# Girl Powered

"Building Bridges Between Gender Gaps"

— Team 55885X —

# Our Story

Our story begins last year, when we launched a new VEX Robotics club at our school. We initially began with one team, then split off into three as our club grew. However, there was only one girl among a dozen boys at our debut. As we recruited more students, we made an effort to reach out to girls and now our club has over 30 members with about 10 of them being girls. Even now, we are still striving to recruit more girls in hopes of gaining of equal participation of girls and boys one day.

Even though we only started last year, we made tremendous progress in a very short amount of time. By the State Competition in February 2020, we were able to take not one, but two of our teams to qualify for Worlds by leading amongst over 30 other teams.

Due to an increase of members this year, we split up into 4 teams: X, S, Y, and K. This is the story of team X, where we show how we believe female participation is important and powerful not only in VEX Robotics, but also in the coding, engineering, and STEM field in general.

# Our Team

55885X

# Alyssa Yoon

## The trailblazer behind Girl Power

The phrase “Girl Powered” speaks a lot to me, especially being the only girl on Team X. I am currently a senior and this is my second year in VEX Robotics. I have continuously seen the lack of females in the STEM field throughout my life, and girls are definitely an underrepresented group in STEM at our school. However, I have never let this gender difference to create a barrier between me and my passion for STEM. Instead, it pushes me to work harder to show that girls can be just as passionate and capable in STEM as boys are.

Last year when our school launched their robotics club, I was naturally interested in joining. Although I was very unfamiliar with robotics, it’s something I’ve always wanted to try and learn about. At first, since as I was the only girl on the team, it was slightly intimidating. However, after talking to some other team members about what I was interested in doing at VEX, I felt welcomed and included. Growing from small interactions to productive conversations, I eased comfortably with the team and was able to make memorable experiences.

# Alyssa Yoon

Joining the robotics club has turned out to be one of the best decisions of my life. It has enabled me to get hands on experience in engineering and grow important skills such as planning, consensus building, and marketing that I will use throughout my life. I have even went on news as a representative for our team! I've had lots of fun with my team and I'm really looking forward to the rest of this year.

I am also one of the founding members of our school's Girls Who Code Chapter, which has provided the much-needed community and empowerment for high school girls pursuing coding. I implement the principles of the Girls Who Code club into our robotics club, hoping to encourage other girls to expand their domain.

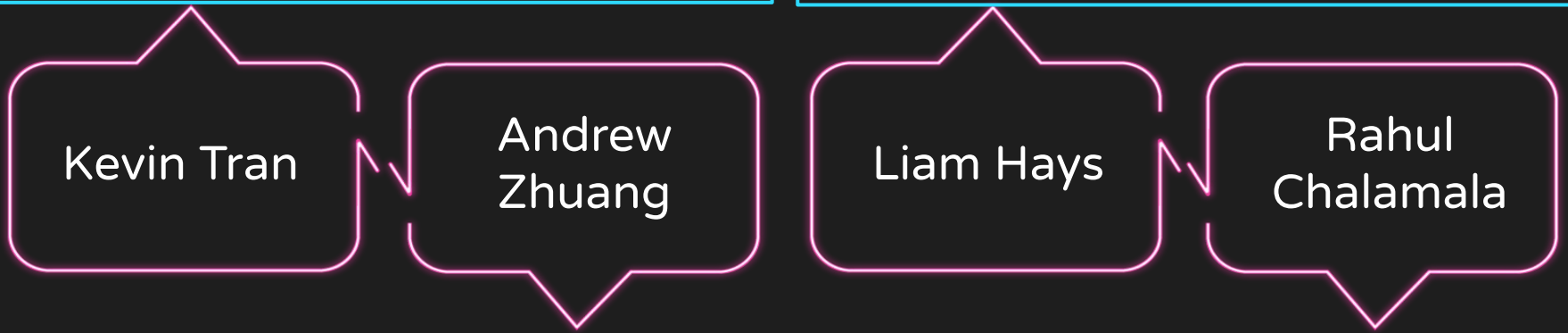
My role in VEX has mainly been building and writing notebook entries. Last year with the 4-bar, I worked on the base as well as the lift. This year I have worked on the intakes and the hood. I love working with my team and I have learned so much. It's really cool to see the robot that we built from scratch perform with other robots at competitions. Not only did this club introduce me to engineering, but it also showed me my drive to create and design things. I envision that one day, I can develop new technology that will benefit others. As I move on to college, I plan to major in mechanical engineering. I honestly might not have considered this career if it wasn't for VEX robotics.

# Other Team Members

We believe it's important to have a strong connection between girls and boys. Here are some of our other members.

Kevin is the club president of our robotics program. He is a senior and the lead builder for our team. He organizes tasks and makes sure things get done. Kevin mainly works on building the robot.

Liam is a freshman and this is his first year in the club. He joined robotics because he is interested in computers and hardware, and he felt like robotics is a place where he could share his interests and meet new people.

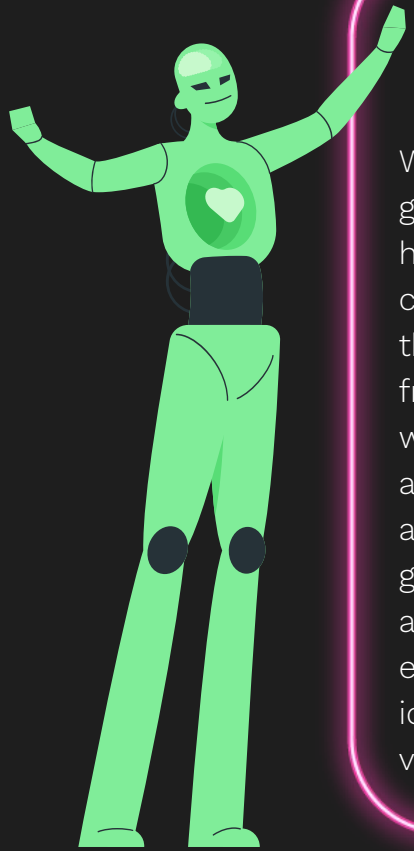



Andrew is our notebook lead for Team X. He is a senior and also works on building the robot. He has made improvements to our intakes, and he has written many entries to our notebook.

Rahul is a junior and he is the programming lead for Team X. He has worked on the code behind our robot, along with Liam.

# Empowerment

What Girl Powered
means to us



# Girl Powered is about inclusion and empowerment

When we think of ‘Girl Power’ and the empowerment of women in general, we think of equality. To us, women empowerment is the ability to have the same opportunities as men and the freedom to make our own choices without any restraint or judgment. Girl Power has a lot to do with the rejection of patriarchy and systematic female oppression resulting from toxic masculinity and generational stereotypes. Being confident is what makes girls feel powerful. The ability to share your ideas confidently and have people take you seriously is very valuable. In the setting of VEX and STEM, girl power is even more meaningful. It is so beneficial to have girls that can lift each other up and feel empowered in a male-dominated area. Girls have so much potential in the world of robotics/STEM and everyone needs to realize that. Our team actively supports girls and these ideas of women empowerment. We embrace equality and unity and the values that come along with it.

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# Diversity

How we strive to create an inclusive and supporting place for girls

# Building bridges between gender gaps

## Why it's important to us

An inclusive environment is very important to us as we want everyone to feel like they are involved. Building bridges between gender gaps will inspire the next generation of female engineers and coders to eagerly step into a male-dominated field. A lot of times in STEM fields, women will get imposter syndrome, where they feel like they don't belong. Ultimately, we want to alleviate feelings of imposter syndrome in our teams.

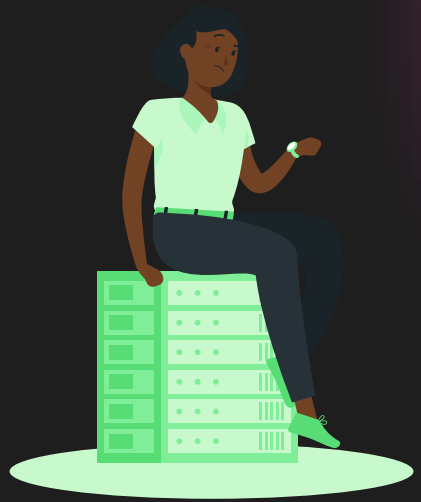
## How we implement diversity

VEX is a great learning experience for everyone and we encourage anyone who's interested in joining to try it out. Our team supports diversity and accepts all genders and races. To us, it doesn't matter who you are, just as long as you're interested in robotics. Some of our robotics members are even involved in a club at our school called Girls Who Code, which is all about supporting girls in STEM.

## How it benefits us

A lot of our achievements come from working as a team and being united. We definitely wouldn't be where we are without the practice of having diversity in our teams. We strongly believe our team wouldn't be as successful as we are if we weren't open-minded. Girls make up half of the population, and having girls is very valuable and beneficial to the team because it allows a whole different perspective that cannot be achieved without girls.

# 03



## Teamwork

Why collaboration is the most important part of our success

# Teamwork makes the dream work


Cooperation is key in VEX. Our team works together on everything; it's a very collaborative effort. Since we have such a large number of people in our club, we divide ourselves up so that everyone gets to do something. Our team is organized into 2 main categories: building and coding. Other roles include drivers, notebook, photographer, and financer. Some people have multiple roles and we have various captains. It's very flexible to move around roles and experiment with new things. When working on robots, we brainstorm and bounce ideas off each other; it's very important to communicate with the people around you. At competitions, our team has everyone on the team to have a shot at spotting. After competitions, we go over what went wrong and spend the next few weeks revising and improving for the next competition. Without the power of collaboration, our team would not have been able win our State Competition!

# My STEM Role Model

— YOLANDA LOZANO —

VEX Robotics Coach
Girls Who Code Coach
Cyberpatriots Coach

AP CSA, AP CS Principles and Introduction to Robotics Teacher

Our team supervisor is Mrs. Lozano, the computer science teacher at our school and a CMU graduate. It's really encouraging to have a female role model to look up to and talk with. She definitely tries to make VEX as inclusive as possible and encourages her students to join. She is also the sponsor for our schools Girls Who Code Club, which is all about promoting a supportive environment to girls interested in coding.

# Credits!

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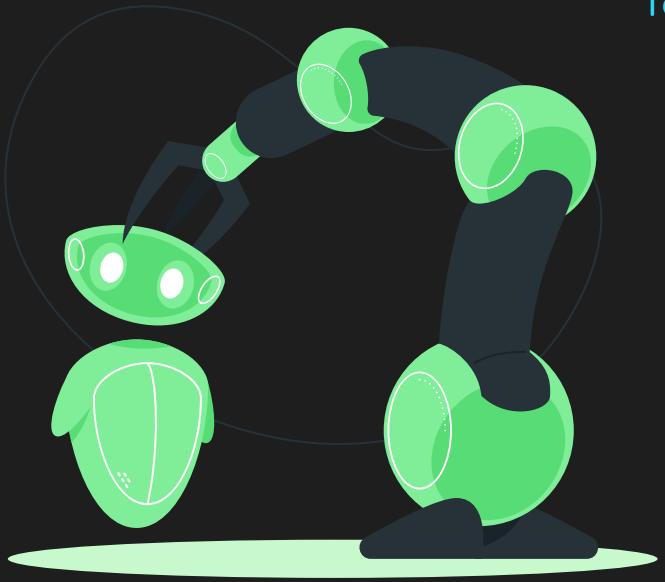

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