

A large, stylized pink gear with a dark blue center is positioned in the middle of the page. The gear has a cross-hatch pattern on its teeth. The background is dark blue with a circuit-like pattern of white lines and dots.

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THE WORLD'S MOST IMPORTANT
ASSET

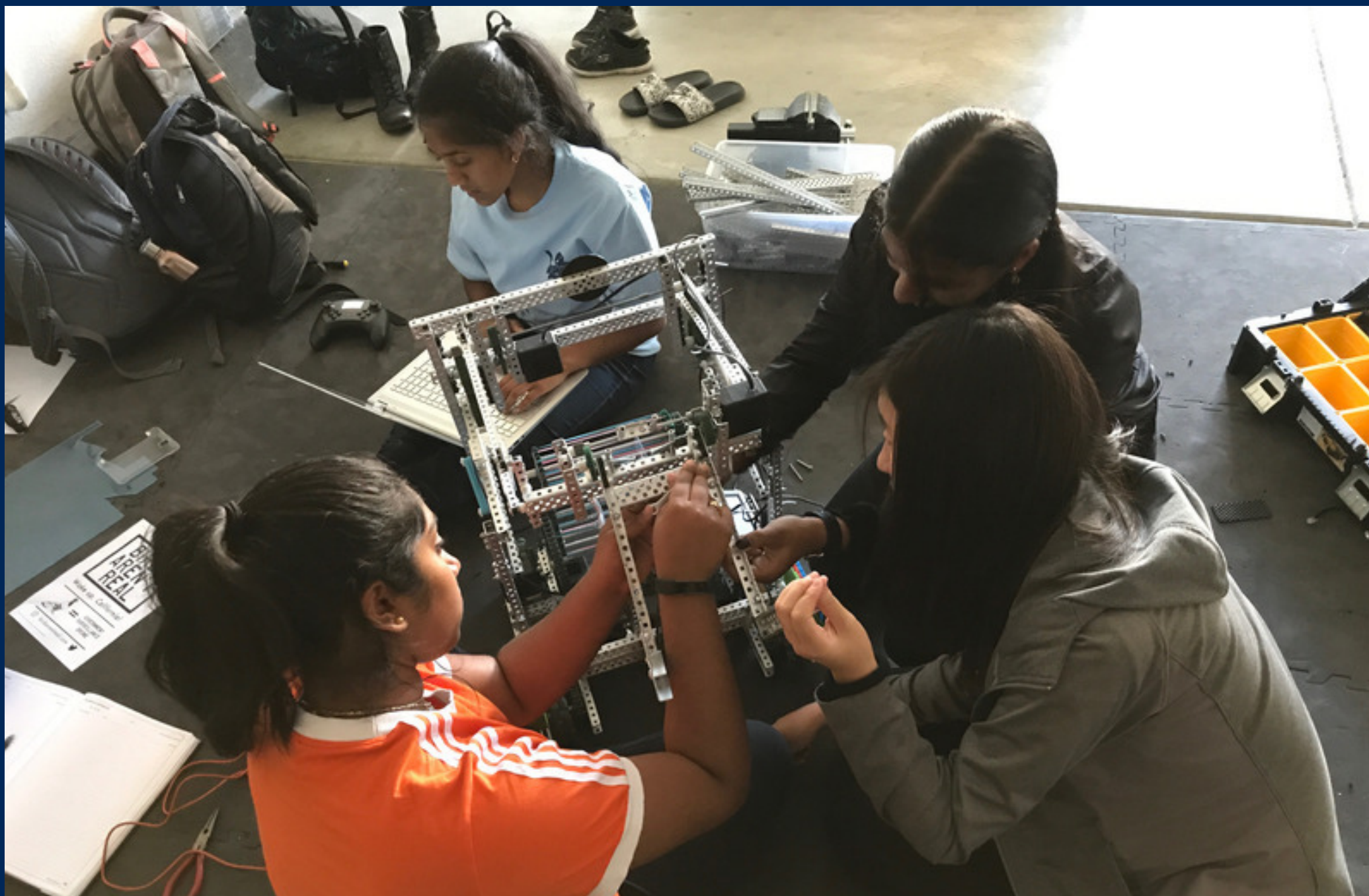
GIRL POWERED

5327R

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THE BASE-ICS OF GIRL POWERED

“Girl Powered” is a phrase that means different things to different people. When we started exploring VEX robotics, none of us were sure of what we thought girl-powered represented. Over the course of the season, we have learned that Girl Powered does not have one definition. For us, it means an opportunity for girls to learn and develop as both individual members and team-players.

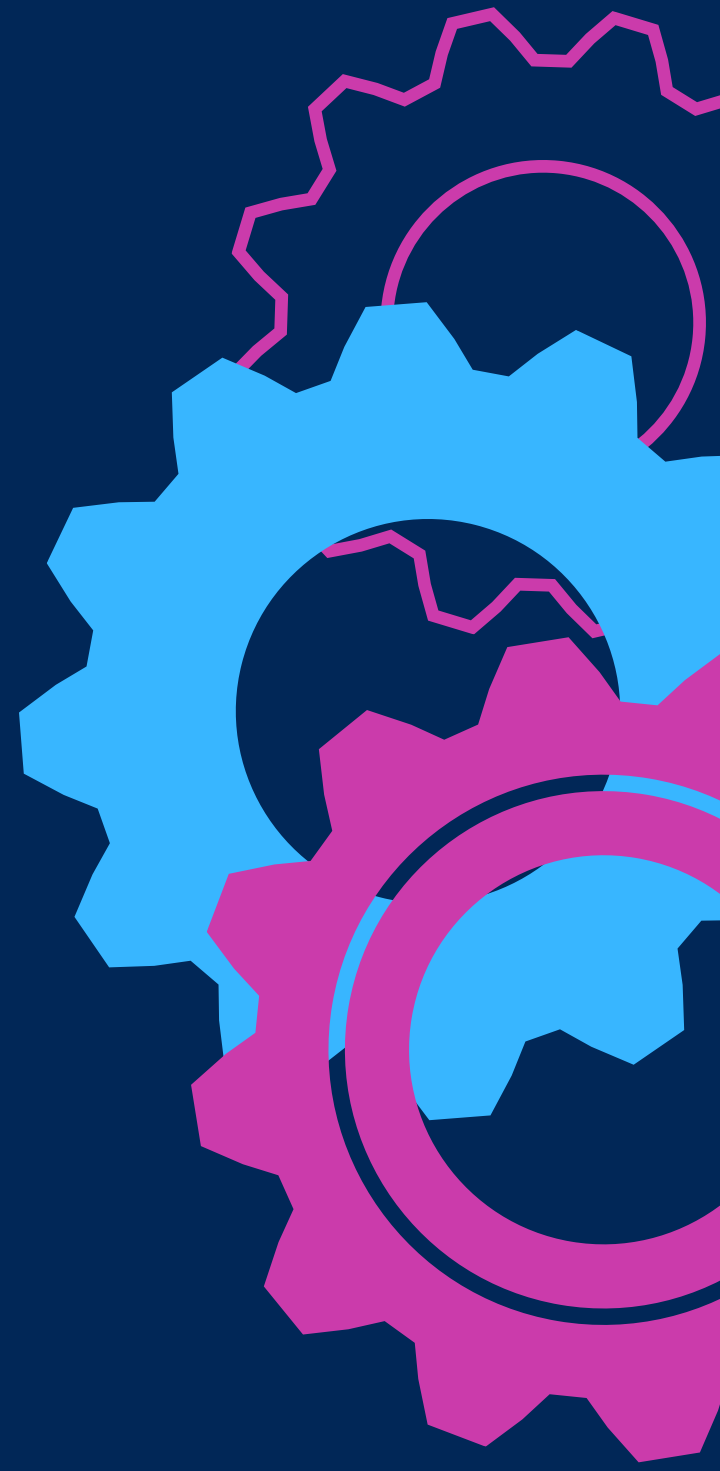


Girl-powered is not about proving ourselves and our capabilities. We believe it is about continuing the effort to provide everyone with opportunities to grow. We believe girl-powered is about creating a positive STEM-based environment where everyone can thrive. We believe that the future of STEM is girl-powered.




OUR INSPIRATION

Our role model is Ms. Eugene Chou, the head of the engineering academy at our school. Under her guidance, we were encouraged to pursue STEM fields. Ms. Chou helped us navigate through a male-dominated field by looking for females to join the academy. With more females applying each year, our school's engineering academy exemplifies the result of years of hard work. Like Ms. Chou, we hope to inspire more girls to join robotics and join the STEM workforce later on.




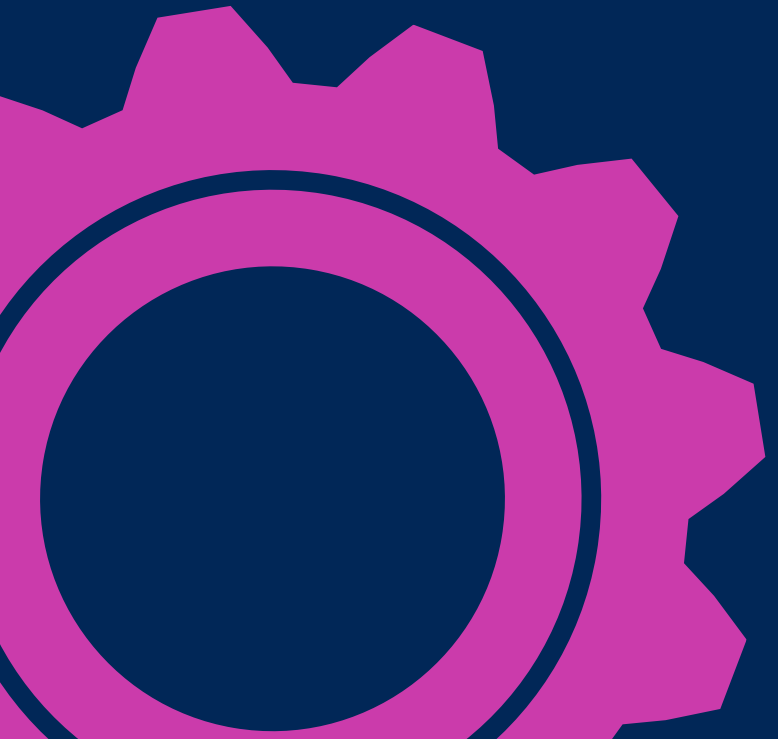


LIFTING OUR MINDSET



Gender diversity in VEX robotics has dramatically increased in teams all around the world compared to previous years. On 5327R, we want to ensure our team is leading this change. Even though there has been significant progress, most robotics teams are still male-dominated. We have discovered that the challenge doesn't end with getting girls into the field. Robotics is simply the beginning of every girl's journey in STEM. As girls ourselves, we aim to not only teach them but also guide them and learn along the way.

We noticed that most teams that participated in "In The Zone", last year's VEX competition, had very few girls. Although many male team captains we knew agreed that having more females in VEX would positively benefit their teams, there were few methods of recruiting females. But since then, 5327R has found a way to get around that hurdle.



OUR UNIQUE MEMBER INTAKE

GATHERING MEMBERS

In order to get more girls involved, we reached out to females from our school's engineering academy. In the beginning, we had a total of four girls who were willing to participate because of their strong interest in STEM. This was more than expected, since many robotics teams remain mostly male dominated.



This is my first year doing VEX robotics. Last year, I talked with a previous member, Niharika Suravarjjala, and asked her about how the club worked. Before I knew it, I was the newest member of 5327R. Other team members have worked tirelessly in ensuring that I understand every part of our robot and notebook. Half a year later, I introduced another female member, Ridhi Tamirasa. Right now, 5327R has more active girls than any other robotics team in our school. Through community outreach, our team persistently finds and recruits more girls while finding ways to empower the women on our team.

GRACE LIU



WE'RE KEPS-NUTS ABOUT DIVERSITY

OUR UNIQUE RATIO

This year, 5327R has an equal ratio of girls to boys - the record for any Gael Force Robotics team. Our members come from various backgrounds and areas of expertise, so diversity is an essential part of how we make decisions. Diversity gives us an influx of ideas, broadens the team's viewpoint, and allows for more, and often times more effective, robot designs to be made. A diverse member base ensures that there are always several solutions to every challenge. We can efficiently resolve any issues that come up. Due to everyone's various prior experiences from different teams, this year we are able to not only include diverse ideas from existing team members, but also from members that migrated from a different team, coalescing perspectives.



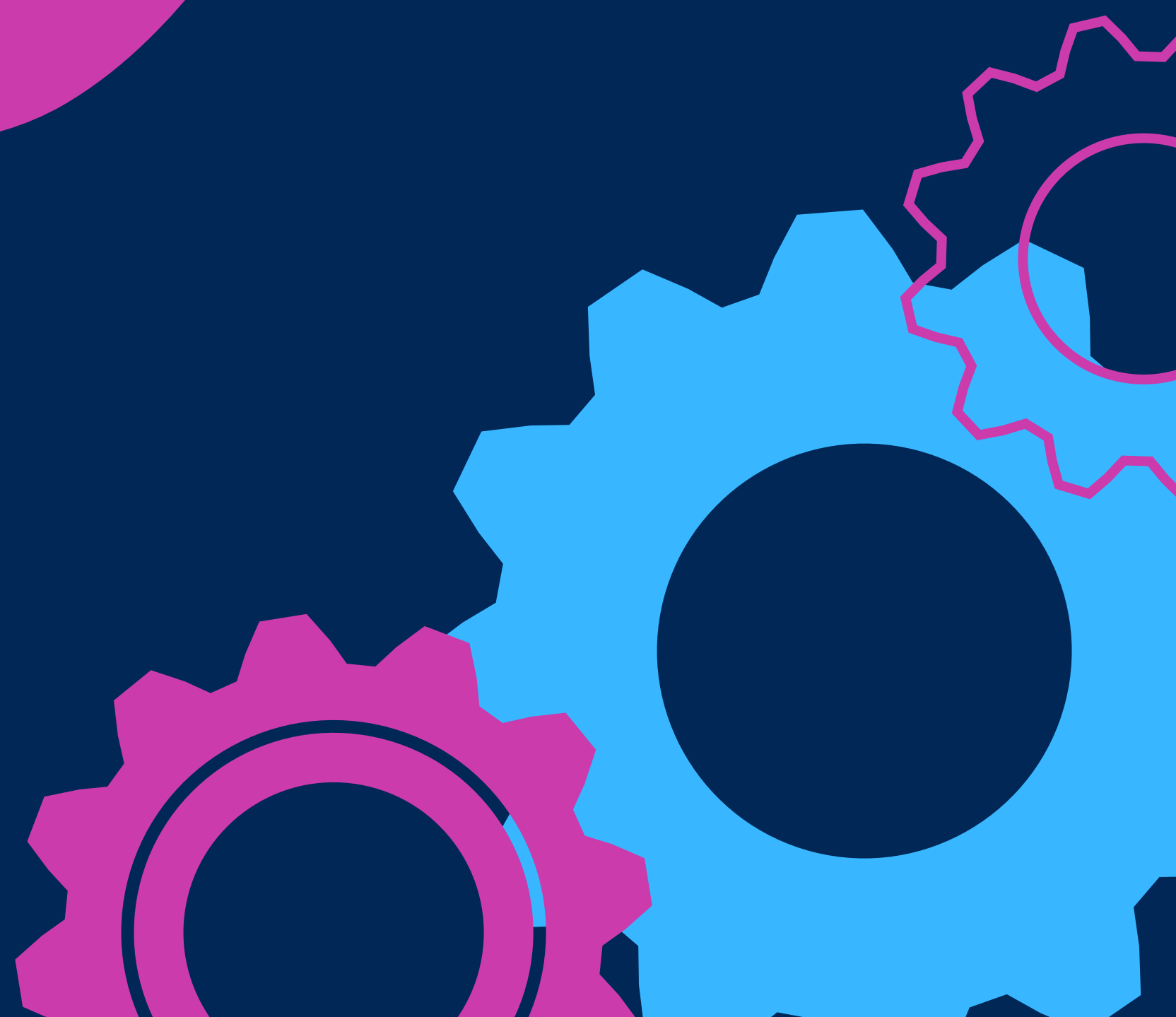
"BRANCHING" OUT OF OUR COMFORT ZONES

The phrase "Girl Powered" reminds us of the culture that as engineers, we are creating for ourselves. In an often biased engineering field, it is crucial for females to be given a chance to actively participate and develop the skills necessary for STEM-related careers later on their lives. As we become more experienced in highschool, we carry this knowledge into our future occupations.

I started my robotics journey on 5327D as a girl seeking a beginning in a STEM-related field. As I moved to 5327C in my sophomore year, I developed my skills in robotics and gained knowledge about many types of mechanics as well as programming. Now in my junior year, I am still proud to be a member of Gael Force Robotics. This year on 5327R, I have not only programmed by myself but have also taught other members.



ROSHNI VAKIL



C-CHANNELING ENGINEERS

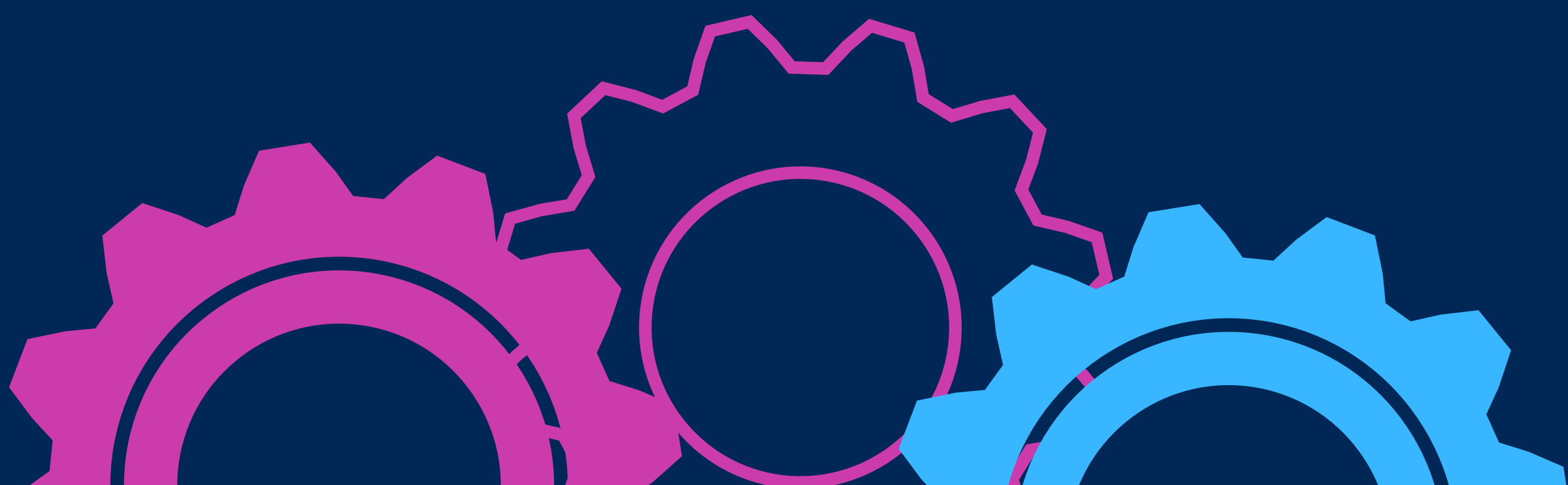
On 5327R, our roles as members of the team are not defined by gender, instead by performance and interest.

Rather than confining everyone to one job, each member experiments and contributes to multiple aspects of robotics. Our aim is to allow everyone to develop their interest in engineering over time, and pigeonholing them into a role does just the opposite. R-team aims to foster an environment that creates opportunities that were otherwise unavailable due to stereotypes. This provides girls with the chance to preview engineering, develop their skill set for the future, and get more involved.



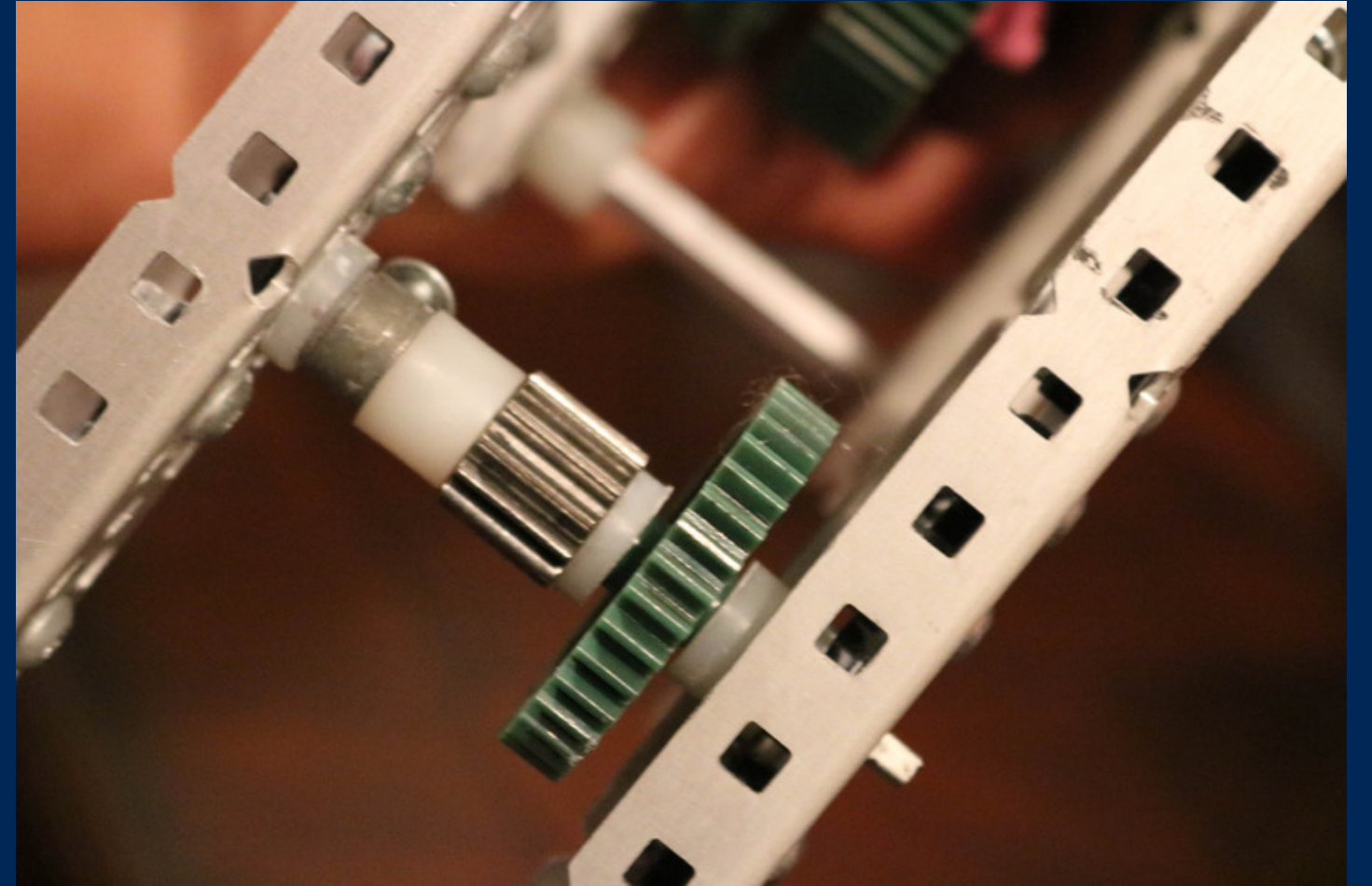
More experienced members teaching newcomers: Grace Liu (right) next to Ridhi Tamirasa (adjacent)

Xiluo He (front) showing new team member his CAD simulation



GEARING UP FOR SUCCESS

Niharika Suravarjjala started as a builder on 5327X in her freshman year. Over time, her focus and interest shifted to notebooking and documenting. She found that she enjoyed the creative aspect and today, Niha both builds and documents.



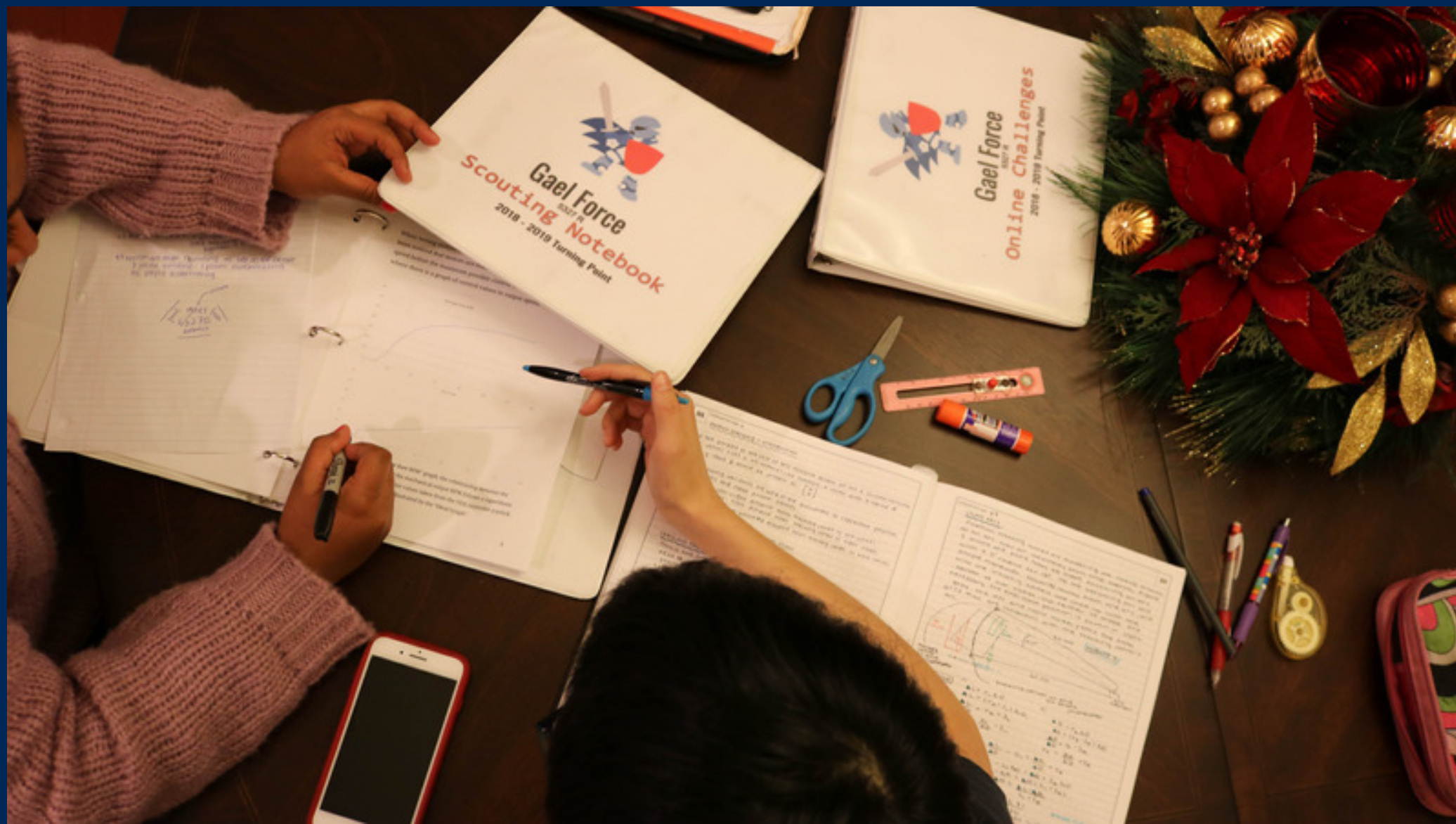
"When I started my robotics journey on 5327X in my freshman year, I never knew there was more than just building. Over the year, I grew more interested in notebooking and documenting and their respective creative aspects. Today, I am both a proud builder and a passionate documenter who has taken full advantage of the opportunities previously unavailable to me because of my gender. Robotics has truly given me a chance to preview engineering and develop my skill set for the future. I find being able to pursue my passion for STEM empowering to who I am as a female."



**NIHARIKA
SURAVARJJALA**



WHAT MAKES R-TEAM NOTEWORTHY



As any robotics team knows, notebooking is just as essential as building and programming. Nivedha Jayaprakash, a member of 5327D last year, shared her unique approach to this task. With both Niha and Nivedha collaborating on documentation, our team increased the quality of our notebook and efficiency with which we work.

Our theory is that people of opposite genders perceive a situation differently and create varying solutions to the same problem. Therefore, the team can reap the benefits of varying ideas and thorough observations which, ultimately, leads to superior performance.

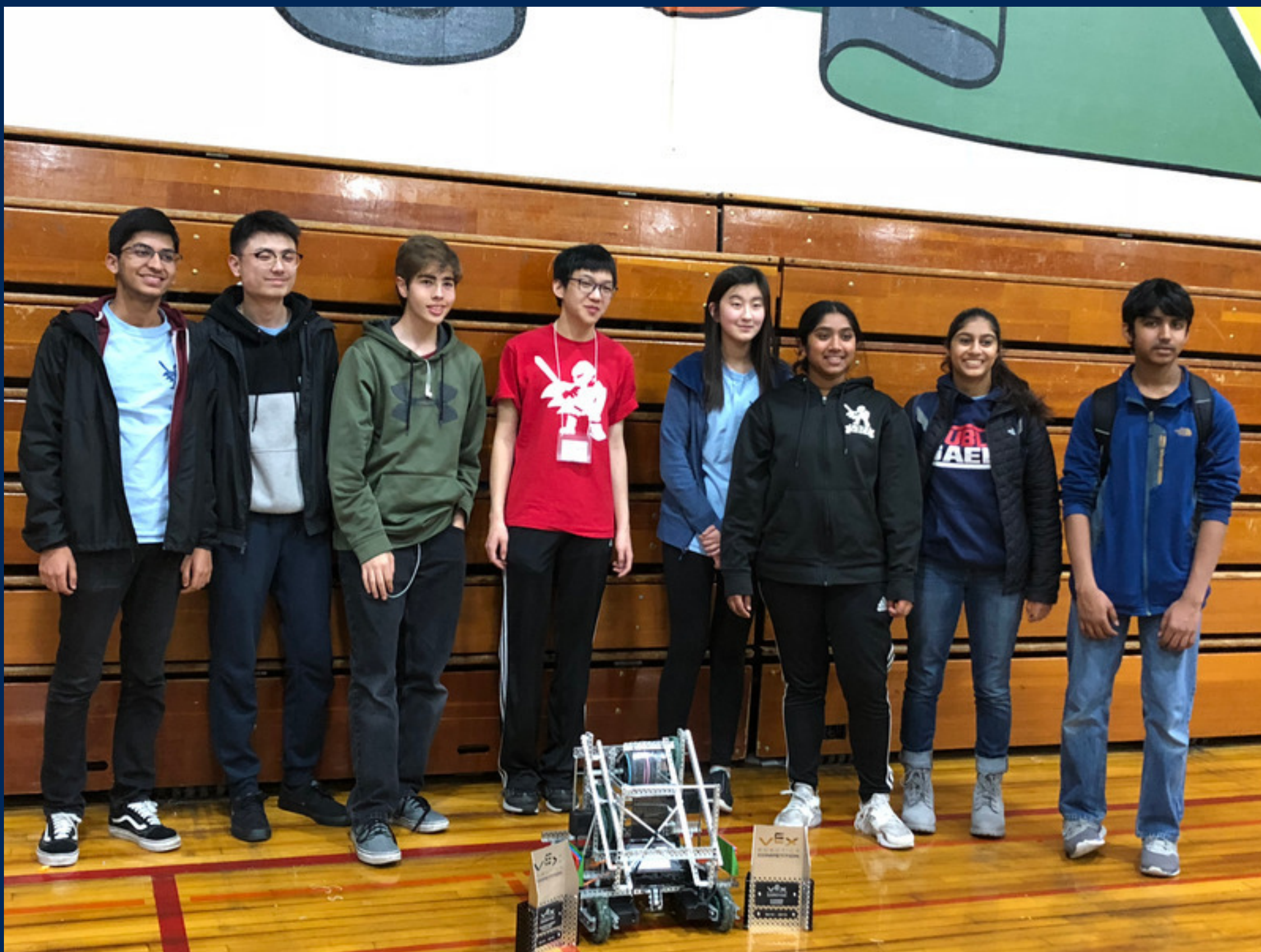
"I started robotics as a freshman on 5327D last year without much prior experience in VEX robotics. As I learned and developed my skills, I started becoming more interested and exploring different aspects of it like programming and notebooking. On 5327R this year, I was able to further expand my knowledge and contribute more to the notebook and the team overall."

**NIVEDHA
JAYAPRAKASH**



WE "R" ALL IN THIS TOGETHER

5327R is proud to be a diverse team that accepts and encourages members of all genders and backgrounds. We strongly believe in the principle of gender equality, as it not only benefits our team but benefits members' futures. It is our ultimate goal to create an environment where both girls and boys have equal opportunities in STEM.



Team photo after competition: (left to right)
Rohan, Xiluo, Nick, Gene, Grace, Niha, Ridhi, Vikas

CREDITS

EVERYONE ON 5327R

TEAM MEMBERS

- Gene Pan
- Vikas Ummadisetty
- Nivedha Jayaprakash
- Niharika Suravarjjala
- Grace Liu
- Xiluo He
- Roshni Vakil
- Abhi Paruchuri
- Rohan Srivastava
- Nick Rocchi
- Ridhi Tamirasa

ROLE MODELS

- Ms. Eugene Chou - head of the Dublin High School Engineering Academy

