Chairman's Award - Team 810

Print Close

2018 - Team 810

Team Number

810

Team Name, Corporate/University Sponsors

Smithtown Central School District&Smithtown High School East&Smithtown High School-West

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

In addition to gaining hands-on experience for careers that they have discovered through FIRST, our members have shattered the traditional stereotype of engineers. For example, some may join as design team hopefuls and end up finding their passion in representing the team for outreach. Others may be split between two disciplines and devote equal time to both. This ability to teach students to be interdisciplinary leaders, supported by FIRST's values and community, enables our members to thrive.

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

The greatest impact of FIRST on students - before and after - is seen with the FIRST LEGO League teams that we established in our district's middle schools. From occasional robotics club meetings, the increased discipline of the LEGO League teams has greatly bolstered student participation and amplified middle school interest in STEM. This season, multiple members have helped our rookie FLL teams with their core values, research project, and the engineering process.

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

810 is happy to announce our new LEGO Power Up set via LEGO Ideas. This has been an ongoing effort for the past three years, each year matching the competition theme. Previously, we were able to spread the message to 2700+ supporters: a milestone we proudly wear but strive to surpass. The word even reached FIRST, who recognized us in a blog post. One commenter said, "This would inspire younger kids to pursue FRC and create a wave of kids who are already excited and know what FRC is."

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

This year, our team hosted three FIRST LEGO League and one FIRST Tech Challenge competitions in conjunction with School Business Partnership of Long Island (SBPLI). At each of these events, our team followed the dedication of our president and vice president, enthusiastic members of SBPLI's Student Event team. After having an enjoyable experience, new student volunteers have already started volunteering more and getting more involved with FIRST events.

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

While our plans to seed the beginnings of a rookie team are still in its infancy, our more direct influence has been in laying the foundation for the next generation of FIRST. Our primary goal is to overcome the restriction of resources; by redoubling our efforts in obtaining new sponsors, we hope to one day be able to support the creation of a second team. Further, by establishing FLL teams within the district, we hope to increase interest for FIRST when students reach the high school level.

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

This season, in addition to our middle school robotics clubs, we established an FLL team in each of our district's three middle schools. The teams have been hugely successful so far, with one team even qualifying for the Long Island Championship. Team members regularly visit our district's middle schools to mentor the rookie teams. We plan to start FTC teams in private schools on Long Island that don't have robotics programs.

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

To promote the importance of strong competitors, we offer a multitude of resources on our student-run website for other FIRST teams, including our award-winning business plan and branding manual. We participated in the Regal Eagle Roundtables, where students from multiple FRC teams came together to share tips for success. We also held a Google Hangouts in order to edit business manuals and share tips for the Entrepreneurship Award.

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)

After successfully hosting the FTC Long Island Regional Championship last year, we were able to host it once again and host three FLL qualifiers at one of our local middle schools. Two members are on the SBPLI student event team and volunteer with members of FRC teams 353 and 2869 and FTC team 13847 at many Long Island events. We also participated in the Regal Eagle Roundtables, in which FRC teams from across Long Island were invited to give presentations about different areas of FIRST.

Describe your Corporate/University Sponsors

Our main sponsor, the Smithtown Central School District, has provided us with our meeting room and paid our competition fees since our rookie season. FESTO, GSE Dynamics, Ross & Company CPA, PLLC, and Grace C. Guiffrida, Esq. are continuing their donations this year. Our new sponsors include Microsoft, North Atlantic Industries, Sartorius, Stafford Associates, and Sensitron.

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

This year, our number of sponsors doubled due to our strong communication from last year. Many were happy to renew for another year because they were pleased with our efforts to maintain our relationships. During the year, we email our sponsors, giving them updates about how the team is running and our goals moving forward. During competition, we invite all our sponsors to see our completed robot. At the end of the year, we show our gratitude with packages of team gear and personalized letters.

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

FIRST Robotics, the Olympics of high school STEM education, infuses science, technology, engineering, and mathematics through collaborative robot building practices that nurture a supportive environment, spurring independent exploration. Our robots are our sport - a mere tool fundamental in translating the true measure of success: creating the innovators that will drive the future.

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

We have embarked on our most ambitious coding project yet, which will collaboratively unite FRC teams across Long Island. Last year, our team developed a novel scouting system - incorporating JavaScript and Google libraries for clear data presentation - which significantly improved strategic implementation. We published the competition analysis software - with automatic interpretation and preliminary artificial intelligence feedback - into our team website for other teams to use.

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

Shrey Thaker

Essay

The founders of Team 810 had far-reaching ambitions to become a model team not only for our students' success but also to our surroundings, our school district, our local community, and other teams. The robotics team is no longer hidden behind a visage of "geeks" rushing away on hardware and software. It is tasked to behave like a mosaic that will ultimately depict a full, unified image that we present to aspiring rookie teams and look for in our role models as well. While a perfect image should be the goal of any team, whether they are FIRST rookies or veterans, the reality is that such an image relies on its individual pieces. Thus, in pursuit of bolstering our potential as a model team, we hope to piece together our outreach, collaboration, passion, ingenuity, and most importantly, our privilege to inspire.

After eleven years lacking a dedicated management group, efforts to establish such a concrete section of our team stemmed from our initial award submissions in 2013. Our business group was founded in 2014 and was comprised of only a few team members. Any unfamiliar realm is overwhelming to newcomers, but our business-oriented members learned and devised a process that would earn our team the Entrepreneurship Award within two years of the group's debut. Our perspective on business significantly evolved after experiencing the FIRST Robotics Competition Championship. Taking away highlights from multiple keynotes, we initiated a heavy restructuring of our team which now includes three new management groups—competition, operations, and public relations—led by a dedicated vice president. Employing a new level of flexibility, our revised team structure allows students to participate in both robot construction and management. With this layout, our team further applied what we had learned at Championship by rebranding. In 2017, our management group incorporated realistic business practices by publishing the team's first business plan and branding manual — earning us the Entrepreneurship Award once again. This shift in team infrastructure has also increased our focus on outreach.

Over the past few seasons, our team has expanded collaboration with other teams. Winning the Entrepreneurship Award last season enabled us to become recognized business mentors to FIRST Robotics Competition Teams 527 and 6746. This season, we have guided them through the process of making a business plan, branding manual, and executive summary. We were honored to present on branding at the Regal Eagle Roundtables presented by FIRST Robotics Competition team 2869, a large meeting of FIRST Robotics Competition teams intent on sharing their own tips for success in the world of FIRST. Additional team cooperation is evident at every stop build when our school closes and we have to leave the build room early. To resolve this dilemma, we have joined FIRST Robotics Competition Team 263 to finish off a successful build season. Improving relations with our local FIRST community, we also recognized a need to seek events within the boundaries of our school to maximize exposure to STEM.

Starting locally within the Smithtown Central School District, we have driven forward the expansion of STEM in the form of Project Lead the Way courses, such as "Flight and Space", "App Creators", "Green Architecture", and "Medical Professionals." Our team helps enable middle school students to select specialized courses for their upcoming schedules. Each course is designed by Project Lead the Way, a professional non-profit organization with established and acclaimed mentors in each discipline. In just a few months, young Smithtown students interested in STEM can take a middle school elective course and then further their knowledge with a high school curriculum that includes "Principles of Biomedical Science", "Computer Science Principles", and "Introduction to Engineering Design". After years of cultivation, this initiative has finally come to fruition and now thrives due to our annual presentations at school board meetings. Our establishment of PLTW heightened our school district's focus on STEM while facilitating a more easily accessible outlet for students' passions. In addition to our work within our school district, we have worked with Team 263 to analyze the game manual and gain valuable, intra-team strategies this past kickoff.

It is our core belief that the stated qualities are meaningless without instilling inspiration and opportunity in young minds to ultimately join Team 810. To ensure this vision for the future, we have multiplied our outreach, participating in over four community street fairs and FIRST Tech Challenge volunteering, while also inlaying FIRST programs at a collective ten Smithtown elementary and middle schools. Port Jefferson, a local town on Long Island, annually hosts the "Port Jeff Mini Maker Faire," specifically oriented to a younger audience. Every year we volunteer to demonstrate our competition robots and smaller VEX robots. Still vibrant is the memory of a first-grade student, beyond exhilarated to get her hands on the VEX robot controller. Easily surpassing the challenge of stacking a water bottle with the robot claw, the student focused her excited gaze on 120 pounds of metal, wire, circuitry, and complexity hidden behind the tinted faceplate. Her curiosity bolted from motor controller and followed wires, firing questions like "Did you really build that from scratch?" and "How do so many parts work together?" This is the raw talent and interest we encounter, encourage, and welcome at outreach events. Through these channels, we elicit a hopeful future with students trailing off saying "I can't wait to join the team in high school!"

This popular sentiment compelled us to found multiple middle school robotics clubs in 2014 to benefit younger students. We showcased our high school team and robot during our middle school outreach night in 2017, and students instantly expressed their eagerness to join a robotics team. In response to their enthusiasm, we redoubled our efforts in working with school administrators and established three FIRST LEGO League teams for the 2018 season, in addition to having three robotics clubs. With an early introduction to FIRST, knowledgeable students ensure that our team's future is secure. Unexpectedly, we established a new piece of our team's mosaic allowing our students to heighten their leadership skills. By helping the rookie teams tackle the challenges of HYDRO DYNAMICS, we have gained a new appreciation for the efforts of our dedicated mentors. Accepting others' ideas, enhancing communication and clarity with mentors, and renewing motivation to volunteer are all facets of our team that were rejuvenated by creating and leading the FIRST LEGO League teams in our school district.

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Our enjoyment in working with the FIRST LEGO League teams propelled us to reach out further into the Long Island FIRST community. As one of the three teams on the event team, many team members began to volunteer at FIRST Tech Challenge and FIRST LEGO League events, including those we began to host.

With the opportunity to host a FIRST competition, a unanimous motivation permeated the team and sprouted networks between the district administration, Team 810, and FIRST Long Island. Fully sponsored by our school district, our team surmounted the task of hosting the Long Island FIRST Tech Challenge Regional Championship. "As site coordinator, our head mentor guided the event with the support of over forty student volunteers from our team" Following this quintessential event, we were quickly approached by School-Business Partnerships of Long Island(SBPLI) to host FIRST LEGO League tournaments and even a FIRST Robotics Competition this year. With such an honorable opportunity, our team immediately stepped up to offer our venues, time, and efforts into making these tournaments a reality. Despite some hardships in finding a venue, we were able to persevere and resourcefully allocate space in our district for three FIRST LEGO League qualifiers. We received wonderful feedback, with Janet Anderson and Stephanie Stern, co-directors of the SBPLI FIRST LEGO League development council, writing "Everyone has such busy lives, and the fact that you gave so much of your own time to us does not go unnoticed - especially since it's build season as well."

Behind these recent accomplishments, our team's history has been circuitous. In 2014 we endured two sudden mentor switches due to personal health problems. Thankfully, Mr. Savage and Mr. Costello, two Smithtown technology teachers, stepped up to take over as head mentors for the team. Despite having little familiarity with FIRST, they helped us rebuild our team and come to the realization that students must take charge. As a result, our period of growth has strengthened student leadership on our team.

This major shift in mentorship brought to our team a sense of inclusion, akin to our new mentor's experience coaching football. No longer is a "watch and learn" attitude resonant in new members. Every member's fingerprint and distinct contribution remains on the robot. Once solely focused on manufacturing robots, our team quickly resolved and maintained its commitment to collaboration between management and engineering. Each group is essential in building the cohesive image of Team 810. It is through these individual shards that FIRST shines a united image, moving to piece together a mosaic striving for perfection.