

## Chairman's Award - Team 2265

[Print](#)[Close](#)

2021 - Team 2265

**Team Number**

2265

**Team Nickname**

Fe Maidens

**Team Location**

Bronx, 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.**

By providing exposure to problems beyond building a robot, the FIRST program has shaped the FeMaidens, a team of young women passionate about innovation, into collaborative leaders. Learning skills in engineering and programming throughout their journeys in the FIRST program, 85% of FeMaidens choose to pursue majors in STEM after graduating. All FeMaidens alumni graduate high school and attend college. Team members also gain a FIRST family as they venture into STEM careers as women.

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

As the only Bronx-based all-girls FRC team, the FeMaidens promote gender equality in STEM and encourage young women to explore their passions in engineering. From mentoring FIRST teams throughout the city, giving robot demonstrations, and organizing hackathons such as Atomhacks and TeenHacks LI, our team strives to inspire others to pursue STEM, regardless of race or gender. Through donating to those in need and volunteering, the FeMaidens provide service and give back to their community.

**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?**

The FeMaidens have led exciting new efforts to put FIRST in the spotlight locally and internationally. We raised awareness for STEM through demonstrating our robots on Wonderama and starring in a PBS documentary. Despite the COVID-19 pandemic, the FeMaidens continue to spread the FIRST message this year by collaborating with the Sciborgs, FRC Team 1155, to create a podcast called Inscight focused on educational topics ranging from the STEM field to our personal experiences with FIRST.

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

The FeMaidens hope to impart core values of passion, diligence, and kindness in our quest to spread the spirit of FIRST. Throughout the past 3 years, we have assisted and mentored 4 FTC teams, 9 FLL teams, and 3 FRC teams. We also have lessons dedicated to teaching robot design skills on our website. Inspiring young girls to explore STEM, we hosted the first all-girls robotics event for 6 FTC teams and founded EveryGirl Robotics, an all-girls Lego robotics afterschool program.

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

The FeMaidens' goal is to promote STEM education and provide inspiration by setting a precedent. Throughout the past 3 years, we have assisted and mentored 4 FTC teams, 9 FLL teams, and 3 FRC teams. For local FLL teams, our members work as junior mentors in middle schools, assisting young builders and programmers to troubleshoot problems and work through competition obstacles. Providing guidance to international FRC teams, the FeMaidens offer support through video calls.

**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?**

The FeMaidens take an interest in aiding other teams while promoting our academic maturity and growth in STEM fields. For the past 3 years, members worked with School's Out NYC and the Bronx Science Community Center to found EveryGirl Robotics. The team also participated in outreach events to help out *FIRST* teams across the globe. FeMaiden members have also attended RoboMind Tech programs, served as mentors at robotics after school programs, and led hackathons.

**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**

The FeMaidens are currently sponsored by a number of corporate, university, and nonprofit groups. Due to their generous support, we are able to afford materials for our robot, go to competitions, and conduct other team activities. Our sponsors include the Bronx Science Alumni and Parents Association, Aflac, Bloomberg, Con Edison, Asana, Konduit NYC, Google, Numerati Partners, and Jane Street.

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

The FeMaidens understand the importance of promoting equity, diversity, and inclusion. As one of few FRC all-girls robotics teams, we have hosted outreach events that reinforce our mission of inspiring the next generation of female engineers, encouraging girls to pursue STEM careers despite typical gender roles. We have also given young women the platform to uplift their voices in the STEM community through our podcast with the Sciborgs, FRC Team 1155, called Inscight.

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

Given COVID-19 restrictions, the FeMaidens have taken the initiative to virtually spread the *FIRST* values and awareness on serious issues concerning STEM education. Collaborating with the Sciborgs, FRC Team 1155, the FeMaidens have produced a podcast called Inscight, giving young women and future engineers a platform to share the younger generation's perspective. We hold weekly meetings to discuss dates and potential episode topics. In order to effectively

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

Our sponsors are a vital part of our team, and are crucial to our success. Thus, within the past 3 years, the FeMaidens make sure to fully engage with them through bi-weekly newsletters that provide updates on our robot, any achievements, and other team activities. We also strengthen our team-sponsor relationships through on-site demonstrations of the robot, offering shop and school tours, and attendance at company events when requested.

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

In the past, the FeMaidens had designated one member with the overwhelming task of managing the team's deadlines and outreach projects. For long-term efficiency, last year, we established a new department designated to specifically apply for awards, communicate with sponsors, and promote our team through social media: the Marketing Department. This implementation has improved our organization and allowed for increased transparency of behind the scenes work.

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

As an all-girls *FIRST* robotics team, our primary mission is to encourage the involvement of women in engineering as well as foster a spirit of inquiry towards technology. The team has helped more than 10 FLL, 4 FRC, 3 FTC teams on an international level. Today, the team continues to encourage students of all backgrounds to pursue STEM careers and compete in *FIRST*. FeMaiden members have initiated impactful community clubs and organizations like Girls Who Code and TeenHacks LI.

**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.**

The *FIRST* judges are interested in seeing how students apply their knowledge gained from *FIRST* to the real world. For each team member, they look for character-building after joining the *FIRST* Family in regards to leadership, collaboration,

and inspiration to others. Judges ultimately look forward to visualizing how FIRST has shaped their participants into innovators of technology as the next generation and are excited to see our future accomplishments.

## Essay

### Mission & History

A long time ago (2006) in a galaxy far, far away, a group of passionate young women embarked on their FIRST robotics journey. Like Princess Leia, who led the fight against the First Order, our founders set a precedent to fight gender stereotypes by guiding young girls to explore fields of STEM.

The journey began when a number of female students from the co-ed Robotics team realized that they did not receive as much recognition as their male counterparts. Hoping to expand the role of women in STEM, they created an all-girls robotics team to connect passionate and ambitious female students. Today, the team is known as none other than the FeMaidens.

With hearts of iron, our team members strive to continue their legacy and nurture a passion for science. Every year, a new line of young, innovative leaders charge forwards, breaking social norms while tackling the feat of building a robot.

### Outreach and Giving Back

As one of the few all-girl FRC teams in New York City, providing girls with an opportunity to pursue their passions in STEM is the crux of our mission. Our efforts are part of a larger force driving more women to pursue careers in STEM. Along with spreading publicity, we believe that community service and volunteer work are crucial in teaching the values of FIRST. The FeMaidens are encouraged to take every chance in making an impact on our surrounding community.

Since our founding, the FeMaidens have offered our help to countless teams in need of guidance and support. In the past three years alone, we have assisted and mentored 4 FTC teams, 9 FLL teams, and 3 FRC teams. We strive to generate a diverse network in which we extend beyond the states to international teams such as Brazil and China.

The first all-girls robotics event in New York City, Chapin-FIRST NYC FLL Scrimmage, for six all-girls, middle school robotics teams was made possible by the addition of the FeMaidens force. We were given the opportunity to referee robot game matches and take on judge roles for the students' Projects and Core Value presentation. We also gave a presentation on our team and on FRC to motivate young students to continue on their robotic Star Trek. We are extremely appreciative of our ability to assist other less-experienced teams.

Despite COVID-19 limitations, we still emphasize on the importance of reaching out to others in the STEM field.

Connecting with 29 other robotics FRC teams from all over the world, FeMaidens participated in Capital City Classic Fall 2020. Our members gave presentations on "The Art of Writing for your Brand" and "A Guide to the 2021 Chairman's Award" to provide marketing and award application tips. Our team captain was also featured as a speaker for the All Girls Team Panel. From teaching to listening, we gave other teams advice and learned from their lessons in preparation for the upcoming build season. Through Zoom calls, the FeMaidens have also joined other robotics teams across the country to discuss how they have adapted to changes as a result of the COVID-19 pandemic.

Last year, we helped set up a new FTC team in the Martin Luther King Jr. Educational Complex. FeMaidens team leadership worked closely with students and teachers from the Manhattan/Hunter College High School of Science to guide them in the right direction, communicating through emails and in-person meetings.

In 2018, we helped facilitate the brainstorming and prototyping process of the all-girls FTC team 11424 Cybernetics, then a rookie team. Our assistance played a small part in their success. The Cybernetics went on to win the Inspire Award, rank first in the Qualifying rounds, and place 7th in the Super Qualifiers. Through a video call, we interacted with FRC Team 5800 Magic Island Robotics, a Brazilian team who were attending the New York City Regional, and lent our knowledge of robotics as well as our city.

In mid-July 2016, we embarked on a mission to Shenzhen, China. We visited the FRC Team 6414 Voyager from Shenzhen Foreign Languages School to provide mentorship and guidance before their rookie season. This allowed the FeMaidens to build connections to robotics teams in China and establish our presence in that region. The following year, we visited and mentored students at the Jinan Foreign Language School.

### Publicity

To inspire others and engage people in the robotics world, we use publicity in order to expand our sphere of influence. Even in quarantine during the COVID-19 pandemic, the FeMaidens continue to spread the ideals of FIRST through virtual endeavors. Working with the Sciborgs, FRC Team 1155, the FeMaidens have created the Inscight podcast. Through this Spotify medium, we spotlight educational topics ranging from our team's impact on gender equality in the STEM field to our individual stories about participating in FIRST.

Last year Wonderama, an award winning children's television program, invited our team to showcase our robot in a face-off against our sibling team, the Sciborgs. We are honored to have been given the opportunity to present our droids and demonstrate to a younger audience how robotics can be fun and approachable. It aligns with Wonderama's purpose of inspiring them to strive to be the best at what they choose. Our episode has elements of entertainment and educational value that makes it a great introduction to engineering for many children.

Additionally, recently updated this September, the City of Women Subway Map now features the FeMaidens, the only all-girls robotics team in the Bronx, amongst influential women such as Alexandria Ocasio Cortez and Helen Keller.

## Essay - page 2

Another way in which we publicize our work is through the press. In May of 2018, The Washington Post wrote an article that shed light on our team's effort to minimize the gender gap in STEM fields. Forbes' Magazine "Don't Tell This Robotics Team That STEM Is For Boys" reveals the exhilarating time young students get to experience throughout their process in developing and constructing our robot. Cosmopolitan produced a humorous and informative article where they interviewed the FeMaidens alumni.

Another news site, Bloomberg, dedicated an article to our team's experiences and impact we had in the 2018 FIRST Competition. We also collaborated with the Huffington Post to promote aspiring author-Stacy Kravetz's book, "She's So Boss!," which advocates for various female societal issues, including a positive experience of puberty and gender equality.

In 2017, Killer Films publicized the FeMaidens visually with a 6-part documentary series launching Indie Lens Storycast, PBS' newest online channel. It followed the team through the build season, highlighting the cooperative qualities of our members and the sustainability that we express through our work.

### Team Impact

The FeMaidens spread the FIRST and Jedi Order principles of altruism from our robotics shop and into the community. In 2018, the FeMaidens members founded the Girls Who Code Club to break common stereotypes against females and allow students to explore their interests in computer science.

Since 2017, the FeMaidens have collectively volunteered for over 3,250 hours both in the community as well as abroad.

Two years ago, we raised up to 3,000 cans for the annual City Harvest can drive. Locally, we have volunteered at hospitals for the elderly, soup kitchens, and lead activity workshops for children in low-income neighborhoods. With Project FIRE, Bronx Science's feminist initiative, the FeMaidens ran a sanitary product drive for victims of Hurricane Maria, raising over 100 boxes of pads and tampons. Project FIRE is an organization we co-founded in 2015 with our members leading weekly meetings.

Our team consists of families who own two orphanages, sheltering many kids in need. We are currently in pursuit of reaching out to other orphanages in the hopes of volunteering and offering donations as a team effort.

### Team Structure / Growth

Growth is essential to the process of improving our team for the better. During our rookie year, we had 14 members, three mentors, and four sponsors. As we enter our fifteenth season in 2021, we have grown exponentially, with 34 students, 11 mentors, and 18 sponsors to date.

Allowing members to focus on developing targeted skills, the FeMaidens is currently divided into 4 specialized departments: Engineering (18 members), Programming (7 members), Electronics (5 members), and Marketing (4 members). Together, we combine our knowledge to create one robot and ultimately learn from one another.

Team growth can be reflected in another way: accomplishments and awards. As our team expanded, we gradually improved through tenacious effort and dedication. In 2017, the FeMaidens were not only a quarter finalist at Hudson Valley and a semifinalist at NYC but also received an imagery award. In 2018, we were honored to win the Engineering Inspiration Award. Moving forward, we strive for innovation as we participate in future competitions.

### Future Goals

Starting with our own team of girls, the FeMaidens seek to empower women all over the world. With the goal of bridging the gender gap, we hope to promote inclusivity in the STEM field and spread the mission of FIRST.

Embodying the FIRST core values, the FeMaidens hold a strong passion for robotics, work cooperatively as leaders, and demonstrate kindness to others. We are always looking to improve as we strive to make an impact on our community.

We began the journey this year of our local outreach by contacting the former middle school of a current FeMaiden member. We would like to continue reaching out to more NYC public schools.

Inspiring more young girls to pursue their interests in STEM, we will continue to provide students the benefits and opportunities of experiencing what STEM education has to offer.