

No One is Left Out

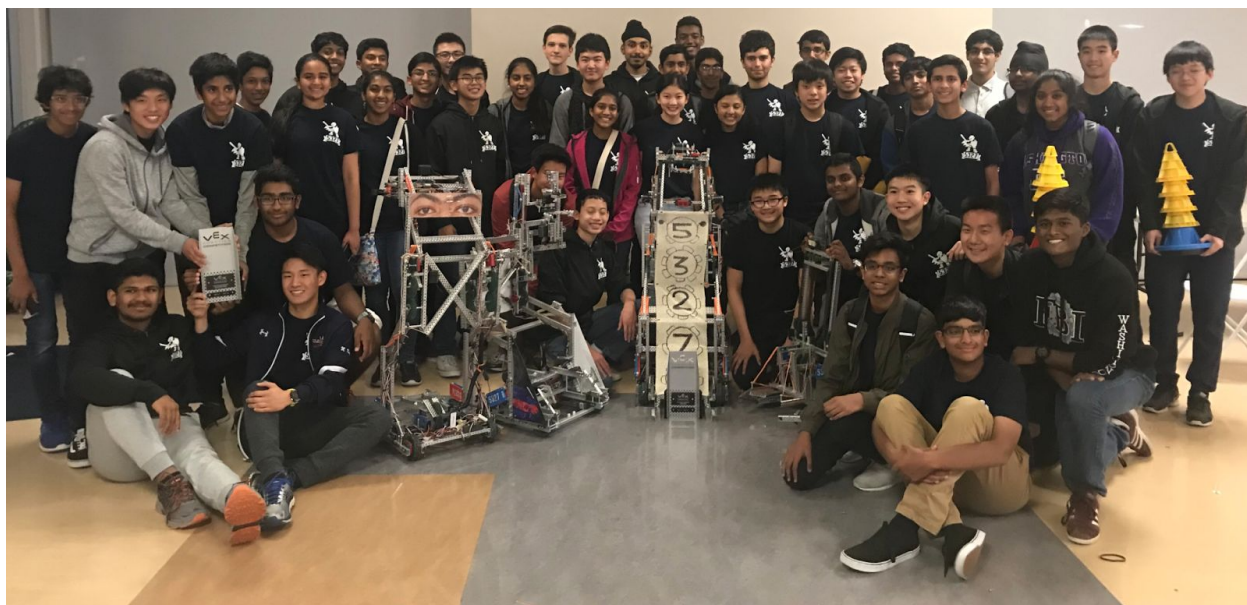


Last year, I was part of 5327A, or development team. This team was the team for beginners, or people not ready to go into competition team yet. There were over 20 kids on that team. This allowed us a small amount of time to actually help with the robot and most of the time we did nothing at all. There were only three girls on that team including me. But, on development team there were some boys who actually knew robotics very well, but did not interview for a competition spot. They did most of the work, and the rest of us stood by and watched most of the time because we were clueless. There was not much time to learn about VEX between all the competitions, so we let the people who knew take over.

Around May of last year, interviews for competition teams began. I interviewed for all four competition teams, but I did not get in and was placed back on development team. After that, I resolved to try even harder over summer break. I was no longer a new member to VEX.

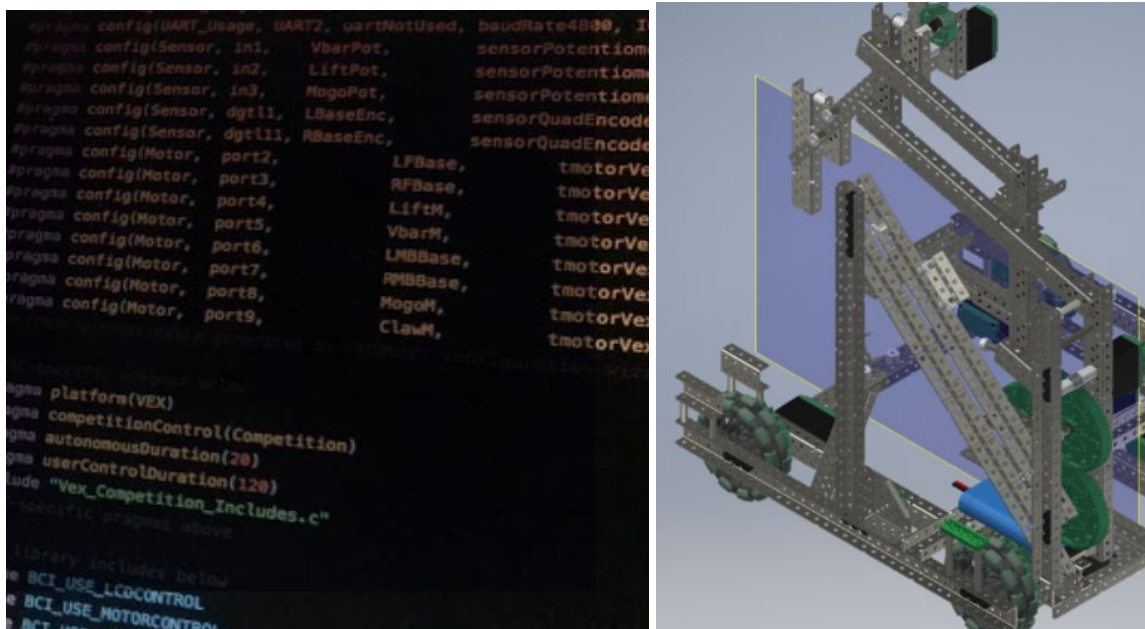


I went to all the summer meetings I could go to, and I took charge. I did not stand by and watch others work. I taught the people who recently joined, actively built major parts of the robot, and helped with the design of the robot. Soon, competition team internships came, and I was asked to be an intern for 5327B. After two weeks of interning I joined the team. To 5327B, Girl Powered means stepping in and contributing and being a vital part of the team and having the same opportunities as anyone else. Below is the Gael Force Robotics club after the Bellarmine Tournament. Everyone there has taken the Girl Powered movement. As a club, we strive to be inclusive of everyone.



Harini Gurusankar
Gael Force Robotics 5327B

To us, Girl Powered is about showing initiative. Here, I do the same work as anyone else. I have helped in almost all aspects of being a VRC team, such as designing, building, notebooking, strategy, presentation, and scouting. For example, I do a good amount of building, notebooking, and scouting. We have main programmers, but everyone has the opportunity to learn how to program our robot and try different roles of being a VRC team. I don't let what happened last year happen again. I try to be as involved as possible and be an active member of the team. Our team has taken the Girl Powered Initiative by not treating me differently and allowing me to work as much even though I am the only girl. Being a girl does not mean anything should change, and our team shows that. In fact, our team has taken the Girl Powered Initiative a step further. No one is held back from doing work. Everyone gets to work with the robot, notebook, and design. 5327B makes sure everyone is a vital part of the team.



The diversity of perspective changes our robot's design because everybody has different backgrounds and experiences with robotics. For example, some members in our team participated in FLL, while some started robotics freshman year, or some have been participating in robotics since they were very young. Each person can bring different modifications to the design, eventually ending up with a better robot. Once, a member who had recently joined robotics pointed out a flaw that would have caused us a lot of problems if it was not fixed. Yet, no one else noticed it. Having a diverse team allows us to identify problems easier. Also, diversity of skills is critical. We have two main

programmers who are exceptionally good at coding. They create autons that will score us a lot of points, such as our stationary goal auton or our twenty point auton. They also quickly modify their code each time we change the design of our robot. We have one team member who is very good at 3D modeling on Autodesk Inventor. This allows us to brainstorm ideas on Inventor and then build them instead of multiple trial and errors during building. We have another team member who is skilled at visual effects and logos and visual design. He creates our decals and presentations and records our matches at tournaments so that we can view them later and learn from our mistakes. During the Ceres Tournament, our robot stalled a lot and we did not win anything. But through those videos, we got an idea of what the best driving strategies were and how we could score more points. Some of us have taken or are currently taking Introduction to Engineering Design. This class teaches us proper engineering notebook techniques, which we implement in our team notebook. Some of us are taking or have taken Principles of Engineering. We use many of the basic concepts from that class such as levers and gears.



For our tournament in Folsom, everyone worked on the notebook, double-checking to make sure everything followed requirements. One of our programmers created a simulation of the In the Zone game that we could present to the judges. Our visual effects designer designed multiple decals and created our presentation. All of this and our robot allowed us to win many awards at that tournament. We won Tournament Champions, Robot Skills Champion, Design Award, and Excellence Award. This qualified us to Northern California States Tournament in March. Our variety of

knowledge helped our team come up with an efficient robot and a thorough presentation and qualified us to states.



Diversity of our team is also beneficial for outreach programs. This year, we decided to volunteer as much as possible. Some people had experience in FLL, so they volunteered at FLL tournaments and helped mentor an all-girls FLL team. In the picture in the left, some of our team members volunteered at a Lawrence National Laboratory Event being held at Fallon Middle School. They helped the middle schoolers with different hands-on activities. The picture on the right is the all-girls FLL team that some our members helped mentor. We also reached out to the Engineers Without Borders program so that we could help them in their cause.





Overall, 5327B has taken the Girl Powered Initiative to be more inclusive to a diverse group of people. It allows every team member to be actively involved. This diversity allows us to help others and also create a better robot. Our team's wide variety of skills gives us a better chance of winning.

Now, we have other goals to accomplish. After qualifying for states in Folsom, our next goal is to do well at Tracy and Google Skills. Next is States. Our main goal is to qualify to Worlds there. We will accomplish this by everyone taking part in every different role possible so we can make States a success. Because everyone works extremely hard, our team is efficient, and we hope that this can qualify us to Worlds.

We'll have proved that Girl Powered works if we qualify for Worlds—and even if we don't. Coming together as a cohesive unit, our team has embodied the Girl Powered initiative in everything we do. Truly, on 5327B, no one is left out.

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