

Executive Summary

Briefly describe the impact of the FIRST program on team participants with special emphasis on this year and the preceding two years.

Teamwork, communication, confidence, leadership: that's the impact of FIRST on our team. Students learn business and technical skills, speaking and interviewing skills, problem solving. They are better prepared for college, more detail oriented, using time positively and constructively. Even our mentors grow, learning both from students and other mentors about managing time and groups, networking, collaborating. It's not all work; we are a family and there is fun, friends, and belonging.

Examples of role model characteristics for other teams to emulate.

With a combination of community service, leadership development and technical emphasis, the enthusiasm and dedication of 1511 gives us the resources to help other teams through individualized assistance in programming, materials, advice and support, even robot shipping. Over 20 FRC teams in the past 3 years have accepted our assistance. Our four annual off-season events for FRC and FLL teams keep the action year round and are fun ways we promote FIRST.

Describe the impact of the FIRST program on your team and community with special emphasis on this year and the preceding two years.

We have made connections to Harris Corp. and other businesses in the community, as well as with RIT, increasing opportunities for our students after High School. Averaging one robot demo and one community service activity a month, we are changing lives and shaping futures. Our efforts to spread FIRST through the FLL program have resulted in a 5-fold increase in the number of local FLL teams. Over 100 students and families from upstate New York were reached through student and coach camps.

Teams innovative methods to spread the FIRST message.

Our "1511 Thunderbolts" program is on track to reach the goal of 1511 community outreach events by our 10th year, with Robot Demos, FLL activities and community service. "Project Girl Wrench," our program to provide females with confidence and knowledge in science, and technology, was so successful that we reached out to an all-girl team, and added girls to our team who were all active in robot building. Parades, Penfield Days and our off-season events allow the public to experience FIRST.

Describe the strength of your partnership with special emphasis on this year and the preceding two years.

1511 is a family, and our student-mentor relationships are not just student and educator, and not just technical, but with real-life advice and assistance. Our mentors honestly care about the team and each member and show this with year-round involvement and in their support of the school curriculum. Harris Corp. truly provides much more than dollars. School support of the team is also strong with dedicated staff members, unprecedented building usage, board recognition, and mentor training.

Teams communication methods and results.

1511 focused on communication this year. In school we used methods including freshman ice cream socials, pep rallies, video announcements and bulletin boards. Within the team, we established weekly e-mail blasts, regular team meetings, and extensive use of our on-line forum, with required engineering notebooks and integration reports during build season. To reach the public, in addition to our website and patron book, we were featured in newsprint and on a local morning news show.

Other matters of interest to the FIRST judges, if any.

Concerned that our team will lose over 1/3 of its members this June at graduation, we developed and implemented a full scale recruitment program this past summer and fall, gaining 18 new members. A strategic training program followed during the off-season to ensure that all team members were ready to design and build a robot. The formal engineering design process was implemented and all members gained real-life engineering experience through the use of engineering notebooks and team meetings.

CHAIRMANS Essay

Camouflage is a concealer of protective coloring that blends in with the environment. It is not just one color, it is a variety of colors that merge to form one. Up close, one can see all the different colors, while further away the entire pattern can be seen. Like the colors, we are all individuals with our own traits, strengths and weaknesses that merge into a unified team. The white, red, and black, compliment each other and work together. Camouflage blends in, becoming part of the environment. Our colors extend the same way, reaching out to students and adults alike, throughout the community. Our bold red Camouflage stands out everywhere we go. The colors blend and match together conceal the wearer, just as the team works together to create a better community with a bright, positive impression. This is our team, 1511 Rolling Thunder.

Red Camouflage Stands Out

Camo is traditionally designed to blend in. But we are RED camo, bold, standing out instead of blending in. Our team stands out from other teams starting with the strength of our partnership.

The vibrance of our partnership is seen in our amazing mentors. Students learn skills to pass on to new team members. Mentors learn valuable management skills. At the Harris Year End celebration we show the company the value of the sponsorship and mentorship provided. Harris mentors volunteer in the Engineering Design & Development class, as well as other Project Lead the Way and science classes. Also, tours of Harris were offered to anyone in a PLTW class. On snow days when we are not able to work at the school, Harris provided us an area to work using their machines, materials, and professionals.

Our partnership with Penfield HS is bright The school provides staffing for over 42 hours a week during build season giving us access to tech rooms, gym and our official robotics room. We use half of the school for the four day Rochester Rally event. Our administration and custodial staff come to support us in competition. We hold Holiday parties and go Trick-or-Treating.



Bold Red Camo reaches out across the fabric of FIRST. The 10-year, 1,511 Thunderbolt Plan tracks how we impact the community. Thunderbolts are the variety of ways that our team spreads the word of FIRST. We have reached 362 in 4 years. Demos include Harris Picnic, School Pep Rallies, RMSC, Boy Scouts, Penfield Days, and the 4th of July Parade. The bright red camo stands out both at competition and during community service such as Intervol medical, food drives, RIT ROCS, and the Salvation Army.

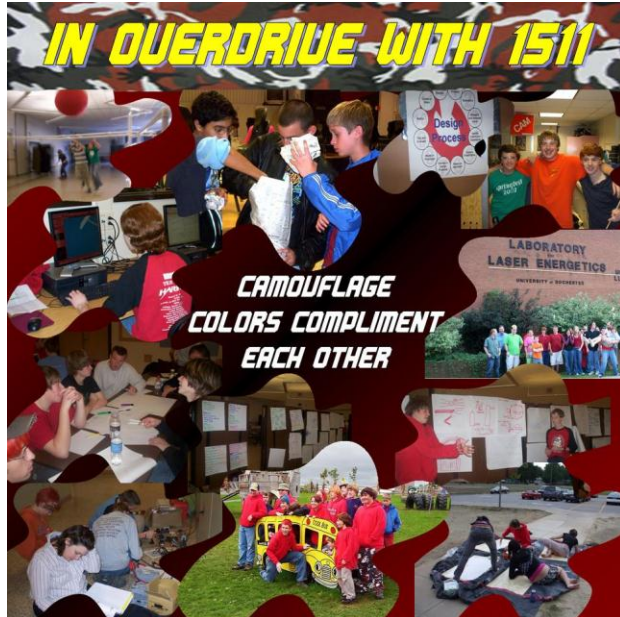
Our team works like camo with Harris, PHS, the students, and the community coming together for a common goal. These different partners merge together in an inspirational way to make 1511 truly a fun learning experience for students, mentors, and custodians alike.

The annual Rochester Rally, pre-ship event, lets teams test their robots. We drove 1/4 of the robots that will participate in FLR to Drayage. In October our team leads the Rah-Cha-Cha Ruckus. When rookie teams like 73 and 2340 do not have a robot, we provide a previous year's robot. The Razzle Dazzle, a preseason FLL event, lets teams try their robots before competition. The postseason Rumble lets FLL teams have some fun and prepare for the next year.

1511's Project Girl Wrench helps girls gain confidence and knowledge to effectively work on the robot. We organized an all girls demo at the Gathering of Professional Women. We are unique like our red camo because all of our females are involved in designing, building, and fixing our robot. The females on

our team are strongly supported and help to form our unique team.

Our subteams use strong communication like bold red camo. In school we put posters up, create videos, and display cases. Our webpage links guests to forums where we hold email blasts, event notices, homework help, summer activities and pictures. Our team appeared on the Penfield Channel and 13 WHAM news. We do demos for younger kids by coming to their grade schools. Build season was efficient using integration meetings. These meetings show how a real engineering company designs with different teams all working together towards the same goal.



Camouflage Colors Compliment Each Other

Students on the team are encouraged to become leaders and organize fundraisers, community service, and demos. During the summer, leadership camps are offered to students to advance their knowledge in leading. In these camps we read *How To Win Friends and Influence People* and *100 Ways To Motivate Others*. We spend the day applying what we learn to different activities and exercises so that we first get to know ourselves better before we can understand how to lead others.

Student leaders have taken on more responsibilities within the team while maintaining a strong partnership with mentors, the school, and their families. FIRST is not about students building a robot by themselves, it is about opportunities to work with and learn from engineers to get a preview of the engineering world.

Camo colors work together, like the students, mentors, and parents on our team. When unified, they compliment each other. We work together to accomplish our goals of continuing our 1511 Thunderbolts, increasing school and parental involvement and expanding student leadership and fundraising. Every team member has a chance to get their hands dirty and help build the robot. We dedicate our preseason to team-building and training such as robot fixing and engineering activities.

We utilized the design process to solve problems met during build season and to effectively organize ideas. This year we designed our robot in Autodesk Inventor and were able to have Harris machine those parts. By modeling first, we realized potential problems well ahead of assembly.

Camouflage Colors Blend

Camo colors connect to make a unified fabric, as we make connections to unify our team. Through our partnership, we have opportunities to connect to the community. This year we worked with a machine shop in Shortsville, NY, toured the shop, and worked to make our robot parts. Our main fundraiser, the Patron Drive, makes connections. We meet with businesses, ask for sponsorships and give them our team brochure. We invite business leaders to speak at the Rochester Rally.

Camo colors tie together to make it unique; our members make our team unique. A function of camo is to make it hard to distinguish individuals. It is a cohesive force; creating one from many. More diverse than the school, our club is joined by a common interest, the most fun, educational experience we know. We meet new people, learn



new skills, go to new places and share our skills.

The fabric of camo is a stabilizing force and parents are our base. In build season, parents bring evening meals for the team. Eating together strengthens the sense of family. Parents work events, keep records, chaperone trips.

Camo is a unified design; our team is unified, in fact we feel we are family. Members spend time together outside of our team. Mentors and students develop strong bonds and sometimes seem less like adult/student and more like siblings.

Camouflage Colors Extend

It's nearly impossible to tell where camo begins or ends. Like our team, it never rests. There's camo for every season and every environment. We are active year around, especially during the summer. Aside from team meetings, we ran over a dozen different demos this summer and spread the word of FIRST to all different aspects of the community.

Our camo theme helps us be recognized by our school and community. Whenever we wear our uniform, people ask us about the team and FIRST. We were afforded a great opportunity during the Penfield H.S. Tech Night, where we gave a hands-on demo to students interested in engineering. Between that and flyers, display cases, announcement boards, as well as the students themselves, we recruited 18 new students, a 50% increase in team size. Our award-winning team spirit displays the energy and excitement we have for all events. We do this to introduce others to an opportunity that has had such a profound impact on our lives.



Similar to industries constantly perfecting camo, we are constantly perfecting our team. Our team training sessions such as machinery, electrical, programming and business improve student knowledge, as our Leadership Camp improves team skills. Sharing team resources helped us to become gracious professionals as well. Team 1991 from Connecticut used many resources on our website and modeled their team after ours. In 2008 we gave 3 teams materials including bumpers, gears and servos, and opened up our practice field to teams like 1405 the Finney Falcons. We also hold a Rookie Meet and Greet at the Championship where rookie teams can share FIRST rookie experiences. This is the secret to how we accomplish so much; just like camo we never stop working.

Camo is modeled after animals, whose colors progress from dark to light. We can see the dark to light progression in the eyes of our FLL students as they realize

the fun and excitement of learning about engineering. This summer we held four FLL camps where students could build and program NXT robots with the assistance of 1511 mentors. We have started 20 FLL teams, and are planning a JFLL effort for next year based on our success so far.

Each colored piece on Camo fabric works together to conceal its wearer. Camo can be explained in so many different ways, it's like a set path with a million different possibilities. Our team works the same way. Each and every one of us has had an individual or group task that was given and achieved with the support of one another. Team 1511 comes together to make the community a better place and inspire kids to become active with the engineering process through teamwork, partnership, and our FIRST Impact. Like each small speck on the fabric, each and every student is different in their own way, yet merges together in our Bold Red Camo.