

Rolling Thunder has stormed through the ranks of FIRST for 11 years. With Harris as a sponsor, our school behind us and our thunderous chutzpah, we've built a strong base for growth and development. We encourage teams to join our FIRST efforts. Our inspiration reaches FIRST programs across the globe.

For 4 years we've joined forces with FRC340 to hold the FIRST MEGADrive on Make a Difference Day: 77 blood units, 1,637 food items, 7,783 kids' books and over 7000 lbs of recyclable electronics have been collected! In 2013, we were National Honorees, winning \$10k, which was used to start and sustain 6 FRC and FTC teams. USA Weekend Magazine featured us in 22.5 million copies nationwide!

Our community efforts don't stop there! We won a 3D printer and are printing prosthetic hands for kids. At competitions, we donated baby gear in Boston, eyeglasses in DC and LEGOs in St. Louis. This year, we created care packages for Walter Reed National Military Medical Center and collected 32 boxes of toiletries for the homeless at the Open Door Mission. In honor of affected team members, we've raised over \$10k for Multiple Sclerosis, Cystic Fibrosis and Leukemia & Lymphoma. The Town, County and NYS Senate have rewarded us for our efforts.

We advocated for STEM education with FRC27 in DC as the NYS team. We met with 5 representatives including Congresswoman Slaughter who co-sponsored Senator Gillibrand's STEM bill after we met. We can't wait to go back this year!

To continue our advocacy, we met with State Senators Robach and Funke and Assemblyman Johns to discuss funding STEM activities like FIRST. All have agreed to support a \$250,000 grant to start FIRST teams in NY!

This year we held 31 robot demos, from festivals to sporting events. Our demo at the Science Center Android Exhibit was featured on the news. We sell FIRST light bulbs at an eco fair with over 50k attending in 4 years. To better promote FIRST and coopertition, we demoed bots with FLL, FTC and FRC teams at FIRST Night at the Ballpark, ImagineRIT and Park Ave Fest. For 5 years we've hosted Rampage, a multi-day expo with other teams at the Monroe County Fair, with thousands attending.

1511 "Makes it Loud" through our many events publicized via local news channels, social media like our online daily newspaper, and press releases. We host a Week 0 scrimmage, an offseason, a Championship event and 3 FLL events. Most recently, we screened Dean Kamen's SlingShot movie at our school and demoed

our bot. We also organized 3 FRC, 1 FTC and 2 FLL teams to join us at the first Rochester Mini Maker Faire with info booths and a field to show our bots!

Our team creates leaders. Students organize demos, fundraisers and community service, lead subteams and present designs. Students took the initiative this past summer to build a new drivetrain style inspiring this year's robot. Elected student leaders organize and run meetings, recruitment, team building activities and trainings. Six teams attended our 9th annual Leadership Boot Camp, to learn public speaking, personal development and time management! Camp materials are used in our school leadership class. We run 50+ events a year and our 6 major events.

We have inspired leadership within our alumni. One has a Leadership Master's degree; another is in a leadership program at RIT. A third is leading FRC1836, using 1511 materials and concepts. 88% of our alumni have been inspired to pursue STEM majors/careers, earning over \$250k in FIRST scholarships, and working at Harris, Philips, iRobot, Toyota and NASA. Alumni volunteer at events; 5 of them mentor us. One did a communication exercise with us that she learned at NASA. The 1511 Alumni Association keeps track of our 74 alumni.

Harris has been our main sponsor since our inception. They provide 11 mentors, make student-designed parts and feature us in their annual report and newsletters. They hold an annual all-Mentor lunch and we give our Chairman's presentation. During our Patron Drive, we visit 100+ businesses to solicit sponsors and tell them about FIRST. Patrons enjoy our newsletters, event invites and robot demos.

Our 30 volunteer mentors inspire us to pursue STEM careers by giving talks on their career paths. They work with students on engineering projects in our school's classes. They help us apply for scholarships and write recommendation letters.

Our school encourages our success. Our superintendent insisted we attend the FIRST National Advocacy Conference even though it was during finals. The District provided equipment and staffing, including 3 teachers for 1511, to become a K-12 program. We're allowed to use the school year-round for events, robot building and even LAN parties. They renovated the tech wing to meet our needs, tripling our workspace! School staff wear red camo pants to our competitions and on Spirit Days.

We thank the School Board and Harris yearly with a robot demo and presentation. Last year, we handmade awards to thank them for 10 years of support!

We recruit through our FLL/FTC teams by demoing robots at their school events and the Clubs & Activities Fair, Freshman Orientation, Talent Show, Pep Rally and tech classes. 1511 has recruited many girls, shattering stereotypes and increasing team diversity. Veteran students promote team culture and carry on the legacy by training new ones to keep the thunder rolling! Fall training exposes us to different types of engineering: building bottle rockets, wind turbines and VEX robots for a mock build season and competition. We develop skills ranging from mechanical to marketing in our subteams.

We inspire all FIRST programs. In 11 years, we've sponsored 155 FLL/JrFLL teams and mentored 44 FLL/FTC teams. We started JrFLL in Penfield in 2010 and demoed our robot at the RIT JrFLL Expo. 1511 put FLL in 4 Penfield schools and got the District to buy 28 NXT kits for middle school tech classes. This year, we sponsored 19 FLL and 9 JrFLL teams and started FRC5433.

We volunteer at 3 FLL qualifier events and local Champs. We host 2 FLL events to prepare kids for competitions and keep them involved. This year, we

hosted the first Penfield FLL Qualifier! For 10 years, we've run FLL coach seminars, help sessions, and summer camps for over 100 kids.

Last year we helped organize the first Rochester FTC event, and again this year participated in the planning committee, volunteered in major roles and wrote press releases. We started FTC6996 Oncoming Storm last year. They qualified for State Champs both years and we funded their trips. Annually, we compete with them to collect food for our local pantry. They are the oncoming storm to our thunder: 7 recruits in 2 years!

1511 has assisted 400+ FRC teams with almost everything. Teams named our pit and shop ThunderMart because they can use our tools, parts and facilities. The Finger Lakes Regional (FLR) pit admin sends teams directly to us for help. This year we lent totes and carpet to teams for their practice fields, and made parts for other's robots. Last year we funded trips to Champs for 2 Dean's List Finalists and cheered them on. We're an open-source team with a Build Season webcast and online engineering notebook.

We inspire teams to become self-sustaining by providing trainings on various topics. We've trained inner-city FRC73 mentors. We helped rookie FRC5254 with starting a leadership program; they attended our Leadership Boot

Camp. In 2012, we built a crate used each year to send the FLR Rookie All-Star to Champs, and inspired FRC20 to do the same at the Tech Valley Regional.

Globally, we've helped teams from 14 countries, like a rookie team from Mexico with their business plan and an Israeli team with mechanical advice and translating files. Our handbook and student-designed safety program are resources used by many teams and also by our school.

Team members have given talks on press releases, safety, starting teams, running events, and leadership at Champs and Regionals. We brought in a presenter from NI for LabVIEW training attended by 7 FRC/FTC teams. We held an all day FIRST workshop for 12 teams with presentations from 5 teams. We organized the Penfield FIRST Expo, featuring JrFLL to FRC. Our events promote communication between teams.

Rochester Rally is a Week 0 event we've held all 11 years for local teams to test their new bots on a full field we build. We inspired FTC6996 to host their own scrimmage. Sponsors and alumni give inspiring speeches. Teams use our shop and tools to fix their bots. We donate old game pieces to local kids' camps and town parks.

Rah Cha Cha Ruckus is an offseason event that has grown over 11 years from a school gym to a large concert venue, hosting 40 teams. 1511 leads a committee of FIRSTers to get others involved in running the event. Teams use Ruckus to recruit and prepare for next season. Rookies use our second robot to compete. State Senator O'Brien came last year!

We pride ourselves on being a go-to team for the FLR committee. They asked us to organize robot demos at TEDxRochester, Robot Quick Builds at Kickoff and presentations to sponsors. Last year, we organized the first FLR Social in 7 years and are doing it again! For FLR's 10th year, we created a welcome packet, a video and interviewed with Channel 8 to promote FLR.

We're a FIRST resource. We've beta-tested FIRST's control systems 6 years. We present our results with other teams at Kickoff and host open houses. Our Rookie Resource page is on the FIRST website; our Patron Drive is in the FIRST fundraising toolkit. We supply FTAs, MCs, refs and judges for events. Team adults helped form Rochester NEMO and run meetings at FIRST events. To help rookies network, we've run the All Rookie Meet & Greet at Champs since our first year and over 30 teams attended in 2014.

1511 inspires our community, other teams and ourselves. Our reach is worldwide! We are determined to keep inspiring others by our STEM advocacy and community involvement through FIRST. The thunder just keeps getting louder!