

• RIT
• Rochester, NY

GIRL POWER

The RIT VEX Robotics Girl-Powered Initiative

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WHO WE ARE

and how we are girl powered!

01



WE ARE RIT VEX ROBOTICS!

We are a dedicated group of students at RIT who work to design, build, and program robots for the VexU competition. Our club also:

- Hosts VRC and VexU competitions
- Organizes outreach events, such as mentoring a local high school VRC team and presenting our robots and club to RIT students and their families.
- Demonstrates our robot at Imagine RIT, a Creativity and Innovation Festival to showcase the projects of RIT students and faculty to the general public



The Number of Girls in Our Program Has Continued to Increase Since the Club Was Founded in 2011.



34%

of undergraduate students
at RIT are women

50%

of our VexU team are
women



19%

of STEM graduates are
women

WHAT GIRL-POWERED MEANS TO US



DIVERSITY

A group of people with different backgrounds, experiences, and ideas who come together to build a robot.



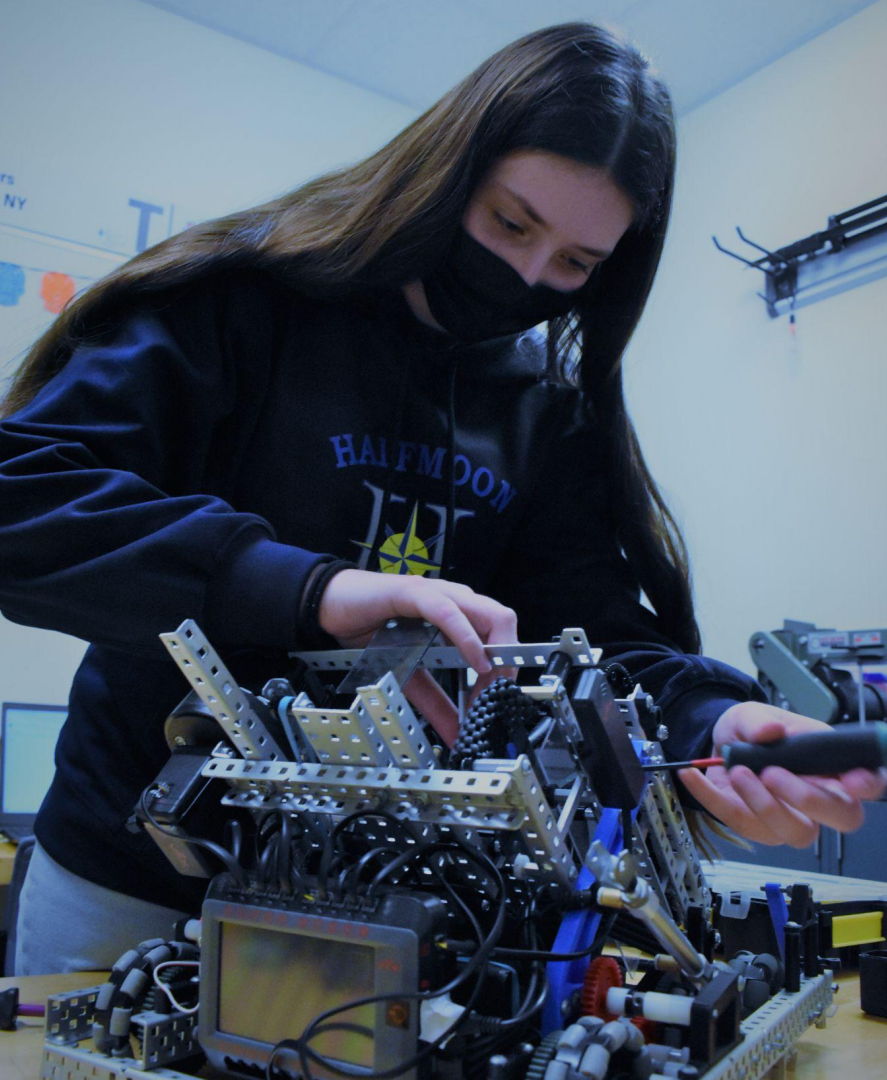
INCLUSION

Many different roles and responsibilities allow for people of different disciplines to work together regardless of gender.



SUPPORT

Teaching new members all about robotics and providing hands on experiences gives them important skills for their future careers.



OUR APPROACH

to incorporating diversity, inclusion,
and support into robotics

02

OVERVIEW

DIVERSITY

We strive to create a welcoming environment where everyone's voices are heard and any idea is welcome.




SUPPORT

We support women in STEM by teaching a variety of skills that are not only useful in robotics, but are valuable in the workforce as well.



INCLUSION

With many different roles on the team, we work to make sure everyone can participate and learn about anything they are interested in.



“Even though I was a programmer for FRC in high school, and did not know much about hardware, everyone was very welcoming and I learned everything from how to cut C channel on the bandsaw to altering the G code of the 3D printers.”

-ALLISON

TAKING INITIATIVE

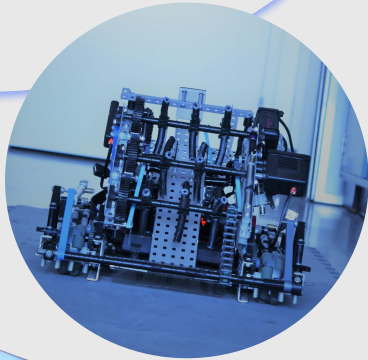
Our club does a lot of outreach to new RIT students every year. We hold information sessions over the summer, and during orientation week. Also during orientation, we hold an obstacle course where we introduce our team and let first year students try out driving the robot. We also host a table at RIT's Club Fair, where students can scout out clubs that they might be interested in and talk to current club members. Each year, our club recruits students from many different majors and with many different robotics backgrounds.

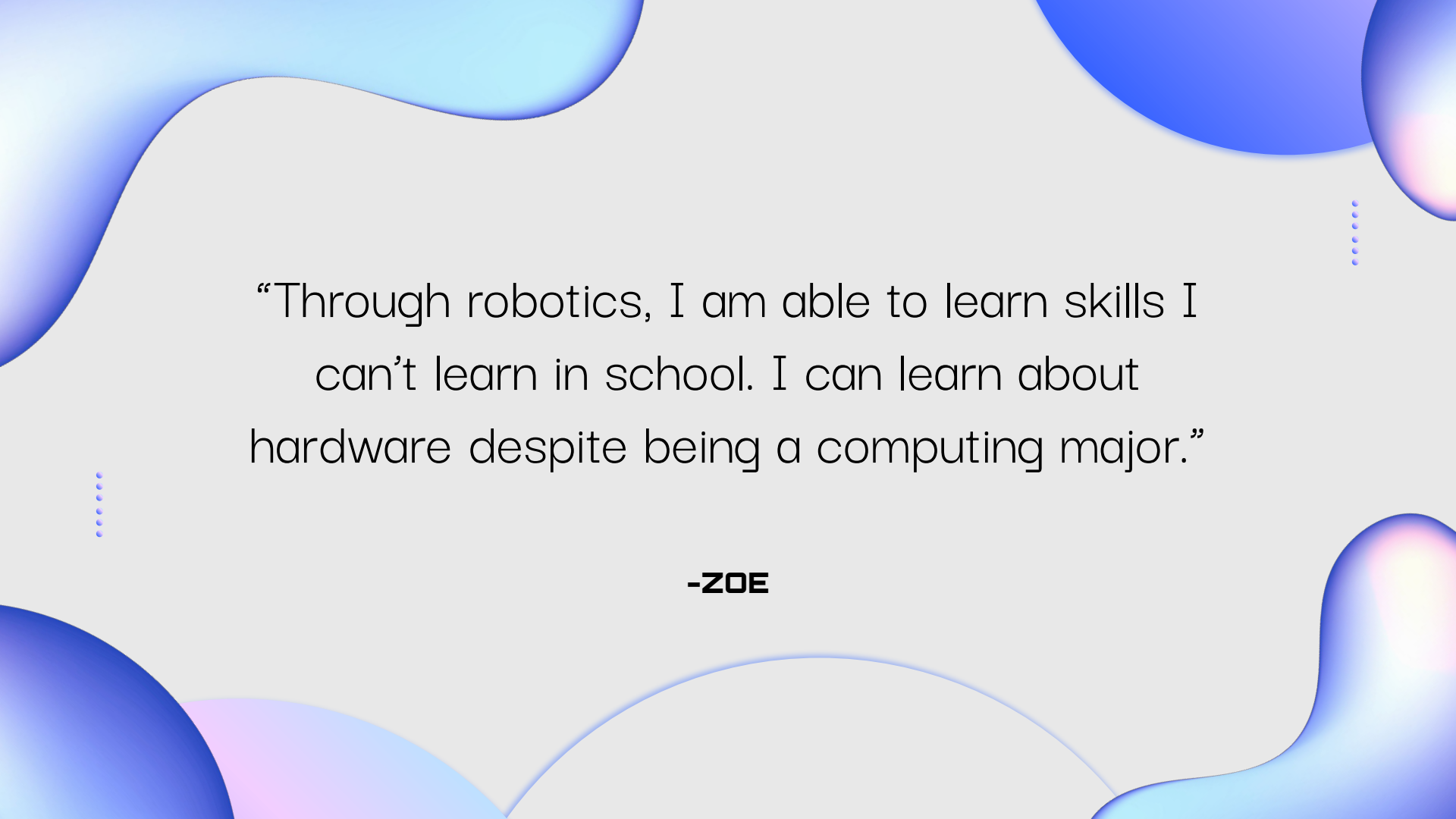




ROLES

On the team, there are many different roles. Anyone can learn about any role they are interested in, and team members are encouraged to learn as much as they can. We learn anything and everything, including programming, testing, troubleshooting, assembly, fabrication, CAD, 3D printing, strategy, notebooking, and more. On top of hardware and software, students on the team can also be involved in the logistics of the club, which includes finances, event management, travel planning, and outreach.





“Through robotics, I am able to learn skills I
can’t learn in school. I can learn about
hardware despite being a computing major.”

-ZOE

DIVERSITY OF PERSPECTIVE

DESIGNS

Having multiple people working on the robot leads to a lot of cool ideas and designs. We also are able to redesign our custom parts so that they are the perfect fit on our robot.

FAMILY

Even with our different backgrounds, we have all become good friends through robotics, and often will hang out outside of robotics, such as when the team went bowling together.

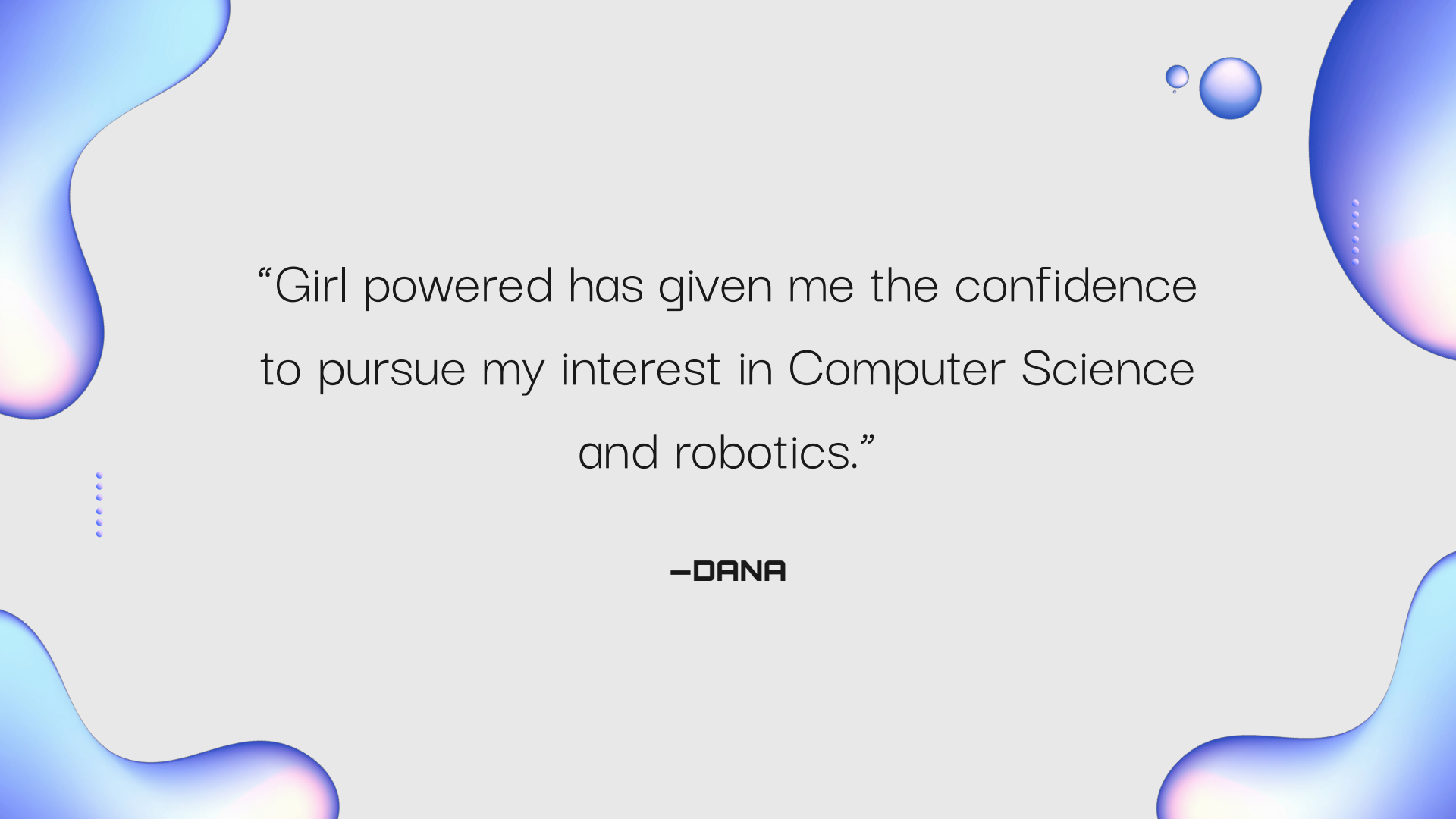
DEBUGGING

With different perspectives, we have more minds for troubleshooting any problems that arise while testing the robot.

SUCCESS

Having people with lots of different perspectives and robotics backgrounds helps us to design, build, and program the best robot possible for each year's game.



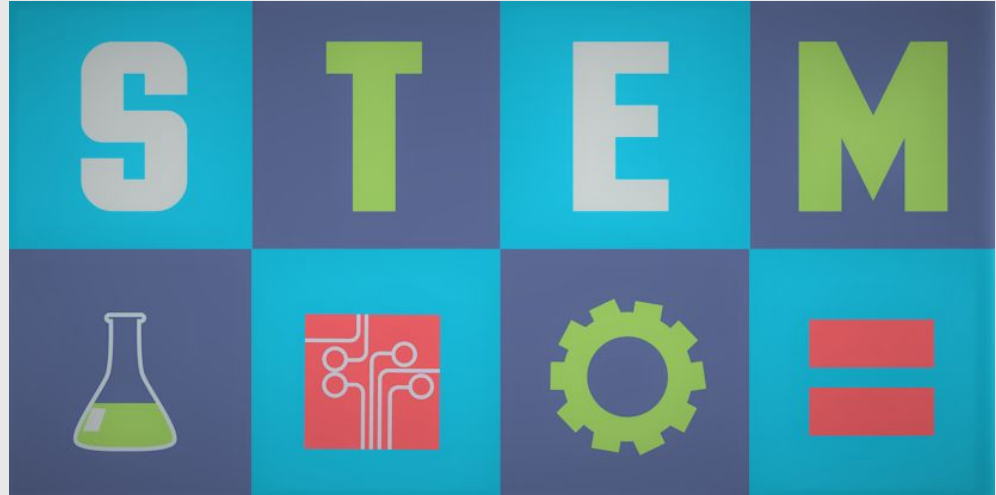


“Girl powered has given me the confidence
to pursue my interest in Computer Science
and robotics.”

—DANA

OUR ROLE MODEL

and how she inspires us!



03

GRACE HOPPER

Grace Hopper is known as one of the world's first ever programmers. With a master's degree and Ph.D. in mathematics, she invented the first computer compiler, and co-developed the computer language COBOL. Hopper was also the first to use the terms "bug" and "debugging" in relation to computers and programming. Hopper had many career accomplishments, including working for the US Navy, researching at Harvard and teaching students about computer programming.

Grace Hopper paved the way for modern computer science, and her work inspires us to be innovative and look for out-of-the-box solutions to any problems we encounter.



"The most dangerous phrase in the language is, 'We've always done it this way.'"

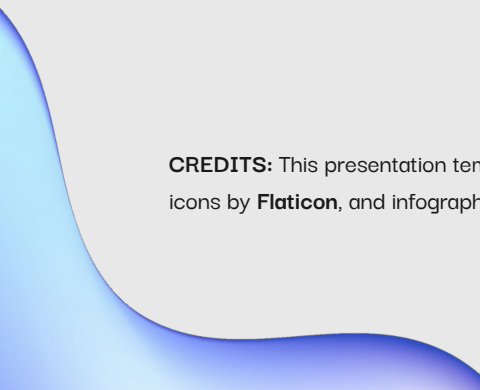
Grace Hopper



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