Yes We Can!



Drawings by Sloan and Thea



Women have been working, fighting, putting every ounce of their strength into their STEM work, and excelling at their craft throughout history. Some have their faces and ideas known for taking risks and venturing out into careers that nobody thought they would be capable of. What is never shown publicly are the girls who create their own path, build the robot, tackle the obstacle, and crack the glass ceiling. Girls who make a difference are not only the famous figures; the ones who matter the most are the girls who do what they love and inspire others to do the same no matter the short-term consequences. Girl Powered means acceptance, inclusivity, initiative, and passion. Girl Powered means girls pursuing their dream and fueling the fire of inspiration.

My name is Thea, and this year is my first participating in robotics. I have learned a lot from my team and from the STEM field itself, and I fully understand the necessity of a good rapport between girls in the STEM community. I was cornered in the hallway in the first week of school by Sloan Woodberry, a sophomore and, to me, a revered engineering genius. Much to my surprise, she asked, "Hey, Thea, would you be interested in joining our robotics team?" I had heard of the Kent Denver robotics program from a friend; he told me that it was not necessarily something I would like. I barely knew how to code and I could not imagine building a robot in my dreams, so I was not sure how I would be of any use on the team. Sloan pushed all hesitation aside when she invited me to sit in on a practice, and when I showed immediate interest I was promptly inducted as an official member. My journey into discovering the meaning behind Girl Powered began with a few words: "Yes, I'll join the team."

I was not the only one. Three new members, two of whom are girls, were enthralled by the gears, sprockets, C-channels, and programming. Our team, 3946C, has six members; two boys and four girls. The six of us have already bonded and grown in our short time together. As a



team, we work together to build robots and fight the stigma of being a girl in STEM. Those of us who have no prior engineering experience, such as myself, learn skills from the others so we are all able to complete every task at hand. We are a multidisciplinary team, meaning we bring the diversity alive in our members into our work;

3946C (From right to left Sloan, Maddie, Sophia, Thea, and Uly. Not pictured: Grant.)

while members might specialize in building or coding, the people on our team share their knowledge with each other and help one another grow. Sloan and the only Senior member, Maddie, have each worked their hardest to maintain the environment in robotics for which I came and to project



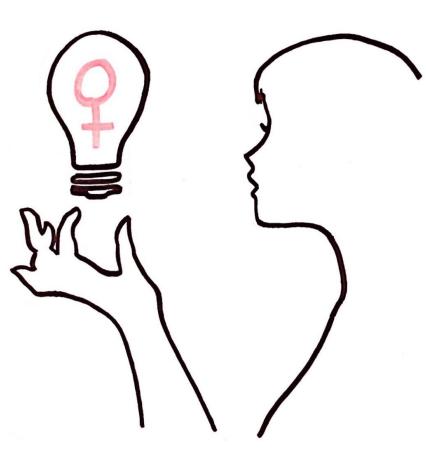
Sloan last year as the only girl on the robotics team

it for the future to draw in more diversity. The first step to creating this inclusive space was a simple invitation from a girl who knew what it was like to feel out of place because of gender. As the gender minority in the field, girls empathize with each other, lift each other up, and work to make robotics a space where misogyny does not belong.

Our Kent Denver robotics program is still growing and changing from day to day. Each member on the team, male or female, makes their best effort to create a wonderfully inclusive and supportive environment. However, our team is not an example of how the world really works. Misogyny in fields such as STEM is very real and a far cry from the "sunshine and rainbows" example we set at Kent Denver. Women are held down solely because of their gender while men are propelled forward in their work; while a field may be female-dominated, the people in charge are almost always men. This example holds true for famous STEM figures as well as ordinary professors and teachers. We are extremely fortunate to have a non-male coach for our program, but the cold, harsh truth of the oppression women in STEM face makes our coach a rarity. The existence of innovative programs such as Girl Powered in Vex Robotics is simply a bubble; we cannot act as if our community is the whole world. We must take a step back and learn the facts of society outside of our comfort zone.

In a small sense, Girl Powered means inviting new female members to join the robotics program. In a much broader context than our program, the initiative of women must go deeper and further for them to be able to follow their passions in STEM at all. As the Girl Powered commitment states, "Girls make up only 23% of VEX participants, and women represent 24% of

the STEM workforce."1 Additionally, a 2016 demographic study by the National Girls Collaborative Project found that male students were three times as likely to pursue engineering and computer science education than female students.² The discouraging pressure women face, keeping them from attempting to join a male-dominated field, could be described as an escalator for men versus a staircase for women. We must work several times as hard to reach the same goal. Women battle adversity with every step forward into the STEM field, and Girl Powered adds more soldiers to the fight. As the number of girls taking charge of their dreams increases so will the acceptance and inclusivity of the broader world.



3946C's experience with overcoming oppression inspires us to work harder and stronger to prevail over adversity, and by doing so, we go above and beyond in our work ethic and quality. I hope that this will not have to be the case in the future. Someday, ordinary women in STEM will be respected and recognized, allowing other girls to feel comfortable pursuing their dreams. Girls inspire girls inspire girls inspire girls, and the cycle continues until there is no longer misogyny or stigma in the STEM field. Girl Powered means girls seizing the initiative to invite more girls into robotics, but it also means women who follow their passion no matter the personal cost. Girl Powered means taking a step, taking a stand, and changing the world.

¹ Vex Robotics, "Why Girl Powered?" <u>https://www.girlpowered.com/why-girl-powered/</u>, (2017)

² National Girls Collaborative Project, "Statistics," <u>https://ngcproject.org/statistics</u>, (2017)