

Farmington FIRST Robotics  
Team #178  
The 2<sup>nd</sup> Law Enforcers  
Handbook for Parents

Version 5.0.5  
(Updated 10/2019)

## **Part I: What is FIRST?**

FIRST® (For Inspiration and Recognition of Science and Technology) was founded in 1989 to inspire young people's interest and participation in science and technology by inventor Dean Kamen and MIT Prof. Woodie Flowers Based in Manchester, NH, the 501 (c) (3) not-for-profit public charity designs accessible, innovative programs that motivate young people to pursue education and career opportunities in science, technology, engineering, and math, while building self-confidence, knowledge, and life skills. Dean's vision for FIRST is to "To transform our culture by creating a world where science and technology are celebrated and where young people dream of becoming science and technology leaders." FIRST has grown significantly since the beginning. Now, FIRST has 67,000+ teams in four programs. More than 300,000 coaches, mentors, and volunteers make FIRST happen. FIRST is supported by a network that includes 200+ of the 500 Fortune 500 companies. FIRST Sponsors include corporations, educational and professional institutions, and individuals. For more data on FIRST, visit <https://www.firstinspires.org/about/at-a-glance>

The four official FIRST programs are:

- FIRST Robotics Competition (FRC®) Grades 9-12 (ages 14-18)
- FIRST Tech Challenge (FTC®) Grades 7-12 (ages 12-18)
- FIRST® LEGO® League (FLL®) Grades 4-8 (9-14 in the U.S. and Canada)
- Junior FIRST® LEGO® League (Jr.FLL®) Grades K-5 (ages 6-10)

## **FIRST Philosophies**

### **Gracious Professionalism®**

Gracious Professionalism is part of the ethos of FIRST. It's a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community. With Gracious Professionalism, fierce competition and mutual gain are not separate notions. Gracious professionals learn and compete like crazy, but treat one another with respect and kindness in the process. They avoid treating anyone like losers. No chest thumping tough talk, but no sticky-sweet platitudes either. Knowledge, competition, and empathy are comfortably blended. In the long run, Gracious Professionalism is part of pursuing a meaningful life. One can add to society and enjoy the satisfaction of knowing one has acted with integrity and sensitivity.

### **Coopertition®**

Coopertition® produces innovation. At FIRST, Coopertition is displaying unqualified kindness and respect in the face of fierce competition. Coopertition is founded on the concept and a philosophy that teams can and should help and cooperate with each other even as they compete.

Coopertition involves learning from teammates. It is teaching teammates. It is learning from Mentors. And it is managing and being managed. Coopertition means competing always, but assisting and enabling others when you can.

## FIRST Core Values

We express the FIRST philosophies of Gracious Professionalism and Coopertition through our Core Values which are consistent across ALL FIRST programs:

- Discovery: We explore new skills and ideas.
- Innovation: We use creativity and persistence to solve problems.
- Impact: We apply what we learn to improve our world.
- Inclusion: We respect each other and embrace our differences.
- Teamwork: We are stronger when we work together.
- Fun: We enjoy and celebrate what we do!

More information about FIRST's vision, mission, and values can be found at <https://www.firstinspires.org/about/vision-and-mission>

## Part II: Team Background & Accomplishments

The Farmington High School FIRST Robotics team began in 1996 - 1997 as a Partnership between Farmington High School and UTC Otis Elevator. Fred Myers, former FHS Science Dept. Chair, and Jim Rivera, a lead Engineer at Otis met and decided to try to form a FIRST Robotics team. Our first robot, Gizmo, helped us to win Rookie All-Star Award at the New England Regional in New Hampshire in 1997 and finished 7th at the FIRST Championships. Thus, Farmington FIRST Robotics began with a spirit of collaboration and respect that has been a hallmark of the team ever since. In 1998-1999, the team took on the name The 2nd Law Enforcers. Our team is a strong partnership of Farmington High School students, engineering professionals (from sponsors UTC Otis Elevator, Parker-Hannifin, and others), teacher coaches, parents, adult mentors, and alumni mentors. We are very proud to say that our team is **student driven and mentor nurtured**. This philosophy is not something that is required by FIRST but rather is unique to the Enforcers.

We are a **year-round team** who works hard from Sept. through August to fulfill FIRST's mission of transforming our culture into one that celebrates science and technology. We do our very best to build a competitive robot every year but we also understand that the robot is a means to an end. We place a high priority on our efforts to reach into the community and share our passion for STEAM (Science, Technology, Engineering, Arts, and Math).

In 2003, students on our team started an initiative called Dream FIRST. Dream FIRST is designed to bring the excitement and love of STEAM to the very young children not old enough to be involved in a formal FIRST program. Dream FIRST is centered around a children's story book Meet Gizmo: The Start of a Journey. The book was written and illustrated by students and was published in 2007. We now feature the book and science activities that we have designed at Dream FIRST events that we run for children at local schools and community groups. We run several Dream FIRST events a year and Dream FIRST has become a core part of the Enforcers team identity.

In addition to Dream FIRST, we reach out to our community through mentorship of FLL teams and FLL Jr. teams in Farmington, supporting other FIRST teams in CT, demonstrations at venues such as the Greater Hartford Maker Faire, Middlewoods of Farmington, East Farms STEAM night, and more.

Since 2006, the team has been recognized with FIRST's second highest honor, the Engineering Inspiration Award, 6 times at competitions in Connecticut, Boston and Toronto. In 2007, we were selected out of over 350 teams for the Engineering Inspiration Award at the FIRST World Championship. In 2015, we won FIRST's highest award, the Chairman's Award for the first time at the Springfield District Competition. The Chairman's award recognizes teams that demonstrate the greatest commitment to spreading passion about science and technology into their communities and schools. Submission involves writing an essay documenting the team's efforts at spreading the message of FIRST and a five-minute presentation to a panel of judges followed by a five-minute Q&A session for the judges. A copy of the team's 2015 Chairman's essay can be found on our website. Last year the team won its first Engineering award - the Industrial Design Award at the Western NE District event. New this year, you can find the team's accomplishments celebrated more prominently at FHS than ever before - when you can, check out the banners displayed in the 700's hallway and the newly updated team trophy case!



The team is composed of several committees in order to focus our efforts on the technical and non-technical projects we choose to work on each year. The engineering related committees (ECOR) are mechanical, electrical, programming, robot support and systems engineering. The community outreach related committees (OCOR) are: competition support, archiving, digital media/PR, and youth initiatives. Students are encouraged to explore their interests by joining projects that involve multiple committees. New members should **not** feel pressured to decide what committee they belong to and should have the time and space to find their niche. One of the things this team prides itself on is that we have a very diverse membership yet each member feels at home.

### Part III: Team Leadership

The team is lead by 5 student officers and several adult coaches. The 2019 - 2020 leadership team is as follows:

Team Captain	Brandon Demkowicz
Director of Community Outreach	Darren Kwee
Director of Engineering	Hannah Zink
Secretary	Seth Frank
Treasurer	Nidhish Shanmugasundaram

Co-Head Coaches  
Engineering Coach  
Assistant Coaches  
Parent Volunteer Coordinator

Tim Barron & Michele Hall  
Charles Forstbauer  
Charlie Bald and Earl Procko  
Amy Hofmann

### **Mentors for 2019-2020:**

Matt Crossman, Trevor Deming, Mark Hofmann, Lisa Nollman, Tuhan Nguyen, Danielle Parkinson, Zarin Salem, and Mark Sims.

*Mentor highlight: in 2018-2019, Enforcer mentor Lisa Nollman was recognized with the very prestigious New England Woodie Flowers Award- the FIRST equivalent of the mentor of the year award!!!*

### **Part IV: Team Communication & Information**

Team members are expected to take an active role in staying on top of team communication. Constant reminders about forms and deadlines slow the works down for everyone. Parents are asked to encourage your child to actively seek out information about what is happening ahead of time so that your family can plan accordingly.

#### The team utilizes four main forms of communication:

1. At every team meeting we start with a full team gathering for a meeting kickoff and we conclude with a wrap-up. The information discussed at the meeting is summarized by the team Secretary who sends out a Secretary's update after each team meeting. The updates are the best way to stay on top of what the team is doing.
2. The team has a google classroom within the fpsct.org domain. Google classroom is a collaborative space for use by teachers, students, and team mentors. The team utilizes Google classroom to post reminders and assignments containing important information that team members need to locate and act on. **Google classroom is where ALL sign ups for team events (competitions and outreach opportunities) are posted.** It is also where all forms and permission slip information is posted. Parents are not able to join the Google classroom at this time but parents may have their student sign them up for automated email updates summarizing what is posted in our Google classroom. Membership in Google classroom also gives team members access to our shared Team 178 Google drive where all team documents are kept. **It is crucial that all student team members pay attention to the team Google classroom and respond to things in a timely manner!**
3. The team Google calendar is located at the team website **[http:// www.farmingtonrobotics.org](http://www.farmingtonrobotics.org)**. Dates through December are already listed, and each event has details listed. This calendar is always the most up to date place for parents to check on upcoming team meetings and events. The team website also is a source of information on team sponsorship and team history.
4. The Google email list ([team\\_list@farmingtonrobotics.org](mailto:team_list@farmingtonrobotics.org)) is where all official team correspondence is sent out. This includes sign ups for events, permission slips, and other important information. Students MUST use their fps email account ONLY for team communication per school rules. There is a separate sign up process for parents who wish to join the email list. **Parents should sign up in person at a parents meeting or contact team coaches to join the email list.**

Parents are added to [parent\\_list@farmingtonrobotics.org](mailto:parent_list@farmingtonrobotics.org), which receives all the emails from the team list, in addition to parent-specific emails (rare). In addition, membership in the parent\_list grants view access to the shared Team 178 Google drive where all team documents are kept. In addition, we have an email list for team mentors: [mentor\\_list@farmingtonrobotics.org](mailto:mentor_list@farmingtonrobotics.org)

5. The team Facebook Group (Farmington FIRST Robotics Team FRC #178) will have announcements about important information and links to details. This group is only for CURRENT team members, their parents and mentors. Graduating team members and departing mentors are encouraged to join the team's Alumni Facebook group so we can stay in touch :)

6. @Team 178 is on Twitter, Instagram (mostly pictures of events or match updates) and YouTube. These are public pages, along with a public Facebook page (search @FRC178). Coaches and mentors insure that all of the team's social media use and activity complies with the Farmington BOE social media policy.

## Part V: Schedule

We meet year-round as a team:

- 2-3 days a week during October-Early December (Pre-season)
  - “Working Wednesday” meetings: every **Wednesday 3-5 pm at FHS**. Full team meetings used for work in computer labs, art wing, Engineering Space and other resources at FHS.
  - Annex Full team meetings: scheduled as 4:15 to 7:15 pm one day a week on **Thursdays**. *Note: the meetings will end at 6:15 pm the last Thursday of each month.*
  - Weekend events: on average one outreach event per month (generally Friday Evening/weekend but occasionally during the week),
  - **Pre-season Event:** Bash at the Beach @ Old Lyme HS Saturday 10/19 (optional, but encouraged)
  - **FLL Qualifier Event** hosted @ FHS Saturday 11/23 (All members needed)
- 6 days a week during Late Dec, January and February (BUILD SEASON)
  - 4:15 to 7:15 Mon, Tues, Thurs (Annex)
  - 3:00 to 5:00 Wed (**@ FHS**)
  - 4:30 to 8:00 Fri (Annex)
  - 10am to 4pm Sat (Annex)
- 2-3 days a week during March and April, including 4-5 competitions (Competition Season)
  - Meeting schedule TBD- will be confirmed no later than Feb 1.
- **CONFIRMED COMPETITION EVENTS:**
  - Waterbury District Event: Saturday March 7th & Sunday March 8th (Set up Friday March 6th) Wilby High School, Waterbury, CT
- **TENTATIVE/UNCONFIRMED EVENTS**
  - Western NE District Event: Saturday March 21st & Sunday March 22nd (Set up Friday March 20th) Alumni Healthful Living Center Western New England University, Springfield, MA
  - New England District Championship At Big E Arena in West Springfield, MA: Wednesday April 8th - Saturday April 11th **TRAVEL/OVERNIGHT TRIP**
  - World Championships at Cobo Center in Detroit, MI): Tuesday April 28th to Sunday May 3, 2020 **TRAVEL/OVERNIGHT TRIP**  
(\*\*\*NOTE: **AP Tests Begin May 4\*\*\***)
- 1-2 days a week during May and June (Post-season)
  - Schedule TBD- will be posted in Feb.
- Occasionally during the summer (3-4 times), based on member interest

There are also MANY other activities, such as community outreach and off-season competitions, which are on the calendar as soon as they are confirmed.

## **Part VI: Our Sponsors**

A FRC (FIRST Robotics Competition) team such as the Enforcers is a multi-faceted partnership between a school and sponsoring organizations from the community. Our team is very lucky to have long-standing and generous sponsors. Our sponsors place a high value on both the impact our team has on our students and the sense of reward that volunteering mentors take away from the experience. While some teams order their sponsors based solely on financial contributions, we consider the time spent with our students to be the most valuable contribution a sponsor can give us.

Our founding sponsor UTC Otis Elevator has been with the team since it started in 1997. Over the years, engineers from Otis have mentored our students and provided strong leadership role models. In fact, the team has a proud history of our engineer mentors moving on to upper level management positions in UTC. They have credited their leadership experience with team as one of the factors in their professional advancement. In addition to mentorship, UTC provides very generous annual monetary donations. Each year, UTC funds our entrance fees for at least two FIRST competitions. Without such funding, we would not be able to do what we do each year.

Parker Hannifin Fluid Control Division located in New Britain CT has been a strong team sponsor as well. They have brought the wonderful expertise and patient guidance of Senior Development Engineer, Charlie Bald. Charlie has educated in the use of pneumatic systems. He has moved us forward in the use Autodesk Inventor 3D modeling software as an integral part of our design process. Parker Engineer and Enforcers Aum Matt Crossman is also an invaluable resource to the students on our team. Parker is also a significant financial sponsor for which we are very appreciative.

Sikorsky Aircraft Corporation, a Lockheed Martin company, has also been a long time team sponsor. Engineers Matt Hall and Butch LaCroix have been extremely dedicated mentors with the team since 2004 and have made contributions to our design practice and team culture that will always be part of the Enforcers. Matt & Butch helped us to evolve to take a Systems engineering based approach to robot design. They formalized our "mentor-nurtured, student-driven" philosophy and have helped us to pass it on to new mentors each year.

The Farmington Public Schools allow the use of buildings throughout the district to support robotics for all grade levels, including FLL Jr., FLL and FRC. They provide us with the Annex, our shared workspace at 19 School Street in Unionville, CT, providing transportation to all meetings and various competitions and community outreach events. Most of all, they have brought us coaches and mentors who enthusiastically devote extraordinary amounts of time to the team each year.

The Enforcers wish to thank all of our sponsors for the gift of their partnership each year. "We as mentors always told them 'it's not about the Robot, it's about a group of individuals creatively bonded together for a common goal.'" (Founding mentor Jim Rivera, Director of Robust Product Design, UTC Otis Elevator)



## **Part VII: Farmington Friends of Robotics (FOR)**

Since 2016, we have had a 501(c)3 organization that has been created for the express purpose of providing support to robotics programs in Farmington. From their website ([www.farmingtonfor.org](http://www.farmingtonfor.org)):

Farmington FOR exists to ensure that all participants in Farmington's FIRST robotics teams have the best possible resources available to them as they participate in club activities and FIRST competitions.

Through fundraising drives and solicitation of donations and grants, we support and promote the welfare, interests and activities of Farmington FIRST teams including FIRST Robotics Competition, FIRST Lego League Jr., and FIRST Lego League.

FOR meets on the second Tuesday of each month from 7-8pm at the Farmington Library. Donations are tax deductible, and go directly to supporting the team!

In addition to financial support, FOR provides logistical support for events, snacks, transportation and so much more. They coordinate parent help so that we are not asking the same people over and over again to help.

## **Part VIII: Cost to Run Our Team**

The MAX cost for a typical year for students:

The cost to run the team for a typical season:

\$5000 food/paper goods/cleaning supplies

\$7000 Build season

\$2000 for 2 t-shirts per student/mentor

\$11000 Competition Fees for 3 CT District Events AND District Championship

\$500 Off-season competition fees

\$4000 Transportation to events (in-state)

\$20000 Trip to District Championship (if we qualify) AND \$30000 Out of state trip to World Championship (if we qualify)

\$3000 office supplies, tools and other necessary expenses .....

\$50000 to \$75000/year.....

\$15,000/year comes from donations from sponsor companies, FPS

\$6000/year comes from expected contributions from students (food money)

...balance is donations, fundraising and trip payments.

### ***How can fundraising help?***

if each person raises \$200, we can raise over \$12000, plus any smaller fundraisers we do during the year. That covers \$7000 for build season, \$1000 for new equipment, and decreases trip costs by \$100 (or more) per person.

## Part IX: Fundraising: the Raffle

We hold our biggest fundraiser, the raffle, in the fall. The reasoning is that some of the proceeds from the raffle have typically been used to fill in the debts in our budget from build season and to reimburse parents a portion of the cost of the team trip. This way, we will have the money in advance set aside and can use it to finalize our build season budget and the final trip cost IN ADVANCE.

Based on the cost breakdown, we are asking each student to sell a minimum 2 books of tickets - that's \$200 in fundraising for the team. Based on the cost breakdown previously mentioned, that is enough money to help the team offer your child the best program we can. If your child sells a minimum of two books of tickets, **25% of their ticket sales for those two books, plus 25% of any additional sales** will go into a personal account which they can draw from to pay for trips. This money will be available to them as long as they are a member on the team.

Because this raffle is done by permit through the state of Connecticut, we are bound by the rules they set forth. We are including a copy of the information we will give to your children to spell this out. This is where we need your help- the area that we have the most difficult time with is properly filling out tickets and lost tickets. Tickets need to be filled out with a complete name, full address and phone number or it is not considered valid. In the past, we had to track down and fix close to 500 incomplete tickets. Also, please tell your child to NOT put the ticket book in their pocket, unless it is in an envelope. We have had single tickets rip off and get lost, books of tickets go through the washing machine and other nightmare scenarios.

Other ways you can help? We are obligated to have 1 adult over 18 be with students wherever they sell. This is especially important if students are under age 16, because they are technically not supposed to handle money as per state of CT rules. In order to help your child meet this goal, we will be asking parents to help arrange with local businesses to sell outside their premises. If you have a location in mind that would generate strong sales let us know!

## **Part X: Team Trips:**

We typically go to a minimum of four total competitions a year: two one-day off season events (one preseason and one postseason), and two District qualifying events (local to New England, two day events, typically held Sat/Sun). Any other competitions will be dependent upon our success at the qualifying events.

The cost for off-season events vary; if local, there is no cost to attend except for food. All team members and their families are encouraged to attend. This year, we will have our costs covered by money already collected (Bash at the Beach 10/19/19 and Where is Wolcott TBA in June)

In 2019, we hope to attend 2 local district qualifying events during the month of March. Our tentative plan is:

- Waterbury District Event: Saturday March 7th & Sunday March 8th (Set up Friday March 6th) Wilby High School, Waterbury, CT
- Western NE District Event: Saturday March 21st & Sunday March 22nd (Set up Friday March 20th) Alumni Healthful Living Center Western New England University, Springfield, MA (unconfirmed)

Only team members who **meet standard on their portfolios** will be able to go to all days of the competition (see below). The cost to attend in-state District Events is \$75, which includes a team dinner, TBD. Team members will have to bring money for food for the competition (We are able to give students \$ to cover 2 meals on Saturday and 1 meal on Sunday, but they will likely need more).

In addition, we **MAY** attend the 2019 New England District Championship at At Big E Arena in West Springfield, MA: Wednesday April 8th - Saturday April 11th **if we qualify**. The New England District Championship event will likely be an overnight trip with the team staying at a nearby hotel in the Springfield area to avoid the traffic situation on weekday mornings through Hartford.

**The New England FIRST Championship:** We will leave on Wednesday afternoon and compete Thursday-Saturday, then we return home Saturday night. We may leave early from school on Wed. but due to having no school on Friday 4/9 we will miss only one full day of school. Cost of the District Championship trip will be no greater than **\$700** (which also includes the \$75 for the District Events). Cost includes transportation, hotel, breakfast and dinner for Wednesday-Saturday. Cost also includes paying for enough chaperones to allow us the flexibility we need at competitions and while traveling - usually 4.

Our team has a sterling reputation for behavior our trips and we have been welcome back wherever we have gone. Only students who have earned a meets standard on their portfolio will be able to miss school for this trip. A letter with full trip details will be sent out to all team members when the planning is finalized and there will be an optional meeting for parents to answer and questions you may have.

### **IMPORTANT TRIP DEADLINES (SUBJECT TO CHANGE AS WE GET MORE INFORMATION)**

- **1/17/2020** - Trip Deposit and commitment form due (commitment form is for ALL Trips)  
All checks should be made payable to FHS Robotics Team.  
(If you are only going to in-state Qualifiers, payment due is \$75; Deposit for NE Champs is \$200)

- **3/31/2020** - Final Trip Payment for New England Championships due. We will be arranging for this trip to be fully refundable if we do not qualify.
- TBD: Any additional paperwork required by the school for overnight/out-of-state trips. All other events will be covered by the Emergency Card and Signed Code of Conduct.

**World Championship Trip:** We will put through the paperwork for this trip as if it is happening, because we will not find out if we qualify until 14 days before we leave! We reserve transportation now, and will get hotels, meals, etc done when we qualify in order to limit our cancellation fees. We are only going if we qualify.

Tentative Information:

Dates: Depart Tuesday after school April 28th, 2020; Return Sunday May 3rd, 2020.

Travel by coach bus; overnight driving both directions

Competition runs Wednesday - Saturday

Return Sunday; it's only a 12 hour bus ride!

Total of 3 full days of missed school

Cost: About \$1000 - less if we are able to share a bus

**Due Dates:** 1/17/2020 Commitment form Due. **NO \$\$ for this trip due.**

4/03/2020- \$500 deposit check to hold your spot (will not be cashed until we determine we qualify, after 4/14)

4/21/2020 Final commitment and FULL payment due. Contact head coaches in ADVANCE if you need flexibility!

Fundraising (like the raffle or corporate matching through FOR) helps to lower the costs for trips. The more money we raise, the less the trip will cost everyone! We may be able to lower the cost of the trip once our major fundraisers are done!

## **Part XI: Team Member Portfolios:**

Students put in as much as 200 hours into the robotics team over the course of the year. Officers and committee heads put into even more time. Their passion and commitment deserves to be valued. The purpose of the robotics student portfolio is to allow students to document their contributions to the team during preseason, build season and postseason. It is essentially their "Robotics Resume". Students will receive a Google Slides template to help you and more information about what to include in it at an upcoming team meeting.

Along with making the portfolio students also receive what is essentially a performance review twice a year. Students will have to turn in 2 portfolios - one in November/December and one in February. The first one is their preseason portfolio, similar to a formative progress report. Officers and coaches will give students feedback with lots of suggestions on ways to improve during build season. This one does not have any effect on standing with the team. The second "summative" portfolio review is held toward the end of build season and it determines eligibility to attend competitions as part of the traveling team:

*Meets/Exceeds Standard-* student is a VETERAN member and eligible for the traveling team.

*Below Standard-* student is not eligible for traveling team and may attend District events on Sunday only.

There is an opportunity to appeal the grade on the 2nd portfolio; most grade appeals are due to incomplete or vague portfolios. Generally speaking, a student can “meet standard” by attending meetings, working hard and getting proactively involved while at meetings, and volunteering for activities outside of meetings. Please do not hesitate to contact the team head coaches about and any questions or concern related to the portfolio process.

### **IMPORTANT PORTFOLIO DEADLINES:**

- **12/5/2020:** Preseason Portfolios due for Officers & COR
- **12/12/2020:** Preseason Portfolios due for rest of team
- **2/15/2020:** Final (Build Season) Portfolios due for *ENTIRE TEAM!!! (NEW)*

### **Part XII: Student Commitment**

Students are not expected to attend every hour of every meeting. However, the more time you are at meetings, the more you will get out of your robotics experience! We have people on the team who also participate in sports teams, clubs, music, theater, and outside activities (such as Boy Scouts). We also want everyone to keep their school work a priority, so we understand the occasional missed meeting due to project deadlines, upcoming tests, etc. What is more important is that you attend in a consistent pattern, rather than missing large blocks of time (where people wonder if you are on the team anymore).

The exceptions to this are students who have volunteered to take on leadership roles on the team. Officers meet at least weekly outside of team meetings in order to make plans. Members of the Committee of Representatives (aka COR) will be expected to make 2 hour long meetings per month in order to develop projects that the team will focus on during meetings. We do our best to emphasize that there is a clear agenda at these meetings, so that students will not be wasting their time.

### **Part XIII: Vital Roles for Parents**

Parents are a vital resource for the Farmington High School Robotics team. Parents can help in both mentoring and volunteer roles. Parents who have expertise in BOTH technical and non-technical fields are most welcome. Please talk to a coach, or come to a meeting to find out how you can help.

Farmington Friends of Robotics, FOR, is the 501c3 non-profit organization that acts as a booster club/parent organization for not only our team, but every robotics team in Farmington K-12. This organization, started in 2016, consists of parents, alumni, and other interested community members to help support robotics programs in Farmington. Through fundraising, grant acquisition, and the gift of time, they help us with virtually all of our critical needs throughout the year.

This year's officers are:

Mark Hofmann, President  
Linda Scalzo, Vice President  
Lisa Nollman, Treasurer  
Hari Subramanian, Secretary

Parent volunteers are vital to our team and are especially needed at various times throughout the season. We need parents who are willing to purchase/deliver snacks for weekly team meetings throughout the year. We also need parents who are willing to help prepare team meals for Saturday meetings during build season. The team will gladly reimburse you for all expenses. During the Fall, we usually eat snacks from 5:30-5:45 PM and lunch during Build Season (Jan - Feb) is typically from 12:30 - 1 PM. Amy Hofmann has graciously offered to coordinate all of our needs for parent volunteers. ***Please note: In order to drive, chaperone, or mentor, you will need to fill out the district mandated paperwork for volunteers. Please talk to a coach for more information.***

Other roles for parent volunteers include:

- Providing rides to students to/from meetings especially during build season.
- Helping us with raffle ticket sales.
- Chaperoning team trips
- Running errands for us during build season
- Helping us host the FLL Qualifier event (various roles) on Saturday, 11/23/2019 We will need at least 10 parents to help with the Qualifier. Anyone interested in volunteering should contact team head coaches, or our parent volunteer coordinator (Amy Hofmann)
- Helping on Family Maker Day (Saturday 12/21/19). Role still TBD- look out in your email for more information.
- Helping us host the Jr. FLL Expo (various roles) on Sunday 1/26/2020. We will need at least 10 parents to help with the Expo. Anyone interested in volunteering should contact team head coaches, or our parent volunteer coordinator (Amy Hoffman)

#### **Parent Meetings: (at FHS unless otherwise specified)**

Wednesday 1/8/2020 7-8 pm at FHS - Finalized trip information, costs, etc.

Wednesday 3/25/2020 7-8 pm at FHS TENTATIVE- Final Itineraries for Competitions, etc. - particularly if we are likely to go to District Championships

Tuesday 4/21/2020 7-8 pm at FHS (TENTATIVE if we are going to Detroit)

#### **Part XIV: Food (yes it has its own section!)**

With more than 70 students on the roster and 40-50 coming to meetings on a regular basis, that is a lot of hungry teenagers in a space. Keeping that in mind, we make sure there is food available at every meeting. Typically, we have had snacks available for weekday meetings and lunch for full day Saturday meetings.

#### ***Here's how you can help:***

We need parents to help with snacks for weekday meetings and lunches for Saturday during Build Season- Entree, salad/bread, desserts. Bring one part, bring all three. We have full service kitchen to keep things warm. Bring in your receipts, and you will be reimbursed for the cost of the groceries- we ask that you do this right away, so that we can keep the budget up-to-date. Right now, we're looking for people to help beginning NOW- Amy Hofmann will be creating a sign-up that will be emailed out. We are hoping to share the load so that each person can help once. ***Please note: We have some severe allergies this year. Please avoid sending anything with peanuts.***

## **XV: Workspace Rules and Safety**

Considering the large number of people that are in the warehouse on a daily basis, we are very vigilant about safety. Students are expected to follow the rules outlined at the first meeting (listed below), pass a safety test in order to work anywhere in the warehouse, and additional safety tests in order to use the tools. Students need to pass the safety tests at 80% or greater; students who don't pass will have the opportunity to try until they DO pass.

- There must be a coach present **WHENEVER** students are in the building for longer than 5 minutes. If coaches are late students are to wait in the common area with an alumni mentor or adult.
- The team has coaches, teachers, alumni mentors, adult mentors, and parents who each play role to support our students. Students should show respect to each of these role models and any issues should be brought to the team coaches immediately.
- No question is a bad one – ask ask ask!
- All team members should conduct themselves as proud representatives of Farmington High School, our team, our community, our sponsors, and **FIRST**.
- The doors to the Annex **MUST** remain closed at all times. You will need to be buzzed in. Students may buzz team members and adults they recognize in; if a student is unsure, ask a coach to look at the screen.
- Students may not bring visitors including other students without talking to coaches first.
- Safety is our highest priority at all times at the Annex. All students should practice the safety procedures established by the team **WITHOUT** being told to and should contribute to a culture of responsibility.
- Dress code includes sensible and substantial shoes that cover your feet. No shorts or skirts – wear pants. No loose or flammable clothing. Long hair should be tied up.
- Students may **ONLY** work in the shop after they have successfully completed annual safety training. **ALL** students are expected to pass a safety test (80% or better) that covers basic safety guidelines and **FIRST**-specific guidelines. Students who plan to work with power tools will complete a 2nd safety test to assess their skills. These tests will be given on 3 dates: Sept 21, Sept 22, Nov 17. If you are not safety trained by this point, you will not be able to attend meetings.
- **ALL** students **MUST** sign in and sign out at **EVERY** meeting.
- If a student leaves a meeting early, he or she may not come back **UNLESS** it has been previously arranged by parent phone call.
- Students may not drive other students **UNLESS** they can do so **LEGALLY**. Parents may **NOT** overrule this.
- Parents and students should be careful and courteous in the parking lot. We share it with other groups, so there are times when the parking lot may be full.
- Parking lot safety: The parking lot is narrow, and not meant for cars coming in both directions. We have had some near misses because it is typically dark when people are picking students up, so we want to avoid issues. Based on the markings, parents and students should enter the parking lot on the east (coming from Union School) and exit on the west (towards George's Pizza). If the parking lot in front of the Annex is full, the Union School Parking Lot can be used for parking, or to wait until the meeting is done.
- The building closes 15 minutes **AFTER** meetings end. Students and parents should make certain that timely transportation arrangements have been made.

*Our building is behind the stone building ↴*



↑ *Exit*                      *Entrance* ↑  
← *George's Pizza*      **19/23 School Street**      *Union School* →

### **Part XVI: FIRST Scholarships - Trips and College**

We understand that times are tough, and coming up with money for a trip can be a challenge. Keep in mind, we are doing our best to cap the trip costs at \$1000, which is significantly lower than trips by other groups at the high school. We do have opportunities for parents to apply for sponsorship for their students in order to defray some of the cost of the trip. We find approximately \$1000 in private donations that we split, typically between 3-4 deserving students. “Deserving” means that there is financial need and the student is a dedicated member of the team. Preference will go to older members of the team, especially if they have not had a chance to go on a trip.

In addition- and this is for the parents of upperclassmen- there are MILLIONS of dollars of scholarships available through FIRST for your child. Most of them merely have the requirement “you have participated in FIRST Robotics”. Many of the scholarships are for engineering and science majors, but there are some for students of any major. [www.firstinspires.org](http://www.firstinspires.org) has the information. Two of the larger local scholarships include \$15,000/year for any course of study at University of Hartford and up to full tuition at Yale University (based on need)

### **XVII: Coach’s Philosophy**

The team has two head coaches (Mrs. Michele Hall & Mr. Tim Barron), 2 Assistant coaches (Mr. Charlie Bald and Mr. Earl Procko), and an Engineering Coach, Mr. Charles Forstbauer. We also have build-season coaches, engineering mentors from sponsor companies, parent mentors, and 6 alumni mentors. The team philosophy shared by our coaches is one of empowering students by giving them real responsibility and decision-making ability. This means that they face real deadlines over the course of the year and that there are real consequences if we don’t meet those deadlines. FIRST does not adjust its deadlines and it does not make exceptions to the rules. For this reason, many teams are adult driven. Ours is not. We hold strongly to the “student-driven, mentor-nurtured” culture that has served us well thus far. This does not mean we don’t want to win awards just as badly as everyone else - you can bet we do. What it does mean is that we measure ourselves a bit differently than others might. We aim to have the most collaborative, most cohesive, most exciting six week build season possible as together we create the best robot we can and try to impact our community in a profound way.