

## Chairman's Award - Team 467

[Print](#)[Close](#)

2018 - Team 467

### Team Number

467

### Team Name, Corporate/University Sponsors

Shrewsbury Robotics/Vangy Tool Company/Dover Motion&Shrewsbury Sr High

### Briefly describe the impact of the *FIRST* program on team participants with special emphasis on the 2017/2018 year and the preceding two to five years

Team 467 welcomes a diverse group of students who make lifelong connections, inspiring them to return to mentor. One student from 467 has been a Dean's List finalist, while another was a finalist at the District level. For the past 3 years, our FLL mentors have won coaches awards at various competitions. Members join our team not expecting to pursue STEM fields, but find their passion through FIRST. In fact, 100% of our past two years' graduating seniors are now pursuing STEM courses at college.

### Describe the impact of the *FIRST* program on your community with special emphasis on the 2017/2018 year and the preceding two to five years

Team 467 works with our local elementary school curriculum to teach the engineering process and demonstrate our robot. For 2 years, we have helped build a garden and playground at our local preschool and hosted a carnival to raise money for them. Team 467 demonstrates our robot at our town's Fall Festival and parade, allowing curious Shrewsbury residents to drive it. We host a STEM summer camp for our community, introducing students to FLL and engineering.

### Team's innovative or creative method to spread the *FIRST* message

Team 467 hosted two Girl Scout troops in our shop to help them earn two STEM badges. Our team held a STEM workshop for young girls with the help of our local YMCA. We also teach the engineering process to 3 of our local elementary schools during their school year. In addition, we run Humans and Robots of FIRST, a social media platform where we share stories from teams around the world. Team 467 is also interviewed for local TV every year, reaching many in the community.

### Describe examples of how your team members act as role models and inspire other *FIRST* team members to emulate

Our safety subteam reached out to every rookie FRC team in New England with safety tips and advice, as well the safety presentation we show annually to our team. At competition, we distribute safety kits to every team. During the season, we reduce our carbon footprint by using reusable cutlery at every team meal. We also donated goods for disaster relief, hoping to inspire members of our team and others to donate as well.

**Describe the team's initiatives to help start or form other FRC teams**

This year we are assisting a group of students and mentors from Shanghai, China with forming an FRC team to compete in 2019. In January, the Chinese delegates visited our shop to discuss building robots, using tools, and our overall team structure. We continue to communicate over WeChat, which allows 467 students to easily answer any questions they may have. Over the summer, we hope to host Chinese students, allowing them to gain a greater understanding of FRC.

**Describe the team's initiatives to help start or form other *FIRST* teams (including Jr.FLL, FLL, & FTC)**

Members of Team 467 mentor 17 FLL teams from our local middle schools, with 100 participants in total. Our teams win many awards, from "Innovative Solution" to "Gracious Professionalism", each year. A few years ago, we started a Jr. FLL team with a local Boy Scout troop. We attempted to start FTC teams in Morocco, but due to limiting funding, we were not successful in beginning one for this season. However, we plan to keep trying to establish a team there.

**Describe the team's initiatives on assisting other *FIRST* teams (including Jr.FLL, FLL, FTC, & FRC) with progressing through the *FIRST* program**

For students that could not be accommodated in our FLL program, we hosted informational meetings to assist parents in forming 3 private teams, giving them access to mentor advice and any parts and materials they needed. Before competition, our mentors helped practice judge them to help with competition preparation.

**Describe how your team works with other *FIRST* teams to serve as mentors to younger or less experienced *FIRST* teams (includes Jr.FLL, FLL, FTC, & FRC teams)**

Our team contacted every single rookie FRC team in New England to give them safety advice for build season and competition, as well as our "Safety Presentation" which gives an overview of safety in *FIRST*. Furthermore, we reached out to a rookie FTC team to offer advice on awards preparation and community outreach. We hope to form strong connections with this local team in the near future.

**Describe your Corporate/University Sponsors**

Team 467 is grateful to have 10 corporate sponsors this year, ranging from healthcare to restaurant chains. Some of these corporations, such as Vangy Tools, donate \$1,500 to \$2,000 each year in service. We are extremely thankful for their support and the support of all of our corporate sponsors, as they also provide us with mentors. Having such connections in the community has benefited our team greatly in the past years.

**Describe the strength of your partnership with your sponsors with special emphasis on the 2017/2018 year and the preceding two to five years**

The support of our sponsors not only funds our season and competitions, but it also pushes students to do their best. One of our most loyal sponsors, Allegro, recently noticed our dedication to FRC and doubled their sponsorship donation for this year. We even receive donations from state representative Hannah Kane, who has loyally supported us for many years. Each year, we are grateful to continue gaining sponsors, and have recently acquired the support of Dunkin' Donuts and the YMCA.

**Describe how your team would explain what *FIRST* is to someone who has never heard of it**

*FIRST*'s annual challenge allows students to build upon their interests in STEM while fostering connections that last a lifetime. Throughout the build season, students learn new skills, both technical and collaborative, that prepare them to pursue a variety of careers. Gracious Professionalism and Coopertition inspire students to be their best selves, on and off the competition field. *FIRST* is more than just an organization; it is a one of a kind experience and way of thinking.

**Briefly describe other matters of interest to the *FIRST* judges, if any**

Community service and charity are of great importance to Team 467. In conjunction with the *FIRST* core values, we strive to give back to our community, leaving a lasting, positive impact. Team 467 annually raises money for the American Cancer Society and participates in the Relay for Life. We donate over 60 pies to Veterans Inc. yearly, and supported disaster relief efforts in Puerto Rico.

**Team Captain/Student Representative that has double-checked this submission.**

Rhea Krishnan

## Essay

### A Birds-Eye View

If there is one thing more characteristic of Team 467 than our apple pies, it is our ever-growing influence. For 19 years, Team 467 has worked towards expanding from our small community of Shrewsbury, Massachusetts into New England, the US, and the world. We can now reflect on our growth by zooming out, looking at a birds-eye view of 467's positive impact.

### Team

At our core, we are engineers, but we are also artists, athletes, and musicians, contributing to the team's unique diversity. Since 2014, our team has grown by 222% to 109 members. We also continue to inspire young women, resulting in a steady increase from 8 girls in 2012 to the current 21.

With a goal to inspire future leaders, we updated our team structure to ensure that all students have a voice. Through our Steering Committee and engineering subteams, students feel confident to express their opinions and ideas. A team as large as 467 relies on the cascade effect to spread STEM principles to all team members. One person learns a skill and teaches it to others, keeping the team running efficiently.

We maintain our strong sense of unity and teamwork through team meals. In the wise words of Paul Ottaviano, a 467 mentor, "families are built around dinner." The team dines together at least five times a week, allowing students of different backgrounds to share their culture through cuisine. Team members also organize get-togethers to play frisbee, go skating, and have game nights. At the year's end, we host an annual "shindig" to celebrate our accomplishments and wish seniors luck as they transition to 467 alumni.

### Community

When it comes to Shrewsbury, Team 467 has a presence like no other. We begin work early in the school year, when our team joins local businesses and organizations for the Spirit of Shrewsbury Festival. There, we showcase the impacts of our program and allow members of the community to interact with our robot. We proudly drive our robot during the festival's parade, allowing all Shrewsbury residents to see the product of our build season. For the past two years, our team has taken the initiative to host a Fall Family Carnival to raise money for Parker Road Preschool. We furthered our involvement with Parker Road by partnering with The Home Depot to build their new playground and garden. Our team has also gained visibility and spread the message of FIRST through multiple appearances on our local TV network.

This year, Team 467 has taken great steps to increase the number of young women interested in STEM. We began our efforts by hosting two Girl Scout troops in our shop, helping them earn two different STEM badges. We plan to expand this program with our local Girl Scouts in coming years. To continue introducing girls in our community to new skills and STEM fields, we created a workshop for middle school girls at our local YMCA, and are working to make it an annual event. This event, entitled G.I.R.L.S (Girls Innovating and Recognizing Leadership in STEM), will take place on February 24th, allowing girls to participate in engineering-related activities. Additionally, we have invited a panel of women from STEM backgrounds to speak about their professions and inspire participants.

For 17 years, Team 467 has educated the next generation of FIRST participants through our growing FLL program, open to Shrewsbury middle school students. During the fall months, our high school students coach 17 FLL teams. We increased from our previous standard of 10 teams, giving participants a more engaging and productive experience. Our FLL students learn the principles of teamwork and Gracious Professionalism, and form bonds with their high school coaches that stay with them throughout their years in FLL.

Due to an unprecedented level of interest, we used a lottery system to place 100 students out of 160 applicants in our FLL program. We assisted those unable to be accommodated in forming 3 private teams. Team 467 hosted an informational meeting allowing parents to ask questions and borrow our LEGO materials. Our mentors also acted as practice judges for these teams, helping them prepare for competition.

Furthermore, we encourage students from Shrewsbury and the surrounding communities to engage in STEM year-round by running a summer camp for 4th-8th grade students. The summer program teaches students engineering principles using the previous FLL challenge, rockets, and solar robots. Many students from the summer program return to our fall FLL program later in the year, continuing the cycle of FIRST programs we run in our community.

Team 467 is also part of the curriculum for Shrewsbury's elementary schools. In previous years, we have taught simple machines and demonstrated our robot. This year, we will be teaching the engineering process. With this, we hope to inspire even more young students to pursue STEM in their future. Team 467's ability to build connections with our youth encourages them to continue on to FRC.

### State

Building off our local impact, Team 467 expands its influence throughout Massachusetts. One of our largest efforts to spread FIRST across the state is accomplished by running Mindstorm Mayhem, the largest FLL qualifier in Massachusetts. For the past ten years, it has been one of our fundraisers and allowed community members to experience the capabilities of FIRST students. Last year, our team invited a Jr. FLL team to showcase their hard work at Mindstorm Mayhem. In the future we plan to hold a larger expo in the hopes of inspiring more kids to form Jr. FLL teams in the area.

**Essay - page 2**

Our most well-known fundraiser is our Thanksgiving pie bake, where we volunteer 13 hours at our local middle school to bake 820 apple pies. While our team relies strongly on the profits from this event, we annually donate over 60 pies to Veterans Inc, an organization that combats homelessness among Veterans. This is one of our favorite philanthropic outreach initiatives that aims to honor FIRST's "give back to your community" principle.

As a means of thanking our sponsors, we have initiated a new event called Sponsor Day, which Team 467 will host at our high school. The event, scheduled for Spring 2018, will allow visitors to see our robot in action. Our sponsors range from local companies and community groups to large international corporations, including state representative Hannah Kane. Team 467 would not be where it is today without the generous donations of such sponsors, and we hope to show them just how impactful their contributions are.

**Global**

In recent years, Team 467 has broadened its regional influence to a national and global scale. We connect with the global FIRST community through Humans and Robots of FIRST, a social media platform run by our team. Modeled after Humans of New York, we share stories from FIRST teams across the world. This platform encourages FRC teams to share their stories and accomplishments in a positive space, further tying together the FIRST community.

This year our team accomplished our most successful international outreach effort yet. We are assisting a group of high school students and mentors from Shanghai, China in forming an FRC team to compete in 2019. One of our alumni, living in Shanghai, spoke to the team and organized meetings to provide them with helpful information. Through skype calls, an in-person visit and a tour of our shop, we have cemented our ties with the foreign team's mentors. We discussed the process of building robots, using tools, and the overall team structure and organization. Furthermore, our guests proposed a possible foreign exchange program, in which students from 467 would have the opportunity to go to China and exchange knowledge about STEM with their team. As part of this exchange, members of 467 would serve as host families for the Chinese students the following summer. Our hope is that we will help this soon-to-be team have a successful future in FIRST.

To spread FIRST's safety culture, we reached out to rookie and second year teams with safety advice. Teams from all over the country responded positively to the information last year, so this season we decided to continue our efforts. With the help of Steve Cremer, the NE Regional coordinator, we contacted every rookie team in New England.

Additionally, we participate annually in Relay for Life, raising over \$3500 for the American Cancer Society last spring. The philosophy behind our charity work is inspired by the FIRST ideals of giving back to the community and creating a lasting impact on those around us.

Global issues are of great importance to Team 467. As a team we provide aid to those in need. This year, we gathered donations in the form of clothing, blankets and medicine to send to citizens of Puerto Rico devastated by the hurricanes.

In previous years, our team has worked with Girl Scouts to send paracord bracelets to troops overseas. This year, we are showing our support by joining forces with Operation Gratitude, an organization which sends life-saving paracord to troops. We are sending over 25 bracelets, and we plan to continue such efforts in coming years.

To cap it all off, our alumni help spread 467 all across the globe. They continue to mentor our team long after they graduate, making up 20% of full time mentors and 50% of part time mentors on our team. Currently, previous members of Team 467 are scattered all across the world, from submarines in the Panama Canal to college in Shanghai. One of our alum even worked on the recent SpaceX rocket launch! In addition, 100% of all graduates in the last 2 years have pursued STEM majors in college.

As the influence of Team 467 continues to expand, we maintain our focus on promoting STEM and the ideals of FIRST. This birds-eye view of our team, from local community projects to global outreach efforts, captures the essence of who we are and the impact we will continue to have.