

***FIRST* Impact Award - Team 6806**

2024 - Team 6806
Team Number
6806
Team Nickname
Mineola Wild Reds
Team Location
Mineola, NY - USA
Describe the impact of the <i>FIRST</i> 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 <i>FIRST</i> programs as mentors/sponsors.
Over the last 3 years, 100% of our alumni have pursued higher education past high school. Furthermore, 91% of our alumni have gone on to major in STEAM and plan to work in related fields. Our alumni return to share their engineering and STEAM knowledge to enhance our team's robotics efforts, assisting FTC teams as well as our FRC team. All of our current members volunteer often at other FIRST events, and plan to one day become mentors.
Describe your community along with how your team addresses its unique opportunities and circumstances.
53% of our school is composed of minority students. 75% of our team is composed of students from minority groups including 50% first generation students. Being a tapestry of diverse individuals, our team strives to share our cultural perspectives as we utilize our team's 15 languages to build linguistic bridges. As 40% of our community finds themselves economically disadvantaged, our team connects with first generation students as we introduce STEAM through hands-on demonstrations.
Describe the team's methods, with emphasis on the past 3 years, for spreading the <i>FIRST</i> message in ways that are effective, scalable, sustainable, and creative. How does your team measure results?
Our team widens our horizons by spreading the message of FIRST beyond national barriers. Creating published resources, including an asynchronous FTC robotics crash course with 10 self paced videos for students in Lisbon, Portugal, enables us to inspire new communities. We also connected with the Henry Viscardi School to demonstrate the possibilities that come with FIRST. Through establishing these partnerships, we can foster continuous growth and spread the ideals of FIRST.
Please provide specific examples of how your team members act as role models within the <i>FIRST</i> community with emphasis on the past 3 years.
Several members of our team are avid FIRST event volunteers, some of which are even a part of the Student Event Team. The efforts that the entire team has put into not just volunteering at the event themselves, but also setting up the events hosted at our schools, sets us apart in our dedication to

inspiring the younger generations of FIRST. Community service is a pillar within members of our team, who participate in a range of charitable activities outside of robotics.

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

Raising \$500 to send a FTC Starter Kit to the international team at ULIS, we strive to expand the reach of FIRST beyond borders. We also use student-driven mentoring to assist 18 teams with online webinars and in-house events dedicated to teaching and aiding in both code and build. Our team has committed over 1500 hours assisting and mentoring 22 teams through access to woodshop workshops and machinery, our team promotes more engineering opportunities.

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?

Through demonstrations both at local yearly street fairs, and districtwide STEAM Fair Nights, our team has reached over 42,000 people within the last 3 years. Also in the past 3 years, our robotics program has presented to AP-level Computer Science classes, reaching about 600 learners and introducing them to the FIRST Organization and robotics. Due to these efforts after the pandemic, our robotics program has grown exponentially over the past 3 years.

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

In our outreach efforts, our team has achieved great accomplishments in the realm of connections with outside organizations. Within the past 3 years, our team received \$7,500 from local businesses and has worked with the Mayor and Village to digitize their "Wall of Honor". This season, to streamline the process of receiving and donating funds for outreach ambitions, our team has started a non-profit, Mineola Robotics Incorporated.

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

With members speaking 14 languages, and hailing from 16 countries, our multicultural and multilingual students have introduced new perspectives to our team over the past several years. Advocating for women in STEAM, our team nears a 50/50 gender ratio and has established an all-girls FTC team. Over the last two years, we have run immersive Girl Scouts workshops and advocated for more enrollment in Girls Who Code, even reaping an NCWIT national winner.

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

To ensure our team's initiatives are continued we follow a theme of "Our Vision". Expanding our impact globally, veteran members illustrate our core mission to rookie members to ensure our team progresses as one unit. Our mentorship program encourages rookies to participate in design and outreach meetings, and understand the responsibilities of starting, running, and volunteering at events. Using this sustainable method, initiatives and key roles are passed down to encourage new experiences.

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

past 3 years

Our objectives are fine tuned to align with our sponsors'. We aim to maintain a reciprocated and webbed commitment. Reaching our sponsors through student-written letters and emails ensures a constant line of communication. Distributing promotional benefits through our sponsorship tiers entices audiences, from small businesses to corporate offices. Engaging new sponsors through promotional mix, direct marketing enables us to hold face to face conversations to foster interpersonal relationships.

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

Our team is dedicated to attracting prospective members with a forward-looking approach. Our team aims to enhance the onboarding experience by implementing a mentorship program, ensuring personalized guidance. We envision clear communication channels, easily accessible documentation, and regular check-ins to foster a supportive environment. Feedback mechanisms and periodic training sessions will contribute to a culture of inclusivity and continuous improvement.

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

We believe FIRST creates platforms on which any person can achieve their "dream of becoming science and technology leaders." To promote this, we partnered with FIRST Headquarters to promote FIRST to students with disabilities at the Henry Viscardi School. Reaching over 200 students from grades 3-14, through STEAM immersion sessions and robot demonstrations, we assisted in starting the first FIRST robotics program at their school. We aspire to blaze beyond barriers and grow FIRST's impact.

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.

Being a melting pot of diversity, our team strives to use our multi cultural backgrounds to communicate with teams globally. In our local qualifier, we assisted Taiwanese Team 8595 with MaryEllen's mandarin speaking skills. At the Houston World Championships, we found ourselves creating game strategies with teams in Spanish to be successful during the match while indulging in Turkish delights during breaks. Our team hopes to develop our views through new cultural experiences.

Judge Feedback**Who/When****Feedback**

Mar 23,
2024
12:24:58
PM EST

What portion of our presentation and story could be elaborated more on, and how can we further that initiative further for years to come?

An area the team has an opportunity to improve.

Something that really impressed the judges.

Essay

LEGOs are brightly colored building blocks of varying shapes and sizes. With no predetermined position, there are infinite possibilities to create infinite structures. Unlike the rigid building blocks that compose the majority of our society's constructs, FIRST has evolving dimensions, continuously adding

opportunities to connect diverse communities together, just like LEGOs. Committed to building new opportunities, our team, the 6806 Wild Reds, aims to expand our foundation one student and LEGO at a time.

Our team's mission is to inspire and empower youth with hands-on STEAM experiences in a safe, inclusive, collaborative, and fun environment.

Before building, it is important to assemble a diverse team of innovators, problem solvers, and collaborators to construct a plan of action. We noticed that the demographics of the upper level engineering courses within our school did not match the demographics of our community. 76% of students in our school district are from underrepresented groups; including these voices is vital to promote varied perspectives. We made it our goal to introduce future learners to STEAM from a young age, allocating time and resources to shape their futures. We embrace the core values of FIRST, enabling youth to continuously engage in a STEAM community as they progress from elementary to high school, offering all levels of FIRST from FLL Explore to FRC. Mentoring and assisting all levels of students in our district – including eight FLL Explore teams, four FLL Challenge teams, and four FTC teams – is an integral part of our Mineola culture to ensure an engaged and supportive environment for all ages.

Over the last three years, we have immersed 400+ third through seventh graders in fundamental scientific concepts. Each year, we run and host STEAM nights, demonstrating our robots as well as presenting projects across a multitude of science fields. Through presentations in computer science and experiments in physics, chemistry, and biology, students have delved into concepts rooted in the scientific method, captivating them to participate in a more advanced STEAM curriculum. Additionally, we have planned and executed workshops, serving as role models for 50+ Daisy through Cadette Girl Scouts, inspiring girls to pursue engineering and robotics.

When designing a building, a sturdy foundation is essential for success. The Wild Reds represent our community, including members from multiple countries, religions, and socioeconomic statuses. Our team is roughly 50% first-generation Americans, speaking over 13 languages fluently. Being a first-generation or immigrant student comes with its own unique challenges and disparities. Over the last 3 years, we have advocated to blend the contours of culture and robotics.

Our team is actively involved in orienting new immigrant students around Mineola High School, striving to make them feel welcomed and at home in a new community. Through an immersive speaker series geared towards native Spanish speakers at our school, we have impacted learners throughout the district, showcasing role-models in STEAM careers and breaking boundaries to inspire a new group of learners. To connect with the greater FIRST community, we provide translation services at FRC competitions, increasing accessibility.

Fighting the stigma that often discourages women from pursuing STEAM, the Wild Reds are #BlazingBeyondBarriers to provide a safe space for women to explore technology. We are proud to have a ~50% gender distribution for the past 3 years (increasing from 28% from the previous 3 years). Our women are trailblazers, with 12 winning NCWIT awards for women in technology, including 4 NYC area winners and 1 national winner. Additionally, 100% of the women on our team are currently pursuing independent research in STEAM fields, building a community of curious minds to adapt and challenge one-sided perspectives.

Interlocking building blocks provides stability for structures to reach new heights. Within our team, we work together to hold each other up and support the learning of all members. Veteran members mentor new members, nurturing hands-on experiences, and challenging them to learn through problem solving. Rookie members learn new skills while implementing their own ideas and solutions into our designs. With consistent one-to-one mentorship, the Wild Reds ensure each member gains a real FIRST experience.

With their dedication and experience, our alumni have built a strong foundation. Each passing year a new generation builds on our collective knowledge, adding strength to the structure. Consistent mentorship and guidance from alumni allows us to see the application of FIRST core values in higher-level education and into the workforce.

Following construction, buildings undergo regular maintenance and improvements. At Mineola we optimize our skills to enhance our performance and productivity. We work together in sub-teams to create goals and communicate the progress and setbacks to the team. Curating and communicating a set of goals and accomplishments ensures the Wild Reds' ability to build forward as one unit.

The Wild Reds are dedicated to bringing FIRST experiences to new communities. Partnering with FIRST headquarters, our team held STEAM immersion sessions at the Henry Viscardi School to over 250 students with severe physical disabilities. From using LEGOs to build bridges to collaborating with their peers, we taught the importance of the FIRST core values. The enthusiasm and dedication of Viscardi students was contagious and inspiring, reinforcing the understanding that knowledge and access can empower communities.

Each structure is tailored to fulfill its resident's vision. Bought together, they comprise the vivid landscape of a community. Likewise, FIRST brings communities together regardless of traditional constraints. Working with the Mineola Chamber of Commerce, we demonstrate our robot at the Mineola Street Fair each year, reaching Mineola students and the greater community. We partnered with the Mayor and Village of Mineola, digitizing their systems and learning how to run an impactful, sustainable club. Connecting with construction firms and material shops has opened doors for new mentorship and sponsorships, enabling us to further our impact. Raising over \$6000 through local companies, our team retains our sponsors through monthly newsletters, promoting our activities and seasonal goals.

The Wild Reds strive to inspire communities globally. Showing Portuguese exchange students from the United Lisbon International School (ULIS) around our team's workspace sparked their fascination with robotics. Last season, our team embarked on creating an international robotics program. Partnering with ULIS, we are establishing the first FTC team in Portugal. Challenged by the logistics with mentoring across time zones, we created a module of 10 asynchronous videos to guide members, touching on a variety of skills needed to formulate and start a team, including design, fabrication, coding, communication and collaboration. To assist with funding, we raised over \$600 from local community demonstrations. Supporting the sustainability of this program, we are working to build the computer science curricula offered at the ULIS school. Building on our vision, we hope to expand this curriculum to new, diverse communities locally and globally.

While an architect's perspectives guide the development of a building, the engineers bring it to life. Similarly, the Wild Reds are always adapting and persevering beyond the blueprints. Our vision remains guided by our four fundamental principles: motivating new communities locally and globally, mentoring

younger students and teams, building partnerships with corporations and community leaders, and inspiring students to pursue a STEAM education.

Some may say that structures are merely building blocks put together, but our structure is a home. Weaving together individuals from an array of backgrounds, Mineola Robotics is a tapestry, reinforcing a sense of family as we grow together. Each LEGO, distinct in its journey, adds a new perspective to our home. With no limits to our expansion, the Wild Reds continue to reach new heights. ;

