

Team 3547X

We realize that “Girl Powered” in Vex Robotics means encouraging young women to be strong and unafraid to join the engineering world. When our team hears “Girl Powered” we think of women having important roles in the engineering world and girls trying to be a part of it also. In our own team’s approach to robotics, we are an all-girls team and we aren’t afraid to get our hands dirty with grease while building a robot. On our team, all of us have important roles in the design and build process, programming, and driving.

Each of our team members has written their own paragraph to explain their role on our team and their experiences from being a part of the Vex program. Also, on the right is a picture of our team at the end of our fourth competition. Tessa is on the left, Marissa is in the middle, and Nyissa is on the right. This was taken at the Crosswell - Lexington Competition, where we won the design and tournament trophies.



‘Ello I am Tessa Garlepied and I’m in 12th grade. I have been in robotics for 4.5 years, starting half-way through the Toss Up season. On our robotics team, I have had the roles of driver, lead designer, and a builder. Through robotics I have learned how to build complex robots and mechanisms, using the scientific method of trial and error and studying YouTube videos of top teams. I learned how to manage wires, keeping them away from gears and moving parts of the robot. Also I’ve gained social skills and the initiative to get things done by time management. Robotics has made a huge difference in my life, besides being fun, it has also taught me to deal with stressful situations, to be assertive, and to troubleshoot problems. If not for robotics, I probably would not be considering engineering as a major.

I am Marissa Harrison and I’m in 11th grade. I have also been in robotics for 4 1/2 years, as Tessa’s teammate. I am the main programmer, a builder, the main CAD designer, and human loader. I’ve learned social skills, like how to speak up, gear ratios, how to be assertive, how to build complex designs, time management, and good sportsmanship through my experience in robotics. If it weren’t for joining the program, I wouldn’t have wanted to go to college to become an engineer.

I’m Nyissa Thoroughgood and in 11th grade and this is my first year of robotics. On our team I’m the operator, board designer, and a builder. From this experience I’ve learned better social skills, how to be assertive, and how to fix problems own my own and with a team. Robotics has influenced my life by helping me to become less shy and how I deal with stressful situations and deadlines. Although I don’t want to be an engineer like my teammates, I know that this program has definitely changed my life for the better.

Our organization has taken an initiative to create an inclusive environment by promoting STEM with fairs and we like to encourage other girls that robotics isn’t just for guys. The engineering world is more male-dominated but women are being accepted into the workplace with more respect and responsibilities. We want VRC to lead by example, showing that girls

have equal opportunities by building robots that could beat all boys teams, mixed gender teams, or even another all-girls team.

Our STEM role model is Elizabeth Gutierrez (shown on the in the picture to the left), an electrical engineer who went to Purdue University and works for Marathon Petroleum. Via



phone, we interviewed her about her work, her journey into engineering, if there are stereotypes in her job, and how women are accepted in the workplace. She told us that her interest in engineering began when she was around six and her parents got a computer. Activities for engineering were sparse when Elizabeth was younger but she found ways to learn, like taking apart her brother's PS2 to put it back together. She used YouTube and her love of finding out how things are built fueling her curiosity. The electrical components of both the computer and PS2 made her want to work with technology. When she went to high school, she found that she liked math and science classes which further influenced her decision to be an electrical engineer. Elizabeth went to Purdue for four and a half years and a semester for an internship. Her favorite part of her job is being familiar with other aspects of engineering and learning on the job. She had little to no struggle getting her job thanks to a good resume and her

internships. As of now she has been working at Marathon Petroleum for two years and gets asked questions by younger co-workers and others who haven't worked there very long. When we asked about stereotypes, Elizabeth said that while there isn't straightforward stereotyping, the management is mostly men and major projects are led by men. She feels like it does happen occasionally, but men can make women feel on a lower level by decreasing their confidence, but it's getting better. She also mentioned that in her job there is one woman for every five men. We also asked about the stereotype of socially awkward males in the engineering field, and she said that it didn't seem to be an issue and all people have different qualities. Towards the end of the interview, we asked for advice for going to college in engineering and for getting a job. She encouraged us to take as many internships as we can, to be independent and responsible, to make a resume early, and to practice interviewing. She also gave us her opinion that women are helpful in teams with different ways of thinking than men by more attention to detail. Ms. Gutierrez also told us that a more diverse team allows more ideas, viewpoints, and skill sets.

Our team believes that the diversity of perspective increased our chemistry and helped us to become friends. With our different personalities, skill sets, and similar interests we found that we clicked, and work as a team. Contributing our different perspectives open us to different ideas for robot designs and improve our problem solving skills. With these design ideas and teamwork, we can sort through them to find what we consider to be the best design idea, with which we have a better chance of having a better design and winning.

In conclusion, we know that "Girl Powered" means that we should be encouraging young women to join the engineering world. Even though some, like Nyissa, might join the program just for the STEM learning experiences, we still want them to have insight to an engineer's life.

Our team, and the entire Virus community, want this program to allow all young people to experience the struggles and way of thinking engineers have.