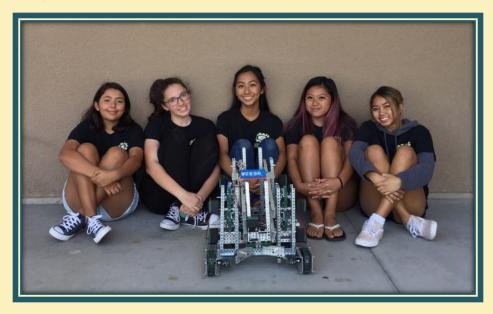
Embracing the Capabilities of Females in S7EM

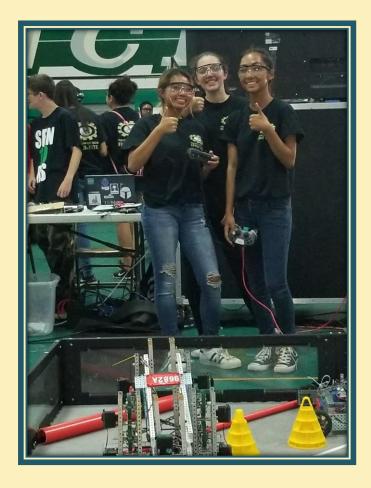


We are team 9682A from Olympian high school, in California. We are a relatively small team consisting of only four girls coming from various experience levels. Although our program is young, started only four years ago, our advisor Mr. Avasan knew he wanted to dedicate a team to female representation in robotics. Since this year is the first we could afford multiple teams, some of the female members in the program volunteered to be on a team. Although every individual brings something different to the group, it isn't as much of a group of individuals as it is a team.

When we hear the term girl powered we think about highlighting the talents girls have that or overlooked and ignored in modern society. Although we have come a long way with female rights, our job is far from over. Currently, the STEM workforce is merely 24% female; half of what it should be if it were an indicative sample of the overall workforce, which is 48% female. With this in mind, our advisor decided that one of our three co-ed teams should be strictly female to highlight what girls can bring to engineering. Girl powered is about changing the way the world recognizes the strength girls already have.



On top of dedicating a team to females in our robotics program, separate from the other co-ed teams, our leader Elaine Llacuna, 11th grade, has founded a female engineering club in our school. The club is open to everyone, hopefully inviting more people (especially girls) to dabble in engineering and find something they're interested in that they may want to continue doing. Our hope is that the club will allow girls with prior arrangements and extracurriculars to gain skills and develop an interest in STEM.



Over the course of the year, Elaine has compiled a well crafted notebook while paying a major role in the construction of our robot. She always volunteers to take the robot home before competitions and over break. Sometimes we all meet up at her house or just brain storm over text. There is no doubt Elaine is the foundation of the team and provides a space for us all to succeed. While Sarah is our main programmer, she does far more than program. Since programming doesn't occupy all out her time, she also is a consultant for design and a helps engineer here and there. If there is ever a particularly hard to reach screw, she's there to hold up our robot for better access.

"Trying out a little bit of everything has vastly improved my skill set and comfort working with my team. This is aided especially by the fact that our team is all female, so there was little to none of the outnumbered feeling that kept me boxed in my



comfort zone in other situations. The time I have spent with my team and trying different things than what I am used to have helped me to grow not just in engineering, but as a member of a team as well." - Annette Garnica

Sammie is a core engineer of our team. Although she most often is taking apart the robot or building different components, she also helps Elaine with the notebook. She lists what went wrong or what went right, ways to improve our design along with listing qualities of our robot, future designs and game strategies.

On top of robotics, Elaine is a part of turtle club (an active recycling group at our school), Sarah manages at academic league, Sammie is a cheerleader and Annette does piano. Robotics brought us all together and made us a tight knit group of friends despite a large range of personalities. We all bring different perspectives and ideas to the team. Elaine and Sammie grow together in engineering design and teach the team what they learn, while Sarah helps the team learn the basics of programming.



"Although my middle school team went to worlds, I have learned far more being part of this team. Since everyone comes from different experience levels and has varying strengths and weaknesses, we can all learn things from each other and form an overall stronger team because of it. It's no longer about winning, although it is nice to succeed, what's really important to us is growth,"

-Sarah Yager



Our STEM role model is Debbie Sterling, founder and CEO of GoldieBlox, a company dedicated to instilling a love of engineering in girls at a young age. Not only is she amazing and has a degree in Mechanical engineering and product design, but she decided to use her skills to break down the stereotypical "pink aisle" and create a toy targeted for girls that involves engineering. It is so important for girls to feel involved in STEM, especially from a young age.





Credits: Entrants: Sarah Yager, Elaine Llacuna, Sammie Simok, and Annette Garnica Team Number: 9682A Title: "Embracing the Capabilities of Females in STEM"	