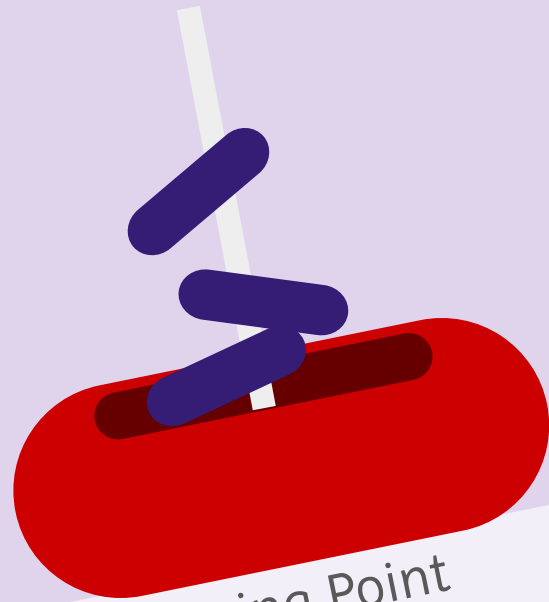


girl
53275
POWERED



Pushing Female Participation Past the Tipping Point

Dublin, CA

ENTRANTS:

Elizabeth, Jeia, Samiksha, Krisha, Jeremy,
Anit, Sid, Edison, Vishwa, Atiksh, Abhi

The background of the slide is a photograph of a group of students in a classroom or workshop setting. They are gathered around a VEX robotics competition robot, which is a white and black structure with various sensors and motors. Several students are visible, some wearing face masks, and they appear to be engaged in a project or competition. The lighting is somewhat dim, and the overall tone is educational and collaborative.

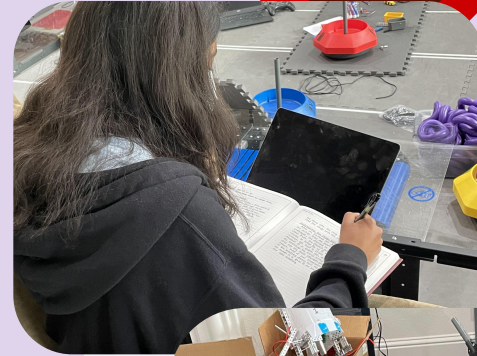
Girl Power

in VEX and Beyond

Even as jobs in STEM are constantly expanding and improving, **the number of women in these positions has struggled to keep up.** This has remained a pressing issue for many years, as women in STEM constantly combat both **discrimination in the workplace as well as a lack of resources.** As found by the American Association of University Women (AAUW), women are still vastly underrepresented in STEM, “[making] up only 28% of the workforce,” while **“men greatly outnumber women** majoring in most STEM fields in college” (AAUW par. 13). This massive gap is a result of a vast difference in opportunities, not just in college or in the workplace, but even beginning in middle and high school. However, we believe that these numbers can be **changed** little by little. Through initiatives like **Girl Powered**, we can **reshape traditional environments** and form teams that encourage more young women from a variety of backgrounds to pursue careers in STEM. Driven by this issue, our team, 5327S, has decided to make it our goal to **push female participation** past its tipping point and lead the way for **representation in robotics and STEM.**

Building Our Team

The Gael Force Robotics team 5327S is led by our captain Elizabeth Koh, **one of the only two female captains in GFR this season**. 5327S was **founded in 2018** for the Turning Point season and was revived this season with the goal of creating a **fun, comfortable environment** that **facilitated learning** for all its team members. Elizabeth selected members based on their willingness to learn and work on a team, choosing both boys and girls who displayed an **enthusiasm for robotics, regardless of skill**. Our team currently has four girls and seven boys, each member with **diverse perspectives, skill sets, and personalities**. We are currently the Gael Force Robotics competition team with the **largest number of female members**, and are determined to help teach these young women to be **leaders**, not only in STEM but in all aspects of life, **pushing the boundaries of creativity to build a balanced STEM field in the future**.



The background of the slide shows two young girls sitting at a table, focused on building a complex structure using LEGO Technic bricks. The girl on the left is wearing a red hoodie, and the girl on the right is wearing a black t-shirt. They are surrounded by various LEGO parts and tools. The scene is dimly lit, with a purple tint overlaid on the entire image.

Girl Powered

To 5327S

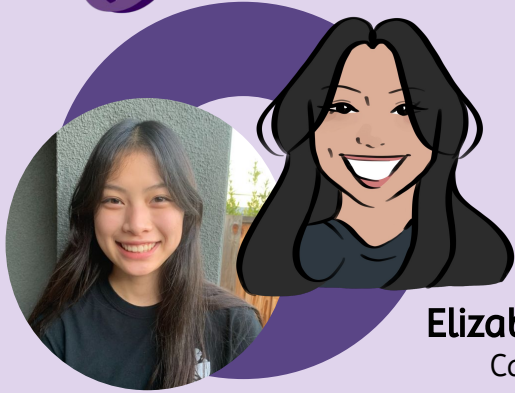
When we hear the phrase “**Girl Powered**”, we hear **independence**, we hear **confidence**, and we hear **balance**. To us, “Girl Powered” means **inspiring and motivating a new generation of women** in all aspects of life. It means a society where **all voices are heard equally**. It connotes **inclusivity** regardless of ethnicity and background; teamwork across different backgrounds maximizes what can be accomplished in STEM and throughout the world. “Girl Powered” symbolizes our need to **inspire all of the girls who have yet to unlock their limitless potential**. We believe empowering girls to the fullest extent will **help the world progress in the right direction**.

5327 Special

As a team, it is important to us that each member tries out different roles on the team, as **exploration is the best way to discover what they are most passionate about**. Each one of us has filled different roles on the team, whether it be building different parts of the robot, learning basic C++, or even trying their hand at driving. For all the competitions we have attended, Jeia and Samiksha were a **part of the drive team** alongside Elizabeth, where they learned more about game strategies and what it takes to drive our bot through a **hands-on experience**. During our regular meetings, Jeia and Samiksha play a pivotal role in building alongside Elizabeth, which allows them to **gain a more in-depth understanding** of the intricate systems and mechanisms of the bot. In doing so, we have realized that **no role is too difficult for the girls on our team!**

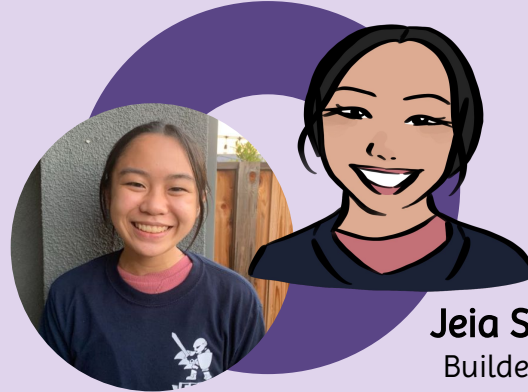


The *Girls Power* ing our Bot



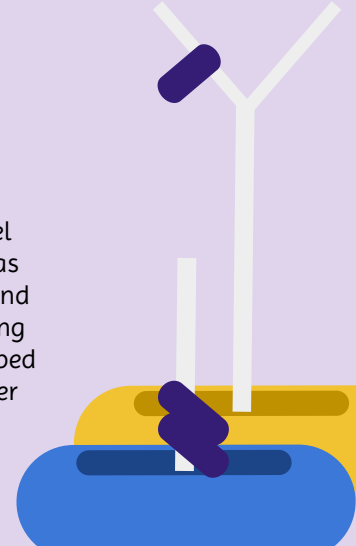
Elizabeth Koh
Captain

Elizabeth is a junior and the current captain of 5327S. Being one of few female captains can feel overwhelming, but Elizabeth loves seeing her team grow in their bond with each other and in their robotics knowledge as they overcome challenges together. She oversees building and programming of the bot, and loves to feed her team during meetings!

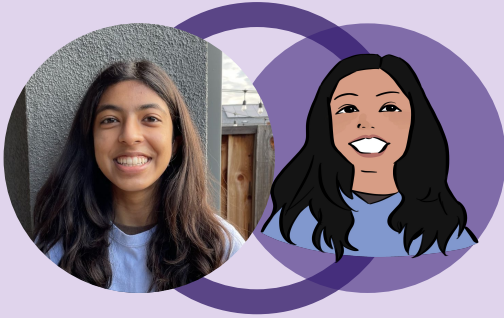


Jeia So
Builder

Jeia is a sophomore and this is her second year on Gael Force, but her third year on a VEX robotics team. Jeia has always loved designing and creating things hands-on, and in robotics she has the opportunity to do so while meeting new people and learning new skills. Now, she has developed solid building skills and is excited to learn more from her teammates this year!



The *Girls Power* ing our Bot



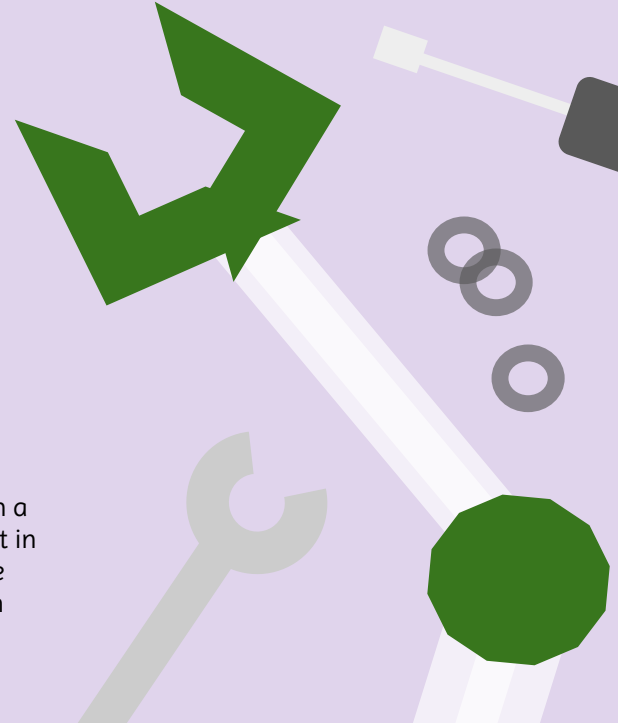
Samiksha Krishnamurthy
Builder

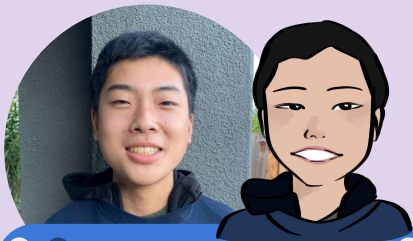
Samiksha is a sophomore and this is her second year on a robotics team. Her willingness to learn has allowed her to help with building and documentation. Samiksha was initially hesitant to join GFR, but over the past year, she has developed a new passion for robotics.



Krisha Soneji
Intern

Krisha is a sophomore and this is her first year on a VEX robotics team. She has always had an interest in building and technology, but has never had the chance to apply it. This year she decided to join robotics so she could experience it hands on.





EDISON CHAN

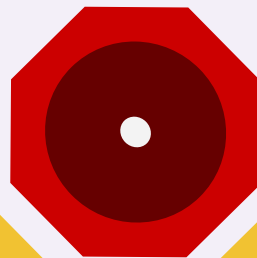
Builder

Scores points with his building skills!



The Boys That *Balance*

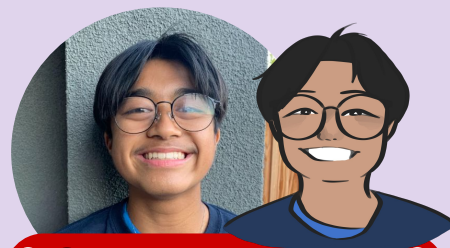
Our Team



ANIT ANNADI

Notebooker

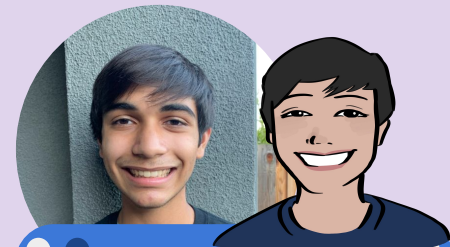
Writes his way to victory!



JEREMY SEVILLA

Driver

He knows that it's all about drive and power!



SID MATHUR

Builder

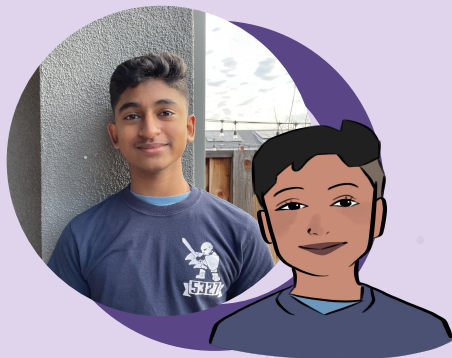
He intakes any ideas and puts them to work!

The Boys That

balance

Our Team

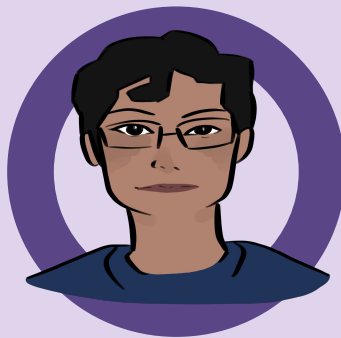
These are three of our new interns, who just joined the team!



Vishwa Paruchuri

Intern

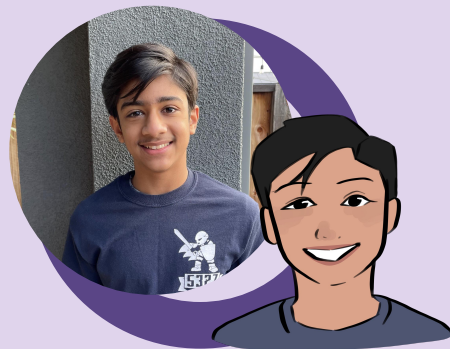
CADs his way into the
competition!



Abhi Paranthanate

Intern

Has a passion for building!



Atiksh Paul

Intern

Wants to get into
programming and building!

A group of diverse students, including young men and women of various ethnicities, are standing outdoors in front of a building and a car. They are wearing face masks and holding papers. The image has a purple overlay. The text "Elevating" is written in a large, white, cursive font, and "Our Team through Diversity" is written in a smaller, white, sans-serif font below it.

"Elevating"

Our Team through Diversity

When it comes to VEX Robotics and designing a robot, we know that **there is no single correct approach**. That is precisely why we value the diversity of our team members, because we know that **with diversity of background and character comes diversity of thought** – different perspectives on how to solve the same problem. We don't just have girls and boys of all ethnicities on our team, we have dancers, we have basketball players, and we have members who volunteer at wildlife centers. Despite our differences, what brings us all together is our passion for robotics. In fact, **our differences are an incredible aid to our team dynamic and how we approach challenges**. As a team, we are very tightly knit and we enjoy each other's company, whether it be playing Super Smash Bros Brawl after competitions together or snacking outside during meetings. The varying levels of experience in robotics that our team members have allow us to look at a challenge and synthesize all our different approaches into one solution, **incorporating both the experience of older members with the fresh perspective of newer ones**.



The Role Models Who

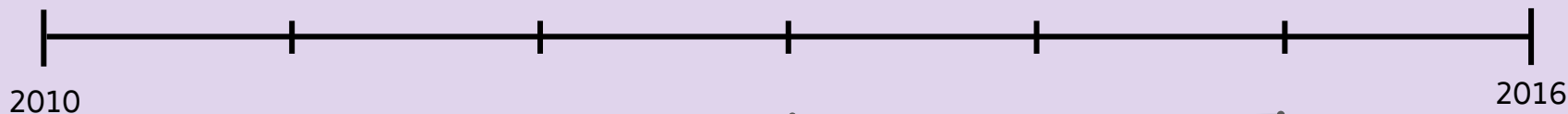
drive

Us Forward



Ms. Eugene Chou
Club Advisor
2010 - 2016

Ms. Chou, an engineering teacher at Dublin High, has always served as **a tremendous inspiration to the girls in our club**. In 2010, she was the teacher who helped Lizz Chi and the other founding members start Gael Force Robotics, and **led as the club advisor for 6 years**, always making an effort to encourage girls to pursue robotics, as well as other STEM interests outside of the club. Although she is no longer our club advisor, she continues to be a wonderful resource for all of our members as **she co-leads our school's engineering academy**.



Lizz Chi
Founding Member, Captain of 5327B
2010 - 2013

Kana Mishra
Captain of 5327B
2013 - 2015



Niha Suravarjjala
Public Relations & Event
Director, Club President
2019 - 2021

Niha was the **second-ever female president of Gael Force Robotics**, directing events and guiding our club through the first year of the COVID19 Pandemic. She **continues to be a strong role model for the girls in GFR, supporting us and inspiring us.**



Karen Zhou & Adyah Rastogi - Captains of 5327Z & 5327C

Christy Koh

Captain of 5327C, Club President
2017 - 2019

Christy was a part of GFR in all four years of high school, becoming a **captain** in her junior year and becoming **our very first female president** in 2018. Her hard work and dedication has **inspired the next generation of female leaders in our club** to reach for new heights.



Mrs. Shalini Suravarjjala

Club Advisor
2020 - Present

Mrs. Suravarjjala has played a central role in **helping our club navigate the changes of the pandemic** for the past two years. Knowing how tough it can be, she always **pushes our female captains and officers to do their best as leaders.**



Empowering girls in STEM

To increase and **promote female involvement** in robotics, we took advantage of Gael Force Robotics' intern system. For the second semester of the school year, we invited Krisha from the Development Team to participate in our meetings and tournaments, so that she can **gain more experience** building, documenting, and programming in a **welcoming environment**. We always keep an eye out for girls joining our club's development team, so that we can recruit them onto our team! More members have shown interest in robotics and the engineering academy at Dublin High School, but for many girls, STEM environments still seem intimidating and unwelcoming. To reduce this fear, we aim to involve more girls on the team, no matter their experience level, so that we can **do our part in empowering girls by pushing female participation in competitive robotics environments past its tipping point!**



Works Cited/Credits

“The STEM Gap: Women and Girls in Science, Technology, Engineering and Mathematics.”

AAUW, 2 Dec. 2021, www.aauw.org/resources/research/the-stem-gap/.

Artwork by Jeia So

Team 5327S: “Girl Powered”

Elizabeth Koh • Jeia So • Samiksha Krishnamurthy • Krisha Soneji •

Edison Chan • Anit Annadi • Sid Mathur • Jeremy Sevilla • Vishwa

Paruchuri • Atiksh Paul • Abhi Paranthanate

