

# 790X THE ULTIMATE GUIDE TO Girl Powered

# GET TO KNOW US

We are currently seniors at Blackstone Valley Tech in the Engineering and Robotics shop. We have been doing VEX Robotics for three years. For the last four years we have been taking PLTW Engineering courses and have recieved college credit from RIT. In these four years we have been Autodesk Inventor certified and OSHA General Industry as well as Construction certified. The both of us are peer mentors, student ambassadors, members of the Engineering and Robotics advisory committee, National Honor Society, National Technical Honor Society and have competed at SkillsUSA at the MA State level. Zoe Mahoney (right) is also the valedictorian of her class, was named a M.A.S.S. Scholar, the treasurer of the Aviation club, and field hockey all-star and captain.

Molly Kennedy (left) is in the top 5% of her class, is fluent in Spanish, is a member of her churches choir and retreat team and a middle school ski club chaperone





A photograph of two young women with long dark hair, smiling and hugging each other. They are wearing dark-colored zip-up jackets. The woman on the right has a small patch on her jacket that says 'SKILL'. The background is slightly blurred, showing what appears to be an indoor setting with other people and lights.

# OUR TAKE ON Girl⚡Powered

Girl Powered represents a change in not only the physical environment in the workforce and the world around us but a change of the mental state of the women around the globe as well. On 790X, the girls on the team are not looked down upon or considered lesser individuals, they are appreciated as equals. Everyone on the team has worked endlessly to understand each others roles in order to diversify our own skills. This gives us a better understanding for the work that goes into the each job allowing us to efficiently communicate as a team. In the past, on previous teams, with the same members, we have won multiple awards including the Excellence Award because of the combined skills we bring to the table. Having a diverse team opens our opportunities to new and exciting ideas that span across gender boundaries.



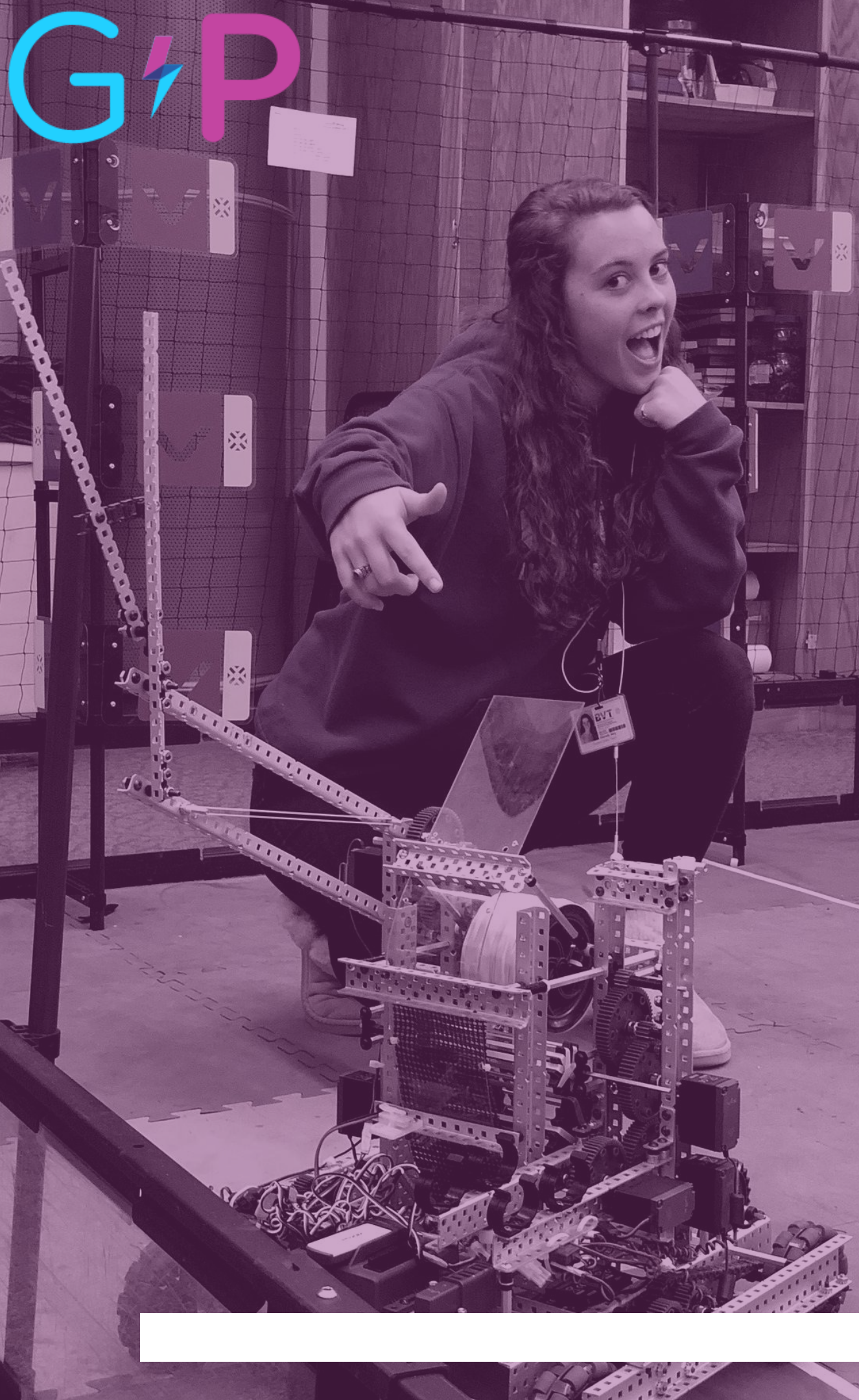
# AN INTEREST SPARKED

Our freshman year of high school we had a very difficult decision to make. We attend a Vocational High School and had to decide which vocation we would be studying for the next four years. Zoe had come into the school knowing that she wanted to go into the Engineering Technology “shop”, as they are known in our school. She grew up loving math and science, especially in middle school. In sixth grade, when she was given the opportunity to take an engineering course through Virtual High School, her interest was sparked. After experiencing extreme boredom in the traditional school system and seeking an alternative education, Zoe and her family sought out private school education. With no success, and after seeing her cousins strive at the local tech school, she decided to wait it out till eight grade to apply to indulge in a project-based education.

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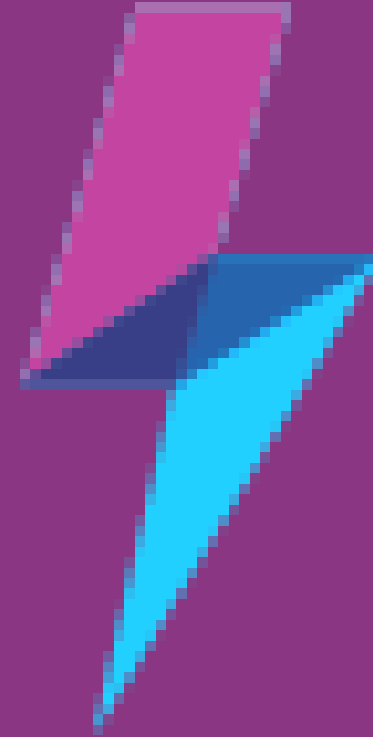


# TAKING CHARGE

Molly on the other hand had come into the school expecting to be in the Culinary Arts program. After going through a seven week exploratory process of seven of the available 18 shops, her decision had become much tougher. Although she had enjoyed Culinary she had an unexpected pull toward the Engineering shop. This has been one of the hardest decisions she had to make thus far because at the time it was the equivalent of a college freshman choosing a major. After much contemplation and a list of the pros and cons, she had made up her mind. One question was on her mind the most, which shop would provide me with the best future and could I see myself actually pursuing after high school? The answer was obvious for her, Engineering. It was evident that the shop and actual career field would be male dominant. However, that should not be what would stop a young woman from going after a future in the Engineering/STEM field. In this case it definitely was not a consideration in the decision process.

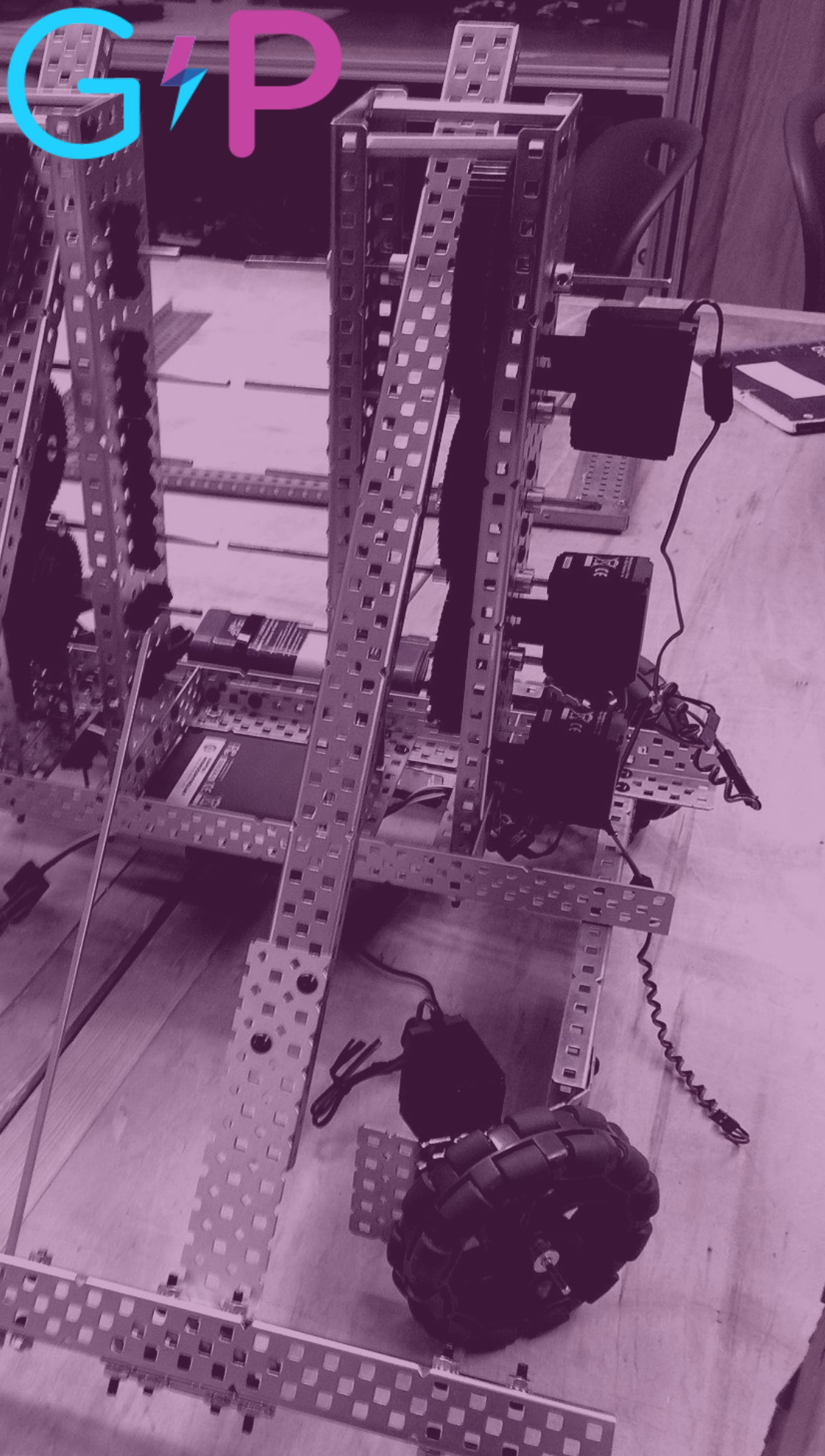


# BRIDGING THE GAP



Coming into shop the first day was as predicted, there were twelve boys and only four girls in their class. Immediately the girls sat together because we knew that we would be fighting together to be heard and recognized as equals in the young men's eyes when it had come to STEM whether the boys would actually admit it or not. We took a lot of pride in the fact that we had beaten out other boys who had applied for the shop, however the teacher had recognized our intelligence and potential for becoming successful engineers and decided to give us the better scores. Even from the first day we worked together when given the opportunity and almost always blew the boys projects out of the water because we went over the top on every project because that is just how we are.





# UNITING FORCES

Sophomore year we decided to become more involved with robotics and started our own all girls VEX team. We had this team both sophomore and junior year and although we were not very successful in competition we gained a lot of knowledge about the community and how to build/program and make an engineering notebook. At the end of junior year when the new competition was announced we were unsure of what we wanted to do when it came to the new season of VEX. We had noticed a group in our shop that had been extremely successful in the last season, however they were very disorganized and some of the reasons why they had won competitions was because they had pulled all nighters just to finish their robot for the next day. We knew that with our help we could give some guidance with the organization and motivation of the team while creating a beautifully organized engineering notebook. We also took it as an opportunity to learn more about building because that had been an aspect that always seemed to fall short the previous season. It seemed like the best combination of people to make a power team. The creation of the team was to make a more inclusive and educationally beneficial team for all members.





# GIRLS GOT SKILLS

Our STEM role model is Alexandra Valoras. She was one of the four girls from our class of Engineering. Last spring, on March 19th, our team was hit with the tragedy of her death. She was the epitome of technical and academic excellence in the Engineering and Robotics program at Blackstone Valley Tech. Upon meeting each other freshmen year in shop, we were all astonished by Alexandra's ability to learn so rapidly and interpret information so thoroughly. Freshmen year, when Alexandra and Zoe traveled to the SkillsUSA Massachusetts State Leadership and Skills Conference together in April, Alexandra medaled silver in Additive Manufacturing. The following year she easily took home a gold medal in Principles of Engineering with a ballistics tank accompanied by seven-hundred lines of code driven by trigonometric functions. Traveling to Louisville, Kentucky, she competed at the national level competition and placed seventh in the nation.





# UNMATCHED PASSION

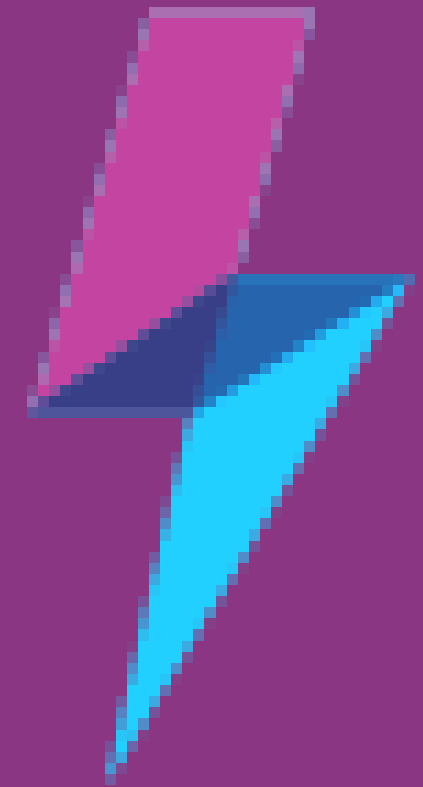
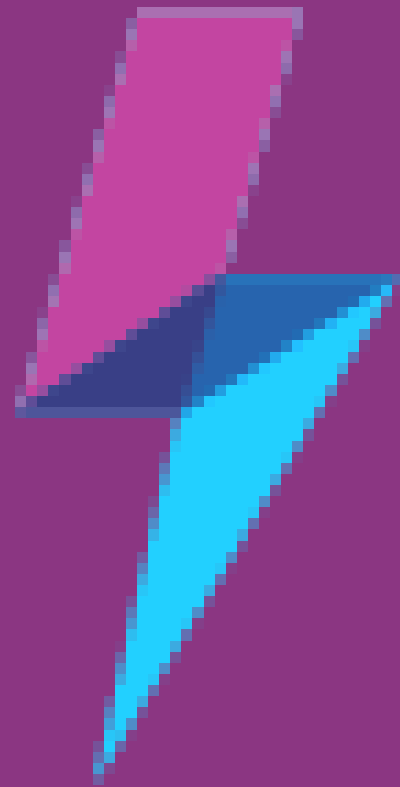
While excelling in SkillsUSA, she also was well accomplished in robotics where she was extremely skilled in both programming and building. She would spend hours and hours of her free time programming and it was honestly, something she truly loved. Alexandra went into every competition with confidence regardless of people doubting her because of her gender. By surrounding herself with a team of other talented individuals, she had a true experience in VEX which exemplified what it means to be girl powered. Because of her efforts, her team was able to obtain the Design Award at the Southern New England Championship qualifying them for Worlds. At VEX Worlds 2018, her all girl team continued the season without her and won the Worlds Science Division Inspire Award because of the inspiration she gave her team and others in the VEX community. Our goal for this season was to create a dream team with her and although she is not here with us she is still a part of our team and everything we do is in dedication to her.

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# AN INSPIRATION TO ALL

While taking great pride in her accomplishments, she never kept her knowledge to herself. She was always willing to lend a helping hand in shop to guide others, making a rather competitive environment, collaborative. With the conclusion of freshmen exploratories of our junior year, her ultimate goal was to take the freshmen girls under our wings considering there were only three girls, they were inundated in a traditionally male dominant field.





# IN LOVING MEMORY OF



# ALEXANDRA VALORAS

2000-2018

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# THE END

## **Authors:**

Molly Kennedy and Zoe Mahoney

## **Team:**

790X THE ROBOGANG

## **Other Team Members:**

Andy Regan, Rainer Djohan,  
Tom Watson, Zac Comer

