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Saratoga High School,
California

What Girl Powered Means to us



When we hear “Girl Powered”, we think of famous women who have made breakthroughs in the STEM world, such as Marie Curie, Mae Jemison and Katherine Johnson, legends who have left their marks in history. However, they aren’t the only women with the power to do something in the world, and each of us strives to be as persistent, as strong as the women whose brilliance lit the paths they walked.

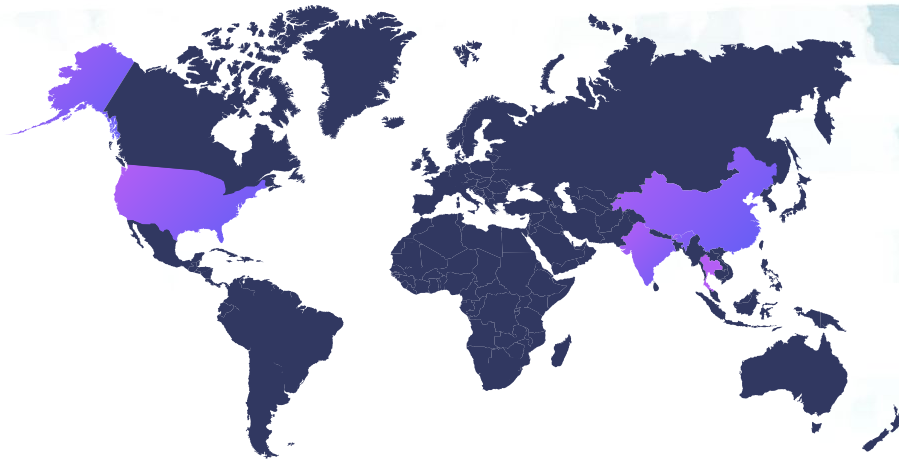
Closed Eyes



In the STEM world, the number of boys far exceeds the number of girls, and on an even larger scale in history- women occupied only 8% of all STEM jobs in 1970! Here in 95071V, we hope for a much more inclusive future for women, and to make the STEM world “Girl Powered”. Our target is to be an inclusive and diverse team , ethnically and gender-wise. When we close our eyes, we dream of a world where HER story is as common and as important as HIS story.

Don't change yourself for the world, and you will change the world in your own way.

Meet the Team



We are team 95071V, from Saratoga, California. We are a group of high schoolers who established this new VEX team, united under our passion, interests in creativity and robots. When we were determining our goals as a team, it was first on our list to make sure that our team was diverse and inclusive gender wise. Our team is consisted of seven members(+1 cat), four of which are girls. To further encourage diversity, we try our best to promote robotics to a larger student population at school.

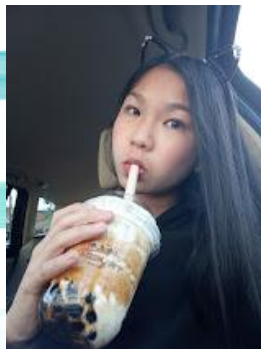


Introductions



Shirina Cao

I'm a programmer and I also help with notebook. Other than robotics, I also enjoy dancing.



Eliza Lin

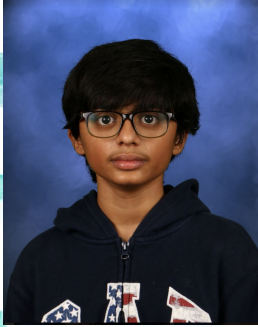
I do notebook on the team, and am currently learning how to drive. In my free time, I enjoying playing badminton and practicing on my viola.



Ruiyan Zhu

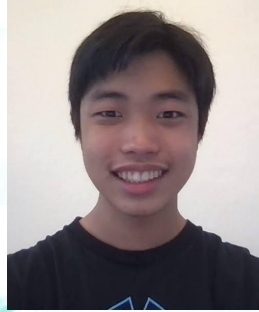
I help with mechanics and notebook, and spend my free time learning coding. I also have a hobby of knitting and listening to Ghibli music.

Introductions (Cont.)



Adit Sharma

I am the CAD lead on the team, and am very passionate about robotics. Outside of school, I like to bike with friends and play video games.



Richard Lee

I am the co-project manager on the team. I am the mechanic lead and driver. I enjoy doing robotics anytime, including any free time I happen to have.



Quinn Gifford

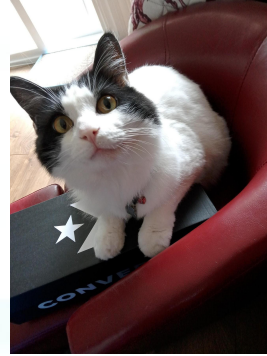
I am the other project manager, and programming lead on the team. In my free time, I enjoy reading science fiction books and watching Battlebots and/or Veritasium videos.

Introductions (Cont.)



Ashni Pillai

I help out with hardware and notebook / documentation on the team. In my free time, I enjoy playing volleyball.



Hoki

I am the team cat, and I enjoy sleeping in any spare time I have. My favorite things are neck scratches and looking out of Eliza's window.

Our Inspiration

Sally Ride is known today as the first woman to enter the space frontier, trailblazing her way, literally, out of this world. Abroad the *Challenger*, Ride operated the robotic arm, launching satellites into space. To us, she is the very epitome of “Girl Powered”, and we aim to be like her, breaking all the limits and finding her own way to success.

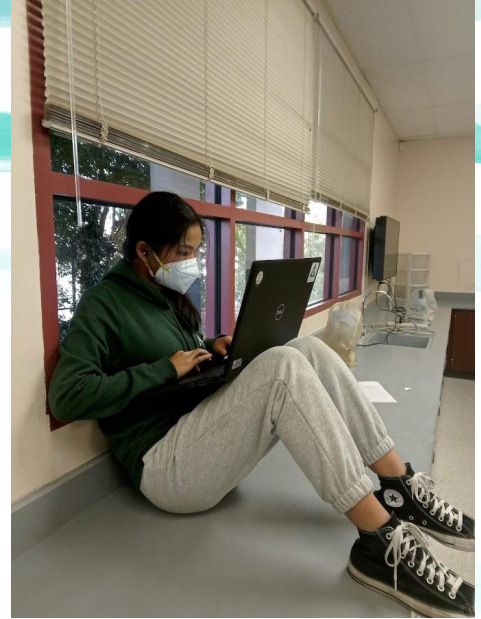


Sally Ride

My Intro into Robotics

Eliza

I was first introduced to robotics at the end of 8th grade when I expressed my curiosity to my STEM mentor Mr. Hoang, and he recommended me to join robotics. Ever since, I've been an active team member and have enjoyed every moment in robotics. I've learned skills such as teamwork and leadership that I will use throughout my life.



Finding My Second Family

Ruiyan

At first, I was curious about robotics in general, so I joined a summer camp under Mr. Hoang, the mentor of my school's robotics team. Soon, I was immersed in creating a robot that could do what I wanted it to do, something that was completely a product of my hard work. It was extremely interesting to program the code and see the robot manifest it. After Mr. Hoang saw my newfound passion, he recommended me to join VEX. I joined VEX, and it has become something like a second family to me.



My Road to Finding Robotics

Shirina

When I was given the option to choose my elective in seventh grade, I knew that I had to pick band. Then, for my second choice, I looked through all the other options and thought that STEM would be an interesting choice.

Throughout my second year of STEM, I started falling in love with the world of robotics. I was envious of my friends who were in the middle school robotics team and I knew that I had to join in high school.



Finding Myself: Ashni Pillai

At the end of 8th grade, one of my friends convinced me to join the robotics team even though I never felt particularly interested in STEM. But as soon as I started, I felt an instant connection to the subject. I started off with keeping track of our progress in the team notebook, but I grew interested in hardware too. My team has exceptionally inclusive and they even taught me new skills along the way. I originally thought robotics was just a fun after-school activity, but it ended up helping me discover my true passions and interests.



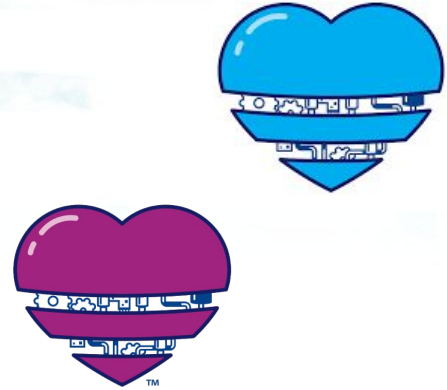
Our Maxim: Diversity and Unity

“Our differences are what makes us a team; our moments are what makes us one.” -Eliza 2022

Without either, we couldn't possibly work together.

Team Dynamics

Not only are we teammates, we're close friends. Many of us are in the freshman orchestra at SHS, we've known each other for over four years so we have a comprehensive understanding of what we're all good at. We trust each others abilities, which allows our team to work as a unit. We work towards a shared goal, and try our best to work seamlessly together, as well as have fun while we're at it.





Our Part in Robotics

Here is how each of us contribute to make us an outstanding team, and our unique experiences in VEX.



Eliza

So far, I've participated in robotics as a mechanic, notebook and driver, while also learning how to CAD and drive. I've learned how to think outside the box with mechanics and driving. Notebook has taught me stronger attention to detail. I find that the more perspectives express their opinion on the matter, the more complete the solution is, and there is a lower chance of unforeseen flaws and curveballs. Driving is my favorite role, because you get the chance to learn different strategies to defeat your opponents. Through robotics, I've learned how to work with a wide variety of ideas from different standpoints and execute them thoroughly with the Design Process.

Shirina

Even though my experience in robotics has been brief so far, I have already learned so much. The veteran members encourage me to try different roles, answer every question I fired at them, and their guidance helped me learn a lot quicker than I ever could have myself. Learning how to program taught me how to analyze problems and solve them creatively and accurately. Interacting with other team members develops communication and teamwork skills. Documenting things in the notebook taught me to note things down to refer back to later.

Ruiyan

From the first meeting, I was immediately brought into the world of robotics and introduced to a lot of new information and unknown terminology. I became extremely motivated to understand this mountain of knowledge, and my teammates supported me greatly while I asked showered them with a lot of questions. During team meetings, I am encouraged to work on many parts of the robot, but also learn how to document them. Once, I was curious about what PID was and what purpose it served, and one of my teammates, Quinn, explained it very well and in-depth for me. The various encouragements and opportunities given to me allowed me to gain self confidence, as well as organization skills, a logical manner of thinking, and an analytical way to approach problems. I've also learned how to communicate my opinions and voice them out. I am extremely thankful for these experiences that will benefit me for life, and even more for my amazing robotics family team.

Ashni

While I'm not experienced at robotics, I've learned that there's much more than building, programming and CAD-ing skill that goes into it. Included in this more hidden list are qualities like leadership, dedication, the ability to adapt to change and constantly learn from mistakes, problem solving and willingness to work together to create a whole. Especially important is that *each* member contributes whatever they can and does their part and takes part in decision-making. From the *many* build sessions I've attended, I've seen firsthand that it is almost always better when help from others is asked for and utilized. For example, I have had Adit teach me how to CAD, and even though I am still struggling to do the drivetrain, I've learned the ways of problem solving when it comes to unexpected errors and mistakes. When I'm doing build session entries in the notebook, I see how important the roles that various members play on the team, and how they ensure the success and flow of the team.

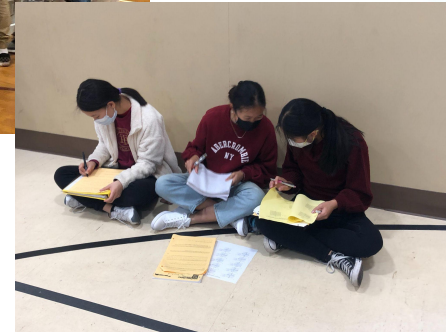
First Steps

What our first few competitions were like, and how we jumped those hurdles together.



The first robotics competition that the girls attended was at Redwood Middle School, and we scored 3rd place Skills. In the next three weeks, we further improved skills and Interview/Notebook, and at the Placer Competition, we managed to win first place skills and Design Award.





Placer
Competition
Cavitt Middle
School
11/13/2022



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You for
Reading**



THANKS!

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