive credit. All students are expected to show up on time and to stay for the required amount of time. Exceptions or special needs should be discussed with the team leader prior to the meeting(s) and will be evaluated on a case-by-case basis. Every team member will be allowed to travel to competitions, regardless of their level of participation, but **payment for travel from team funds will be determined by the student's participation**. A checklist of achievements that allow students to earn their trip being paid for is at the end of this handbook. **Completing achievements is not mandatory to be part of the team or go on trips.**

New and returning student achievements are detailed separately. Returning team members have higher achievement levels as they usually participate over the summer doing fundraisers, community service and demonstrations. **New students are defined as those who have NEVER participated in *FIRST* Team 1511.** However, new students (including those going into 9th grade) are welcome to participate in summer events and will get credit for them.

Recording of activities for each year's achievements **starts after competition season (mid-April)**. They will be saved in Infinite Campus for students to view their progress.
If you need assistance, please talk with Mr. Weisbrod.

Here is a brief outline of the achievement levels:

3.2. Achievement Levels

The percentage of accomplished achievements will be determined by taking the number of accomplished achievements and dividing that by the number of possible achievements. Achievements are awarded in 5% increments up to 100% so keep participating throughout the season to increase your level. Your achievement level will be rounded down to the closest level reached. For example, a 92% achievement level wound count as a 90% achievement. The only way to earn 100% is to complete ALL achievements.

Please note the following level limits:

100%: You have completed ALL achievements. Your only cost for travel will be the trip deposits. Deposits are based on the amount of fundraising the team did as a whole.

75%: **Students that do not participate in Team Fundraising will be limited to this achievement level.** You will have to pay the deposits and 25% of trip costs.

50%: **Students that do not participate in Patron Drive will be limited to this achievement level.** You will have to pay the deposits and 50% of trip costs.

0%: This is very difficult to get if you truly are a team member. This is if you have signed up for trips, but you have never attended a team activity. You will be responsible for paying all deposits and total trip costs. However, students at this level will be evaluated on a per case basis as to whether they will be allowed to attend competitions as they are for team members only.

3.2.1. Achievements Outlined in Detail

This section discusses the expectations for students who want full payment for their trips. It is the responsibility of the entire team to make sure that there are adequate opportunities to fulfill the achievements. Though the Leadership team will provide guidance, all students, parents, and mentors are encouraged to head up activities that the team can participate in. It is up to the students to take responsibility to fulfill achievements. All students are encouraged to lead activities that they may need for achievements.
A checklist of achievements is found at the end of this handbook.

3.2.2. Contract and Application

To be able to participate on the team, students must fill out a contract and an application. These must be completed by the due date on the form. **If you are a new student who has joined the team after this due date, then the due date will be waived, and you can hand them in when you join the team.**

3.2.3. Team Meetings

Team members are expected to participate in team meetings, work sessions, community involvement, and fundraising events during the preseason and build season.

3.2.3.1 Preseason

New students are **required to attend at least 50%** of weekly team meetings to meet the achievement goal. Returning students will be **required to attend at least 75%** of weekly

team meetings to meet the achievement goal. In the preseason, subteams (see section 5.2.1) will meet separately and establish their own agendas.

3.2.3.2 Build Season

Each new team member must invest at least **80 hours** of time during the build season (which can include up to **10 homework hours**) to meet the achievement goal. Each returning team member must invest at least **100 hours** of time (which can include up to **10 homework hours)** to meet the achievement goal. If you do not meet this requirement, you can still participate on the team, but you will not get the achievement to count towards your trip costs.

A **suggested schedule** of participation to obtain the minimum hours would be 5 hours a day for 6 weekend days (60 hours), and 3-4 hours a day twice a week on the weekdays (40 hours), including homework. However, students can put in hours in many ways to suit individual schedules. **They must be PRODUCTIVE hours**. Students will be required to do timecards on a regular basis and get a **mentor to sign off** on their hours, verifying that they have used the time to benefit the team.

Although this may seem like an overwhelming number of hours, most students easily surpass this amount and fulfill this achievement. These hours are also required in order to complete all the necessary work in around 6 weeks.

3.2.3.3 Homework Hours

Each student can apply **up to 10 homework hours** toward their build season hours. Students are welcome to work on homework at build season meetings even if it exceeds 10 hours. These hours must be conducted in the presence of a team mentor, at a team study session, or with the team teacher(s). The idea is to provide the students with a quiet location in which to assure they are completing their assignments during the hectic build season.

3.2.4. Subteam Participation (Preseason)

All students will be asked to **participate in at least one subteam during** the preseason. The student must attend a minimum of **70% of their subteam's meetings** and must **declare their subteam at the end of the subteam rotation night(s) in order to get the subteam achievement**. If a student is on multiple subteams, the achievement applies to the student's subteam. For example, if a student is on the electrical and mechanical subteams, and only attends 25% of each subteam's meetings, that DOES NOT add up to 50% attendance. The idea is to **put quality work into at least one subteam**, and then branch out beyond that as the student is interested. See section 5.2 for detailed subteam information.

3.2.5. FIRST Outreach

Making a difference, not just a robot!



The purpose of our team participating in FIRST Outreach activities is to **serve our community and to spread the word about the *FIRST* program, gracious professionalism, and *FIRST* Team 1511.** FIRST Outreach activities will be posted on the calendar. Suggestions for community involvement are always welcome and encouraged! These events must be team events, not separate, individual community service efforts or with another team or group.

***Most of these events will occur during the summer and preseason. Do not wait until Build Season for the opportunity to participate in these events.**

Achievement credits for new and returning students are listed at the end of the handbook in the achievements section.

Credits are determined by the Leadership Team and will be communicated in the weekly team updates and announcements. Advocacy and conference presentations will count as FIRST Outreach credits as appropriate.

Returning students must also **organize one FIRST Outreach event to get the achievement**. **Please refer to the Wiki on our website for instructions on how to organize these events.**

3.2.6. Fundraising

Fundraising is an important part of the team's budget – the more money we raise, the smaller the deposit each student pays for travel to competitions! Every student is expected to participate in the team's fundraising efforts.

To meet the achievement goal, every **student must earn the number of Fundraising credits as defined in the achievements section of this document**. (The Patron Drive is a separate event and does not count toward the fundraiser achievement.) If a fundraising event is large enough scale to necessitate the planning is done by more than one individual, then those two or more people will receive a fundraising credit. Fundraisers must be approved by the leadership team and in some cases the school before occurring.

Organizing a team fundraiser that earns up to $299 will earn a student 2 credits, $300+ earns 3 credits, $400+ earns 4 credits and 500+ earns the maximum 5 fundraiser credits. Parents who organize team fundraiser can also earn credits for their students. Participation credits are determined by the Leadership Team and will be communicated in the weekly team updates and announcements.

Please refer to the Wiki on our website for instructions on how to organize a fundraiser and section 7 of this document for more information.

3.2.7. Patron Drive

Sponsorship from businesses is an easy way to raise money, and a great way to get out the word about *FIRST* Team 1511 and *FIRST* Robotics! Each **new student will be asked to EITHER visit 5 businesses OR get $500 in donations** towards the patron book. Returning students must visit **15 businesses or get $1,000 in donations for the achievement**.

Businesses will be assigned by a team mentor or parent to prevent doubling on patrons. If you have a preference, or a new business to visit, please address this with the mentor or parent in charge of the Patron Drive. You can visit more than the minimum number of businesses! Once you have visited all your assigned businesses, if you want to visit more, you still must get these assigned by the adult in charge of the Patron Drive.

Students may work as teams, but each individual student must have a list of separate businesses or donations amounting to $500 or $1,000. For example, if two returning students go together, they will be expected TOGETHER to visit 20 businesses or obtain $2,000. The team will do its best to divide up donors from prior years, but students who obtained the sponsorships in prior years will be given preference.

Team Uniforms (team shirt and red camouflage pants/shorts) MUST be worn to ALL team events (FIRST Outreach, Fundraising, Special Events, Competitions) in order to receive credit for the activity. For new students, red shirts/sweatshirts or PHS attire will be sufficient until a team uniform is acquired. For more details on Team Uniforms, please see Section 8.3.

Each activity will have a student responsible for organizing the activity, communicating it to the volunteers, and arranging for transportation, a camera, and a team adult participant. **Students WILL NOT receive credit for activities for which no photos were submitted**, so it is in the best interest of all students involved to ensure that photos are taken and placed on Teams in a folder under the Team Photos channel. For help on getting photos posted to Teams, talk to our Team Leader.

3.2.8. FIRST Support



It is a goal of *FIRST* Team 1511 to support all *FIRST* programs.

FIRST LEGO League Explore is the elementary level of *FLL*, ages 6 to 10.

FIRST LEGO League Challenge is the middle school level of *FIRST*, ages 9 to 14. Their season kicks off in September and ends with a Championship Tournament. Winners of the tournament could earn a spot at the World Championships.

FIRST Tech Challenge is for grades 7 to 12 (in Penfield District), building a robot that is smaller than an FRC robot with a pre-made kit. Their season kicks off in early September and ends with a



Championship Tournament in the Winter. Winners of the tournament earn a spot at the World Championships in April.

Achievement goals for new and returning students are listed at the end of the handbook in the achievement section. FIRST Support achievements can be volunteering at any of the kickoff events or Tournaments, mentoring a team, doing a robot demo or a camp for a team, or helping at any other *FIRST* Team 1511 FLL/FTC related activity, such as the Penfield FLL Qualifier (our FLL Qualifier).

3.2.9. Parental Involvement

The team does a lot throughout the entire year and depends on parent volunteers in many facets. Here's a great way that parents can save money on student trips to competitions and understand what goes on with the team – meet these simple and fun achievements!



Parents/guardians are asked to:

- Attend a Parent Info Session at the beginning of the year (September)
- Attend mandatory pre-travel meetings (February/March)
- Provide at least one meal during build season (see section 3.2.10 below)

Section 4.2 details more fun ways that parents can be involved with the team and help!

3.2.10. Family Provides a Meal

Every family is asked to provide at least one meal during the build season. There will be approximately 50 meals needed during build season. Mentors and students work very hard during this time, and it is important for them to be well nourished. The mentors are providing their time and expertise on a volunteer basis – they are not paid! A tasty meal is a wonderful "thank you" for the effort they put in.

Meals include dinner during the week (Tues - Thurs), and lunch and dinner on the weekends. Meals can be very simple (like ordering pizza, subs, or Chinese food) or as elaborate as you may want. You will receive full information by Teams in December so that you can sign up for the meal(s) you'd like to provide.

We do not have access to the kitchen facilities at the high school. Please plan to make the meals offsite or cook in the spaces we have available.

There are additional ways (very much appreciated!) that families can help if they choose to:

Paper products: We need compostable plates, napkins, and cups throughout the entire pre-season. We also need compostable plates, napkins, cups, bowls, and utensils during the build season.

Beverages: We also need families to donate beverages throughout the build season. It could be a case or two of water, a case or two of soda pop, a few 2-liter bottles of water or soda pop, juices, etc. Coffee and hot chocolate mix is also a great idea! (We do have a coffee maker)

Snacks: During build season (when there can be some late-night sessions!), it really helps to have nutritious snacks on hand. Snack donations are always appreciated.

3.2.11. FIRST Registration

Every student is **required to register as a member of 1511 at www.firstinspires.org**.
This must be completed prior to kickoff for participation and the achievement.

3.2.12. Game Test

Each year, the game used in the FRC changes. It is important that every team member have a **good understanding of the game and how it works**. This understanding is essential when the team is working on design concepts and game strategy. In addition, everyone on the team should be able to explain the basic idea of *FIRST* and the fundamental elements of the game to judges and the public. **Tests must be proctored by an adult team member.**

3.2.12.1 Drive Team and Pit Crew Grades: 100%

Members of the drive team and pit crew will be expected to **pass the game test with a perfect score**. It is essential that the drive team and pit crew fully understand the game, all the rules, and especially all the methods of scoring points or receiving penalties. All potential drivers, coaches, human players, and pit crew members will have to pass the written test before the drive team, backup drive team, and pit crew are selected.

3.2.12.2 Returning Team Member Grades: 90%

Returning members of the team will have to pass the game test with a **90% score** or higher to get the achievement.

3.2.12.3 New Team Member Grades: 90%

New members of the team will have to pass the game test with an **90% score** or higher to get the achievement.

3.2.13. Tools and Component Test

All students are asked to work on the robot. This includes a working knowledge of all tools that are used in the shop. Students should be able to identify these tools.

All students, new and returning, must receive **100%** on the tools test to get the achievement.

3.2.12.4 Take as many times as needed

The Game Test and Tools Test are **viewed as a learning tool**, and everyone will be **allowed to take the tests as many times as needed** until they pass. However, all tests MUST be passed before our first competition (usually in early March) for the achievement. However, we strongly encourage students to pass the test before the end

of build season as that is when there is the most opportunity for an adult proctor to be present.

3.2.14. Safety Training

All students will attend a safety training session during one of our team meetings. In this training we will go over general safety practices.

3.2.15. Inability to Complete Achievements

There are occasionally extenuating circumstances that may prevent a student from fulfilling all these achievements. In this case, it is best for the student and/or parent/guardian to bring the situation to the **team leader's** attention for consideration on how best to accommodate these circumstances. We want all students to have the ability to fulfill these achievements and have their trips funded.

3.3. School Eligibility

Success is an important part of *FIRST* and *FIRST* Team 1511. It is not restricted to the robot, game performance, or how many trophies the team is awarded. Team members are successful when they succeed in the classroom, and then participate in team activities. All team members are expected to make schoolwork and individual academic performance a priority. To implement this concept, every student will have to **maintain eligibility through school rules**. Please see the PHS Student Handbook for more information on eligibility requirements. Students that fall below this minimum requirement will not be allowed to participate with the team but will need to focus on improving their overall academic performance.

3.3.1. Ineligibility

Students that become ineligible as determined by the School District will be **ineligible for the time period determined by the School District**. During the ineligibility period, the student will be expected to focus on resolving the reason they are ineligible and cannot attend any team events or participate in building the robot. Once the student is eligible as determined by the School District, they will be allowed to fully participate on the team again.

3.3.2. Help Available

Any student member of the team that is struggling with schoolwork can seek help. The team will have **resources available to help students with schoolwork**. You do not need to be ineligible or on probation to seek/receive help – just ask! If you don't know who to ask, then talk to the lead mentor for guidance. Student members that are ineligible or on probation should expect to be offered help, as we want all our students to succeed academically as well as on the team.

3.3.3. School Takes Precedence

Academic performance takes precedence over team activities and events. Students are expected to complete all schoolwork before participating in team events or activities.

3.4. Team Rules

We ask that EVERYONE **treat each member of the team with respect** and treat others the way that they want to be treated. We also want **EVERYONE to have fun**!! The most important part of the team is learning while having fun. Everyone on the team should feel included and it is important that all members of the team create an inclusive environment.

Our team is large and has many tasks. We also travel to many areas around our local community and beyond. To be a fun, role model team and to keep everyone on our team safe and accounted for, we have several rules:

A. **Buddy System** – Students are not allowed to travel by themselves. Students must always have a buddy with them. However, you may not have a buddy of the opposite gender. If you do, then you must have a third buddy.
B. **Be nice to everyone** – We ask that, as a rule, everyone be respectful of everyone they meet. At competitions, members of the *FIRST* community and judges are everywhere. In addition to the venue, they are on the street, in the same hotel as us, or eating at the same places as us. This means being quiet in the halls of the hotel, always watching your language, even among friends, and being polite and friendly to everyone you encounter.
C. **No gossip!** – Everyone wants to have a good time and the best way to avoid that is by reducing the amount of gossip. If you have a real issue, it is best to discuss it with a teacher.
D. **No working alone** – Students are not allowed to be working in any rooms, especially the workshop, without an adult present.
E. **Clean up after yourselves** – No one wants to clean up your mess, so it's your responsibility to do so. This includes throwing out your dishes after team meals, logging out of computers you're working on, cleaning machines, and sweeping the floor after working in the shop (do this even if you're not the last to leave!), and putting away any materials where you found them in our various storage areas.

We have found that if these simple rules are followed, everyone has a great experience.

3.4.1. Behavior

All school rules of conduct apply to our team. **Each team member is ultimately responsible for their own behavior**. However, how team members behave will reflect on the team, the school, and the sponsors. You are expected, always, to be polite and respectful of everyone, and to refrain from activities that are considered disruptive. We are all role models, and our goal is to present an image that is positive and in the spirit of team building – not a phony image, but an authentic attitude of appreciation and professionalism. Negative behavior such as shoving, hitting, fighting, name calling, destructiveness, stealing, or constant griping and complaining are not helpful and will not be tolerated. Inappropriate behavior will be subject to disciplinary action up to and including removal from the team. Additionally, team members **WILL NOT play computer games** during meetings or times when they could be more productive. If students are disruptive or are not participating in the team-assigned activity, they will be sent home. We like to have fun, but also have cooperative, productive participants.

3.4.2. Disciplinary Action

Disciplinary Action may need to be taken on an as needed basis. This will be determined by the lead teacher and the team leader. Oftentimes, the student will be given a verbal warning. Based on the level of the offense, the student may be removed from team participation for one week or removed from the team entirely.

Students are expected to adhere to the requests of all mentors and teachers on the team. If a student has an issue with a specific request, they must talk to the lead mentor or teacher advisor. Mentors and Teachers are trained in proper behavior with students and requests should not be unusual. Requests are usually to stop a behavior that is inappropriate or disruptive.

3.4.3. Safety

Remember that **safety comes *FIRST*, LAST, and ALWAYS**. Always **wear safety glasses**, tie back loose hair and clothing, and wear closed-toed shoes when working on the robot or going

into the pit area. *FIRST* requires teams to bring safety glasses to competitions – they don't require a robot, but they do require safety glasses!

You can help keep everyone be safe by making fliers, pamphlets, and DVDs about proper safety procedures. Safety and Shop training is offered at the beginning of the season. Every student should attend this training. A student **safety captain** will be designated at the start of the build season. This safety captain will be responsible for making sure that EVERYONE follows proper safety procedures. However, **everyone** should be aware of the safety rules and make sure everyone is acting safely.

4. ADULT MEMBER EXPECTATIONS

Mentors, parents, teachers, and alumni on *FIRST* Team 1511 are encouraged to be **actively involved** with the team. We invite you to participate in team events, meetings, and work sessions – we have a good time, and we think you will, too!

4.1 Mentor Roles and Responsibilities



4.1.1 Commitment

Helping the students reach their full potential is the primary reason for participating in *FIRST*. We know that mentors have families, jobs, and other important commitments outside of *FIRST*. We ask that mentors properly inform us up front of how much time they think they will be able to contribute. There are many different ways to contribute to the team (not just technically!), and we will find something that will fit your schedule and interests, but we also highly encourage you to jump right in! Involvement may include anything from preseason subteams and meetings, to fundraising, to community service activities, to build season work. Mentors are asked to participate outside of build season whenever possible, as it helps with teambuilding and getting team activities done. The rewards of putting forth this commitment are plentiful!

4.1.2 Leadership

The leadership of this team is a cooperative effort between mentors and student leaders. Each year's student leaders are selected after competition season ends, so that they have the summer to plan the next year's activities. The main advisor of the Leadership team is the Team Leader. Mentors with ample time are encouraged to support and participate in the Leadership team. Mentors are also expected to help lead and guide the subteams with the students.

4.2 Parents/Guardians

Parents/guardians are an integral part of our team and important to our success. The robotics team becomes a family throughout the year because the members spend a lot of time together. The students learn about hard work, perseverance, commitment, patience, joy, failure, computer skills, respect, engineering, writing, interviewing, business skills, money management, marketing, production, publishing, kindness, time management, and most importantly, gracious professionalism. Having the involvement of their parents will only enhance this experience for them.

Achievements for parents/guardians are listed in section 3.2.9 above. In addition, some things the team needs from parents are:

- Providing timely transportation for their student to/from team events (this may include car-pooling)
- Assisting and supporting their student in fundraising, robot demo and community service activities
- Providing accurate medical information for their student, and keeping the team leader informed of any changes
- Participating in any team activities – it really helps to have parents present at these events! Parents are frequently needed to transport the robot(s) and students to and from demos, to provide adult supervision at car wash fundraisers, etc.
- Chaperoning team trips*
- Helping your student organize an event or activity
- Mentoring*
- Administrative duties (Patron Drive Coordinator, Patron Book, Awards Submissions, Marketing, PR, Meal Coordination, Achievement Tracking, RBR Members, Summer Camp Organizer, Trailer Towing, Fundraising Coordinator, Car Wash Coordinator, Demo Facilitator, Concessions Organizer, Parent Team Banking, Team Picnic Organizer, Travel Coordinator, Uniform Ordering)



*Parents who chaperone will have their travel paid for in full (food and touring expenses excluded). The team may also pay for travel based on parents' level of involvement on the team. Oftentimes, this level of involvement means that you have mentored throughout the year.

Any and all support that can be provided by you and your family, as well as new ideas, is welcome. Every person has unique attributes that can be used for the good of our team. Here is a list of 101 ways that parents can help a *FIRST* team.
101 Ways Parents Can Help A FIRST Team

4.3 Teacher Roles/ Responsibilities

Teachers are important assets to our team. They are responsible for:

- Facilitating communication with the school
- Filling out legal absence forms in advance of trips
- Explaining school rules and implementing them
- Head chaperones for trips
- Helping with recruiting efforts and promoting any events or activities within the school
- Maintaining order and appropriate student behavior at team meetings and events
- Handing out/collecting trip permission and health forms

The main teacher will act as the school liaison and will attend team meetings whenever possible. Additional teacher support can be used to help facilitate subteams, as well as to help divide up supervision of competitions and other school-related duties.

4.4 College Student & Alumni Volunteers

College students and alumni who are under age 21 and have graduated from high school fall under this category. They do not have mentor responsibilities such as direct mentoring of students or discipline of students. They support the team by sharing their *FIRST* experiences, acting as a role model to the students, and participating in any events, team meetings, and subteams. They also may come to competitions and the team may pay for their travel based on their level of participation.

4.5 Team Alumni Involvement

FIRST Team 1511 has a growing number of alumni who want to stay involved with the team in some way. We welcome their involvement, whether it's in a mentoring role, attending events to cheer the team on, or simply staying in communication with our team.





4.6 Impact Team

Striving to be an Impact Team requires our team to go above and beyond just building a robot. It means pursuing excellence in all facets of *FIRST* Robotics. This means that our team must be a role model for other teams and our community, demonstrating gracious professionalism and the most respectful form of sportsmanship at all times. This also means expanding our outreach to the community through robot demonstrations and FIRST outreach to change the culture increasing the recognition and appreciation of *FIRST*. **We ask that all team members, including adults, help us in achieving our goal.**

5. TEAM STRUCTURE

5.1. Team Leadership

The team Leadership group will be **comprised of students selected by lead mentors and elected by their peers and the team, as well as mentors**. If team members not on the Leadership team have concerns, questions, or suggestions, they may email the leadership@penfieldrobotics.com and this will be discussed at the following Leadership meeting.



5.1.1 Meetings

The Leadership team will meet once a week for 1 to 2 hours every week throughout the year. Some meetings may be cancelled due to holidays, etc. at the discretion of the lead mentor and based on available attendance. Meeting times will be determined by the Leadership members' availability.

5.1.2 Leadership Responsibilities

The Leadership team will oversee:

- Coming up with agendas and running the team meetings
- Organizing the preseason curriculum
- Making decisions about the team (including, but not limited to, the decision to participate in robot demonstrations, FIRST Outreach activities, rule changes, etc.)
- Creating and distributing team communications
- Maintaining and updating the team calendar
- Maintaining team funds

5.1.3 Election Procedure

Students interested in applying for a Student Leadership position will:

1. Apply using an application.
Mentors will review applications and select students to move on to the next stage.

2. Interviewed by a panel of mentors.
Mentors will evaluate and pass students to the final stage.

3. Short speech to entire team.
The team will then vote to elect the student leaders for the upcoming school year.

Students must apply for Leadership every year regardless of if they have been on Leadership before.

A maximum of ten student leaders will be selected. Each grade will be represented by at least one leader from that grade. Nine student leaders are elected in the spring for the next school year. In the fall, the tenth leadership spot will be filled by a **new** student member from any grade.

The Leadership team selects the Team Captain from among them. Within the Leadership group, additional roles and responsibilities will be assigned. The main roles of Leadership are Team Captain, Communications Coordinator, FIRST Outreach Coordinator, Publicity Coordinator, Advocacy Coordinator, Subteam Coordinator, FIRST Coordinator, and Treasurer.

5.2. Subteams

Each subteam, in both preseason and build season, will **determine a student leader and a mentor leader** to oversee reporting progress and interfacing with the other subteams.

5.2.1. Preseason

In the preseason, subteams will be set up to take care of team functionality and to learn the knowledge necessary for the build season. Each subteam will meet at a different time, separate from the team meeting. Subteams will determine their meeting times and days based on the availability of the subteams' members. The following is a list of the subteams and their potential tasks. Each subteam will be asked to **determine their goals for the preseason**, so these tasks may change.

Subteams:

Impact Award

- Write Impact Submission Essay and Executive Summary
- Create Impact Submission Presentation for Judges
- Create Impact Submission Video
- Select Presenters for Impact Presentation
- Aggregate all needed data for Impact Submission

Mechanical

- Learn Autodesk Inventor
- Design and build preseason drivetrain
- Design and build preseason mechanism
- Review past year's competition for ideas
- Clean and rework prior robots' mechanical systems
- Study other teams' previous robot designs for ideas

Electrical/Pneumatics

- Develop a preseason prototype board
- Learn motor characteristics
- Learn wiring diagram
- Learn pneumatics rules/regulations
- Develop a sample pneumatics demonstration
- Clean and rework prior robots' electrical systems
- Experiment with sensors

Programming

- Learn C++ programming language
- Understand last year's code

- Make modifications/improvements to prior robots' code
- Develop techniques for autonomous mode
- Write code for all available sensors

Publicity

- Discuss/rework logo
- Design team shirts and buttons
- Record all team meetings and events through photo and video
- Update Smug Mug
- Create team recruiting videos and promotional videos
- Determine submissions/criteria for other awards: WFA, Technical, etc. and help team achieve them
- Update the Website content
- Create team fliers, pamphlets, team newsletter and marketing items
- New member recruiting
- Monitor team budgets and fundraising budget (with treasurer)
- Maintain student handbook
- Keep track of student/team achievements
- Organize/oversee fundraisers
- Run the Patron Drive and develop the Patron Book
- Help with Animation and Animation Submissions as needed

FIRST Outreach & Advocacy

- Organize FIRST Outreach events.
- Come up with new FIRST Outreach initiatives.
- Advocate for FIRST in our legislature.

Strategy/Drive Team

- Review and learn the rules from last year
- Decide on methods for strategy development
- Train drivers and human players
- Come up with scouting strategies and software/database

5.2.2. Build season

During build season, the subteam activity will change. The Strategy/Drive/Rules, Impact Award and Publicity subteams will continue with their work from preseason. The Mechanical team will branch out into designing the Drivetrain and Mechanisms as required by the game, and the Electrical and Programming teams will work with the Mechanical teams to integrate a fully functional robot.

FIRST Team 1511 constantly works to improve our build season process, making teamwork between the subteams smoother by holding regular integration meetings. Additionally, each robot-related subteam creates "engineering notebooks" during build season, which are posted on the Wiki. Each engineering notebook entry includes the names of team members participating, the date and start/stop times, the tasks accomplished, and the next tasks to do. Entries can also include lessons learned that day, photos, details, spreadsheets, CAD screenshots or drawings, etc. The purpose is to make it easy for someone to pick up a subteam's ideas and keep them going if no one from that subteam is present.

Students and mentors in each subteam are expected to communicate when they will be able to attend build season meetings to optimize their time.

Below are descriptions of some of the important goals for subteams during build season.

Strategy/Drive/Rules:

- Everyone on the drive team must read and understand all the rules in the game manual.
- Select drivers, human players, and coaches for a primary and secondary drive team.
- Train drivers, human players, and coaches how to correctly play the game.
- Train drivers on how to handle driving the robot.
- Members must work together to develop strategies for game play.
- Coaches must be familiar with these strategies and be able to inform the drivers on how to carry out the strategy.
- Scouting will be done before, during, and sometimes after competitions. Scouting includes robot design and performance, practice round results, and match results.
- Data retrieved from scouting will be analyzed so that coaches can develop new strategies and select team alliances.

Drivetrain Design:

- Responsible for selecting a drivetrain design that matches the team's primary strategies.
- Will design the drivetrain in CAD, select and design wheels, and procure and build all drivetrain parts, then assemble the drivetrain.
- Should interact with the electrical subteam to determine the placement of the electronic components.

Mechanism Design:

- Responsible for designing any arm, gripper, manipulator, or other mechanism that will be used to play the game.
- Will design the mechanism(s) in CAD, select and procure parts, and build all mechanisms.
- Will be responsible for interfacing with the electrical and programming teams to communicate the needs for the robot mechanisms.

Electrical:

- Responsible for designing and laying out the electrical subsystem.
- Will implement all sensor needs, and make sure that there is appropriate mechanical design to accommodate sensors and electrical components.

Programming:

- Responsible for designing a program that accomplishes the needs of all the functions of the robot.
- Responsible for determining best implementation of autonomous modes and should communicate sensor needs with the electrical subteam.

Field:

- Analyze field drawings from *FIRST* and determine method of designing game field for Rally.
- Create a bill of materials for what is needed to build the field.
- Fabricate and assemble the field in time for the Rochester Rally Pre-ship event.
- Store materials in a way that they can be reused for later demonstrations.

5.3. Integration

Communication among subteams is important to **keep the team coordinated and productive and on task**. Representatives from each subteam will meet regularly to discuss their subteam's progress. One student from each subteam will act as a delegate for their subteam. They are responsible for providing everyone in the group highlights of what their subteam has been doing, as well as bringing back information from the meeting to the rest of their subteam. The number of Integration meetings per week will be determined by the Team Leader. During these meetings, any needs a subteam has will be addressed and acknowledged by the other subteams.

5.4. Communication

FIRST Team 1511 will have communications to keep everyone informed. A **weekly update** will be sent to all members via Teams. All events will be posted on the team calendar on our website.

Microsoft Teams will be used to message members and hold group chats to help accommodate quick questions and conversations.

The Publicity and Leadership groups will be responsible for creating and distributing a **team newsletter**, which is intended to tell the community outside of the team what the team is working on, interesting topics, and present a calendar of activities.

All team members should be added to Microsoft Teams.

Microsoft Teams is safe and moderated, but as with all internet communications, students are encouraged to use smart internet activity, not give out personal information, etc.

6. TEAM HOSTED EVENTS

Our team hosts 3 events. Each event requires a significant amount of time prior to the event to organize and plan it, as well as volunteers to perform various tasks at each event. These are great opportunities for parents to volunteer. Below is a brief overview of each event.

6.1. Rochester Rally

Rochester Rally occurs usually late February. It is hosted at Penfield High School. We build a replica of the competition field and host a scrimmage for local teams to practice their newly built robots.

6.2. Rah Cha Cha Ruckus



Rah Cha Cha Ruckus occurs in October. It is our Halloween-themed offseason event. It mimics an actual competition, but lasts only one day, so it is a great opportunity for new members and parents to see what the competition will be like. This event is typically hosted at the Main Street Armory in Rochester in mid to late October. Thirty-plus teams from several different states and Canada come to participate and it is our biggest, most important event. Planning for this event begins in June and anyone is welcome to join the planning committee. Talk to Larry, our lead mentor, and the head of the planning committee, if you are interested in helping next year. We also need

many of our team members to volunteer to make this event run smoothly. If you're interested in volunteering in the event, you can visit the Ruckus site at http://ruckus.penfieldrobotics.com.

6.3. Penfield FLL Qualifier



In 2014, we hosted our first official FLL Qualifier event! We will continue to host this event at Penfield High School in the cafeteria and East Gym. This event usually occurs one weekend day in mid-November or December. We will require many volunteers, student, and adult, to help this event run smoothly.

7. FUNDRAISING



L3Harris is very generous to the team, but **we also need to raise funds to help offset team travel costs.** Fundraising may include bottle/can drives, car washes, pancake breakfasts, etc. Fundraising forms are submitted through the team treasurer with estimates on costs and profit. (See section 3.2.6 for the fundraising achievements expected from new and returning team members.)

7.1. Fundraising Process

Fundraisers must be approved by the leadership team and in some cases the school before occurring. Students organizing fundraisers are responsible for filling out a team fundraising form, as well as the green fundraising forms that are turned into the school through the team treasurer. The school will notify the team when the fundraiser has been approved. Once it is approved, the organizing students should proceed with organizing and running the fundraiser. Participation credits are determined by the Leadership Team and will be communicated in the weekly team updates and announcements.

We encourage students to find fundraising opportunities. Parents are allowed to help their students with finding these opportunities and running the fundraisers. Mentors may also present fundraising opportunities but are not expected to organize them.

8. TRAVEL/ COMPETITION

Regional and Championship competitions are the high-spirited and exciting “robotics sporting events” that take place in March and April nationally and abroad.



8.1. Schedule

The regional events that we choose typically are in the northeastern United States and southern Canada. Anywhere between 30 and 80 teams compete at each event. We generally attend the **Finger Lakes Regional at RIT and a second regional based upon schedule and location.** Most events occur Thursday through Saturday. The team typically travels to the event the night before the competition starts.

The second regional is typically a bus trip, and **permission forms and medical forms will be required** for each student. Parents and family are welcome and encouraged to attend and cheer our team on – non-chaperoning family can often get the team rate for travel (bus and/or hotel), so by all means inquire about traveling with the team. Chaperones will also be needed (parents, this is a GREAT way to attend the competitions without breaking your budget!). The team will attend the Championship event in Houston, TX. **If each team member completes their achievements (fundraising, community service, etc.) the only cost to each student will be the deposit, food, and souvenirs.**

Deposits and trip costs are non-refundable.

8.2. Rules

All rules and behavior expectations from section 3.4 apply to travel and competition. All school rules for field trips apply as well. Additional rules will be discussed in a pre-travel team meeting, which parents are encouraged to attend (the date, which will most likely be the Tuesday before our first competition, will be announced in the weekly team update). All questions about rules and travel can be asked at this meeting.

8.3. Uniforms

All team members will wear a uniform designed by our team members that is unique to our team and helps us be recognized at events. Currently, the uniform is **a team shirt and red camouflage pants that will be worn at all events on all days.** The team will also likely have sweatshirts, hoodies, etc. available for purchase. Each active team member (students, mentors, and parent mentors) will be provided **two team shirts**, but the team member and any family or friends can buy additional shirts or uniform pieces. The two team shirts can be worn on the Friday and Saturday competition days. Thursday, practice day of competition, is our “Throwback Thursday” where returning team members will wear previous years’ shirts.

All team members will be **REQUIRED to wear team uniforms** (minimum of a team shirt and red camo pants) at all competitions, robot demonstrations, community service events, and fundraisers in order to represent the team and obtain credit for participating in the event. The exception to this is if an organization requires volunteer shirts (e.g., volunteering for marathons) or if you are a new student and have yet to obtain team gear. New students may also purchase team gear from previous years at a discount price. Otherwise, you may wear team colors (red/black/white) or a Penfield High School shirt.

Exceptions may be made if directed to wear something different by a Lead Mentor or Teacher (i.e Impact presenters, Team Mascot). If an adult (Teacher, Mentor, Parent) asks a student to change what they are wearing because it does not follow school or team dress code, then students are expected to abide by this request.

8.3.1 Appropriate Wear

What you wear at team meetings and events should be appropriate and follow the Penfield High School Dress Code. We are working in a semi-professional environment with professional adults so clothing that is revealing, loose, or not appropriate for the workshop should not be worn. If you are not sure if something is appropriate, err on the side of not wearing it. Plus, safety comes first. Make sure you do not have loose strings (i.e., hoodie strings), opened toed shoes or clothing/accessories/hair that can get caught in machinery.

8.3.2 Alterations

The camouflage pants may be altered to be shorts or skirt (up to finger-tip length when standing or mid-thigh). At competitions, something should be worn under skirts such as athletic shorts, leggings, etc. as you may need to kneel or crouch down.

The shirt sleeves may be hemmed to a shorter length and the size tag can be removed. However, no other alterations may be made to the shirts. The neckline cannot be made wider, slits/holes may not be cut into the shirt, the shirt design and sponsors may not be altered in any way, and the shirt may not be cut shorter.

8.3.3 Hair/Accessories

You are more than welcome to get creative here! Mohawks, hair dying, face paint, hats, buttons, jewelry, nail polish, other flare items, etc. are all acceptable. Go crazy! But just make sure that it's safe and appropriate; items are not inhibiting vision of you or others or can dangle to get caught in machinery.

8.4. Health

All students will make sure to **take care of their health during the year, and especially during build season.** Students are not permitted to provide any form of medication to other students. Any student that becomes ill or injured during a trip should report to a chaperone for appropriate action.
If you are sick, please stay at home. Certain individuals on the team could have serious medical conditions where getting sick could be dangerous or life threatening for them. Please consider this if you are sick and are thinking of going to robotics. Getting others sick will slow down our progress as a team and also makes the build season less of an enjoyable experience.

8.5. Forms

All students will be required to submit all required school district forms in order to attend any of the team events.

9. COLLEGE AND CAREER OPPORTUNITIES

Inspiring the next generation of STEAM leaders!

As the mission of the *FIRST* program is to inspire students in science and technology fields, it is one of the **team's goals to provide guidance in college and career opportunities for science, technology, engineering, art, and mathematics.**

9.1. Scholarships

Scholarship information is available online at https://www.firstinspires.org/scholarships.
There are over $100 million worth of scholarships at colleges and universities all over the country! Mentors will be available to write recommendation letters for any students applying to college or for scholarships. In addition, some colleges and universities have an application fee waiver, which can be provided by an alumnus. Many of our mentors and alumni have attended accredited colleges and universities, such as MIT, RIT, Clarkson University, University of Buffalo, Renssalaer Polytechnic Institute.

10. STUDENT APPLICATION PROCESS

Each student member will be responsible for filling out an application to be on the team. All applications are due prior to the due date on the application, and **students who have NOT submitted a complete application will NOT be allowed at team or subteam meetings after the due date of the application**.

11. IMPORTANT CONTACTS

Each team member will be supplied with information of who are the key leaders, mentors, teachers, and other team contacts. Please check and your Microsoft Teams regularly for important information.

Larry Lewis: Team Leader
Email: larrylewis1511@gmail.com

David Weisbrod: Lead High School Advisor
Email: dweisbrod@penfield.edu
Work: 585-249-6891 Ext: 8703

Ralph Pizzo: High School Advisor
Email: RPizzo@penfield.edu
Work: 585-249-6891 Ext: 8807

Edward Levine: High School Advisor
Email: ELevine@penfield.edu

NEW STUDENT ACHIEVEMENTS SHEET

This sheet serves as a reminder of the achievements that are necessary for new students interested in having all their trips fully funded (minus deposit) by the team. Keep this at home to track your progress. New students are students who have NEVER participated in *FIRST* Team 1511, regardless of their grade level.

☐ Student Application and Contract Due 09/29/2026 (students joining after due date will have 2 weeks to fill out the form)

PRESEASON – DUE BEFORE KICKOFF

☐ Completion of all school district required forms

☐ 50% Preseason Team Meetings

☐ Attend 70% of your Primary Preseason Subteam meetings

☐ 15 FIRST Outreach Demonstration Credits

☐ 14 FIRST Support Credits (Supporting FLL, FTC, and FRC teams and events)

☐ Patron Drive Fundraising: 5 businesses or $500

Participation = visiting at least 3 businesses

No Patron Drive participation will limit student to max of 50% achievement level!

Getting grants can count towards your patron drive. Gifts in kind will be awarded at retail value.

☐ 3 Fundraising Participation Credits

No Participation in Fundraisers will limit student to max of 75% achievement level!

Organizing a team fundraiser that earns up to $299 will earn a student 2 credits, $300+ earns 3 credits, $400+ earns 4 credits and 500+ earns the maximum 5 fundraiser credits.

Bonus: Visiting 3 businesses given up by other students OR visiting 1 new business who donates $100 or more will earn 1 Fundraiser Credit.

☐ Parent/Guardian Attends Info Session

☐ Register as a member of 1511 at www.firstinspires.org

BUILD SEASON – DUE BEFORE RALLY

☐ 80 Hours Build Season Work (MUST BE PRODUCTIVE)

- Can Include up to 10 Homework Hours

☐ Family Provides One ENTIRE Meal per team member for Build Season.

☐ Get 100% on Game Test

☐ Pass Shop & Safety Test (100% for achievement)

☐ Student School Eligibility

☐ Adhere to FIRST Code of Conduct and Team Behavior Expectations

⚡ Complete Bonus Achievement to add 1 overall achievement completion to your preseason and build season achievements. See BONUS ACHIEVEMENTS SHEET

Revised 9/29/2026

RETURNING STUDENT ACHIEVEMENTS SHEET

This sheet serves as a reminder of the achievements that are necessary for returning students interested in having all their trips fully funded (minus deposit) by the team. Keep this at home to track your progress. Returning students are students previously on *FIRST* Team 1511.

☐ Student Application and Contract Due 09/29/2026 (students joining after due date will have 2 weeks to fill out the form)

PRESEASON – DUE BEFORE KICKOFF

☐ Completion of all school district required forms
☐ 75% Preseason Meetings
☐ Attend 70% of your Primary Preseason Subteam meetings
☐ 40 FIRST Outreach Demonstration Credits
☐ 14 FIRST Support Credits (Supporting FLL, FTC, and FRC teams and events)
☐ Organize 1 FIRST Outreach Demonstration **OR** FIRST Support Activity
☐ Patron Drive Fundraising: 15 businesses or $1,000
No Patron Drive participation will limit student to max of 50% achievement level!
Participation = visiting at least 8 businesses
Getting grants can count towards your patron drive. Gifts in kind will be awarded at retail value.
☐ 5 Fundraising Participation Credits
No Participation in Fundraisers will limit student to max of 75% achievement level!
Organizing a team fundraiser that earns up to $299 will earn a student 2 credits, $300+ earns 3 credits, $400+ earns 4 credits and 500+ earns the maximum 5 fundraiser credits.
Bonus: Visiting 3 businesses given up by other students OR visiting 1 new business who donates $100 or more will earn 1 Fundraiser Credit.
☐ Parent/Guardian Attends Info Session
☐ Register as a member of 1511 at www.firstinspires.org

BUILD SEASON – DUE BEFORE RALLY

☐ 100 Hours Build Season Work (MUST BE PRODUCTIVE)
- Can Include up to 10 Homework Hours

☐ Family Provides One ENTIRE Meal per team member for Build Season.
☐ Get 100% on Game Test
☐ Pass Shop & Safety Test (100% for achievement)
☐ Student School Eligibility
☐ Adhere to FIRST Code of Conduct and Team Behavior Expectations

⚡ Complete Bonus Achievement to add 1 overall achievement completion to your preseason and build season achievements. See BONUS ACHIEVEMENTS SHEET

Revised 9/29/2026

BONUS ACHIEVEMENTS SHEET

This sheet lists out the bonus achievements that will award 1 extra achievement completion for each bonus achievement completed.

Example: A student has completed 9 of 10 achievements. Then that student completes a bonus achievement. That changes the student's achievements to 10 of 10.

The idea behind bonus achievements is to recognize a student and their family's unique efforts on the team, yet do not fit into any of the existing achievement categories.

☐ Parent organizes an event (demo, fundraiser, etc.)
☐ Parent participates on a team event committee (FLL, FTC, Ruckus, etc.)
☐ Parent takes on critical team parent role (patron book, fundraising, advocacy, etc.)
☐ Parent volunteers at 3 team events. (Ruckus, FLL, FTC, etc.)
☐ Parent provides 3+ Build Season meals
☐ Parent provides transportation to an event 75+ miles away (NAC, Albany STEAM Day, NYSF, etc.)
☐ Student recruits a new student to the team and the new student is still involved (attends 50% of team meetings) prior to Rally
☐ Student sets up or tears down field 15 times.
☐ (Two Achievements) Student participates in both FRC 1511 and FTC 6996