



Reach for the Stars!

Team 45864Z, Asteria

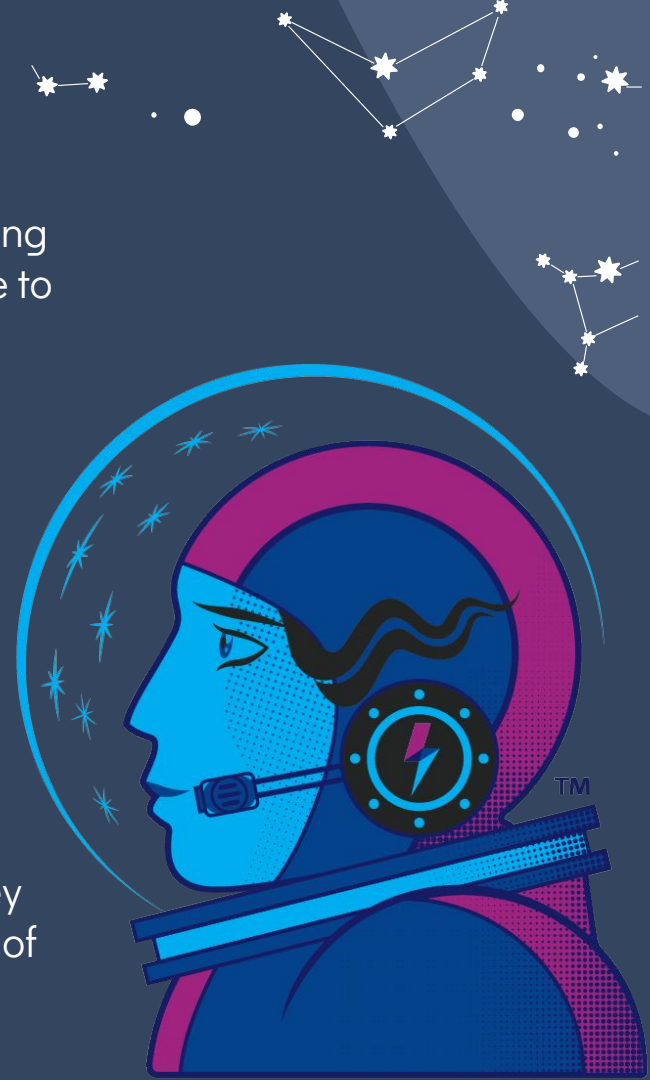
By Bhavya, Aarohi, Perlyn, Saanvi, and Ariana
from Milpitas, California

Our approach with Girl⚡Powered.

Asteria is a student-centered girls team from California, consisting of five members. The Girl Powered objective is one we can relate to personally as students aspiring for opportunities in a male-dominated STEM environment. Robotics is a passion for each and every one of us, so we enjoy sharing that with passion with others as well.

Upon hearing the phrase, “Girl Powered”, the words that come to mind are “bringing together girls to make a difference in this world, breaking past the barriers, and reaching for our goals.”

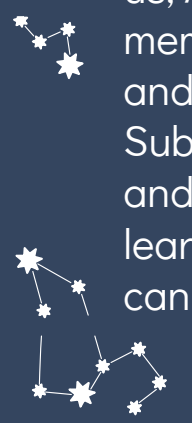
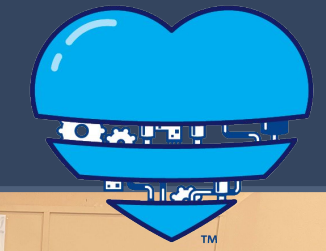
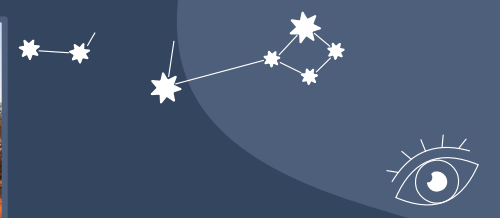
Barriers surround us, whether realized or not. Our hope is that by inspiring those around us to reach for the stars, they can tear down the barriers and reach an endless universe of possibility.



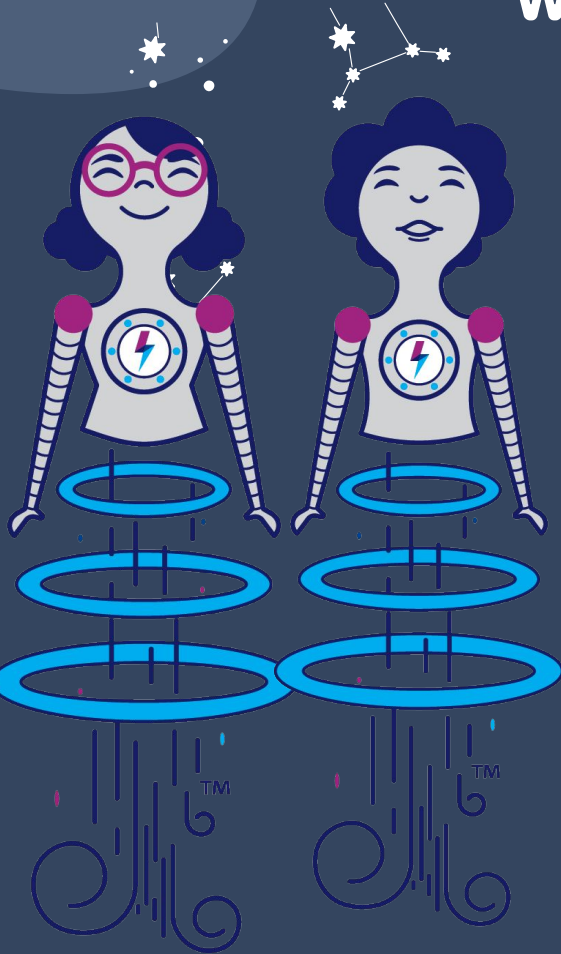
Our Team

We are Team 45864Z, Asteria. This team has been participating in VEX IQ for 8 years, and is based in the Santa Clara County area in California. Though over the years, our teams have changed quite a bit, we have always been a diverse group of people.

Our current team consists of 5 members. Two of us, Aarohi and Bhavya, are more experienced members, and the other three, Perlyn, Saanvi, and Ariana, are newer to robotics. Subsequently, alongside designing, building, and programming our robot for the season, we learn about different aspects of robotics, and can keep trying what we are interested in.



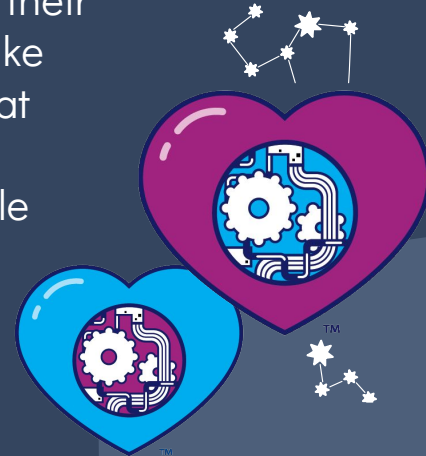
What Girl Powered Means to Us



One key aspect of being a women in STEM is the feeling of being out of place, not fitting in, or feeling "fake", and doubting one's competence and abilities when we are made to feel as though we do not belong in male-dominated fields or activities. Many of our team members are directly affected by these barriers put up around us, and likely will be for years to come. But we can change things.

A major part of remedying this is coming together and supporting those around us to help them build their confidence, since nobody should have to feel like an outcast doing what they love. We believe that everyone should be welcome to pursue their interests without judgement and be comfortable with themselves.

By creating a more accepting environment for women in STEM, we can pave the way for a future where a young girl's accomplishments can be recognized.



Girl Powered Workshop



This summer, three of our team members had the amazing experience of volunteering at the 2022 Girl Powered Workshop, sponsored by Google. Seeing the young girls there get excited and spark a passion for robotics was a great reminder of the impact that Girl Powered and the ideas that come with it have.



It truly solidified that we, the girls excited about robotics today, are going to bring change to the STEM field and the world as a whole tomorrow, and soar to our fullest potential.



Girl Powered.

Our experience
volunteering at the
2022 Girl Powered
Workshop Sponsored
by Google.



Past years' teams



Inclusivity

An inclusive environment allows every type of person, despite their experience level or background, to have opportunity. In the past, this quality of our teams has attracted people of many different backgrounds, and we have always had $\geq 50\%$ girls on our team.

As a team, we strive to ensure every individual is valued and respected.

One way we achieve this is by making sure each person is able to connect with the other members. Teamwork is a major focus of ours because of its importance. in most fields, especially ones regarding STEM.



Team Roles

Our team of five members doesn't divide jobs according to certain roles, because everyone is learning how to design, build, program, and drive the robot at once. That creates the ultimate experience that everyone should get in robotics. Tournaments have been an amazing way for the newer members to learn more about how there may be larger changes along the way and they can take charge.

Alongside this, we also learn how to work as a team, delegate tasks, deal with failure, and practice more integral skills for adult life through VEX.

To make sure everyone gets to try all parts of robotics, we create agendas to help organize practices. Then, members continue to do what they are interested in on the team.



Aarohi 09/15/2022 8:00 PM

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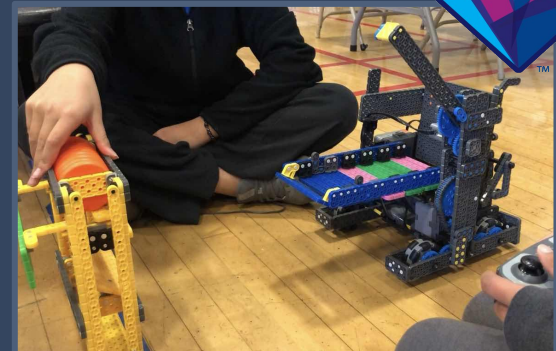
— Ariana and Aarohi work on transferring the disc from the intake to the transport on the second robot

— Saanvi builds a funnel for our second robot

— Perlyn works on the thing for the blue dispenser on first robot

— Bob connects shooter to a motor on the second robot

Note: these needed to be completed on Friday in order for us to stay on task according to a schedule that's been set so we can be ready for upcoming tournaments (edited)



Welcoming New Perspectives



Every person is unique. In Ayn Rand's book "Anthem", a society is created where all humans are equal, and any difference is seen as a curse. It highlights the significance of having a voice in a collective. Just as this book shows the importance of each individual, our team does our best to include every member and bring out their strengths. Each team member makes sure that all ideas are considered and everyone is allowed a chance to let their creativity shine, in whatever way they prefer.

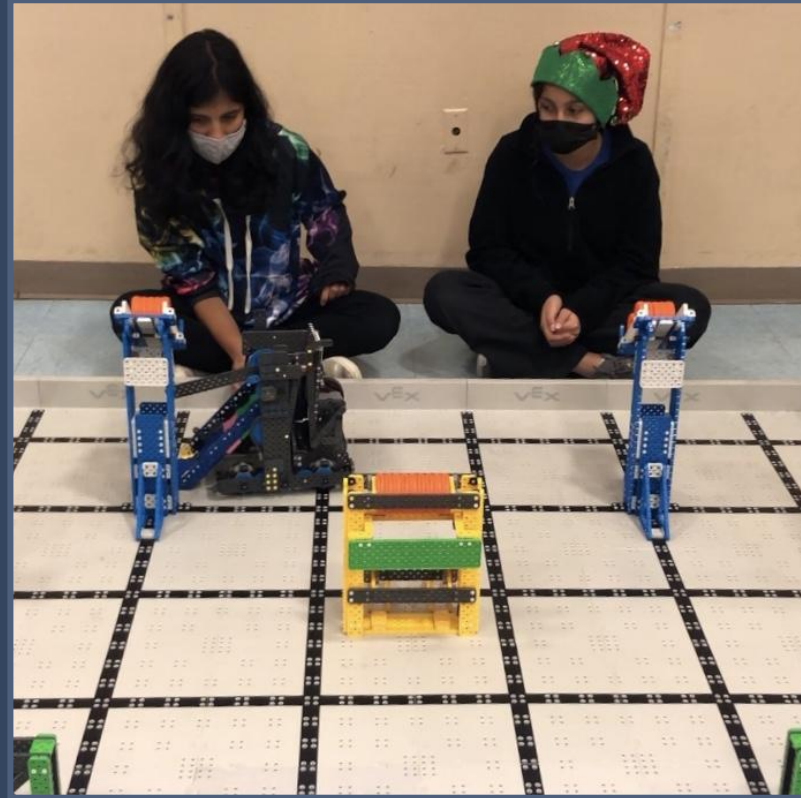
Everyone doesn't have to agree with an idea they don't like, but we do our best to listen to others and collaborate. As our team has begun practicing more, we realized that everyone has different thinking styles, and this prompted us to be more open-minded. For example, some members think of more creative, out of the way ideas, which though they may not be viable, inspire others' ideas to reach another solution for our robot.

Our Start to this Challenge

In the beginning of this season, we introduced two brand-new members to the team. They joined without much experience with Vex Robotics, so we first focused on teaching them, and making sure they felt like a part of the team whose ideas would be appreciated.

We encourage the newer members to ask questions about any misunderstandings, concepts they want to look into, and their interests.

Our inventive designs have won us multiple awards, primarily the Judges and Design award, because the creative work from the viewpoints of each member can also shine through an interview process.



Our STEM Role Model

Annie Easley

(1933-2011)

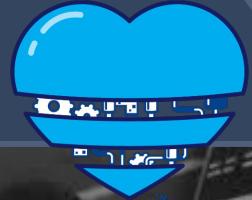
“Annie Easley was an American
computer scientist, mathematician,
and rocket scientist”

Her Accomplishments

Annie Easley was a determined, barrier breaking, and strong woman, defined not just by her achievements, but her nurturing and hard-working attitude.

She was the fourth ever African American at the NACA, now called NASA, and one of the first computer scientists as well. In her career as a mathematician, computer scientist, and rocket scientist, she was originally a calculator, and went on to program the computer software for NASA's Centaur, a high-energy rocket. Today, her work still affects us, as the applications she made have contributed to alternative power technology, like that of hybrid vehicles.

Her work throughout her life as an engineer as well as an activist has been influential to our lives today in a variety of ways.



Women in Tech: Changing the World

Annie Easley is one of many important women in STEM, and the impact she had on those around her throughout her life makes her a great role model. She was one of the first and few African American women who worked at NASA, and is still a influence for girls generations after her time.



“I just have my own attitude. I’m out here to get the job done, and I knew I had the ability to do it, and that’s where my focus was.” - Annie Easley

Her confidence is inspiring to us and hundreds of other young girls, especially girls of color. We recognize confidence as an important aspect for success in many women’s future, as it allows us to tear down the walls of stereotypes and know that we can accomplish anything. As stated in a NASA article, “Easley was a champion of employee morale.” She advocated for and encouraged female students to work in STEM careers, showing the idea of supporting others that we try to emulate.



True Potential Is Only Hidden

Girl Power is something that women have always been advocating for, and it reaches far beyond robotics. Empowering women to speak out and show the world their capabilities is an important prospect; something we aim to help bring to life through this passion of ours.

The field of STEM is our future, and has the potential to change so many lives, which is why we have to make sure it is a safe community for 50% of our world's population: women. Disabled women, women of color, underprivileged women, ALL women. To make girls all across robotics more comfortable with themselves and their interests is ultimately the goal of Girl Powered.

With the tool of empowerment, we have the power to change the world, break barriers that have been set for us, and reach new heights no one has ever dreamed of, as girls.

Girl  Powered[®]



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<https://www.nasa.gov/feature/annie-easley-computer-scientist>

Women in Science written and illustrated by Rachel Ignatofsky

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