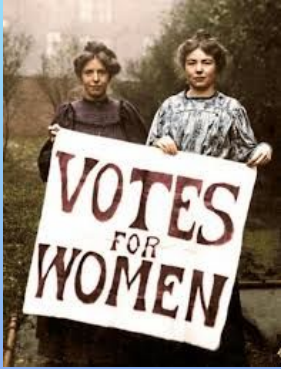


# VEX IQ GIRL POWER ONLINE CHALLENGE

Team 1715P (RoboHillers PowerPandas): Amanda Xie, Chloe Barnes, Disha Mudenur, Julia Nickerson, Rithika Kilari, and Srilakshmi Venkatesan



# WOMAN'S RIGHT TO VOTE



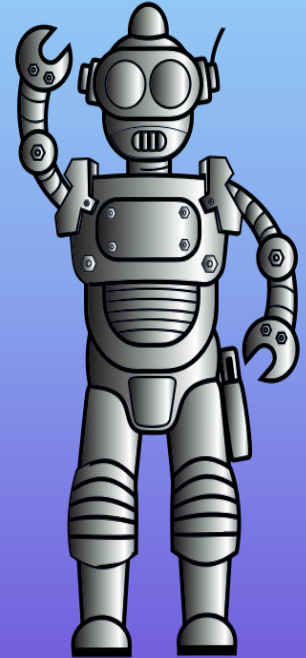
When we hear the phrase Girl Powered, we think of when women got the right to vote. We think of how women fought for equality and how we have come to a very different mindset. Back then, in the early 1900s, women were thought of as a minority. Everyone believed that women and their husbands would have the same opinion and one representative for the family was enough. However, this was not the case. Many households in the United States had husbands and wives with contrasting opinions. Why should men be the ones showing their opinions, while the women remain quiet? This led to the women's suffrage. The suffrage was a movement to gain equality and the right to vote. After a long lasting suffrage, women gained the right to vote in 1920. They were all united regardless of their origin because they were all women fighting for the same rights and freedoms.



# DIVERSITY

We accept everyone and that is the basic concept of diversity. When we were first forming our team, we were open to everyone. We noticed that not a single boy wanted to be on our team. We realized that all of them shared a single belief that only boys could be good at robotics and girls could not. We see that people don't try to go for a very diverse team, when doing robotics. It shouldn't be about race, gender, grade, etc. It should be about what you can offer for your team and how that will help you succeed.

Unlike many other competitive programs, robotics shouldn't have a minority of girls, and we as a team strive to help accomplish that. For example, one of our team members participates in chess tournaments and has even gone to national tournaments before. Currently, only 2% of the competitors are girls, even though chess is widely known. All of us hope that more girls will be encouraged to join different competitive programs including robotics.



# THE IMPORTANCE OF DIVERSITY ON A TEAM

To us, diversity in perspective is extremely important in a team. In many cases, the best ideas come from brainstorming very different and unique ideas. As a result, the team won't be confined to one way of thinking and will have more options when discussing topics of interest. That said, the team members still must be able to cooperate and be able to decide on one solution. Depending on the team chemistry, diversity in perspective can make or break a team. It also depends on the way everyone expresses their perspective and how it is received by the rest of the team.



# HOW WE PUT OUR TEAM TOGETHER

In May when it was time to form teams, our future team leader, Disha, wanted to create a successful team of young minds that would be able to work together well and succeed at whatever challenge was thrown at them. So, she decided to choose team members not solely based off of existing friendships, but off of previous experience regarding robotics and personality traits that would be the most beneficial and necessary. This way our team is well balanced, with diverse solutions to our problems. Even though Chloe had no previous experience with Vex IQ Robotics, she had a knack for building and was extremely motivated. Both Sri and Rithika had done robotics the previous year and were both hard-working and possessed an abundance of knowledge about robotics. Amanda had also done Vex IQ Robotics in third grade and heard it was more challenging now, and wanted to try it again. Julia had no previous experience with Vex IQ Robotics but had built many robots in the past. And of course, Disha has had lots of previous experience, including going to Worlds and winning STEM award there. We won STEM awards and qualifiers and now are advancing to regionals.





# OUR TEAM MEMBERS' JOBS

AMANDA

HAS A TALENT FOR ART AND LOVES TO DO STEM. SHE IS AN INTELLIGENT PROGRAMMER AND GETS EVERYTHING DONE QUICKLY AND EFFICIENTLY. SHE HAS TRIED BUILDING AND REALIZES SHE ENJOYS IT.



RITHIKA

HAS ENJOYED BUILDING AND PROGRAMMING. SHE LOVES ROBOTICS AND SHOWS A PASSION FOR IT. THIS IS HER THIRD YEAR IN A ROW DOING ROBOTICS. SHE TRIED FILMING OUR STEM VIDEO AND NOW HAS A NEW HOBBY OF PHOTOGRAPHY.



# OUR TEAM MEMBERS' JOBS

CHLOE

HAS ENJOYED  
BUILDING AND  
PROGRAMMING AND  
CONTINUES TO  
FURTHER HER PASSION  
FOR ROBOTICS. SHE  
TRIED ROBOTICS FOR  
THE FIRST YEAR, AND IS  
PLEASED TO SAY SHE  
WILL CONTINUE.



JULIA

ENJOYS BUILDING!  
HAS BUILT MANY  
ROBOTS BEFORE  
OUTSIDE OF VEX IQ AND  
LOVES IT! SHE TRIED  
PROGRAMMING ON  
SCRATCH AND NOW  
PROGRAMS SOME OF  
OUR ROBOT.



DISHA

IS OUR TEAM LEADER. SHE'S INTERESTED IN MANY POSITIONS AND DECIDED TO TRY THEM ALL. SHE LOVES BUILDING, PROGRAMMING, AND DRIVING THE ROBOT THE MOST. SHE ALSO ENJOYS THE STEM PROJECT AND CAN NEVER GET ENOUGH OF ROBOTICS!



SRILAKSHMI

HAS BEEN ENJOYING ROBOTICS FOR 3 YEARS NOW. SHE ENJOYS PROGRAMMING, DRIVING, AND STEM. SHE LOVES TO DO ROBOTICS IN HER FREE TIME. SRI TRIED BUILDING AND IS HAPPY WITH HER PROGRESS.





# OUR STEM ROLE MODEL

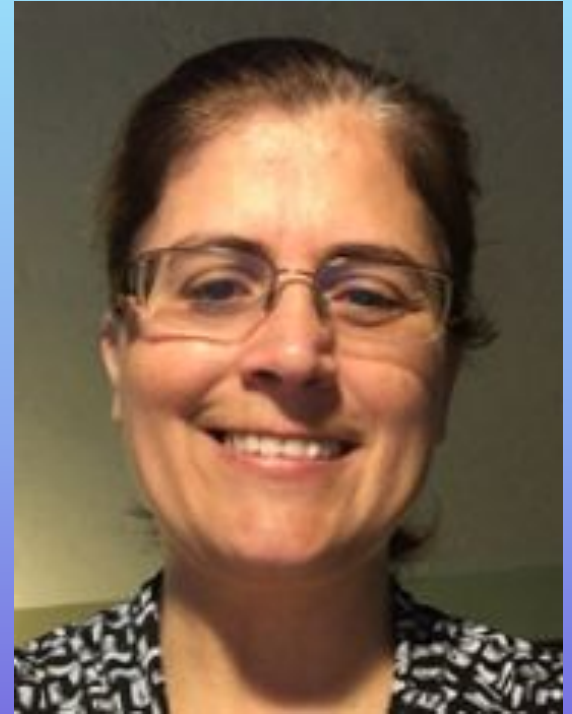
*Patricia Allen, the RoboHillers team coach, is our role model. She manages roughly 90 RoboHillers with a positive attitude, works hard, is extremely kind, and very helpful.*

## **1. How did you get involved with robotics?**

I actually got involved through my teenage daughter. She was one of the founding members of the RoboHillers Robotics team almost 5 years ago. I began as a volunteer helping then Coach Borges. I found that I really enjoyed working with the students.

## **2. Where and what did you teach before being a Media Literacy teacher at HMS?**

in my previous life I actually worked in higher education. I did that for over 15 years and was ultimately the director of residence life and judicial affairs at a local college in New England. I also taught student success seminars and intro to business classes. I decided to stop working in Higher Ed to support my family at home. I couldn't stay away from education though and started working as a substitute teacher in the Hopkinton Public Schools system. All of that turned into a new career as the Media Literacy teacher.



# OUR STEM ROLE MODEL (CONT.)

## **3. How long have you been the robotics coach?**

This is 2nd year as full-time coach, the year before I coached the seventh grade team, we were divided that year into three different coaches. Very excited when one of my teams went to Worlds!

## **4. What is your favorite part about being the robotics team coach?**

Personally, I love those a-ha moments. Had one on Friday, I was encouraging a student to learn how to program. We chatted about the basics of telling a computer how to do something. All of a sudden he just looked at me and said "oh my goodness Mrs. Allen this makes so much more sense now." I love seeing the smiles on students faces when their robots are successful, they worked hard and they see the fruits of that labor. Honestly I didn't have a career in engineering or robotics. When you break it down, my professional background was in team building, supervision, group dynamics and challenging students to be critical thinkers. Apply those skills in this setting, and I'm happy to say I've picked up a few engineering and programming tidbits as well.

# CREDITS

Team 1715P



Robotics Girl Powered!!!!

Power Pandas

Disha Mudenur

Amanda Xie

Srilakshmi Venkatesan

Chloe Barnes

Rithika Kilari

Julia Nickerson

