

Chairman's Award - Team 2638

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2019 - Team 2638

Team Number

2638

Team Name, Corporate/University Sponsors

Gold Coast- Lake Success Rotary/Charles Schwab- Stuart Lempert/Google/Bloomberg/Great Neck Alert Fire Department/Great Neck South High School PTSA/Great Neck South High School/Judi Bosworth/GE Pickering Medical Supplies&Great Neck South 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

Over 95% of current team participants feel FIRST robotics has expanded their knowledge of STEM. In addition to technical skills, our participants learn crucial communication and listening skills during annual leadership seminars; time management and teamwork skills during the build season; and interpersonal and technical problem-solving skills as they fulfill the various missions of FIRST. Students leave 2638 with a unique well-rounded quality, ready to conquer any challenges that come.

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

Over the past two years, 2638 has raised \$35,235 to support local charities: St. Christopher's Orphanage, Polar Bear Plunge (supporting Special Olympics), Sunrise Day Camp and the Matthew Fetzer Foundation (supporting those with childhood cancer), Midnight Run (supporting the homeless), and Valentines for Vets. We dedicate our time to support community groups such as: helping the Boy Scouts construct their Pinewood Derby cars in our shop and facilitating STEM workshops at Sunrise Day Camp.

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

More than 73% of members agree that our team's social media and website play an active role in advocating the FIRST message. In addition to a social media presence, we convey our message in a personal way: giving free ices out to promote our team, collaborating with Eagle Scouts to commemorate a 9/11 memorial by our trailer, offering extensive team merchandise for sale, hosting a viewing party of our team competition at Baker Elementary, and showcasing our robot in our town's street fair.

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

Almost 91% of our team feel that participation in FIRST has allowed them to be mentored by experienced team members. This year, we provided a support system for new members by pairing them with experienced teammates. 90% of our team agree that we are the face of STEM at charitable efforts (visits to hospitals & elementary schools) and community events (street fair, Midnight Run), further shown by feedback that 81% of members report having or intending to participate in charitable outreach.

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

We assisted in establishing FRC teams in Seaford, North Shore, and Mineola High Schools, all eventual Rookie All-Star winners at the SBPLI Regional. We supported Mineola's new FRC team by allowing them to use our robot and by providing technical support. A current initiative of ours is to assist North Shore Hebrew Academy, who is presently unable to compete within FIRST due to religious observances. Our collaboration allows them to work with our team to develop technical/robotic skills.

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

We have established 7 FLL teams in local elementary and middle schools, reaching 650 individuals at STEM fairs (past two years). We assist Great Neck North High School with their new FTC team. Recently, 42 FLL and FTC students visited our shop for help with competition projects/presentations. This year we donated 10 FLL kits to schools and have continued to work with schools in Brasilito, Costa Rica and Guangzhou, China. These partnerships include providing guidance, materials and Skype calls.

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

Our team established the Gold Coast Alliance, a network of 9 local teams (421 students) whose goal is to actively collaborate and support each other. We currently mentor FRC Teams 3950, 4567, and 3806. Last year, we hosted teams from Turkey, Canada, and China, providing them with dinner, a friendly welcome and use of our shop. Through our mentorship, Team 5016 received the safety award at the SBPLI Regional. We have developed a First Dashboard tutorial to support the registration process.

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)

We mentor 3 FLL, 1 FTC and 3 FRC teams: attending their competitions, visiting their schools, inviting them to our shop and providing team members as "advisors", who assist students with FLL projects. In addition, this year, we hosted FTC Team 4017 at our shop where we assisted them in preparing for competition. At our annual end-year Appreciation Reception, we invite FLL and FTC teams and award them with certificates to build a bridge between FLL/FTC activities and FRC events.

Describe your Corporate/University Sponsors

In the past two years, we obtained two new corporate sponsors, Google and Bloomberg, resulting in donations of \$8,500. Last year, Zebra Technologies sponsored our team's trip to the Championship. These corporate sponsors join our longtime sponsors of Lake Success Rotary Club, Charles Schwab and many grassroots supporters, such as Town Supervisor Judi Bosworth, alumni, the fire department, and local businesses. This year, parents donated over \$12,000 in in-kind support to provide team meals.

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

Over the past two years, we raised \$9,600 for our team at the annual fundraising social held with the Gold Coast-Lake Success Rotary Club, one of our longtime supporters. Donation of merchandise/services from local businesses for the social's raffle was in excess \$2,000. Last year, Google employees set up a viewing party in order to watch our team's performance at the competitions. In addition, the Great Neck Alert Firehouse donates safety materials and provides certification opportunities.

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

FIRST is about building robots. More importantly, FIRST is a way for students from schools all over to connect, collaborate and share their ideas within their own teams and with other teams in order to gain knowledge and advance the STEM field -- all while having loads of fun and forming strong bonds of friendship. According to one student on our team, "[FIRST] is a comprehensive, inciteful, and unique organization that displays the non-mutual exclusivity between hard work and fun".

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

96% of members feel our team culture is one of inclusion -- where all students are given the opportunity to be active/productive members of the team. We foster initiatives to support and inspire females on team (38%), such as sending five female members to attend Skanska Company's Day of Discovery, where they met and conversed with successful female engineers. Members are encouraged to join the Girls Who Code Club, where female students can develop technical skills in a supportive environment.

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

Miriam Shamash

Essay

Our team's mission is to be a force for change and growth in the STEM arena both in our community and the world at large. It is for that reason that our team has adopted the motto "changing the culture one nut and bolt at a time." Every small effort, both within our team and in our actions with the external community, strives to push forward our team and the awareness of STEM in the world around us. From our small start in 2007, with only 10 members, we have expanded our breadth of activities and increased our membership by 1,250% to date (130 members). Educating, inspiring and mentoring others are the strategies that we use to accomplish our mission.

Education - Our team prioritizes providing education for members of our team as well as the community at large. Cultivating individuals to assume leadership roles is critical to the success of the team; our leadership training seminars educate students on leadership styles, organizational dynamics and communication skills. In addition, our team leaders teach new members technical skills such as prototyping, using CAD to design our robot, designing parts with our plasma cutter and creating 3D printed parts and labels. The strength of our team relies on members who possess a blend of technical and interpersonal skills.

For this reason, we seek to educate and ease the transition of new members by holding a new-members-only series of club meetings in September. These meetings highlight team building, a panel of experienced team members discussing FIRST, the culture of our team, and how to get involved; and a tour of the shop and basic equipment. Furthermore, female team members are encouraged to join Girls Who Code (taught by one of our mentors and founded by a key team member), which introduces girls to computer science and possibly leads to careers in male-dominated fields.

Since safety is a priority on our team, we assist members in developing necessary safety skills. In cooperation with the Great Neck Alert Fire Company, we ensure that every member on our team is certified in CPR, AED and First Aid. We also require the completion of a safety test before using any tools and the use of safety glasses at all times. The sale of safety kits is a unique fundraising effort; since safety is our number one priority, it seemed natural to integrate safety into our efforts to raise money for the team. In light of recent school safety issues, our team has embraced the B-Con training standards.

In addition to internal efforts to embrace safety, we extend our initiatives into both local and FIRST communities. To help keep our school district safe, we send representatives to a monthly district-wide safety committee and promote safety education in elementary and middle schools. A new initiative was The Red Cross Pillowcase Project, sponsored by Disney, dedicated to preparing youngsters for disasters and emergencies.

Within the FIRST community, we started hosting an annual CPR/AED/First Aid Certification event for teams we mentor. We continue our safety practices during competitions by creating an evacuation plan, equipping our pit with devices and instructions to prevent and handle accidents and educating other teams on safety. We embrace the concept of gracious professionalism by gifting a wall equipped with safety devices and distributing team-generated safety awards to other regional/championship competitors.

2638 teaches the community about STEM and FIRST. At local school STEM fairs, we hold robot demonstrations and discuss FIRST Robotics activities. During our annual Engineering Inspiration Month, we showcase our robots and display a slideshow of technological inventions. Furthermore, the first Friday of each month is a designated spirit day where we increase the visibility of robotics and STEM throughout our school by wearing our team shirts and intermittently hold fundraising bake sales.

We bring our message of STEM education to the community in several ways. Rebel Robotics was featured on a news television show which explained our team functions. In efforts to spread STEM education, we presented a talk about robots at a local pre-school and volunteered at their annual Fall Festival. This year, we showcased our robot at the our town's street fair which had over 3,000 attendees. Lastly, our team hosts the Boy Scouts and assists them in completing their Pinewood Derby cars.

Inspiration - Inspiring others around us contributes to our team mission; one way in which we do that is by pursuing charitable efforts. Over the past two years, as a result of our annual Lunch with Santa event, we raised \$7,700 to buy gifts for disabled and ill children. We engage in 5 Midnight Runs each year, collecting clothing and toiletries for distribution to homeless individuals in New York City. Additionally, we aid Valentines for Vets efforts by writing cards and collecting supplies for US veterans. Last year, when a fire destroyed a local family's home, 2638 held a fundraiser to help them replace some of their belongings. Furthermore, many team members shave their heads to raise money for St. Baldrick's, a charity supporting childhood cancer research; we raised \$26,785 over the past two years. Our team also brought our robot to the Saratoga Family Inn, a temporary long-term housing for homeless families, in order to interest the children in STEM. One new initiative is our collaboration with Sunrise Day Camp to bring multilevel STEM activities to children with cancer and their siblings.

In addition, we partner with our community to inspire others: we visited the Cohen Children's Medical Center to demonstrate our robot and build mini-robots with the children, and we collaborated with a Boy Scout to develop a piece of land at our school for a team trailer location and a 9/11 memorial. The site has already been landscaped and we have created a pathway made of personalized bricks that are sold as a team fundraiser.

Writer Gordon Korman was inspired, as a result of a trip to our shop, to write his book Ungifted and to dedicate the book to our team. This book has been published in 5 languages (English, Spanish, Korean, Japanese and Turkish).

Essay - page 2

Mentorship - To encourage participation in FIRST, we serve as mentors in multiple ways. We mentor FRC teams from North Shore High School, Seaford High School and Port Washington High School (whose advisor is an alumnus of our school). The continuity of our former team members' commitment is demonstrated as they embrace the roles of advisor and mentor to other teams, both locally and nationally. We also mentor 7 FLL and 1 FTC teams in our district, supporting the extensive robotics curricula that the lower schools have in place.

While we attended the Half Hollow Hills off-season event which allows younger members to get a glimpse of FIRST before build season, last year we shared our robot with a new FRC team from Mineola High School to allow them to have first-time practice competing with an FRC robot. In addition, we have formed the Gold Coast Alliance, a group of 9 FRC teams that share resources and support each other's development. In particular, as a two-time national safety award winner, it is our mission to elevate the safety standards of the alliance. We already impacted the group in this area as we inspired the Huntington High School team to improve their safety program, leading them to win a regional safety award. Our alliance members have also embraced the selling of safety kits. One long term goal of the organization is to develop the concept of co-mentoring by collaboratively nurturing new FRC teams. A collaboration with North Shore Hebrew Academy seeks to provide an onsite overview and understanding of robotics to students who have no curriculum and resources in their school.

Education outreach efforts have been core values of our team in order to promote STEM awareness and assist other FIRST teams. New relationships have been initiated with HeYuan XiaoXue Elementary School (ages 5-11) in Guangzhou, China and the Costa Rica International Academy (K-12) in Brasilito, Costa Rica. The goal is to assist them—via Skype sessions and by supplying robotics kits/materials—in establishing a formal robotics curriculum and FRC team.

Growth - As a result of the success of our educating, inspiring, and mentoring strategies, our team has grown 1250% since its inception. This growth has necessitated a restructuring in the organization and communication of our club. This year, we abolished a hierarchical leadership structure in favor of 11 skill-specific committees. These include awards, competition, design and building, digital and social media, fundraising, merchandising, outreach, programming, promotion and spirit, safety, and scouting. This style of organization is welcoming to new members and allows all members to pursue individual interests.

With this organizational restructuring, good communication is essential. As a result, we have employed new strategies to improve communication among our members. We now use a shared Google Drive folder between the members of the team to collaborate and communicate more effectively. Additionally, we use the app Discord to communicate with members, as it allows us to pursue communication based on topics. Additionally, we created a team Facebook and Instagram that allow us to communicate with members and supporters about meeting times, team information and events.

Furthermore, 2638 communicates with our sponsors and community to keep them involved in our program. Recently, we revamped our website, making it easier to navigate and view information regarding different aspects of our team. Our website highlights the names and websites of our donors.

Considering where we started, who would have ever imagined that Team 2638, originally a team of ten struggling members, would consist of 130 members today? We come together to build our robots, our team and our community, and plan to continue doing so—one nut and bolt at a time.