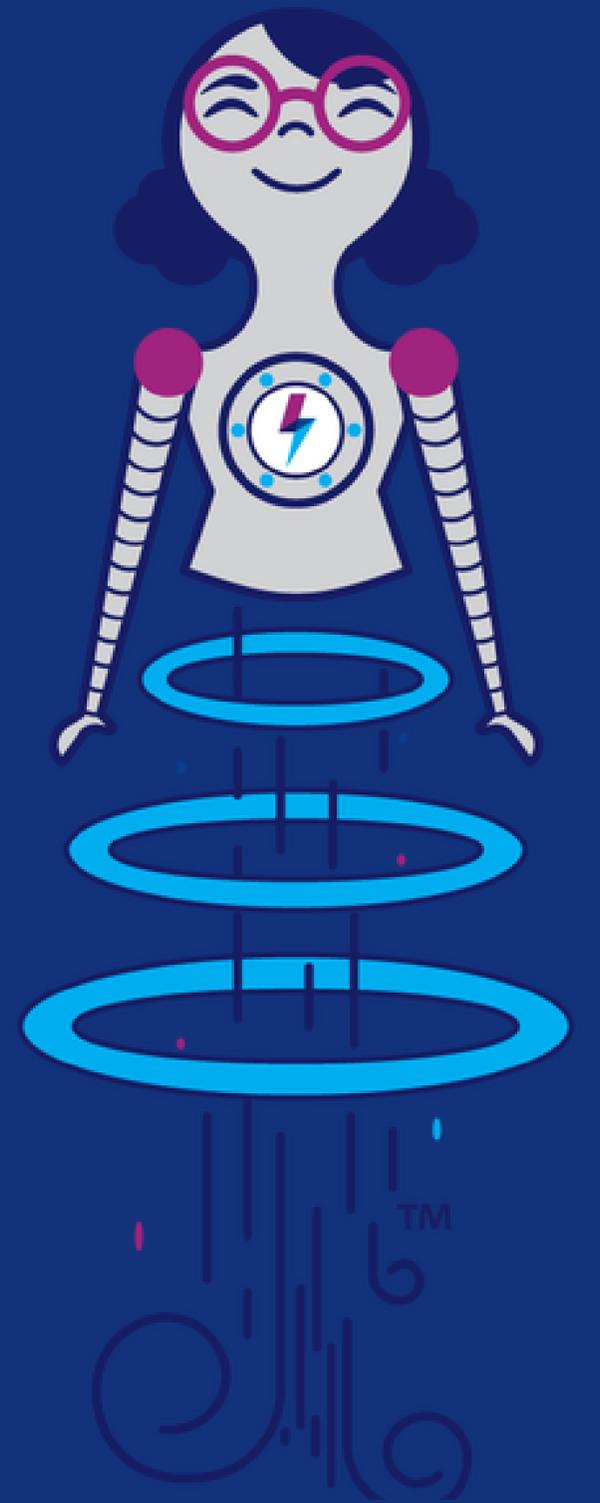


**GIRL POWERED TIP:**

**CHANGE IT**

**UP**

**PRESENTED BY**  
**ROBOTICS TEAM 2602 BEAST**



**Girl** ⚡ **Powered**®

# ROLLIN' INTO THE SEASON



Cindy, Sidhi, and Kenneth working on the robot outside during COVID.

The lack of females in STEM is a known problem. In VEX only **23%** of the participants are **female**. Our team was formed with the goal of having both **males and females**. We have two boys and five girls who are all **passionate** about **Girl Power!**

# Girl Powered.

[G(reat) I(nnovative) + R(evolutionary)  
L(egendary) S(mart)]

Girl powered means supporting others in our community. With a number of our team members being female, we understand what it feels like to be the only girl in the room. We don't want others to feel this way, so we welcome everyone into the STEM community.

Girl power is also having confidence, and we embody this by pushing others out of their comfort zone in a supportive environment. This way more people especially girls can go to their full potential.

No matter what aspect of robotics, from building to documenting, or experience level you have, there is a place for everyone on our team.



# THE PEOPLE BEHIND IT ALL



Tanisha Rajgor

Tanisha is a junior and this is her **third year** in robotics. Being one of the **co-captains** and **main programmer** of the team, she helps get our newer members accustomed with the **C++ language**. In addition, she is an avid leader in **Computer Science**.



Gurleen Kaur

Gurleen is a junior, and this is her second year in robotics. She is a **co-captain** and is a **programmer** and **documenter**. Aiding in team organization and robot design she makes sure everyone has a role.



Hemankit Vallurupalli

Hemankit is a junior, and this is his **third year** in VEX robotics, and he also did VEX IQ in middle school. He is a **builder** and **documenter**. Hemankit is a competitive swimmer and also likes playing clarinet.

Sidhi is a freshman and this is her **third year** in robotics. She is a **builder** and **programmer**, and is also getting more involved in documenting and driving. Sidhi has two certificates authorized by the University of Michigan in Python.

Sidhi Dhanda



Kenneth Wan

Kenneth is a **junior**, and this is his **third year** of VEX robotics with four years of experience total. He is the **primary builder** and **driver** on the team. He also takes part in track and field.



Cindy Yang

Cindy is a junior, and this is her **first year** in High School VEX. She is **main documenter, designer,** and is **learning** how to **program** and **build**. Cindy is a talented drawer with several awards.



Emily Kimball

Emily is a freshman, and this is her **first year** in robotics. She is a **scout** and **documenter** but she is also **learning building** and **programming** roles. She is currently working on her Gold Award for Girl scouts.

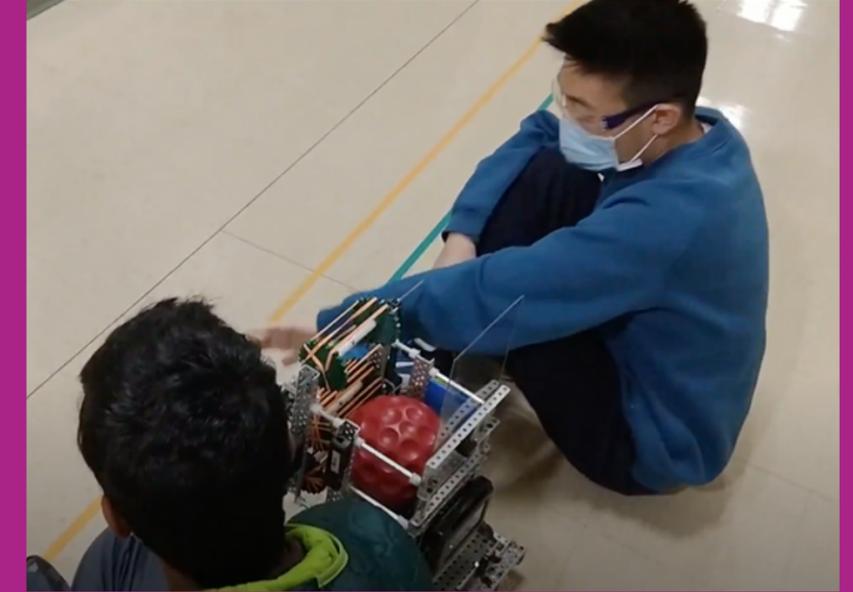
Each member brings a **diverse** set of skills to our team!



**Sidhi using a drill for the first time. After, Kenny taught her how.**



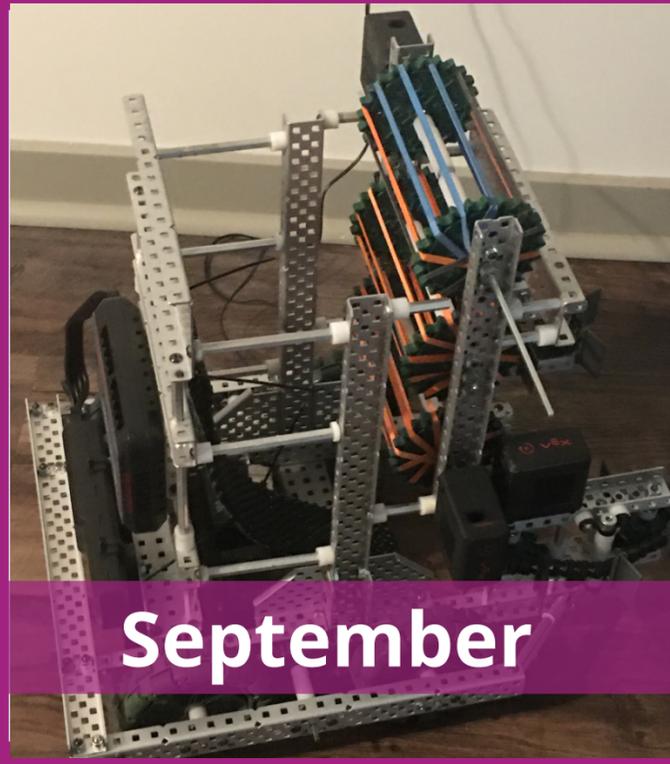
**Cindy and Sidhi working on the robot outdoors for better social distancing.**



**Kenneth and Hemankit explaining the robot design during interview.**

Kenny and Hemankit are **experienced builders** and have been teaching Cindy, Emily, and Sidhi about designing and building robots. Gurleen and Tanisha are **skilled coders** and are **sharing their knowledge**. We have been getting closer as team, leading to more efficiency and success.

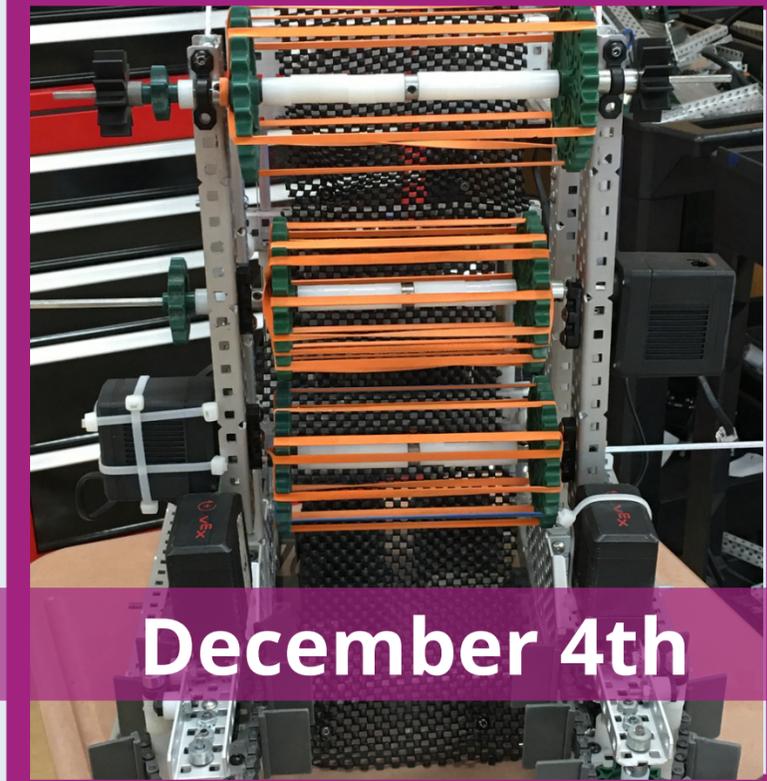
# OUR EVOLUTION



September



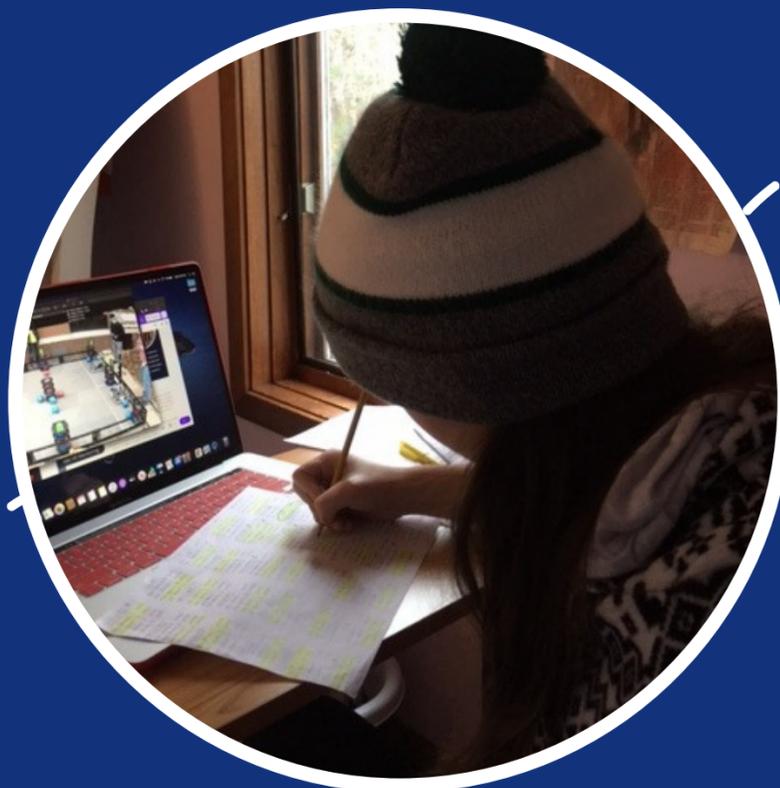
November 5th



December 4th

Each member has strengths and weaknesses, but all of our various backgrounds and talents allows us to observe from different perspectives. Working together, we can conquer any challenge!

# "CHANGING UP" THE COMPETITION



Emily **scouting** from home. We have a live stream of competitions since only two can physically attend per team.



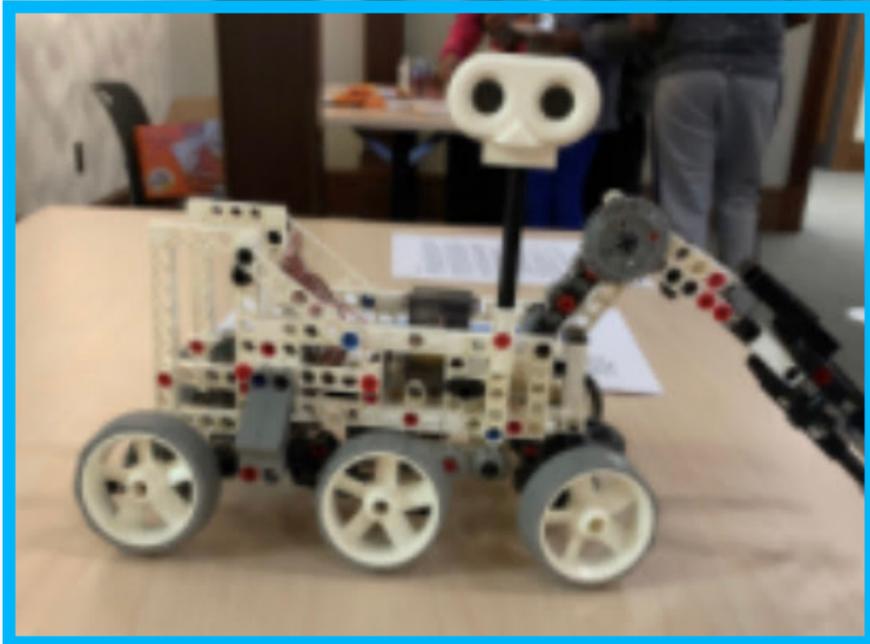
## Outdoor Competition

Our program is running **tournaments!** We run our competitions outdoors, so there is better **ventilation** and **social distancing**. We have already had two tournaments, and we have two more scheduled.



When thinking of the phrase "Girl Power" **collaborative team dynamics** and **diversity** come to mind. These methods led us to win the **Judges Award** in our first tournament!

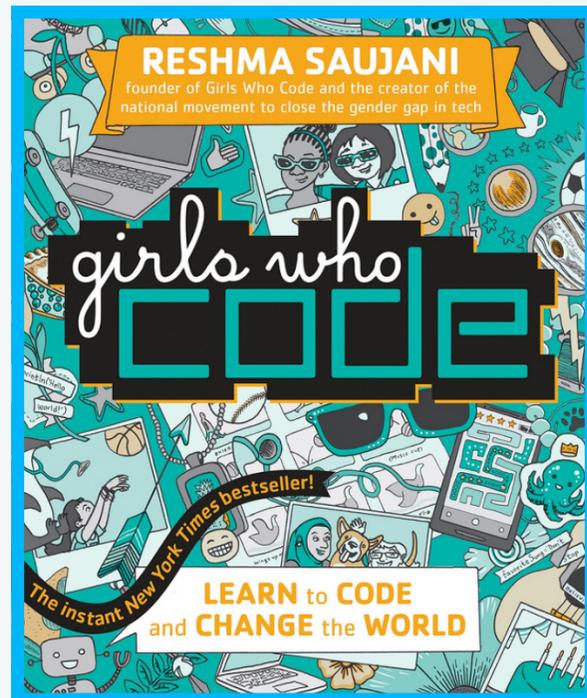
# GIRLS WHO CODE



```
#single quote
mystring = 'Girl'
print(mystring)

#double quote
mystring = "Powered!"
print(mystring)

Girl
Powered!
```



We are exposing fellow middle school **girls** to **Computer Science** in an engaging and informative environment—spreading the message of **girl empowerment** in our community. Girls must be given the opportunity to experience **STEM** because they bring unique **perspectives** and **skills**! Without female contribution in the field, the STEM community can not reach its full **potential**.



Even though the program is held **virtually**, that doesn't stop the girls from being able to **collaborate** and come up with **solutions** to major world issues using their newfound **technology skills**.

Women in Tech Spotlights are another part of Girls Who Code, giving **insight** into the **many** ways that inspirational women have **contributed in STEM** to help our society.



**LET'S CHANGE THE WORLD  
TOGETHER!**

# Girls Who Code

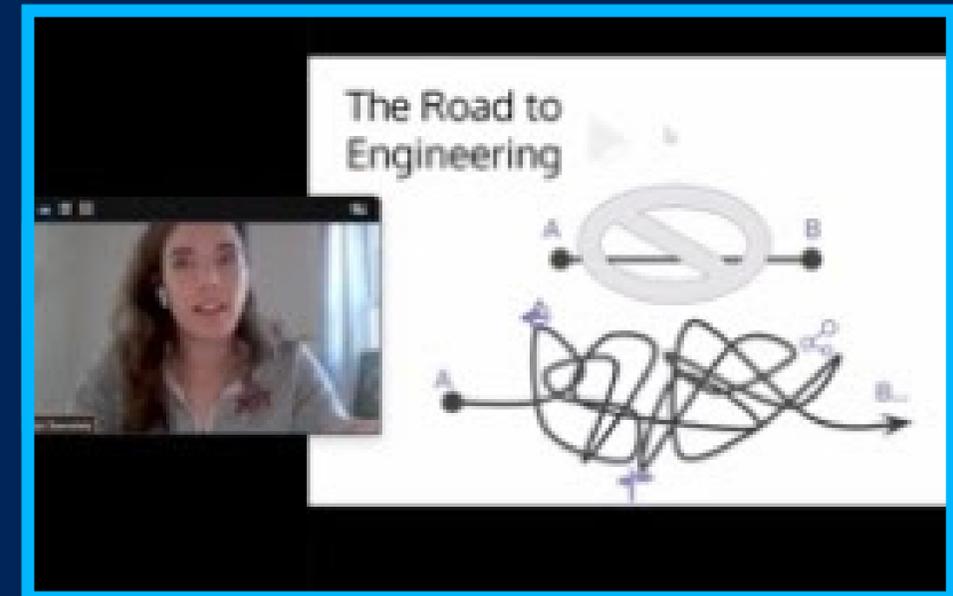
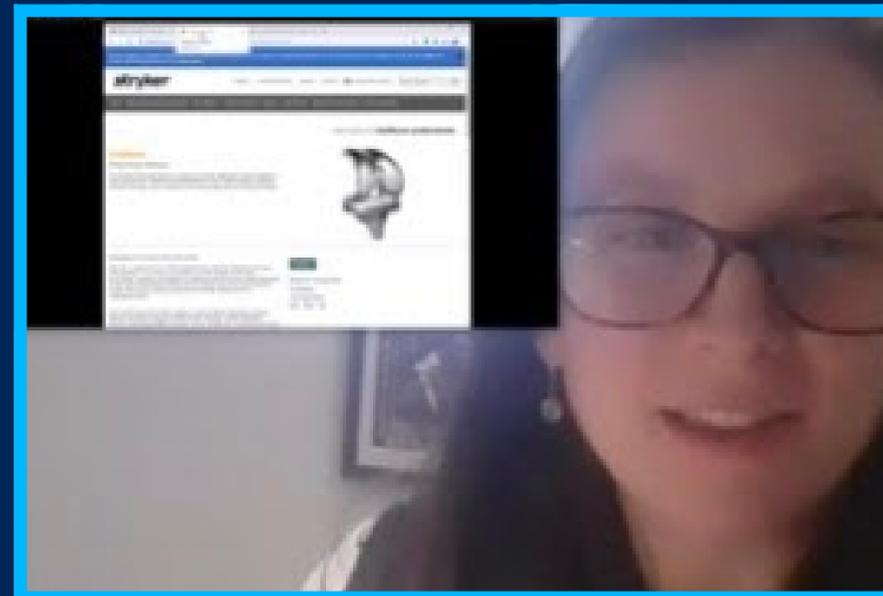
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 <p>Arshia Aggarwal</p>	 <p>Tanisha Rajgor</p>	 <p>Jenny Huang</p>	 <p>Emily K</p>
 <p>Sheethal</p>	 <p>Anjali Bhattacharyya</p>	 <p>Keerthana</p>	 <p>Kaesha Rajgor</p>
 <p></p>	 <p>Akshaya Kolluri</p>	 <p></p>	<p>Rosie.Yoo</p>
<p>Hopkinton Library</p>	<p> *Kira* </p>	<p>Riya Manthena</p>	

# Girl Powered Day

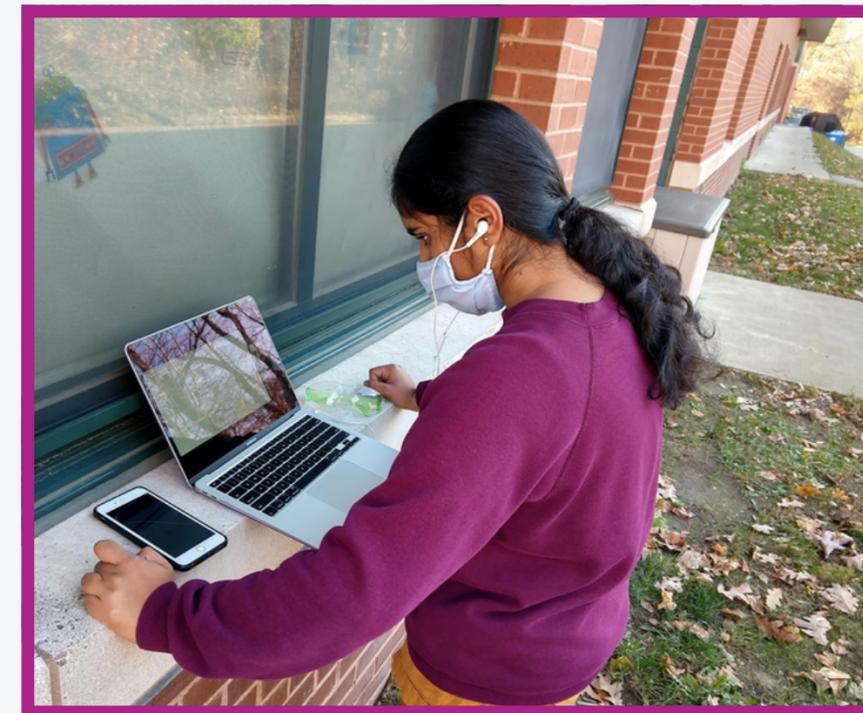
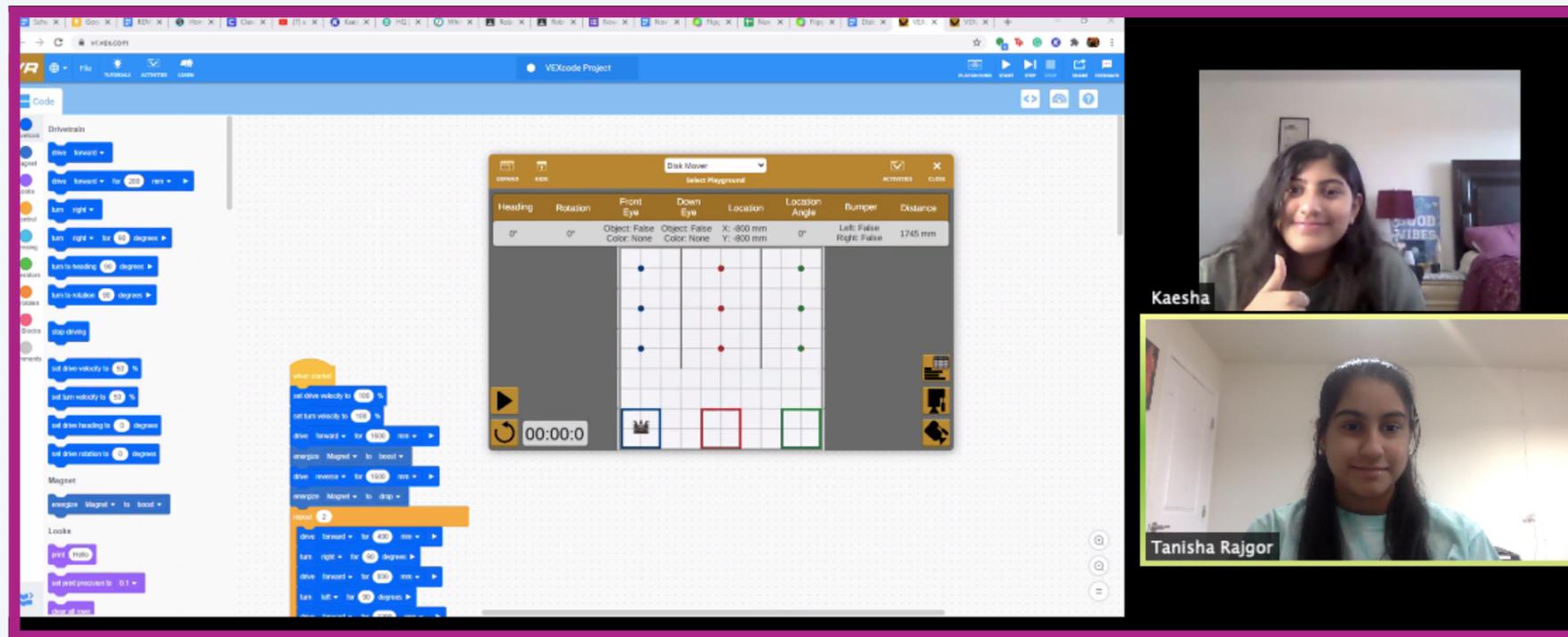


We organized an annual event to help encourage girls to get involved in STEM—however this year it was held virtually. The star of the show was an activity experimenting with paper airplanes to teach the younger generation about the engineering/design process. Mrs. Paul Metcalf, Katelyn Sweeny, and Cornell student Nila Narayan all shared their experience of leading the way in STEM!



# MENTORING & INSPIRING

## VEX VR Style



Last year, we started the VEX Mentoring Series to help new middle school VEX IQ teams. This year, the program has evolved into virtual VEX VR tournaments because there are not as many robotics activities available. We run weekly mentoring sessions to help guide students in the virtual tournaments. This program has been successful in keeping students excited about STEM.

# FUNDRAISING **ALONG** THE WAY!

HOPKINETICS 2602B PRESENTS:

## ENGINEERS WITHOUT BORDERS



### FUNDRAISER

BUILDING A BETTER WORLD  
THROUGH ENGINEERING & EMPOWERING COMMUNITIES

REGARDLESS OF BACKGROUND  
OR CIRCUMSTANCE

WE WOULD APPRECIATE ANY AND  
ALL SUPPORT!



We have been collecting donations for Engineers Without Borders. An organization that uses STEM to help others.



For the YMCA, we collected backpacks, folders, pencils, and other school and sanitary supplies for children economically impacted by the pandemic.

# How we make an impact.



Team Chemistry

**Our team cooperates well together, allowing us to use each other as support and work to our fullest potential.**

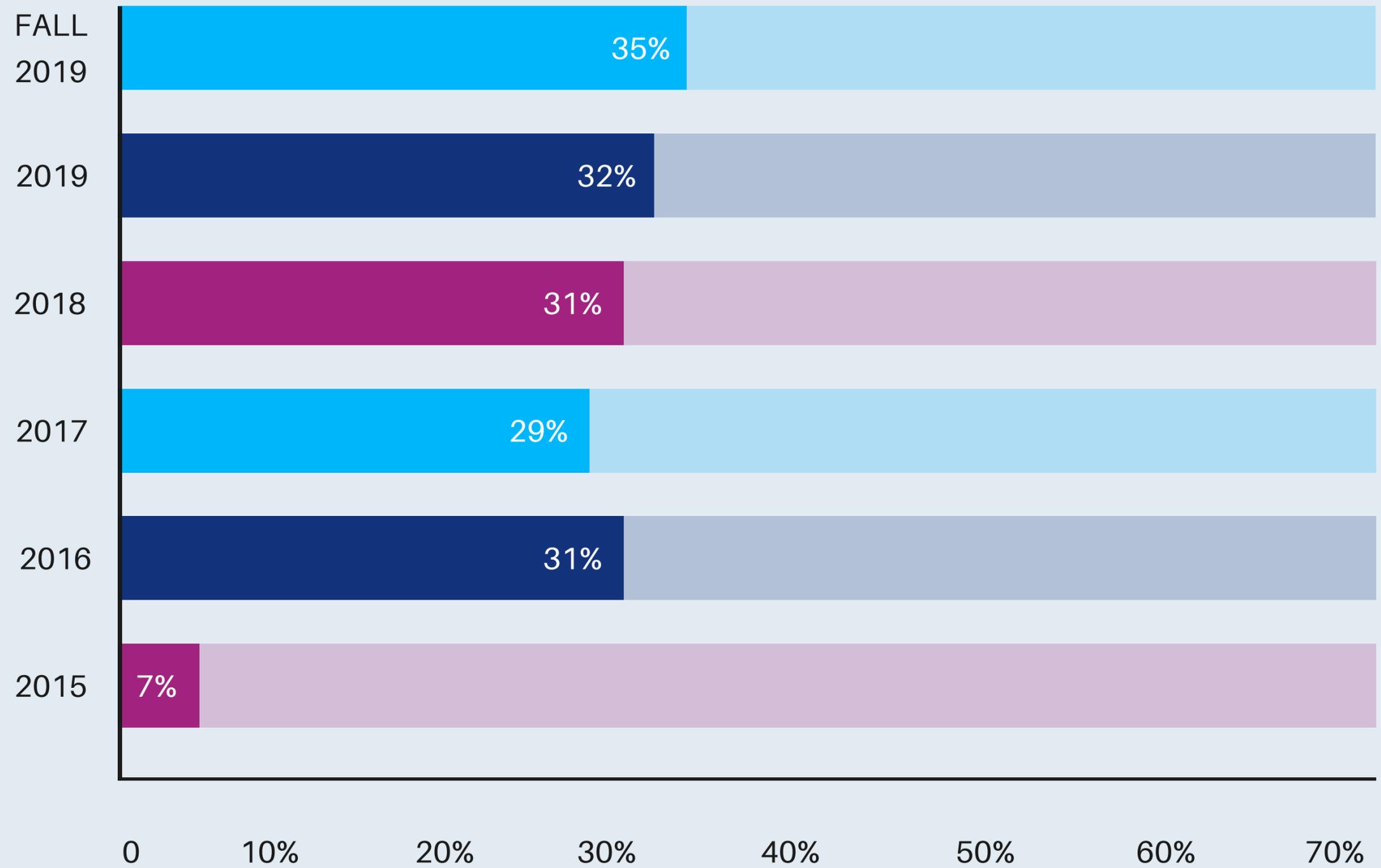
Diversity

**Having a team of not just boys and girls but of people with different mindsets like people who think more logically or creatively.**

Service

**We do community service as a group to help improve our community with STEM.**

# Female Participation in Business, Technology, and Engineering



## Our role model, Mr. Scott!



Mr. Scott coaches Robotics, Business Professionals of America, and Engineering. He runs multiple out of school initiatives from local LEGO judged competitions to the Shield Team, a nationwide movement to assist hospitals with protective equipment made by 3D printers. The Shield Team **produced over 60,554 shields**, and people from over **28 states** helped. He won the Presidential Excellence Award for teaching in 2019.

Mr. Scott's passion for Girl Power comes from having an elementary school aged daughter who opened his eyes for the **need for more females in STEM.**

## Our role model, Mrs. Fournier!



Mrs. Fournier teaches computer science and was inspired to begin teaching STEM because of the Makerspace movement. In the last few years, Mrs. Fournier has been excited to see an **increase in girls taking CS classes**. She **believes** having both boys and girls in a class leads to **great discussions** and **teamwork**.

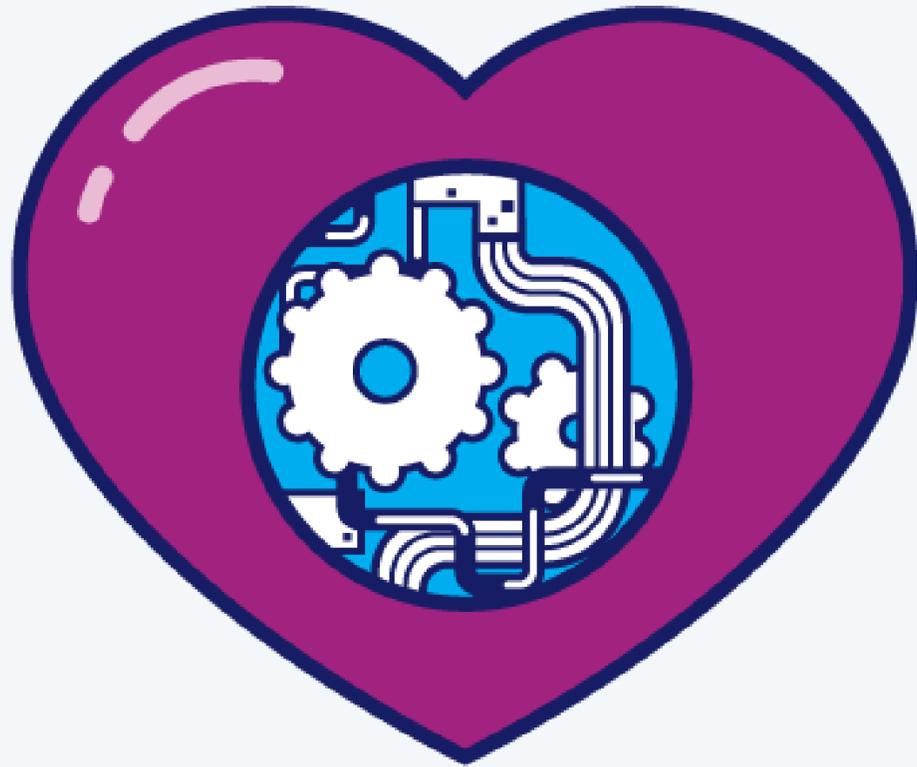
She strongly **supports** Girl Power because as a high schooler she took a **computer science** elective but did not like being the only girl in her class. This experience has led her to **running the Girls Who Code branch at the high school**. As female students of Mrs. Fournier, we are **grateful** to have her as a role model in the STEM world.

# "Blasting Off!"

## To New Horizons

We are going to run more events to **encourage females** in STEM. In the next month, we are planning an applications **Computer Science event**, and we have partnered with MIT for an Inventathon. We are also working with MathWorks to talk about different **STEM** job **opportunities** at our next robotics tournament.

# Thank You!



The STEM world must be a **gender diverse community** because both women and men are needed for **innovation**. Our role models have given us a glimpse of an **inclusive STEM society** where risks are encouraged and rewards are earned as teams and individuals regardless of gender. We want to continue to share that picture with our **community**.

# WORKS CITED:

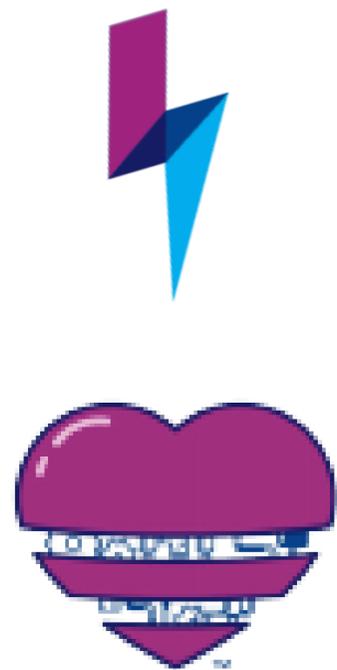
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# CREDITS



Made in Canva

## ENTRANTS

Cindy Yang, Emily Kimball, Gurleen Kaur, Hemankit Vallurupalli, Kenneth Wan, Sidhi Dhanda, Tanisha Rajgor

## ROBOTICS TEAM

Team 2602 Beast



Word Count: 1,475