

~The True Definition of Girl Powered~

By: Priscilla Wong (16099C)

Growing up in New York City, I was inspired by the myriad of technological innovations from the subway system to the bridges and tunnels. In particular, I was fascinated by Emily Warren Roebling's development of the Brooklyn Bridge. She led her team during a time period where females were not expected to make breakthroughs in engineering. Furthermore, it was her actions which played a pivotal part in the integration of women into the STEM fields. Her accomplishments are what motivated me to join a robotics team since it made me feel empowered. When people think of female empowerment, they think of the phrase "girl-powered", which I originally thought was a term used to define the eradication of a patriarchal based society. However, it wasn't until I joined VEX robotics that I found the true definition of "girl-powered".

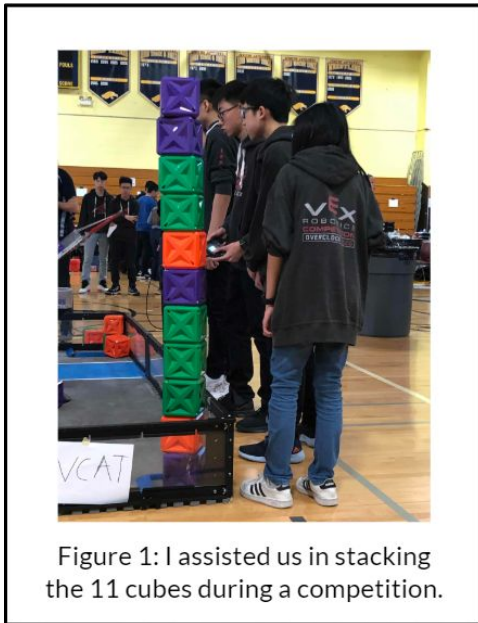


Figure 1: I assisted us in stacking the 11 cubes during a competition.

Although Roebling showed me that females are as capable as males of becoming engineers, I was still fearful that only a few women were able to escape from society's conventional gender expectations. Soon, I realized that my fears were unfounded: not only was my robotics team respectful of my aspirations, but they also created a friendly and enjoyable atmosphere that confirmed my passion for engineering. Even though I was the only girl on the team, it was clear that gender stereotypes did not affect the assignment of roles. For instance, originally I was scared to participate in driver tryouts, fearing both rejection and judgment. However, in a moment of spontaneous confidence, I tried out. Though I did not become a driver, I was nominated to become a drive-coach, one of two people who assist the driver during matches. Furthermore, I enjoyed having this

position because it still made me feel empowered and allows me to show that I have control over the robot. I can vividly remember the moment I helped my driver stack 11 cubes during the Jericho Tournament Qualifier as pictured in **Figure 1**. From this experience, I learned that girl-powered means pursuing your goals and not letting fear stop you from progressing.

The people on 16099C have also created an atmosphere that makes it easier to both understand the design process as well as learn from a diverse body of high school students: our team is a private organization containing students from specialized, local, and private high schools. As a result, we have the liberty to take

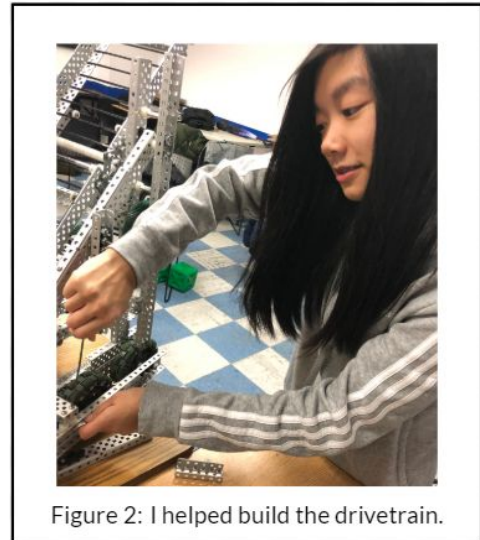
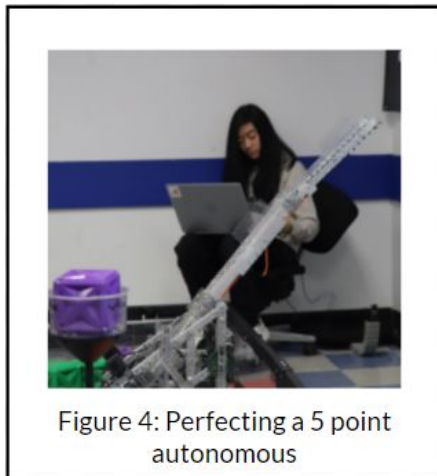
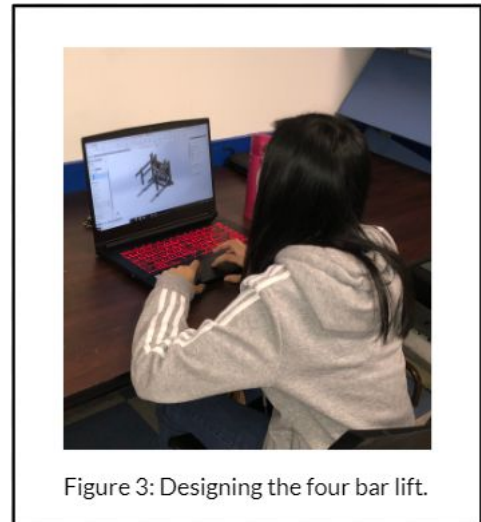


Figure 2: I helped build the drivetrain.

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into consideration a variety of mindsets. For instance, when I was tasked with developing the drivetrain and the lift [Figure 2 (Page 1) / Figure 3], I had trouble determining what type of subsystem would be best for this competition. Furthermore, I was extremely shy and scared of talking with other individuals because I was the only girl. However, I realized that I would not be able to progress without communicating with my team. As a result, I asked them, and they helped me develop an understanding of the fundamentals of robotics. In the end, I was able to help develop both CAD and physical models of our robot. Had I not done that, I would have remained lost, the antithesis of the true definition of girl-powered. Furthermore, robotics helped me understand that girl-powered means working as a team and communicating with others regardless of gender.

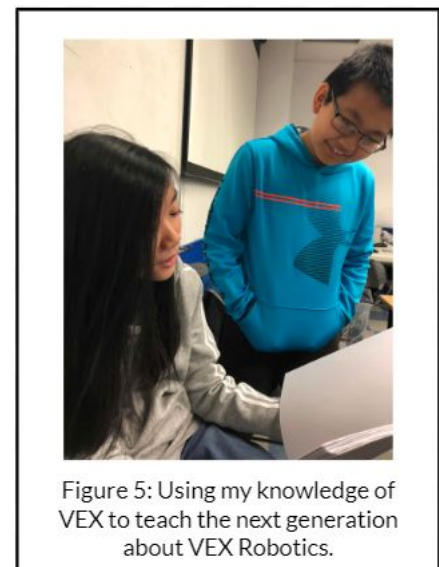


Knowing that I want to follow Roebbling's footsteps, my team convinced me to learn how to code in the language of C++, knowing that I want to become an engineer. As a result, I asked my team's head programmer to help me learn the best way to approach the programming process. While learning how to program in VEX code, I realized how similar it was to the programming languages I learned in school. Furthermore, my team's encouragement helped resulted in me learning another programming language, but also perfecting our 5-point autonomous, as depicted in Figure 4.

Looking back on this experience, I marvel at

how my reluctance to code may have resulted in me not discovering a talent of mine. Through this experience, I learned that girl-powered means to explore beyond my comfort zone, for it allowed me to recognize my engineering talent.

Girl-powered is not only moving away from a misogynistic society but also having the ability to overcome fear to be equal to males in all types of fields. It is, disregarding the stigma surrounding each gender and coming together to achieve numerous goals. Though I have only participated in VEX Robotics for a few months, I can



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imagine myself becoming a successful engineer not only because my team has taught me so much about how robots function, but also because I know that with girl-powered, nothing can stop me from learning more about robotics engineering. As she once said, “I have more brains, common sense know-how generally than have any two engineers, civil or uncivil,” emphasizing that gender is not a factor in terms of capabilities. As the only people who can follow in Roebling’s footsteps, society needs to evolve into one that is accepting of all types of equality, especially gender equality. I, no we, need to continue inspiring other generations to be inclusive of all genders who want to partake in the STEM fields.

~Credits: “The True Definition of Girl Powered”~

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As a team, we won an Excellence Award at the Roslyn Competition.