

Girl Powered: Redefining STEM

The first thing that comes to mind when we hear the phrase “Girl Powered” is the massive controversy over the purpose of the initiative and its impact on the dynamics of VEX competitions as a whole. About 5 months ago, there was a large thread on the VEX forum specifically devoted to people who were against the Girl Powered Initiative and what it stood for. It was incredibly disheartening to see so many people, men and women, criticizing the work that those at Girl Powered have put in to make the VEX environment



more welcoming to gender diversity. While the thread was still gaining momentum, one of our team members commented on how proud she is to be part of Girl Powered and how empowered it makes her feel. She also commented on how women who wish to pursue engineering and robotics are often faced with men who disregard their opinions and uncomfortably and unnecessarily flirt with them, creating a difficult work environment. Although some agreed with her, still others disagreed with her and disregarded her as overly sensitive and her stories about uncomfortable

flirtatious encounters as things “to be expected” in such an atmosphere. She even received a response that was incredibly hostile towards her position and went so far as to end their post with, “I have to ask (in a very, very discriminatory way) since you complained about it, pm me your snapchat?” Not only was the comment filled with degradation and misogyny, but it also lacked any remorse. Despite all of this, she did not respond to such uncalled-for malice, because that is not what Girl Powered stands for. Girl Powered does not stand for fighting among one another, rather Girl Powered stands for raising one another up, especially women in this field.

Historically, engineering has been a field dominated by men, but our team stands with the Girl Powered Initiative because it’s goal is not to tear men down, but rather to raise women up in the field, to inspire and encourage other women to join them in creating a more diverse community. We reflect this sentiment in our attitudes toward the people around us and toward each other in robotics. We use everything we learn to help others. Whether it is posting on the forum or answering questions that people ask us in competition, we do our best to share what we have learned. We know, had others not shared their knowledge with us, we would have struggled much more, and so it is only right that we, in turn, share what



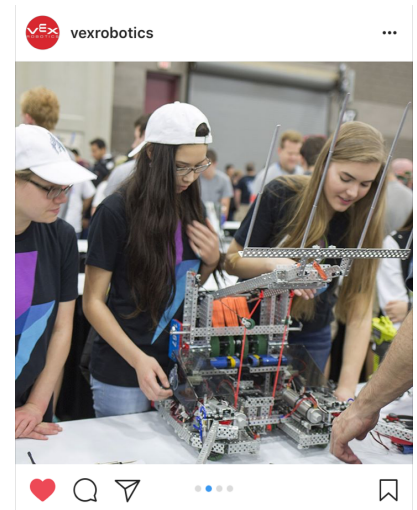
we have learned. We feel that the only way to truly represent the Girl Powered Initiative and what it stands for is to build others up through everything that we learn and achieve.

As women in VEX Robotics we have taken many steps to make the program more inclusive and appealing to women, specifically, through trying to set a standard of

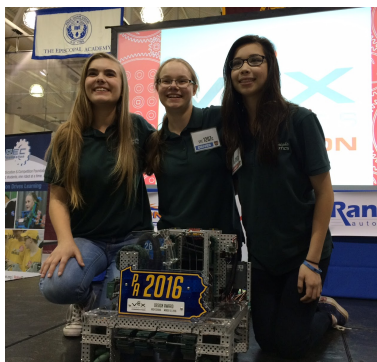
excellence—one of the attributes highly valued in VEX. In our second year attending VEX Worlds we were asked to be student ambassadors (shown left), where we represented countries in the parade of nations and also attended the Girl Powered event. One of our teammates regularly posts on the VEX forum offering advice to new teams. She also assists local Girl Powered events in order to encourage more girls to be confident in their abilities in STEM fields. As a team, we represented VEX and the REC Foundation at the 2016 Society of Women Engineers “Invent it. Build it.” Conference and spent the day teaching girls about the opportunity for women in robotics. We shared our experiences at VEX Worlds and explained how VEX and Girl

Powered has truly changed the way

we view women in STEM fields. We have been featured on the RobotC twitter page, the VEX Robotics Instagram (shown right), in the Girl Powered Coaching Tips manual, and ESPN2 and CBS for VEX Worlds. Through the hard work that we apply, we aim to show other women that not only are they *capable* of achieving greatness in the STEM fields, they *do* achieve greatness when given the proper opportunity.



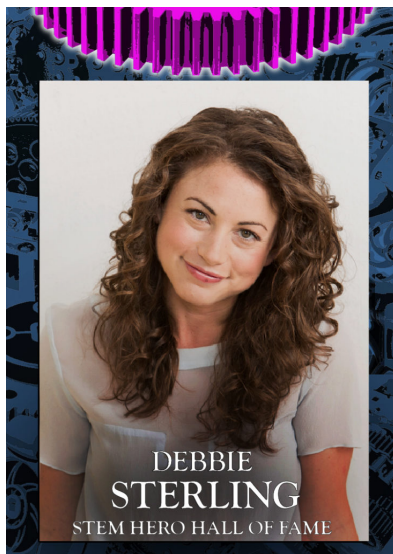
The roles on our team (shown below) are assigned based on strength. Kate (middle) is incredibly level-headed and keeps her cool in stressful situations, so she handles the



majority of our competition coordination—everything from keeping us on schedule, to talking to alliance partners, to making sure that we always have the tools that we need to make any quick fixes necessary in the midst of the chaos of competition. Hannah (right) is particularly patient and focused, making her a very skilled builder and wire management specialist on our team. She is very well spoken and does especially well in interviews with judges by clearly expressing her thoughts. Rebecca (left) is extremely creative

and resourceful, therefore she comes up with the majority of our design and programs for our team. She meticulously studies game strategies and knows the challenges of each game like the back of her hand. From this experience, we have learned to navigate through personal strengths and weaknesses to form a strong, united team.

As an all-girls team, we believe our dynamic is far different from the vast majority of all-boys teams in the ways we think about, design, and build our robots. We often take much longer at the start of the season to begin building because we believe in carefully and strategically planning out each part of our robot, it's purpose and effect on how we play each game. We feel our unique team dynamic gives us an advantage because of our forethought during the preliminary design process which often allows us to anticipate problems before we encounter them. Even beyond the robotics setting, the three of us are not just teammates, but friends who understand each other and aim to lift each other up. We would even say we are like family because we can argue with one another and express different opinions while still working together as one strong unit.



Debbie Sterling is our team's STEM role model. After hearing her speak at 2016 World Championships we were very inspired by her words and appreciated her approach to be more inclusive in STEM fields. As the CEO of Goldieblox, she has immense experience dealing with a male dominated field and yet has still become very successful. Not only is she progressive in her field of work, but she also uses her platform to embolden young girls. As a team, we agree that feeling empowered in STEM fields needs to start at a young age so women grow up believing they can truly achieve whatever they put their minds to. Ms. Sterling affirms that belief and encourages it through her line of toys she created for young girls to learn more about STEM.