

# PENFIELD ROBOTICS



## 2012 PATRON BOOK

**PENFIELD HIGH SCHOOL  
&  
HARRIS RF CORPORATION**



# FIRST

## For Inspiration and Recognition of Science and Technology

200 Bedford Street  
Manchester, NH  
03101  
603-666-3906 or  
800-871-8326  
www.usfirst.org  
info@usfirst.org

## Vision Statement

To create a world where science and technology are celebrated... where young people dream of becoming science and technology heroes.

## Mission Statement

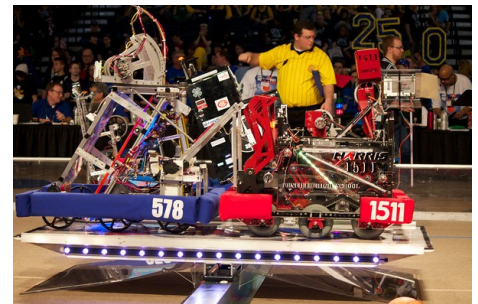
*FIRST* designs accessible, innovative programs that build not only science and technology skills and interests, but also self-confidence, leadership, and life skills.

The **goals** of the FIRST Program

- To expose middle and high school students to engineers and the engineering profession
- To create an environment that makes "heroes" out of engineers and scientists
- To demonstrate a company's engineering capability, resources and commitment



"The varsity sport for the mind," *FIRST* Robotics Competition (FRC) combines the excitement of sport with the rigors of science and technology. Under strict rules, limited resources, and time limits, teams of 25 students or more are challenged to raise funds, design a team "brand," hone teamwork skills, and build and program robots to perform prescribed tasks against a field of competitors. It's as close to "real-world engineering" as a student can get. Volunteer professional mentors lend their time and talents to guide each team.





**At Harris, we are more than just a proud supporter of the *FIRST* Robotics Program...**



**We live for this stuff.**

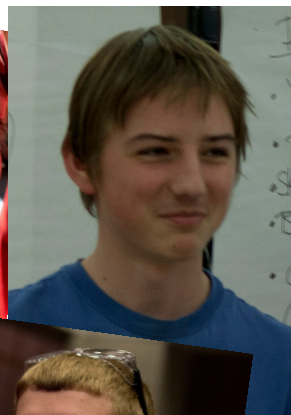
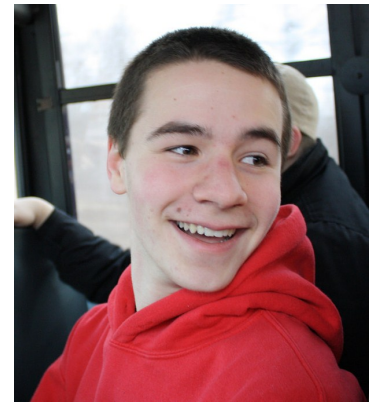
**HARRIS**<sup>®</sup>  
assuredcommunications<sup>®</sup>

# MEET OUR TEAM

## Students

Matthew Barno  
Nick Brown  
Justin Byers  
Alex Ceci  
Mollie Corrigan  
Nick DiAntonio  
Matthieu Dora  
Mo Elhelw  
Ben Grace  
Jonathan Griswold  
Chris Hufziger  
Kieran Irwin  
Jacob Kremer  
Jason Kuberka  
Austin Lee  
Brianna Mancine  
Elizabeth McChesney  
Andy Melnick

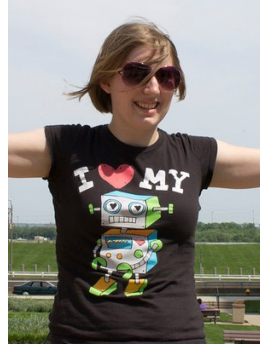
Matthew Mlodzienski  
Ethan Mohney  
Michael Montemalo  
Tommy Murphy  
Ciana Robertson  
Quinten Rock  
Gabriel Rosenberg  
Alex Rozanov  
Shayna Rudy  
Kyle Schuhart  
Danny Schumacher  
Nathan Smith  
Ben Stoeckl  
Manuel Stoeckl  
Peter Stoeckl  
Lee Taylor  
Vaughn Thompson  
Steven Tracy  
Alex Wolf  
Kyle Zeller



# MEET OUR TEAM

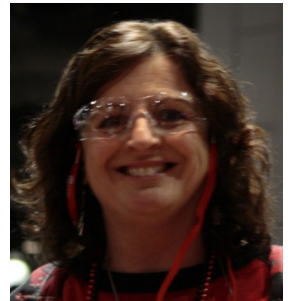
## Harris Mentors

Amy Averill  
 Eric Averill  
 Dave Burlone  
 Tony Dal Santo  
 Carol Englehardt  
 Karen Fellows  
 Joshua Gannon  
 Larry Lewis  
 Kevin Lloyd  
 Dave Schoepe  
 Dean Smith  
 Gafei Szeto



## Teachers & Community Mentors

Eric Brewer  
 Mark Brown  
 Mark Byers  
 Cynette Cavaliere  
 Tom Cavaliere  
 Amy Deitz  
 Jeff Downs  
 Lee Drake  
 Val Drake  
 Eric Eckhardt  
 Kim Eckhardt  
 Josh Goodman  
 John "Bear" Hall  
 Rohan Khaleel  
 Roseanne Khaleel  
 Michelle Latona  
 Leann Lewis  
 Bonnie MacLean  
 Mark Mascadri  
 Peggy McChesney  
 Melinda Mlodzienski  
 Ralph Pizzo  
 Austin Quinn  
 Linda Sterber  
 Christian Stoeckl  
 Crystal Vongna-  
 phone  
 Mike Wolf  
 Sharon Wolf



# CHAIRMAN'S AWARD SUBMISSION

The Chairman's Award is **FIRST**'s most prestigious award. It honors the team that best embodies the purpose and goals of **FIRST** and that other teams emulate. The award helps keep the central focus of the **FIRST** Robotics Competition in field; the goal of inspiring greater levels of respect and honor for science and technology.

## Briefly describe the impact of the FIRST program on team participants.

92% of our alumni head to college; 85% pursue a STEM career. Focused on the technical: CAD, programming, documentation, mechanical skills; students also gain business skills: leadership, speaking, interviewing, time management, problem-solving. Mentors learn to manage, network, collaborate, and volunteer at FIRST events. Our Teacher Advisor discovered his interest in STEM went beyond teaching and is pursuing administration. We are an all-inclusive family.



## Describe the impact of the FIRST program on your team and community.

Through student run events, our community relies on us to get things done. We've spread FIRST starting 11 new FLL and 12 new JFLL teams this year; 86 in 8 years. We started Penfield JFLL in 2010. In 2011 we put FLL in all 4 elementary schools. Our LEGO camps and coach seminars reach 100+ students and adults each year. We've connected with RIT, Harris, and other patrons, increasing future opportunities for our students. We've been recognized by the Senate, County Legislature and Town Board.



## Examples of role model characteristics for other teams to emulate.

With our community outreach, leadership development and technical emphasis, the enthusiasm and dedication of 1511 secures our team's future and gives us resources to help other teams grow via workshops, materials, advice, support, and funding. We have assisted over 250 FRC teams in 8 years, leaving no robot behind. Our annual FRC events (Rally, Ruckus, Rookie Meet & Greet, and Rampage) and volunteering, mentoring and funding FRC, FTC, FLL & JFLL year-round are fun ways we promote FIRST.

## Teams innovative methods to spread the FIRST message.

Our "1511 Thunderbolts" program measures our impact and tracks our outreach to FIRST communities worldwide, with team help, robot demos, FTC/FLL/JFLL activities and community service. A Thunderbolt is a unit of measure for every way we spread FIRST: Monroe County and NYS Fairs, interactive FRC and FLL displays, Parades, Greentopia and off-season events which allow the public to experience FIRST through 1511. Wearing our red camo wherever we go, from Hawaii to MIT, we tell people about FIRST.



# CHAIRMAN'S AWARD SUBMISSION

## Describe the strength of your partnership.

1511 is family; parents cook our meals during build season. Student-mentor relationships are not just technical, but offer real-life advice, assistance and friendship. Harris provides more than funds: 3 new mentors this year for 14 total! Mentors are year-round, participating in the school curriculum. Community mentors introduce students to non-engineering tech fields. School support is strong: 4 teachers, staff attend our events, a new shop & machinery, broad building usage and BOE recognition.



## Other matters of interest to the FIRST judges.

1511's contributions to FIRST and our community haven't let up in 8 years. Our students work to add FIRST to the HS curriculum. We retained 95% of our students through team building and a pre-build training program, using the engineering design process. All students work on the robot, gaining engineering experience with our mentors. We develop leaders through our Leadership Boot Camp and by promoting opportunities for every student to lead an event, a subteam and/or serve as an elected leader.



## Teams communication methods and results.

Our focus on communication keeps our 70+ members and 40 alumni on track. We have weekly team emails, an updated website and forum. Our marketing students are PR and social media experts; the public and sponsors can follow us via webcast, YouTube, Twitter, Facebook and our build-season Wiki engineering notebook. We reach out with our patron book, newsletters and local media features. At PHS we recruit with ice cream socials, robot demos, pep rallies, video announcements and display cases.



# CHAIRMAN'S AWARD ESSAY

Inspired by FIRST, powered by Harris, supported by Penfield High School (PHS), FIRST Team 1511 has kept the thunder rolling for 8 years. Building on sponsor, school and community partnerships, we have a strong base for growth and development. Measuring our impact in Thunderbolts, and an ever growing FLL/JFLL program, we inspire the next generation of STEM leaders.

Our main sponsor, Harris, provides 14 mentors (3 new this year) and assists with manufacturing student CAD parts. Harris invites us to its events, attends ours, and features us in its annual report and newsletters. 1511's female mentors and students were recognized by Harris at the Women in Tech Day and networked with USAF Lt. General Kenne and Sen. Gillibrand. Harris holds an annual mentor luncheon and students present on the past year. Harris recognizes the value of FIRST and keeps supporting 1511, even when reducing charitable funding.



1511 partners with many businesses through a Patron Drive, our biggest fundraiser. Annually, students meet with 250+ businesses to tell them about FIRST. Sponsors receive newsletters, FIRST info, and invites to robotics events. They also support us by making robot parts.

We make many parts in our school shop thanks to a strong partnership with PHS. It renovated the tech wing to meet our needs, tripling our workspace! 1511's lead teacher worked with PHS to obtain a mill, drill press, band saws and a lathe. PHS allows us to use other parts of the school for events and testing, like shooting hoops in the gym. We thank the school board yearly with a robot demo and presentation.

Teachers and administrators wear red camo pants to 1511 school events and Spirit Days! Many attend competitions. The PHS IT staff formatted the tech computers for our Game Night and played with us. They provide us with any software and equipment that we need.

1511 impacted the PHS curriculum; we got The New Cool added to the 2012 summer reading list and donated 30 copies to the school and local libraries. We incorporated FIRST into Project Lead the Way classes where our mentors work with students on engineering design projects such as robot drivetrains. This year, a 1511 student's independent project was a shop equipment safety program used by PHS tech classes.

Our team communications keep us organized so that we can run our many events that inspire future STEM leaders. The team is updated via weekly emails, forums, Facebook and Twitter. 1511 also has an online engineering notebook to publicly share daily progress in Build Season.

Our student leadership team organizes recruitment, team building activities and communications. They receive training, lead meetings and subteams and help us meet our 9 goals. Students attend Leadership Boot Camp to learn public speaking, personal development, time management and more.



1511 is family. In Build Season, families make team meals and the custodians join us. Each fall, students engage in team building activities: an FLL challenge, learning the engineering design process in a Mock Build Season and building newspaper towers and spaghetti bridges. A first aid certification class is held for team members. Subteams develop electrical, mechanical, CAD, programming, website and marketing skills. Students applied these skills to redesign an old robot for demos.



# CHAIRMAN'S AWARD ESSAY (CONT.)

A continuous flow of students comes from recruiting, FLL alumni and robot demos at school events like Pep Rally, Clubs & Activities Fair and Freshman Orientation. This year, we had a 95% student retention rate. We replace our graduates and then some every year.

In 8 years, 92% of our alumni have gone to college, 85% pursuing STEM careers. We keep track of 40+ alumni on Facebook, LinkedIn, 1511 forums and email. An alumna founded the Alumni Association to keep them involved in FIRST. Alumni visit often and volunteer at 1511 and FIRST events. 3 are back as 1511 mentors. Our Team Leader is working with Harris to recruit alumni; 1 alumnus works at Harris and 2 interned there.



Our alumni's success in college acceptances and scholarships is due in part to mentor recommendation letters. 1511 has engineers whose expertise inspires STEM leaders of tomorrow. Our non-engineering mentors share ideas about team sustainability through FIRST NEMO meetings and presentations. Mentors volunteer at FIRST Regionals such as FTAs and MCs. With our strong community presence, we have drawn 14 non-Harris mentors, some are parents of alumni, many are STEM professionals.

We do at least 2 demos and 1 community service event a month that are organized by students. This year, we held the FIRST MegaDrive on Make a Difference Day with FRC Team 340. We collected 40 units of blood, 145 food items, 1018 kid's books and 3500 lbs. of electronics to be recycled. For Toys for Tots, we wrapped over 800 toys and plan to do it next year!

The community has come to rely on 1511. Penfield reaches out to us to clean up the town as we participate in Clean-Up Day every year. We've raised over \$2000 each for the Cystic Fibrosis Foundation and the Leukemia & Lymphoma Society; we organized a blood drive for LLS. Our impact is global. We participate regularly in InterVOL, sorting medical supplies for countries in need and aiding its Haitian Relief effort.

For our contributions to the community, we were proclaimed as a Youth Asset Builder by Penfield's Parks & Rec Director and Monroe County Youth Bureau. We've also been recognized by the Penfield Town Board and Monroe County Legislature and with a NYS Senate Resolution.

We also reach out through robot demos. A new demo and E-Watt fundraiser was Greentopia Festival, an environmental fair with over 19,000 people! We held over 30 robot demos this year: NYS Fair, 4 elementary schools, Finger Lakes FLL (FLFLL) Champs, Rochester Rhinos soccer games, for sponsors, museums & science centers and the 4<sup>th</sup> of July Parade. In an effort to get girls involved in STEM we had Girl Scout troops visit during Build Season.

1511 thinks that the best way to introduce FIRST is to see it in action, holding 5 major events.

Rochester Rally is a pre-ship scrimmage for local FRC teams to practice on a full field we build. Tech sponsors speak and we open our shop to teams for repairs.

Sponsored by Harris, led by 1511 and organized by a committee of community FIRST members for 8 years, Rah Cha Cha Ruckus is an offseason, Halloween-themed competition. 24 teams attend, even from Canada! Teams donate food to Foodlink; we've collected over 1400 lbs in 2 years!



# CHAIRMAN'S AWARD ESSAY (CONT.)

Since 2006, Rumble has been an offseason FLL competition where FLL teams see our robot and replay the game to stay involved in FIRST.

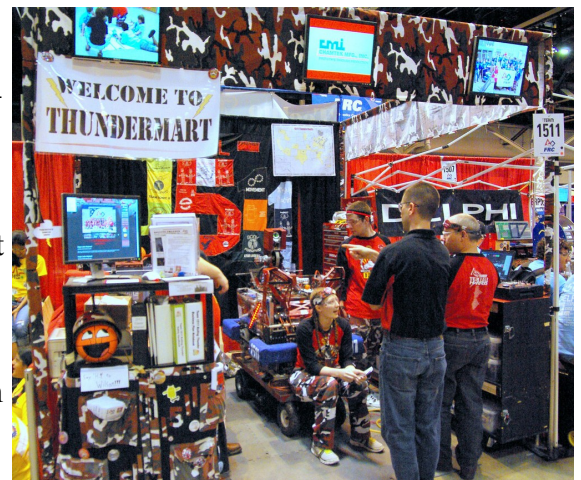
Our rookie year, we started All Rookie Meet and Greet at Champs to celebrate the rookie teams' success. We've continued this event for rookies to meet each other and have fun.

At Rampage, our newest event started in 2009, we invite local FRC teams to demo a competition to over 35,000 people at the 5-day Monroe County Fair. We hand out info on FIRST and promote FLL with robots and a hands-on kid play table. We inspired a woman we met there to start a 4H FLL team that competed last year. The Fair Association gave us the 2011 Civic Achievement Award for promoting technology in the community!

Rookie FRC teams are important for the growth of FIRST and are potential STEM leaders. Every Build Season, we provide hands-on help by mentoring, providing tools and expertise. We mentored FRC73 the last 2 years, which became a new inner-city STEM school in 2011. This year we're building a permanent Finger Lakes Regional (FLR) Rookie All-Star crate for future winners after giving ours to last year's winners. The Rochester Kickoff Robot Quick Build has been run by 1511 for the last 2 years, helping 8 teams. Veteran teams visit us for programming help and ThunderMart, where they borrow tools, spare parts and mentors. This year, we've helped Israeli team FRC1946 with mechanical advice and translating files. We also worked with a veteran team to strengthen their team structure and focus on their sustainability, recruitment and fundraising. We've assisted 250+ FRC teams with everything from programming and team structure to emergency robot support at competition.



We love to share our knowledge and resources. At Champs for the last 2 years, mentors and students have given seminars on PR, leadership and how to run an offseason event. We also presented at Regionals on student leadership, safety and starting FLL teams. We've beta-tested FIRST's C++ control systems for 4 years, presenting our findings at Kickoff and other events. The FLR committee has asked us many times to do robot demos and mentor/student presentations to potential sponsors (PTC). We are proud to help them spread FIRST!



We also spread FIRST through our website, linked on [usfirst.org](http://usfirst.org), where people contact us to get help, start a team, use our resources and learn about FIRST. People can watch our progress on our Build Season webcast.

**FIRST ROBOTICS TEAM 1511**  
**ROLLING THUNDER**

*Celebrating Eight Years With...*  
*Celebrating Eight Years With...*

# **HARRIS**



**Shaping the  
Difference**

**THE THUNDER JUST KEEPS GETTING LOUDER**



# REBOUND RUMBLE SUMMARY



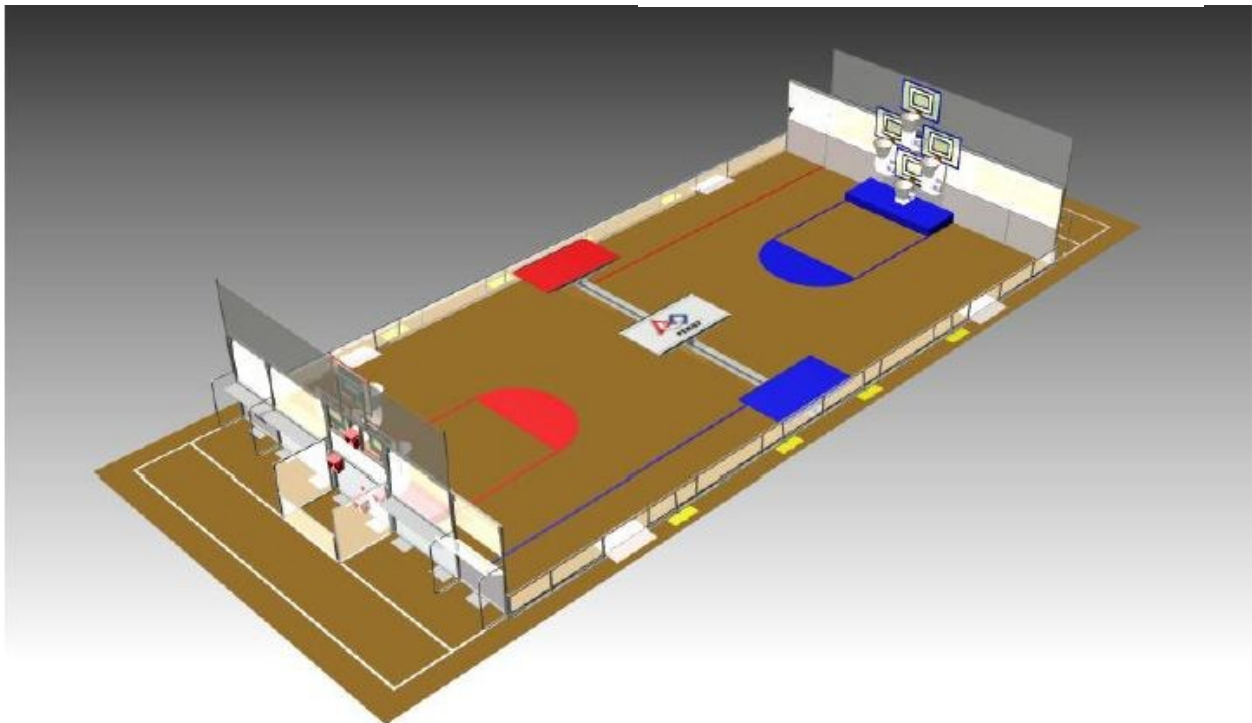
Rebound Rumble is played by two competing alliances on a flat, 27 x 54 ft field. Each alliance consists of three robots. They compete to score as many basketballs into their hoops as they can during a 2 minute and 15 second match. The higher the hoop in which the basketball is scored, the more points the alliance receives.

The match begins with a 15-second Hybrid Period in which robots operate independently of driver inputs. During this Hybrid Period, one robot on each alliance may be controlled using a Microsoft Kinect. Baskets scored during this period are worth extra points. For the remainder of the match, drivers control robots and try to maximize their alliance score by scoring as many baskets as possible.

The match ends with robots attempting to balance on bridges located at the middle of the field. In Qualification Matches, a robot from each alliance will also try to balance on the white Coopertition™ bridge to score additional ranking points for each alliance. Scoring for the match is summarized below.

# of Robots on Bridge	Qualification Points	Elimination Points
1	10	10
2	20	20
3	20	40

Hoop	Hybrid Points	Teleop Points
Top	6	3
Middle	5	2
Bottom	4	1



# AWARDS

## 2012 Awards

March 8-10	<b>Finger Lakes Regional</b>	Rochester, NY	<b>Innovation in Controls Dean's List Finalist - Justin Byers Woodie Flowers Finalist - Jeff Downs Volunteer of the Year - Larry Lewis Engineering Inspiration</b>
March 29-31	<b>Connecticut Regional</b>	Hartford, CT	

## 2011 Awards

March 3-5	<b>Finger Lakes Regional</b>	Rochester, NY	<b>Gracious Professionalism Dean's List Finalist - Jason Kuberka Chairman's Award</b>
March 24-26	<b>Washington DC Regional</b>	Washington, DC	

## 2010 Awards

March 4-6	<b>Finger Lakes Regional</b>	Rochester, NY	<b>Engineering Inspiration Chairman's Award Dean's List Finalist - Crystal Vongnaphone Finalist Award Coopertition Award Quarter Finalist, Curie Division</b>
March 25-27	<b>Boston Regional</b>	Boston, MA	
April 15-17	<b>2010 Championship</b>	Atlanta, GA	

## 2009 Awards

March 5-7	<b>Finger Lakes Regional</b>	Rochester, NY	<b>Finalist Award Kleiner, Perkins, Caufield &amp; Byers Entrepreneurship Award</b>
March 19-21	<b>Chesapeake Regional</b>	Chesapeake, MD	<b>Imagery Award Website Award Chairman's Award</b>
April 15-18	<b>2009 Championship</b>	Atlanta, GA	<b>International Judges Award for Integrated Performance</b>

## 2008 Awards

March 6-8	<b>Finger Lakes Regional</b>	Rochester, NY	<b>Engineering Inspiration Award Imagery Award Safety Award</b>
April 16-20	<b>Philadelphia Regional</b>	Philadelphia, PA	

## 2007 Awards

March 9-11	<b>Finger Lakes Regional</b>	Rochester, NY	<b>Chairman's Award Daimler Chrysler Team Spirit Website Award</b>
March 22-25	<b>Boston Regional</b>	Boston, MA	

## 2006 Awards

March 9-11	<b>Finger Lakes Regional</b>	Rochester, NY	<b>Engineering Inspiration Imagery Award</b>
March 23-25	<b>Boston Regional</b>	Boston, MA	



# ROLLING THUNDER IN



# THE COMMUNITY

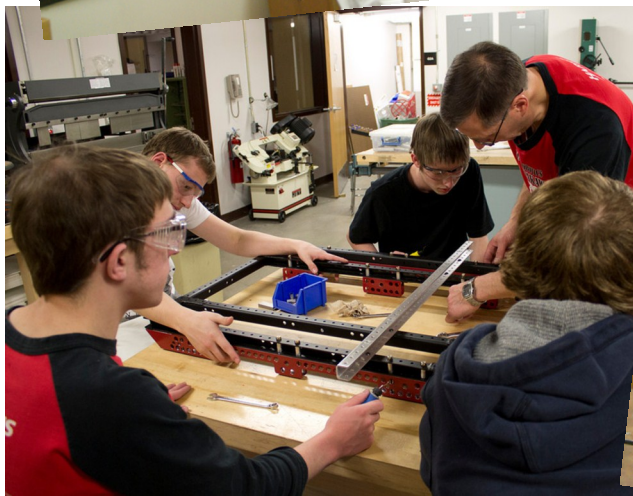
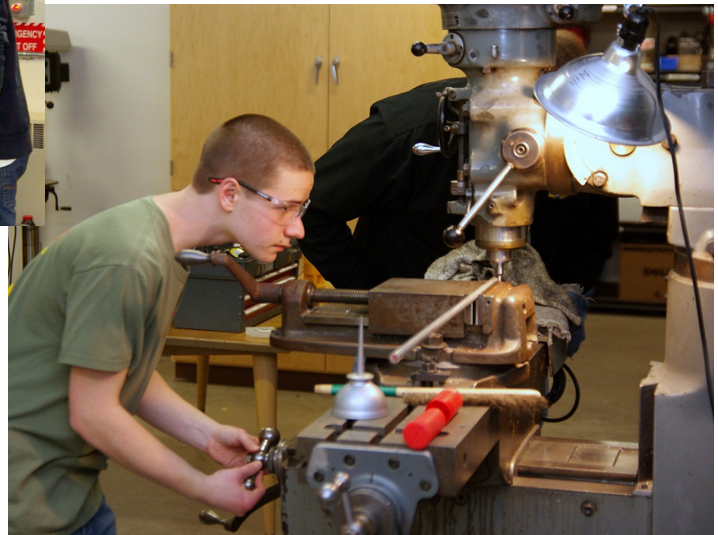
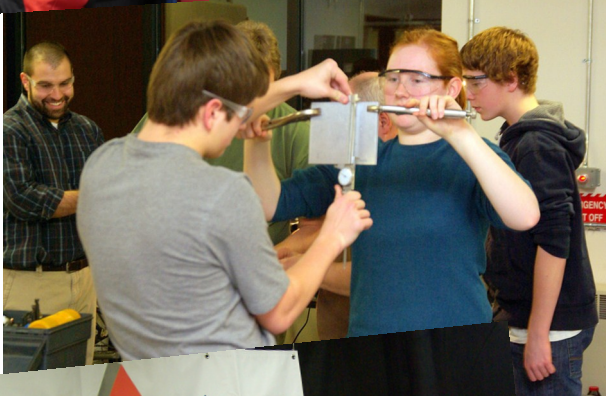
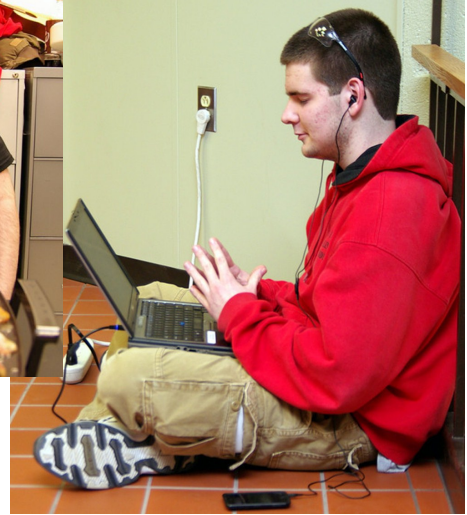


# 1511 PRESEASON





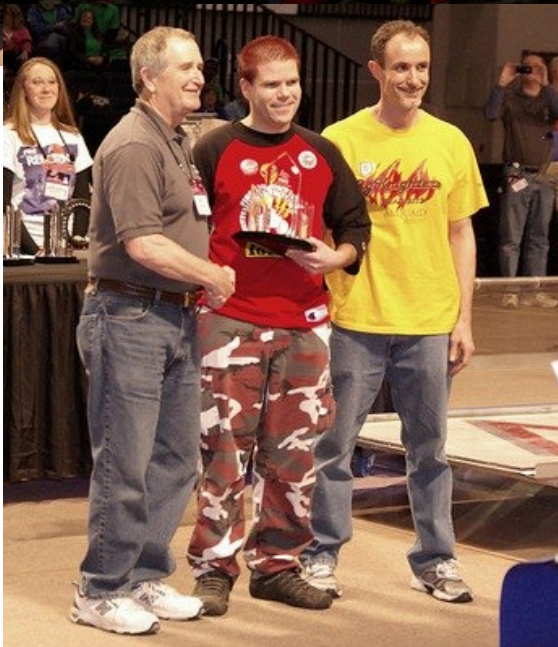
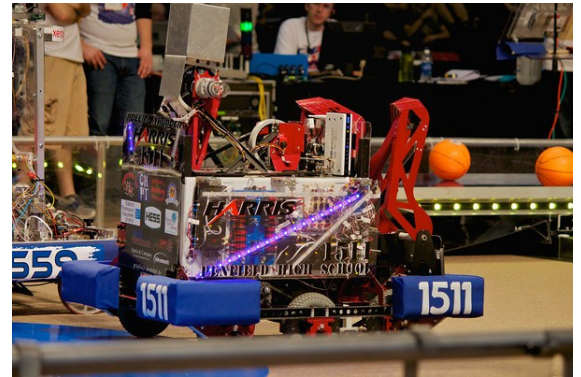
# 1511 BUILD SEASON





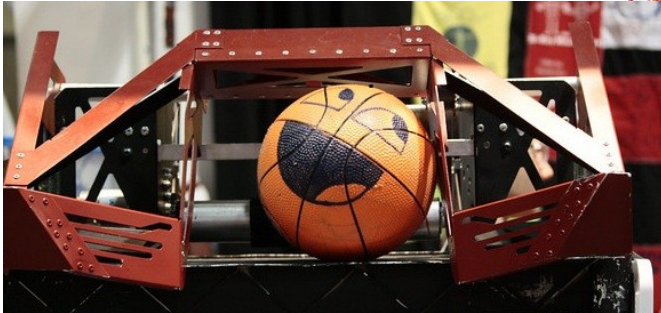
# 2011 FINGER LAKES REGIONAL ROCHESTER, NY 3/8-3/10

**Innovation in Controls Award**  
**Dean's List Finalist**  
**Woodie Flowers Award Finalist**  
**Volunteer of the Year**



# 2012 CONNECTICUT REGIONAL 3/29-3/31

## Engineering Inspiration Award



# 2012 DEAN'S LIST FINALIST - JUSTIN BYERS



Justin's strong entrepreneurial skills lend themselves to innovative leadership. He has accomplished professional achievements at such a young age, but he credits Team 1511 and FIRST with giving him the confidence and engineering knowledge to move forward with his endeavors.

Justin's most impressive endeavor is software he wrote to animate live virtual holographic concerts. The software handles all live animating and rendering by combining models with motion data and sound. He presented his software in 2011, wearing his Team 1511 polo, at MIT.

Justin has publicized his software at [www.animiku.net](http://www.animiku.net). He has become

a leader of the animation community, connecting with people worldwide.

Justin was able to accomplish this because he has been programming since age 9, teaching himself 12 programming languages such as C++, C# and Java. This knowledge came in handy when he joined the team and helped beta-test FIRST's C++ control systems.

On the team, Justin is highly involved in the programming, electrical and strategy subteams. He organizes many of our community service and fundraiser events. For the past 2 years, he has been our Team Captain for Light the Night Walk, raising over \$2,000 for the Leukemia & Lymphoma Society. This year, he started ImagineIT, a fundraiser that recycles electronics. When he's not organizing a team activity, he's participating, from the FIRST Mega Drive on Make a Difference Day to InterVOL, sorting medical supplies for countries in need.

Justin also spreads FIRST to diverse groups at our robot demonstrations such as elementary schools, local FLL Championships, and the Monroe County and NYS Fairs, attended by tens of thousands. He was also seen at our main sponsor, Harris' 50th Anniversary Party teaching engineers how to drive the robot. He convinced his father, a Kodak computer engineer, to join the team, and he has become a valuable programming mentor.

Justin has also made major contributions in competition. He is on our Programming Pit Crew, making last minute fixes and improvements in between matches. In 2011, he wrote the firmware for the driver's station and the robot's main autonomous code, and created our new scouting database system. We went from a bubble sheet system to a 6-laptop system that collects data we share with teams to use for selecting alliance partners.

During competition, Justin shows Gracious Professionalism by helping teams with their programming. At the 2011 DC Regional, he heard that a team did not have a concept for their robot so he helped them build a working robot within 5 hours! He also trains many of our new students, passing on his knowledge and skills to the next generation of Team 1511.

Another major contribution Justin has made to the team is helping run the AV system at our offseason competition. He also created the intro video, welcoming all the teams; he went the extra mile to create original music for it. He designed an interface between a pan/tilt camera and a computer, writing the software to control it. This camera and software have been used to improve our 2012 webcast of Build Season as it scans our shop.

Justin has accomplished major feats in and outside of FIRST and Team 1511, but he has remained humble, gracious and professional. He works hard behind the scenes towards a common goal for the team and FIRST. Justin's commitment and innovation has inspired other students. We know he will continue to have great accomplishments in the tech world, probably starting his own business. We hope he comes back to sponsor FIRST!



# WOODIE FLOWERS FINALIST - JEFF DOWNS

FIRST has had a long tradition of honoring the mentors that help make this program possible. Each year 1511 has submitted a mentor for the Woodie Flowers Award. Jeff Down's was this year's nominee and finalist!!



Jeff Downs is an admired mentor on our team because of his high energy level (fueled by Chipotle), positive can do attitude, and engagement with students through fun activities, like jumping around at our fall team gathering or jousting with students at the Championships Finale. Jeff is an inspirational 1511 mentor and a big contributor to the FIRST community.

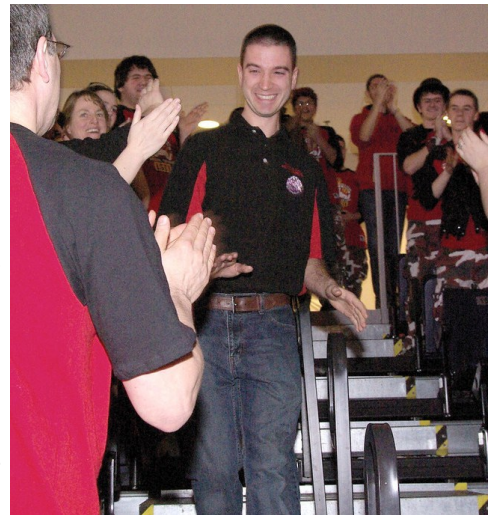
Jeff has developed programming subteam students into leaders by having the experienced students teach the new students programming skills and tools. He has led our students in beta-testing the new control systems for 4 years, encouraging the students to write the application essay. During beta-testing, they found a bug in the Jaguar speed controller firmware on the CAN bus, which helped FIRST update the system. Our students presented the beta-test results, with Jeff's guidance, at the Rochester Kickoff for the last 2 years, as well as at offseason competitions.

Jeff uses metaphors to explain complicated concepts such as comparing code functions to the operations of a car. Because of Jeff's fun teaching style, he has grown the programming subteam from 1 to 11 students and

has inspired 8 of our alumni to go into computer engineering. He also inspires students to lead presentations on their personal projects. One student presented at MIT on software he created and thanks Jeff and 1511 for giving him the confidence to do so!

Jeff is a role model for students and mentors through his involvement in FIRST. In addition to mentoring 1511 for over 200 hours in build season, Jeff found the time to train to be a FTA! This year, he is an FTA for 3 regional events: Quebec, Peachtree and Boston. Jeff also assisted in the solving the FLR field management system issues on practice day last year. There is never a moment at rest for Jeff at competitions. Whenever Jeff is not helping 1511, he is helping students on other teams to solve robot issues. When he is not an FTA, he attends other Regionals to help out and share his knowledge. Jeff also participates at the Rochester Robot Quick Build Session.

Jeff improved the experience of our offseason competition, Rah Cha Cha Ruckus, by redesigning the tower lighting. He wrote code to interact with the field management system to closely replicate a FIRST field.



Jeff is also involved with mentoring students in mechanical design, leadership and webpage. He also supports our team communications and internet functions by managing our team email lists and our build season wiki. Jeff reviews students' mechanical designs and offers up improvements by asking students what could go wrong with their designs, how they could prevent these problems, and helps students weigh the pros and cons of their ideas to find the best solution. Jeff's motto is that the students will get as much out of FIRST as they put in to it.

Jeff has positively affected every student on 1511 and many in FIRST. He will continue to inspire and motivate students for years to come!

# VOLUNTEER OF THE YEAR AT FLR - LARRY LEWIS

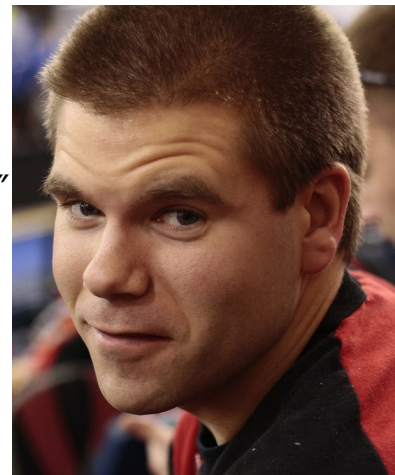


FIRST is not just about building a robot for a really exciting competition—it's about building a team, getting involved in the community and giving back. This year's Volunteer of the Year brings as much imagination and encouragement to his workplace at Harris RF Communications, where he is a senior engineer, as he does to Team 1151, Rolling Thunder of Penfield High School. He is one of the reasons the FIRST Robotics team from Penfield High School rolls and thunders to success in regional and national competitions.

He has been with the team since its inception in 2004 helping to build the drive train and encouraging the team's strategy for competitions, and became its Team Leader in 2009. He has encouraged the students to get involved in activities that not only promote FIRST Robotics, but serve their community as well, from helping to organize FIRST Lego League summer camps to participating with the team at the New York State Fair, Penfield Clean Up Day and the United Way's Make Difference Day. He also helped put First Lego League in the Penfield Elementary Schools and is helping to create a First Robotics Competition team at Monroe #1 BOCES for the 2012-2013 academic year. He has also led the committee of the off-season competition, Rah Cha Cha Ruckus, since it started in 2006, and started another First Robotic Competition off-season event in 2010, Rochester Rampage at the Monroe County Fair, inviting other local teams to demonstrate a 'mock' competition for visitors.

According to his supervisor at Harris Corp., Thomas Mlodzienski, this year's volunteer of the year: *"...has matured quickly as an individual contributor, and moved on to assume a lead role on key Harris projects. He is highly respected by his peers, and is taking on a new role as a software architect for the department. While he has always made a strong contribution to his work teams, he maintains an even stronger bond to the community through FIRST robotics. As a FIRST leader, he is a volunteer, leader, mentor and role model to young adults who are shaping their futures with tools in engineering and professionalism. He has been a positive influence on many teens throughout the Rochester community. This includes helping teams that he directly competes with, as well as junior teams in other leagues."*

His students call him dedicated, devoted, a great teacher, caring and patient. Along with his wife, Leann—a dynamic and dedicated duo at Penfield High School—when the Thunder is Rolling, it is on a roll because of Larry Lewis, the 2012 FIRST Robotics Finger Lakes Volunteer of the Year.



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36  
27  
31  
44

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23  
42  
26  
39  
39  
42  
26  
23  
40

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24  
38  
35  
34  
41  
41

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30  
28  
28  
24  
28  
28  
30  
24  
24  
30  
32  
32  
32

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33  
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43  
46

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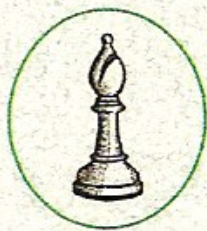
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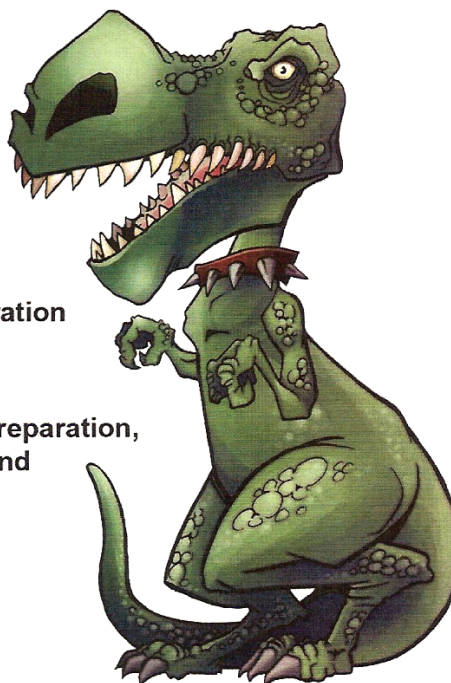
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*Good luck to Justin  
and all of Team  
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*- David Byers*





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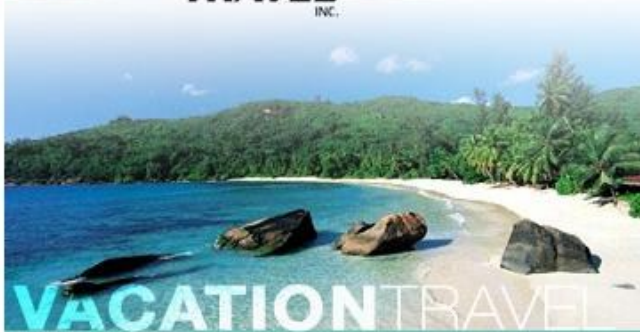
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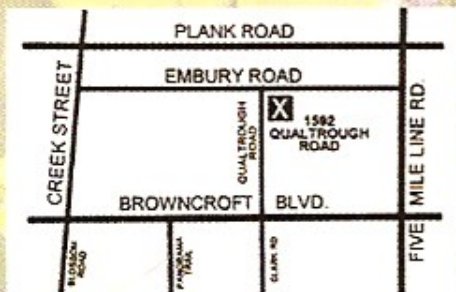
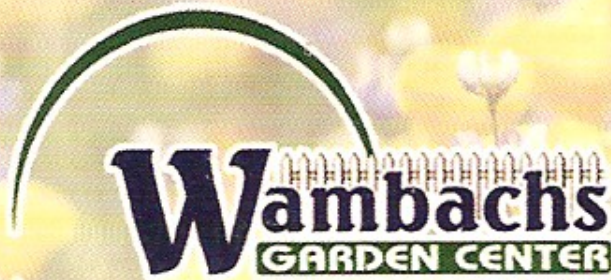
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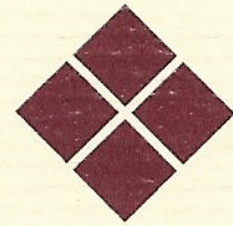
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