Chairman's Award - Team 2869

Print Close

2021 - Team 2869

Team Number

2869

Team Nickname

Regal Eagles

Team Location

Bethpage, New York - USA

Describe the impact of the *FIRST* program on team participants within the last 3 years. This can include but is not limited to percentages of those graduating high school, attending college, in STEM careers, and in *FIRST* programs as mentors/sponsors.

FIRST has provided our team with the resources we need to become successful leaders. Instead of relying on our mentors' knowledge, our student-led team relies on the experience of our peers. Additionally, 100% of our alumni pursued higher education□some at prestigious universities, including Cornell, Duke, MIT, Northeastern, Purdue, and Stevens. Moreover, FIRST inspires our alumni to stay involved with the organization, whether it is mentoring a team or volunteering at FIRST official events.

Describe your community along with how your team addresses its unique opportunities and circumstances.

Our hard work and dedication inspired the Bethpage School District to commit 2.5 million dollars for STEM labs in our elementary schools. We have started 40 non-competitive FLL Jr. teams and one competitive FLL team which we communicate with on a weekly basis. Additionally, we host LEGO Robotics summer camps, where students utilize their creativity to build robots. Furthermore, we help host multiple STEM nights in our elementary schools to introduce the next generation to the future of STEM.

Describe the team's methods, with emphasis on the past 3 years, for spreading the FIRST message in ways that are effective, scalable, sustainable, and creative. How does your team measure results?

Social media is our key to spreading the importance of FIRST's ideals. Through hashtags, including our viral #STEMPals, we have reached people on a global scale. Furthermore, we hosted live-streamed events that attracted viewers in countries including Mexico and Turkey. Our expanding media presence has motivated teams to reach out to other countries. We have even been guests on radio shows, including WUSB 90.1 FM, and local news stations, allowing us to further spread FIRST's message.

Please provide specific examples of how your team members act as role models within the FIRST community with emphasis on the past 3 years.

Our team members believe everyone□regardless of age, race, gender, disability, religion, or sexual orientation□should have access to STEM education. To promote this, we welcome everyone with open arms. Furthermore, we host events for teams across the Tri-State area. At Regal Eagle Roundtables, we encourage teams to share their FIRST-related experiences. We also provide local teams access to a full wooden replica of the year's field at Regal Eagle Rampage to build a sense of community.

Describe your team's initiatives to Assist, Mentor, and/or Start other *FIRST* teams with emphasis on activities within the past 3 years.

Our team has helped create the first pre-rookie team in Greece, FRC team 6839, and has helped start FRC team 7153. We helped these teams fundraise for their season, and provided 24/7 mentorship through Google Hangouts, Slack, and, starting in 2020, Discord. In addition, our team is a member of the Compass Alliance, started by FRC Team 3132, as a way to enhance and sustain FRC teams. At our Roundtables event, we invite rookie teams to help them gain knowledge of the various aspects of FRC.

Beyond starting teams, what initiatives have you done to help inspire young people to be science and technology leaders and innovators? What results have you seen from your efforts in the past 3 years?

We put tremendous efforts in promoting how enjoyable STEM can be through hosting STEM nights, letting kids drive our robot to perform mini-games at our school's Safe Halloween and Homecoming, integrating STEM into as many aspects of life as we could□exhibiting how experimenting with technology can be entertaining. We also made an escape room game called "Escape STEM", which we shared with primary school kids to play□and along the way inspiring them to make a game of their own on Scratch.

Describe the partnerships you've created with other organizations (teams, sponsors, educational institutions, philanthropic entities, etc.) and what you have accomplished together with emphasis on the past 3 years

Our goal with sponsors is to spread the importance of STEM education to the corporate world. We strive to benefit from their help in as many ways as possible. We're working more closely with Altice this year as consultants, to help us evolve our team structure. They are supporting our programmers, and have lent a hand to build structures for the Regal Eagle Rampage. Our IBM mentor has been integral to this event, and is advising us on team marketing. Our sponsors aid us through our STEM journey.

Describe your team's efforts in the past 3 years to promote equity, diversity, and inclusion within your team, *FIRST*, and your communities.

We promote inclusion by talking to incoming freshmen during orientation, as well as placing posters in the hallway to get younger members involved, especially emphasizing our refusal to host tryouts. With new members comes new perspectives, which we value greatly when getting creative tasks done such as the safety animation and basic coding projects. We also promote equity during the brainstorming process of the robot as some successful ideas are credited to new members in the past few years.

Explain how you ensure your team and the initiatives you have created will continue to run effectively for the foreseeable future

We talk to mentors and staff members at each of our schools in the district with guided plans and activities at makerplace areas, who enable us to keep our tradition alive. Additionally, we take special effort in recording every pursuit, detailing our thought process throughout the year: allowing future members to easily replicate information efficiently. Our weekly logs on our website also gives benchmarks for our team and other teams during build season, saving time and energy.

Describe your team's innovative strategies to recruit, retain, and engage your sponsors within the past 3 years

Sponsors receive a variety of benefits for their wonderful donations. They are sent items ranging from team t-shirts and wristbands, all the way to large metal plaques. All of our sponsors are invited to come to our competitions and in our "pit", where we work on the robot in between matches at competitions. They can request a robot demo at any time. Additionally, ?we aggressively work to promote their sponsorship, by placing their name/logo on our robot, our banner and our social media.

Highlight one area in which your team needs to improve and describe the steps actively being taken to make those improvements.

Communication is key to any team. Our lack of communication stems from the fact that often upperclassmen are not able to pass down knowledge to younger members, if it's from the quick pace of building the robot or internal team tensions. The solution to fixing any communication problem is transparency. Therefore we now placed all team documentation in a shared drive which every member has access to. We also encourage members to actively engage in ideas our team presents to promote inclusivity.

Describe your team's goals to fulfill the mission of *FIRST* and the progress you have made towards those goals.

FIRST is an extensive after-school, student-based, hands-on STEM engineering experience. Its vision is also to increase the diversity of people in STEM. FIRST is a family that builds a better world for the next generation through cultural change. They do not just build robots□they nurture the leaders of tomorrow. FIRST helps students of all ages get involved in STEM through a collaborative atmosphere while inspiring leadership, creativity, innovation, perseverance, and gracious professionalism.

Briefly describe other matters of interest to the *FIRST* Judges, including items that may not fit into the above topics. The judges are interested in learning about aspects of your team that may be unique or particularly noteworthy.

We strive to pave the way for future engineers, thinkers, and leaders. Our team is a safe space for those who want to

grow, learn, and have fun. We also endeavor for a revolution in public attitude towards STEM, one robot at a time. We aim to bring together people of all backgrounds and interests through the array of opportunities and roles FRC provides. We are here to inspire, motivate, and galvanize future STEMinists. We strive to ensure we include and welcome everyone.

Essay

One Mission

We believe everyone can soar, or reach their full potential, regardless of age, gender, race, or sexual orientation. We have made it our mission to ensure all students have access to STEM and robotics education. We refuse to institute tryouts and fees, allowing any student in Bethpage High School to join. We encourage students to contribute to the team in any way possible at any time possible. Through our inclusive policies, we maximize the number of participating students, furthering our mission. 1 out of 5 students in the freshman class is a Regal Eagle, and membership has exploded by over 300% within the last two years alone.

One Team

We believe everyone can soar, just like the NASA engineers of the "LEM". Fifty years ago, less than a mile away from where we currently build our robots, is where some of the most brilliant engineering minds in the country built the Apollo Lunar Module. This inspired our school superintendent to create "One Small Step" eleven years ago, the first FIRST team in our school district. After a name change, continuous dedication, and extensive hours toiling in the workshop, we were finally able to soar. Our motto, "Sic Itur ad astra" (This way to the stars), is the core philosophy of our team. Our mission is to lift the next generation of STEM leaders to the stars and to usher in the next great age of technological innovation.

One Community

We believe anyone can soar, including our community. After observing the lack of STEM programs in our primary schools, we instituted a program called Makerspace: a space aimed at offering students a location to engineer with components such as LEGO products established in our middle school and later the elementary schools. Additionally, we demoed our robot at our annual Homecoming, Science Symposium, Astronomy Night, as well as creating three annual STEM nights, one in each of our elementary schools. Our school district, recognizing our dedication to promoting STEM to younger students, invited us to multiple Board of Education meetings that sparked a STEM-spiration within our community, where they granted us an upwards of $2.5 million for STEM labs, after our team's persistent advocacy efforts. The team's dedication to bring STEM into our community has caused our schools to update their preexisting STEM labs, as well as create more. These labs are now integral to the science curriculum in our elementary schools and middle school. Students of all grades and academic needs flock to the labs to partake in STEM-related experiments like building bridges, learning about different types of energy, working with Ozobots, and working with Bee-bots. Our STEM labs received a statewide acknowledgment, and even caught the eye of former State Senator Kemp Hannon.

"Whereas, it is the sense of this Legislative Body to commend and pay tribute to those who, by achieving outstanding success in their educational endeavors and competitions, have inspired and brought pride to our majestic Empire State; and whereas, it is also the custom of this Legislative Body to recognize the dedication and commitment of our young people who distinguish themselves through excellence in scholastic competition□whereas, the dedicated members of the Bethpage High School Robotics, Regal Eagles Team's outstanding performance has clearly made a contribution to the spirit of excellence which is a tradition of their school and community□"

These words grace the pages of the State of New York Legislative Resolution we received at our ribbon-cutting ceremony for the STEM Labs. Along with the opening of our STEM Labs, we have also hosted two annual Lego Robotics summer camps for children between third and eighth grade. At these camps, we challenge our students to use their imagination, coordination skills, and LEGO Mindstorms□or WeDo kits (depending on the group)□to complete daily challenges. This helped get the children excited to work in the STEM labs and to introduce them to FIRST Lego League Jr and FIRST Lego League. The children were so ecstatic they were creating challenges for each other by the end of the week. Accordingly, we helped create and continue to mentor our middle school's FLL team, the Robo-Eagles. We provide strategic advice, help them film their skit, and help edit their research projects. We have even hosted an event with them, Regal Robo Rally. At the Regal Robo Rally, we congregated at our public town library and hosted a question and answer session, and demoed robots. This event was aimed to engage third through fifth graders in STEM-related activities, and give them a sampling of the FIRST community experience. We continued to meet up with them on a weekly basis during the epidemic, communicating with them through Google Meets and Discord□providing support for their difficult times as well.

One State

Essay - page 2

We believe everyone can soar; that is why we assist other FIRST teams across New York. Yearly we host our Regal Eagle Roundtables□a free pre-season event where we encourage teams from across the tri-state area to gather at our high school and advise teams in some regions of FIRST, including marketing, media, outreach, diversity, and other aspects. Besides the Roundtables, we also host our annual Regal Eagle Rampage. The Rampage event is a pre-season event for which our team members build a complete wooden replica of that year's game, and open it up to local teams. At the Rampage, teams can fix and troubleshoot issues, have driver practice on a full-size field, share ideas and strategies, and practice with the feel of an authentic competition. We also live-stream the event on FIRST Updates Now. Our live-stream has received over 1000 views from teams as far away as Turkey and China. Additionally, for the past two years we, in conjunction with FIRST Long Island, hosted FIRST Long Island Training Day. Around forty teams, represented by up to two mentors and one student per team participating in FLL, FLL Jr., or FTC, attended this meeting to learn about the rules and the missions of the FIRST competitions, project development, judging process, scoring, gracious professionalism, and other core values of FIRST. Participants also had the opportunity to attend beginner or advanced programming sessions and received support. After recognizing a disconnect between FIRST teams across Long Island, we devised LIFA (Long Island FIRST Alliance). LIFA is a group chat consisting of Long Island-based students, mentors, and volunteers to discuss events or requests for immediate assistance in all levels of FIRST. Through LIFA, Long Island FIRSTers are updated on local events that require volunteers, local robotics team fundraisers, and events hosted by other teams. For example, we organized a Relay For Life team□with other Long Island FIRST teams involved with LIFA□where we raised over $1500 for cancer research. There, we demoed our robots and allowed children to join in on the fun by placing game pieces all across the field and letting them drive the robots. LIFA continues to flourish and now extends its scope to teams across New York City.

One Planet

We believe everyone can soar; that is why we involve ourselves in FIRST's global community. Thanks to FIRST and FIRST robotics programs, we can connect with teams across the globe and espouse common values. We partnered up with Bristlebots to send brushbot kits to children in Hungary and Morocco, reaching over 300 children internationally in the first year alone. Going off of the Bristlebot program's resounding success, we turned the makeshift camps into a whole STEM camp curriculum and added India to our list of countries involved. We have also created #STEMPals, a worldwide movement, which connects students passionate about STEM. STEM Pals started as a pen-pal program where members emailed students residing in other countries who were passionate about STEM and gave each other advice on a variety of topics. Through the STEM Pals program, FIRST inspired our Tanzanian STEM Pals, leading to the first five pre-registered FLL Teams in Tanzania□teams we helped them establish. These teams have impacted hundreds of youth in Dar-Es-Salaam and the village of Panar. In the past year, this hashtag has reached over 200 STEM students across the globe. In the same fashion, we have cultivated secure networks within the FIRST community through F4's creation. F4 is a four-year-old Slack chat centered around connecting international FRC members in a student-run manner. It has since blossomed into an unbelievably fruitful platform. Nearly 150 students spanning 115 FRC teams and 3 continents have united to provide a veritable mountain of content: 30 information-rich, student-produced web shows, an excess of 2 million messages, and 5 CADathons with FIRST judges including Andy Baker from AndyMark. Moreover, F4 boasts an innovative, anonymous platform to ask our qualified student body FIRST related questions, titled "F4 Connect". We have aided FIRSTers in the areas of programming, mechanics, and even team structure and leadership.

One Journey

This is the beginning of an unending mission for universal STEM education□an undertaking we are proud to take part in. We believe everyone deserves the opportunity to learn, grow, and soar. Starting with our community, and expanding across the globe, we have been able to participate in this crucial, worldwide STEM education movement. Not only does STEM education provide children with valuable problem-solving skills, but it is also a pillar for global equality and independence. While FIRST City may not need to be literally saved, STEM education can be a savior for many people across the world; it uplifts people from poverty and opens up job opportunities once inaccessible. We are honored to assist others in the FIRST community and are grateful for those who have done the same for us. Although this monumental task has drained us at times, we are recharged and ready to go farther than ever before.