FIRST Impact Award - Team 1880

2025 - Team 1880
Team Number
1880
Team Nickname
Warriors of East Harlem
Team Location
New York, NY - USA

Describe the impact of the *FIRST* program on team participants within the last 3 years. Think about percentages of those graduating high school, attending college, in STEM careers, leadership skills, and serving as mentors/sponsors in *FIRST* programs.

Our community-based team empowers 40 underserved students from 12 schools to explore STEAM. With 98% attending college (average GPA: 3.1) and 2% entering the workforce, members gain a creative sanctuary to discover their passions. 65% of FRC members started in FLL, mentoring younger teams or coaching their siblings, proving the program's multigenerational reach and lasting impact.

Describe your community along with its unique opportunities and circumstances. Think about your geographic region, diversity of town/school, language barriers, socioeconomic barriers, and cultural expectations.

East Harlem has a history of social inequality and years of educational divestment. 65% of Latinx, 33% of Black, and 94% of low-income households face reduced interest in STEAM (science: 0.7%, engineering: 0.5%). In a district where 25% drop out and 40% attend college (vs. 64% citywide), we tackle these barriers through STEAM education, leadership programs, and social-emotional learning, giving our members the skills they need to rise above systemic challenges.

Describe the team's methods, with emphasis on the past 3 years, for spreading the *FIRST* Mission in ways that are effective, scalable, sustainable, and creative.

In three years, we've reached 2,300 families at events like Maker Faire, East Harlem Emergency Preparedness, Our Anti-Bullying, and Back-to-School fair, captivating audiences with robotics demos and experiments. These events spark curiosity and build bridges, inspiring families to explore new STEAM opportunities for their children. Our approach is making STEAM accessible to underrepresented communities.

Describe your team's goals and the progress you have made towards them to fulfill FIRST's Vision.

Our goal is to eliminate barriers to STEM by expanding access, mentorship, and career pathways. We run 12 middle school robotics teams, 6 new FLL teams, a K-16 summer camp, and 15 high school internships where students gain leadership and workforce skills. We opened a public makerspace, launched STEM hubs, and led advocacy efforts for STEM funding. As one of five teams awarded the FIRST STEM Equity Grant, we are now featured in FIRST's Annual Impact Report.

What impact has your team seen from your efforts described in the above question? How does your team measure impact?

Our efforts have increased STEM engagement and career readiness for students in East Harlem by 67% a total of 800 students in the last 20 years. Our high school interns gain workforce experience mentoring FLL teams. Our STEM hubs have expanded access to resources, and our advocacy efforts have influenced policy discussions on funding. We measure impact through college enrollment, internship participation, and community engagement metrics, ensuring sustained growth.

Please provide specific examples of how your team and team members act as role models within the *FIRST* community with emphasis on the past 3 years. How do you share these best practices with other teams?

Our members advocate for after-school funding at the State and City legislature. We mentor 12 FLL teams and manage our robotics lab, turning our passion into leadership opportunities. The Manhattan Borough President has recognized us as "Latinos in Tech" to watch. We Led workshops on best practices for SEL and crisis management and how to build a mobile workshop for NYC teams. We've donated 200 LEGO kits and 100 lbs. of FRC materials to support NY STEAM growth.

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

We've expanded FIRST by creating 12 FLL teams (28864, 28865) and mentoring 5 others (18186, 18183, 18190, 18187, 7611). Collaborating with FRC teams (1796, 8379, 558, 1798), we promote equity through peer mentoring, ensuring students and teams receive support, guidance, and resources to succeed in their schools and also have fun.

What other initiatives have you created, grown, sustained, or participated in (*FIRST* or otherwise) to help inspire young people to be science and technology leaders and innovators? What outcomes have you seen from your efforts in the past 3 years?

Breaking barriers in STEAM access, we run 12 middle school robotics teams, a K-16 summer camp, and high school internships where students mentor FLL teams and gain workforce skills. Our student-led panels and State Legislative Advocacy amplify diverse voices, pushing for increased STEM funding. By combining hands-on learning, leadership development, and policy engagement, we create pathways to self-determination, ensuring students thrive, lead, and shape the future of STEAM.

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

Through partnerships with FIRST, Bloomberg, PwC, Con Edison, Columbia University, and teams (1796, 8739), we've secured funding, created 15 student internships, and run a summer bridge camp for incoming members. These collaborations fuel innovation and equity, allowing us to scale our impact and inspire the next generation of STEM leaders. in 2024, we were selected as 1 of 5 programs to receive the FIRST STEM Equity and Innovation Grant to further promote FIRST in our community.

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

We address systemic inequities faced by people of color, those with disabilities, and LGBTQ+ youth. Implementing restorative practices, we combine anti-racism work with STEAM activities to empower our members to understand their role, understanding that it will not happen overnight but that we are constantly learning and evolving our sense of identity. Our members all go through anti-racism training, and we have led workshops to help other teams implement these practices, promoting equity.

Explain how you ensure your team and the initiatives you have created will be sustainable.

We commit to making our program sustainable by implementing various strategies yearly. We form alliances with local businesses, Products, Garcia & Garcia, organizations like Uncommon Pantry, and other teams to gain access to resources and support. We fundraise to secure ongoing funding for current and new initiatives. We have developed a strong volunteer base to ensure the club has an appropriate adult-to-member ratio. We evaluate and assess our goals and outcomes monthly.

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

We're addressing procrastination and time management. We fixate on minor details and ignore the bigger picture until it is too late. To address this, we're holding workshops, providing check-ins, and implementing project prioritization strategies. These steps help us improve performance, come up with ways to meet deadlines and work towards achieving our full potential.

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, particularly noteworthy, or had a large impact.

We must talk about our teammates. Meet Michael. He joined a shy freshman and became the lead driver. His journey continues a legacy his brother held three years earlier. Then Jessica. By her second year, she had become our team admin, leading our impact initiatives and advocacy work and running down on senators to advance STEM education. These are stories of FIRST's impact on our team and the individuals who carry its mission into their lives and communities.

Judge Feedback

what ways can we improve our presentation or showcase all of our efforts?

An area the team has an opportunity to improve.

Something that really impressed the judges.

Essay

East Harlem Tutorial Program (EHTP) was founded in 1958 as a children's reading group in Helen Weber's living room. It has since evolved into a multi-site after-school program for community students, intending to increase the college graduation rate.

El Barrio is a vibrant community that has experienced extreme educational inequities resulting from years of systemic oppression and divestment. We believe students should not have to leave their neighborhoods to be able to access an equitable education. In 2006, a group of curious students sought to establish a robotics team; in response, EHTP founded The Warriors, Team 1880. EHTP wished to change the community's negative perceptions of STEAM (it's too complicated, only for the dominant culture/rich kids). Spreading the spirit of FIRST, our team has been able to go above and beyond for the last 20 years to inspire young people to be science and technology leaders right in their backyard.

Our team is different; we all do not come from a single school. Team 1880 is a collective of students from various schools (19 schools)—most of which do not offer engineering programs or robotics courses. Many of us had no prior exposure to STEM besides FLL before joining Team 1880. Yet, through mentorship, hands-on learning, and a culture of inclusivity, we gained the ability to transform uncertainty into confidence. Every day, we prove that these avenues are not reserved for those with exclusive advantages but for those willing to explore.

The mission is simple: to serve as change agents. Our secret sauce is in-person demonstrations to help other students and their families better understand our preaching. Our main stage is our community. We volunteer and run multiple outreach events to recruit students and promote STEAM Education. These events are held at schools and community sites, such as 5 NYCHA public housing community rooms, East Harlem Summer street fairs, World Maker Faire, nearby religious institutions, and any school that will let us present. We also recruit through our social media platforms and at the offices of our local elected officials. We run these events to show the community that resources like FIRST are available to them, and all they really need is imagination and the willingness to try something new.

In 2022, we built and installed a couple of Free Little Libraries in key locations throughout East Harlem; since then, we have actively maintained and restocked them with STEM-focused books, hands-on experiment guides, and bilingual learning materials. These libraries serve as community STEM hubs, ensuring that access to STEM education isn't limited to the classroom but is an everyday resource for curious minds.

Since then, we have expanded their impact by incorporating interactive elements—from QR codes linking to DIY experiments to coloring books featuring aerospace and engineering themes. With donations from the community, we ensure libraries are filled with engaging and culturally relevant materials.

In 2023, we have elevated our commitment to outreach by launching a "Rocket Science Bootcamp," an initiative designed to introduce engineering principles to our FLL members transitioning into high school. These initiatives, like our community STEM Hubs (Free Little Libraries), provide accessibility to younger kids by bringing STEM education right to their block—meeting them where they are. Through hands-on experiments and take-home kits, we prove that even the sky isn't the limit in the hood. STEM belongs in every neighborhood, every home, and every child's imagination.

In 2024, we were honored to be one of only five organizations nationwide to receive the highly competitive FIRST STEM Equity and Community Innovation Grant, recognizing our commitment to expanding STEM access and fostering innovation in East Harlem. With this support, we created 15 high school internship opportunities, providing students with hands-on leadership and technical experience as they mentor and manage FLL teams. The grant also enabled us to establish six new FLL teams, serving 150 students significantly increasing access to robotics and STEM education in our community. This grant allowed us to open our makerspace to the public, transforming it into an innovation hub. Recognizing that success in STEM requires more than just technical skills, we also developed a series of workshops focused on social-emotional learning, crisis management, and fostering positive team dynamics, providing mentors and students with essential tools to navigate high-pressure situations in competitive environments. Securing this grant was no small feat, but with it, we are building a sustainable ecosystem of learning, mentorship, and community-driven innovation, ensuring that STEM education in East Harlem is not just an opportunity but a lasting resource for generations to come. This year, our work has not gone unnoticed. We were featured in FIRST's Annual Impact Report, highlighting the strength of our community engagement and commitment to making STEM education more accessible. we branched out into other areas of FIRST by hosting and running the FTC New York City Kick-Off Event, an FTC qualifier, and two FLL qualifiers, all in our workspace. These events were more than competitions; they were opportunities to expose our community to FIRST, where they could see robotics in action while also inviting the FIRST community into our home so they could experience it through our eyes.

Beyond the robot and competitions, our advocacy efforts through the Student Association for STEM Advocacy (SASA) involved our team members working on Assembly Bill A3445A and New York Senate Bill 379. We engaged with assembly members and NY senators to establish a grant program to fund FIRST participation and encourage schools across the state to invest in and prioritize STEM studies. We are not waiting around for Superman.

We didn't stop at local efforts. Understanding the power of digital connections, we launched a social media campaign, reaching out to robotics teams nationwide to join us in amplifying STEM advocacy. We built a support network by leveraging social media, ensuring our fight for accessibility resonated far beyond East Harlem and onto the national stage.

STEAM is for everyone. Often, the world asks us to bring pieces of ourselves to the work we do and the spaces we enter. On Team 1880, we believe that to achieve true innovation, we must all be able to bring our entire selves to our work. We advocate for STEAM equity because we must affirm to the next generation that we are worthy of learning, even when many things and people tell us we are not through their actions.

We set ourselves apart by supporting our members from a young age into adulthood. FIRST is an organization that inspires students to dream big and reach their full potential. We're not just talking about equity & empowering our members to dream; we're taking action to make it a reality for them.

This is not a moment or just a team; this is truly a movement.;