Girl Powered

Team 99157A

2019-2020

What does Girl Powered mean to us?

There are so many different ways to describe Girl Powered. To us, it means empowering young women to step out of the shadows and show their unique talent, skill, and passion. STEM-related careers have been dominated by men for a vast amount of time. However, Girl Powered means women having the chance to do the activities that men can do on the same playing field. This should include women being treated as equals, and being able to contribute to the community. Girl Powered means that women can speak their minds freely, without the impediment of gender roles.

In our team, we want to make sure that everyone gets a say -- regardless of gender. Our team consists of three girls and one boy so there hasn't been any unwarranted discrimination. The difference in genders has never inhibited our workflow or overall teamwork. Throughout the process of designing and building our robot, everyone gets to contribute their ideas. When we approach robotics, we work as a single unit to achieve our goals. Gender does not define how our team functions.

To create an inclusive environment that is fair for everyone, we have team meetings throughout the year. During these meetings, we are able to set up rules or express our thoughts

and concerns. This allows us to set up unbiased rules that everyone will agree with. To attract new, diverse people to our team, we go to school expos, county fairs, host classes, and more. This allows people who wouldn't normally experience STEM to experience it firsthand. We believe that one of the big reasons there are so few women in organizations like VEX is the lack of awareness. Girls now have the chance to dive into the world of STEM and we want to give that opportunity to more people; especially to the young women who have the right and potential to be in this field.

Our team allows everyone to do any role they desire. When trying to think of a design for our robot, we gather around a table, each with a sheet of paper, in order to sketch our designs in front of us, and decide on the idea we believe, is the most beneficial. Then, we will move on to work on different parts, usually with a partner to collaborate with. We believe everyone should be able to sample every aspect of robotics to discover which is their passion. This means we all were able to drive at our competitions at matches and at skills. In order to come up with the best strategy for our matches, we scout other teams, then come together to create our strategy for each match. Two of us did not know how to program but wanted to learn. The two other teammates taught them how to program for several meetings until they grasped the skill of

programming. Everyone on our team is able to attempt any role they choose.

The diversity of perspective is vital in order to bring new ideas into the group. Each member has a different perspective and method for solving the problem. It allows collaboration and the combination of ideas for the most efficient and thought-out design. Different people allow us to open our eyes to new possibilities and that way when we get stuck, each member of our team gives insight. The diversity also helps with our team chemistry because we learn how to work as a team and take in others' ideas along with our own. We learned to communicate with each other in order to help one another, improving our chemistry. The diversity of different perspectives also improves our chances of succeeding. We have more creative and effective designs, allowing us to have a better chance of doing well. The diversity of perspective is very important to our team, and we make sure everyone is able to contribute by brainstorming as a team, rather than individually.

A famous astronaut once said, "If we want scientists and engineers in the future, we should be cultivating the girls as much as the boys." This was said by our role model, Sally Ride. When she was an elementary schooler, she sent a letter to NASA asking how she could become an astronaut. But the response she received wasn't hopeful. They said that females didn't have the characteristics required to be an astronaut. However, despite that, she pursued her dreams and

became the first American woman in space. She is such an inspiring figure to us and people everywhere. The odds were against her, but she defied expectations and achieved her goal. This goes to show that everyone can do STEM. Gender should never determine your success and we want to show that fact in our team. Sally Ride reminds us to include everyone because a single factor does not define us.

Team Roles

Natale Gray

9th Grade

Roles: Strategizer, Builder, Designer, Documentor

I started FLL robotics in 3rd grade and continued to do it until 5th grade. In FLL, I didn't get to compete in a lot of competitions, and I felt it wasn't challenging enough. Then, in 6th grade, I decided to join a VEX robotics team. There were many struggles at first. I didn't know how to program, build, or scout at competitions because it was all new to me. It was definitely a step up from FLL. As my first season went on, I got better and better at building and designing parts for our robot. I also was able to talk to other teams about game strategy, which helped my public-speaking skills, since I was very shy. I also was the driver in 6th grade, which was a huge step out of my comfort-zone, but as the season went on, I became a better driver. I also learned how to work with a team and collaborate with each other. Robotics has helped me grow as a person and develop new skills that I will use for the rest of my life.

Kathline Newland

9th Grade

Roles: Programmer, Driver, Builder, Designer, CAD

I started VEX Robotics in 5th grade. Initially, I did not know much, but over the years I learned more and more. I first got into programming during the Starstruck season. It opened up a whole new world for me, and allowed the team to grow. During that year, I also became a driver. Initially, I would get so stressed before every match, and I would even sometimes freeze up during the match. Over time, I overcame my paralyzing fear and became a better driver. Additionally, when I first started to learn how to do CAD, it was very frustrating. I felt like I

could never build anything, and I would get stuck in the endless cycle of constraining parts together and deleting them. But, with much practice, I became improved immensely at building things with Autodesk Inventor.

Michael Newland

8th Grade
Roles: Documentor, Builder, Designer, CAD

I started VEX Robotics in 4th grade, which was during the Nothing But Net season. I became interested in CAD design during 3rd grade, because I loved being able to put the pieces together to see the final product. During elementary school, I was in the tech club where I learned the basics of programming with Scratch and EV3. My first year in VEX, I was on a team with my siblings and a friend. One of our competitions was the Battle at the Bridge tournament and we did pretty well, landing at the 7th seed alliance. We won the quarterfinal match, but lost the semifinal. After the competition I learned that if you work hard you will be to go really far. When I first experienced programming, I was pretty overwhelmed, but after taking it step-by-step, I realized how simple it was.

Chloe Pak

9th Grade
Roles: Scouter, Builder, Designer, Documentor

I first started robotics in FLL from 3rd to 5th grade. It wasn't as competitive and a lot of our time at our only competition was spent trading toys with other teams. However, I delved into VEX robotics during seventh grade by joining a team with my friends. There was more competition and we had to work hard to get results. However, throughout the process, it was more exhilarating and thought-provoking. During my first competition, I was tasked with

scouting the other teams. I was terrified of going up to strangers and asking them questions. However, once I finally worked up the courage to walk up to a team, I realized that it wasn't that bad. This experience helped me improve my communication skills and public speaking skills. In addition when I first started building I had no idea what parts did what and what they were called. However, throughout the season I became accustomed to the flow of things. I discovered new assets that would help me in the future.

Works Cited

Blakemore, Erin. “When Sally Ride Took Her First Space Flight, Sexism Was the Norm.” *History.com*, A&E Television Networks, 18 June 2018, https://www.history.com/news/sally-ride-first-astronaut-sexism.