

Chairman's Award - Team 564

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2019 - Team 564

Team Number

564

Team Name, Corporate/University Sponsors

Zebra Technology&Longwood High School

Briefly describe the impact of the *FIRST* program on team participants with special emphasis on the 2018/2019 year and the preceding two to five years

Within the last five years the FIRST program has vastly impacted so many people by giving them an outlet to express our creativity and technological skills by socializing with people that have the same interests.

Describe the impact of the *FIRST* program on your community with special emphasis on the 2018/2019 year and the preceding two to five years

The FIRST program has impacted our community by inserting STEAM education into our curriculum in our elementary schools throughout the 4th grade. Allowing student to have the opportunity to learn about science, technology, engineering, art, and math.

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

Longwood Robotics spreads the message of FIRST through hosting multiple events, including STEAM night, Ducks game presentation and community festivals, that enable us to answer questions and peak the interests of others in our community and beyond. We accomplish our mission through staying persistent even when we encounter a problem, always finding a way to work through it.

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

Current members and alumni volunteer to mentor FLL and Jr. FLL teams inside and out of our community. Our senior team members take roles as teachers to ensure that their departments will have the knowledge necessary for years to come.

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

We offer our insight of the FIRST program to other schools through demonstrations and attending conferences where we showed aspects of FIRST in order to try and get other schools to adopt the FIRST program. Furthermore, we hosted Shoreham-Wading River-Rocky Point during their rookie season and assisted Bellport with their open house to help community members understand FIRST.

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

Due to our outreaches several more students wanted to be involved however, with the time constraints and current number of team members we applied for a grant through My Brother's Keeper and spoke with administration to begin offering more programs.

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

Several FRC team members volunteer to coach Jr. FLL and FLL teams in our community. Several other members mentored our FTC team throughout their season.

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 members help the younger FLL and Jr. FLL teams in our community that participate through LYSA (Longwood Youth Sports Association). Members, teachers, parents, and alumni mentor each of these less experienced teams.

Describe your Corporate/University Sponsors

Zebra Technologies has been assisting and mentoring Longwood Robotics for the past two years. They assist us with design problems, operational issues, and give us resources. Zebra representatives who help mentor us offer both technical and non-technical support connecting our team to the Zebra FRC Mentor Network.

Describe the strength of your partnership with your sponsors with special emphasis on the 2018/2019 year and the preceding two to five years

Throughout the years Zebra Technologies has provided us with materials and tools to build our robots. Luitpoild pharmaceuticals has assisted in the opportunity to allow our technical mentor to adjust his work schedule to accommodate him to participate in our team meetings for the past 12 years.

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

To us, FIRST is our second home it gives a creative outlet and a new place to feel welcomed. It has changed all of our lives in one of the most wholesome ways possible. FIRST reaches out to people all around the world and exhibits the value of cooperation, gracious professionalism, and STEAM education. It introduces beneficial social skills, and offers the ability to learn about the depths of the technology field.

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

Many of our alumni still contribute to the FIRST community by coaching FIRST teams and participate in robotics programs outside of FIRST. For example, John Hernandez, attends Vaughn College for mechatronics while participating on a robotics team that has traveled internationally. Another alumni participates in the Tesla Hyperloop competition. These are just a couple of examples of how the FIRST program helped prepare students for college and the real world.

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

Mikayla MacIntyre

Essay

What makes Longwood Robotics ...

Each of our members all have a different story and come from different backgrounds. However, we all come together and produce something amazing. Our team is like a family, every one of us making it special. Being a part of the team doesn't make us special, we make the team special. Every member joined for a different reason, every member comes from a different place however, we all come from one of the most diverse school districts on Long Island and that shines through every one of us. Throughout the years our team has become a second home to our members, it gives us a place without judgement and welcomes anyone wholeheartedly. Our team has a variety of different members, we have the athletes, the computer whizzes, music enthusiasts, the introverts and extroverts, mechanics, and comedians. Together we make up a modern-day Breakfast Club. As stated in the movie, *The Breakfast Club* (1985), "But what we found out is that each one of us is a brain, and an athlete, and a basket case a princess and a criminal. Does that answer your question?" All of our personalities come together and make up the unique portion of the team. When people ask us who we are, we are not just one group with the same personality making up the team, we are a collection of individuals with distinctive backgrounds that began 18 years ago.

Longwood Robotics team 564 started in 2001 and since then we've expanded immensely. Throughout the years we've successfully spread the message of FIRST. We've hosted multiple events and brought the FIRST program further into the classroom and our community.

Longevity equals Legacy. Throughout the years, many alumni have reached out to present day members stating that the foundation of their career path began with FIRST and Longwood Robotics. Many state that we are a family, however, our family extends through the longevity of community families being part of Longwood Robotics. Siblings are often found in the stands cheering only to later become the driving force of our team.

One of our mentors, a Woodie Flowers recipient, Roy Powell, has been with our team for the past 12 years. He began mentoring when his eldest daughter joined the team in 2007 as a freshman. Even when she graduated he continued to mentor us for 5 years without any of his own children own the team. His younger daughter followed in the footsteps of her sister by joining the team as a freshman two years ago and her father still mentors the team as of today.

An alumnus viewed our website and stated that she enjoyed the pictures dating back to 2001 and how FIRST has shaped her life. "My career has led me right back to what I was doing at Robotics. We called it Promotions, the real world calls it Program Management. I can only say that my life would not be the same without the experiences I had on Team 564." Jeanne Lighty (2004)

Outreach equals Awareness. Longwood currently has 22 teams spanning across all four of FIRST programs. Our outreach has extended into the 4th grade classrooms of all our elementary schools. There are 718 4th grade students participating in FIRST programs along with 33 teachers as coaches. It was introduced because a team member with a younger sibling was very interested in our team so she came to our Saturday meetings making us realize we didn't have a program that younger kids could participate in. It took time, several years in fact, however, through many student initiatives including meeting with district administration to develop a budget and appropriate grade to start the program. It was started through a grant from FIRST, every 4th grade teacher attended a professional development seminar to learn the FIRST program embracing it as a part of the curriculum. Our district also supports another program called MICK (Middle Island Caring for Kids) as an addition to our My Brother's Keepers grant that includes 6 to 9-year olds at a local daycare center. Our community also has adopted FIRST into the Longwood Youth Sports Association (LYSA) making it a part of our community sports programs.

We have hosted a variety of events throughout the year spreading the message of FIRST. This year we introduced a STEAM Night promoting STEAM education to people of all ages. We had several different activities including letting the children drive past robots. Participants had the opportunity to learn about 3D printing from our members, where they created their own designs. The STEAM activities promoted a partnership with parents and their children. One activity, the marshmallow tower, was a favorite among the parents to where they became more competitive than their children. Due to the success of the first STEAM night, a second STEAM night was planned and implemented by FIRST TEAM 564. Our team brainstormed activities that were not only exciting but also challenging.

A few members of the team reached out to their church and had us hold a booth at a local Greek Festival giving us the opportunity to reach out to other communities. During the festival, Alphonse, along with his younger brother, Anthony, solicited team members to demonstrate two levels of the FIRST program, FLL and FRC. Along with each team member, they developed a system to highlight the importance of each aspect of the engineering process to community members of all ages. Through this opportunity we were able to reach about 10,000 people.

Another member took the initiative to collaborate with the military and team advisors to host a military demonstration assembly for all 8th grade students in our district. This afforded 711 students the opportunity to view and participate in a de-bombing robot program.

Last year, we demonstrated our robot at the Long Island Ducks Stadium during a game allowing us to reach more than 6,000 people. During the game we partnered with The Shark Radio Station (94.3) where they let anyone who was able to catch a ball thrown by our robot enter to win a prize. One of our team members also had the opportunity to participate in an interview with Jobline on LI News Radio (103.9) allowing our voices to be heard.

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For the past 15 years we have hosted the Long Island FLL Championships with over 1,000 people in attendance. All of our members and some parents volunteer to work at the event. During this time we have also held the FLL Jr. Expo for the past 10 years.

Collaboration Through Camaraderie. Our team also hosts spaghetti dinners, paint nights, and community breakfast fundraisers. Our annual community breakfast at Applebee's invites all of our family and friends to wish us luck on our competitions. We have held presentations to the Longwood Central School District Budget Advisory and Technology Committee that provided more insight about our program. This meeting included members from the Board of Education, teachers and students, administrative members, and members of the community.

Pride equals Perseverance. To Longwood Robotics team members, perseverance means to never give up without a fight. Every year we overcome numerous obstacles enabling us to build a robot we are all proud of. Our robot design begins with our design team presenting their ideas to mentors. Once the design is complete, the mentors facilitate the fruition of the robot among all members. We build our robot in a wood shop, although we have support among many machine shops, our pride comes from keeping it simple. Walking into our shop, you will see many students fabricating, troubleshooting, and finally testing the robot. "For every department we don't always have the answers nor do we have an easy means to reach them. Yet we have always found them by improvising and persevering." ~ Ethan Kelly (2014)

Diversity equals Inclusion. Having such a diverse community enables our team to grow together, giving us the opportunity to be more open minded. Everyone is given the same opportunity to learn and grow in different avenues of STEAM education. Diversity encourages us all to be the best people we can be.

"At least in engineering, it is very difficult to work by yourself. More importantly, a mix of personality types, backgrounds, and expertise will give you a better product, design, recommendation or anything else, than just your perspective alone." (Jason Thompson- 2002) Throughout the years there has been a vast increase of women joining robotics and taking positions of leadership. Along with this increase there have been multiple female officers and heads of departments. This year we have introduced positions such as president, vice president, secretary, and treasurer; it is much like the simulation of a government. As well as these new positions we have announced distinct heads of departments for mechanics, electronics, programming, pneumatics, scouting, and promotions. Many of these leadership positions have been obtained by our female members.

We can say, based on the history of our team of 18 years, the opportunities through FIRST robotics is endless. This is evident in the following statistics: There are 1,058 people involved in FIRST throughout Longwood. 564 is not only our team number, it is also the number of kids that have gone through our FRC program. Longwood School District currently has 22 FIRST teams in all four programs. Longwood FRC alumni have been awarded a total of \$524,800 in scholarships. But in the end, we've come together to make our team special. "Sincerely yours," Longwood Robotics