

Bringing the Thunder to Robotics

By: Haley Berry

"Yeah, it's true, girls do like pink. I think there's a lot more to us than that."

-Debbie Sterling



When watching a TED talk with Debbie Sterling, these words were the ones that stuck out the most. It reminded me of the potential hidden in our minds, often enclosed in a carriage of pink with a tiara on top. When my eyes were opened, it caused me to stop. I thought about the occupation I currently wanted to pursue: a teacher. About 77 percent of teachers are female, and it made me ponder if there was more to life than makeup and fashion. That was, until I met robotics. Working with such amazing technology and interacting with the basis of our future was fundamental, especially at such a young age. I immediately wanted to pursue a career that stimulated my mind and met the desires of my passionate love for engineering. At the beginning of this school year, I wasn't so sure about who I wanted to be in life. After viewing that TED Talk in ELA, the words spoke more to me than most of my disinterested classmates. Possibilities of what I could be buzzed around in my mind as the gears in my head whirred to life. I wasn't going to be a teacher, not that the career was irrelevant, but I thought of the things I could become: an engineer, graphic designer, artist, lawyer, doctor, president! I knew in that very moment that my life had purpose, and I would spend every second working to fulfill that purpose.

When I hear Girl Powered, I don't imagine makeup brushes and eyeliner, but I imagine impact drills and socket wrenches, something much more. I think of a movement that is displaying the power of what it truly means to be a girl. It reminds me that, though we struggle, we have the ability to reach our full potential and show the world who we truly are. If we never leap, we'll never know what it's like to dance amongst the stars.

The girls on our robotics team work together to stay strong and confident. We have to be there for each other when no one else will step up. Although the boys don't always agree with us, we try our best to work our struggles out. The girls on our team have

done the whole engineering notebook--and have done a very good job. We also play a major role in the design and building of the robot. The boys also play a major role, but the girls are the glue that hold the team together. In the robotics world, we invest our input on how we think the robot should work, and if our idea doesn't work, we throw out more possible speculations. On our team, the girls' opinions are heard and evaluated, such as our idea to take a picture of our robot at the end of each day to help display any visible changes that a sketch could not show. The idea has helped the engineering notebook team and has saved the builders the hassle of describing how their modifications impacted the robot.

We provide a very diverse environment that is inviting to people at our school who don't even know what robotics is. The team tries to keep a positive atmosphere that would intrigue newcomers to maybe think about getting into technology and team building. We have even attracted a girl who would like to get into robotics, and is currently observing our team. As a team, we are a very inclusive group that is always welcome to correction and new ideas, and we are always flexible to new schedules and moderations. For example, after our first competition, our team began to fall apart, but we chose to learn from our failures and piece together what needed to be fixed. We are still working on organizing our team according to the feedback we received from judges, and it turns out that their criticism is what is making us stronger as a team.

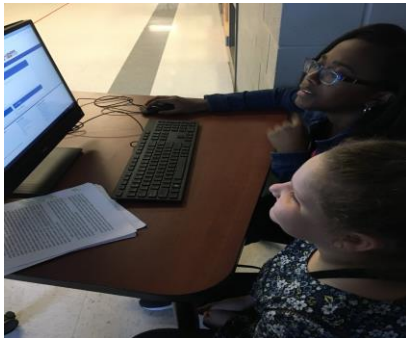
Switching roles has become more common on our team as schedules change, and it is necessary to help up recognize strengths. For example, Mary was a builder and driver, but in the absence of Leah, she stepped up to help on our struggling engineering notebook team. As soon as she came, we were able to get back on track with the extra help. Ashlyn took over the role of taskmaster when Jack wasn't exactly proving to live up to the title, and the builders and programmers got a lot more done than before. Even though the major changes occurred in the presence of the female members, this should not overshadow the input the male members on our team add. If it weren't for them, our team wouldn't be able to function properly. It's their expertise and experience that allows us to succeed. After our first competition, Jack was feeling a bit discouraged and felt he needed some time to regroup and stepped down from his position as captain. The position was briefly filled by Haley as captain and Mary as co-captain, but these roles are also subject to change very soon. Changes are a dynamic part of our team's development, considering some of us are new to VEX Robotics.

We all have learned different lessons based off our experiences and trials-and-errors, which contribute to the success of our team. For instance, Jack was involved in the challenge before, and witnessed matches, seeing what would work and what wouldn't. He was able to recall what he saw, and ideas that might've worked. Some of



his preferences affected our robot's design, such as the rubber band intake. Before now, I had never seen an engineering notebook in her life, but with careful practice, and lots of errors, I finally created our team's homemade notebook with the help of Mary and Emma. Mary plays multiple roles on our team, and she is our team's motivation for tough circumstances. She keeps everyone in check so that our team can reach our full potential.

Emma seems to always blend into the background, but her photography and documenting skills have helped our engineering notebook be one of the best we've ever seen. Christian's experience with building and initiative make him a great addition to our team. Without Sebastian, our robot wouldn't even function, and we all give him credit for how good of a job he does with programming. Ashlyn's discipline and work ethic allow us to manage time with good pace and reach for the stars. We all have our individual gifts, but together we make an indestructible team.



My STEM role model may seem a bit stereotypical, but I would have to say that the one woman that inspired me was Katherine Johnson, mathematician at NASA. Her perseverance for better treatment and a right to be heard. She stood out from the rest, going beyond boundaries that had never been crossed, and when she did, she proved to be the exact opposite of what the world had categorized as a woman. Her sheer

initiative to earn her place on the team clearly did not go unnoticed, and it was certainly noticed by me, and it inspired me to go beyond the limits of my comfort zone as long as I knew the prize at the end was well worth it. Her powerful example inspires all the girls on our team to ask questions and be just as involved as everyone else on the team. When she couldn't find a place, she made herself a place, and we all want to follow in her example. As a team, we work together to accomplish things we never could've done at the beginning of the year, but through the steady building of teamwork and cooperation. In the words of Katherine Johnson, "Like what you do, then you will do your best." And if there's anything we all love, it's robotics, and I assure you we are doing our best by taking the robotics world by storm!

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