

Empowered To Be Stars

By Audrey Wilson and Nathalie Mejia, team 91343A

When I, Audrey, hear “Girl Powered” I am reminded of the VEX sweatshirt I got at Worlds in 2019, when I accompanied my sister, and saw her and so many girls compete! I felt so proud to be there! It was cool to see all the competitors from around the world succeeding. In the Parade of Nations, they had representatives from all the countries. I saw my sister and her team marching proudly behind the United States flag. I felt I wanted to be there one day as well. It was so inspiring! Mommy volunteered to be a judge, and I volunteered for field reset, even though I was only 7. I learned we can all contribute! As a volunteer, I got a behind-the-scenes view of the competition and I really liked that. It also gave me access to some awesome cookies in the volunteer area! My VEX Worlds volunteer t-shirt and name tag made me so proud and confident. It made me feel there is no limit to what girls can do! I saw perseverance paying off for the competitors and that was inspiring. I learned that when doing something, you need to keep trying even though you want to give up at times.



Here is Audrey walking the floor at Vex Worlds in 2019.

I could experience the excitement of those that pushed the limits and succeeded, and that got me to want to be there as a competitor and succeed too.

Now, as I am part of a 100% girl team, 91343A, I am grateful that I get to try all aspects of designing, building, driving, coding, and research. I don't have to overcome the obstacles that my sister had in a team with boys.

All girls are welcome to join our team, as long as they want to work hard. The team reflects the diversity of the school, with girls of all backgrounds and shades of skin color. We divide jobs based on who performs better, and who has the desire to work for it. Sometimes it is hard to come to an agreement since some people have different ideas. One person thinks having 1 ball catapult is good, others think having 2 balls is better, or 4 balls. We brainstorm all ideas and discuss them and come up with a design as a team.

When one team member was used to a strategy and was reluctant to change to catapulting , then the team came in agreement with a driving strategy that gave more points and the girl adapted to the new gameplay . We realized that when we went to a strategy that scores more points, then we advance to the higher levels and that is important, but we have to be flexible and adjust to new ways.

In our team everybody had an opportunity to try all roles, and see what the teammates were good at. Initially, whoever wanted to drive, drove, but then the best ones became the main drivers. Those that did not like driving, like Tammy, became the main researchers and video editors, and guided us on the research project. Audrey and Nathalie had coded before, so they worked on the autonomous program.

We emphasize the role of the team at all opportunities. We emphasize the importance of all team members, stressing that all jobs, being them driving, coding or research, all are important. Our coach, also a lady, taught everybody how to do the basics and everyone had an opportunity to try.

“Girl Power” means to us that girls can accomplish everything we set our minds on.” says team member Nathalie. “ In the past, girls were considered to be good just for certain things. Incredibly, some people just thought women were only good for cooking and cleaning and that the brave women were able to have a job, but a simple one. Now we know we can become the new leaders of many different businesses, the president of any nation and much more.”

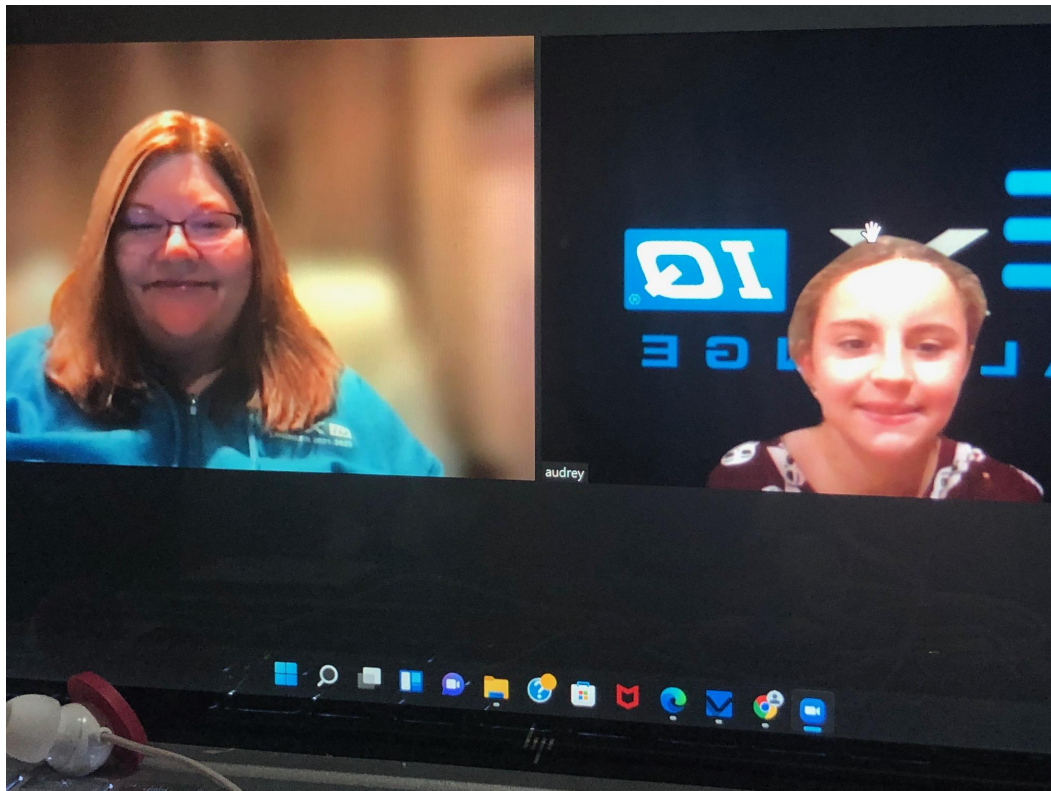
There are a lot of women scientists that deserve to influence our paths. However, it is our Vintage Magnet Elementary Principal, Mrs Nancy Mourao, who is our STEM role model, for her never ending support of robotics education in the school. She is there at practices, and at competitions. She guides us with the research project, helps us with the green screen videotaping and works every competition. Her passion for robotics and engineering education is undeniable.



Girl Power! Here is Mrs. Mourao with the all girl team at practice and then at competition.

We wanted to find out more about what inspired her to create a program that has so many girls.

So, Audrey had a Zoom interview with her, which she graciously accepted on the spot.



Audrey on Zoom with Mrs. Mourao

We were amazed by what we found out:

As the Principal of a STEM school in an underprivileged area, Mrs Mourao realized the need for more engineering education. Some countries are building robots to help with a lot of life functions, but who is going to repair and program those in the future? That is Mrs Mourao's vision, to open the doors of engineering for all kids at her school and teach them robotics and programming at no cost.

"It is important we can compete globally with other countries that are making robots. The future jobs are in Artificial Intelligence. " says Mrs. Mourao. "If United States wants to compete with those countries that are creating robots, then we need to start in youth with robotics education to get a foot in the door of engineering and programming. "

She wanted all kids to have access to it so she hired a parent who had a degree in robotics to teach robotics to all 4th graders, and then to all 5th graders. Mrs. Mourao bought the first VEXIQ kits with her own money, to make sure the program starts.

She hosts tournaments, she says, not just to raise money for the program, but to make the students more comfortable as they compete in a familiar place. She encouraged all students to do the research project because it brings in more talent into the team, since research is more appealing to kids that like to get information, write it down, make a video.

The VEXIq robotics program at the school has increased a lot since she started it 5 years ago. The 2nd year saw the first team of two boys go to VexIq Worlds. The next year, two teams went to Worlds, and more importantly, they included 2 girls, one of which was Audrey's sister. It was so great to see her beam with pride holding the trophy from Worlds!



There is Audrey's sister, Nadia, with her team's trophy.

After that, the program grew and grew, to 5 teams, with a whole team of girls making it to State. Not even the pandemic could stop Mrs. Mourao from enriching kids with coding classes!

The all-girl team is important to Mrs. Mourao because she feels that when girls compete at this age, they feel more comfortable working with other girls. Girls should be quiet, is the old belief. Boys can be an overpowering distraction and girls may not take leadership if they are in a team

with boys. Women need to be represented in STEM, and a team of girls gets them confident as they approach STEM research, building, and coding on a Worldwide stage.

Audrey's sister had to overcome a lot of pushback in a team full of boys, to make herself heard, and appreciated.

Our team now is all girls. It was so popular that eventually we had to form another team. That was good because all the girls would get a chance to do a lot. When boys are on the team, they try to do everything and girls are pushed aside. Stereotypes of boys driving and building are very strong. In an all girl team, we are empowered! We have a chance to drive and program, and get so many more opportunities!

“I started in Robotics because I had a dream of becoming really good at it and someday go to the Robotics Worlds Championship” Nathalie concludes.

“I have realized that if we work hard as a team and take advantage of our different skills, together with effort and discipline, we can reach that dream and more. We are capable of doing everything that we dream of!”