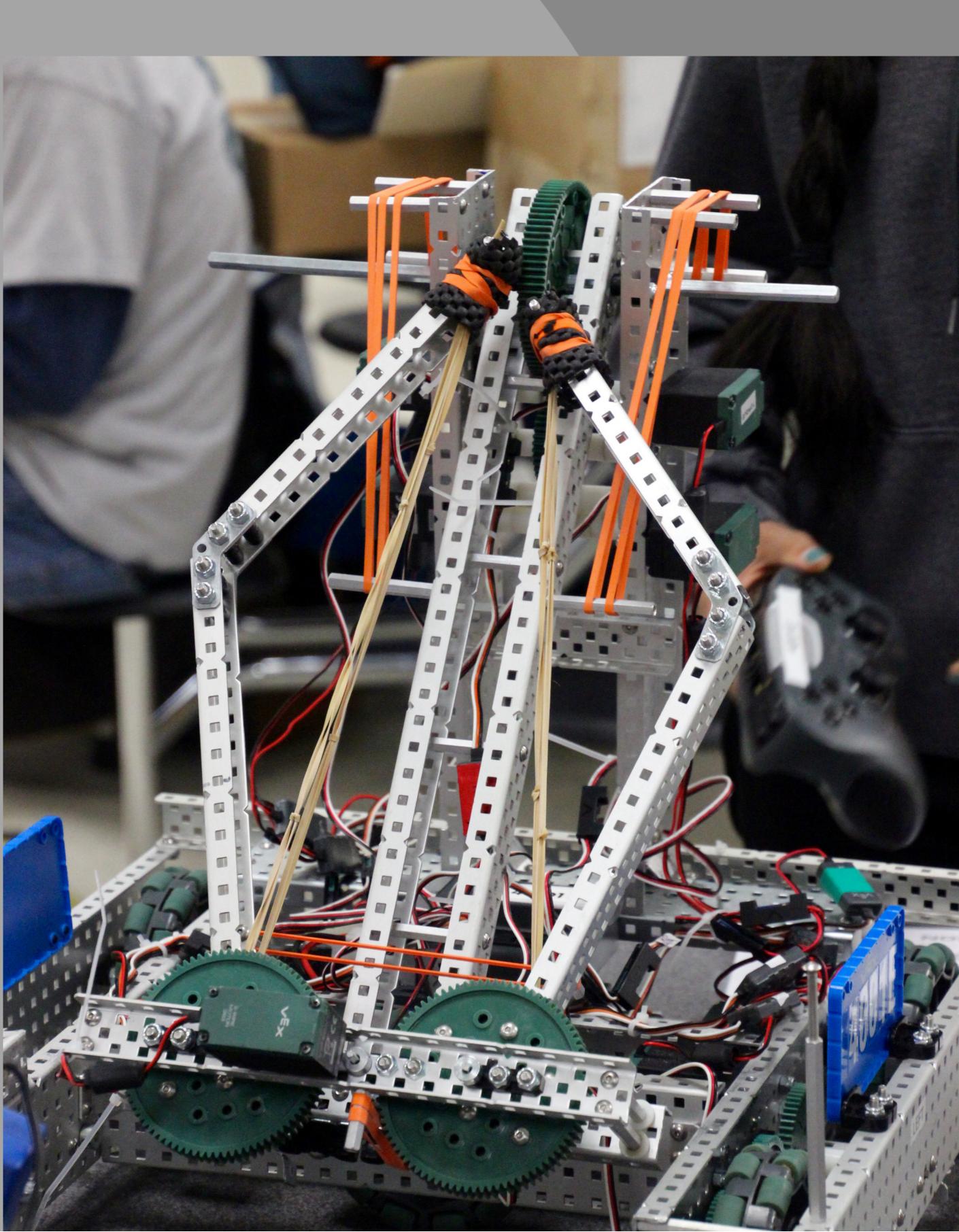
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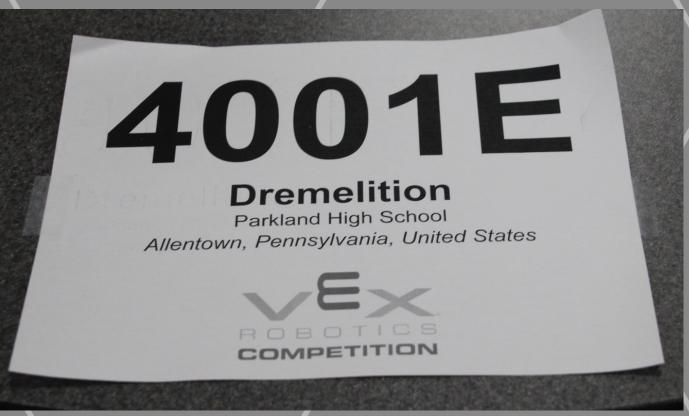
Parkland 4001E



Our Team

We are the women of Parkland High School's Engineering Team 4001E, an all senior group. We have all faced a variety of challenges in our times in STEM, and we want to share a bit about our experiences with you. We all have different reasons for pursuing STEM related activities, and ultimately careers, but our key strength lies in our unwavering support for each other.









As a member of Engineering Club since freshmen year, I focus on the design aspects of the robot, working to create many of our custom parts. Through our many difficulties over the years in designing, I have gained skills in problem solving and have been able to use these problem solving skills in my second passion - technical theater, culminating in successful light designing for our spring musical:

"Titanic".



I joined Engineering Club my sophomore year and was initially greatly outnumbered by boys on my team. I remember it took a lot of convincing to get one of the boys to teach me how to safely use the Dremel- our tool of choice. I had already been familiar with power tools thanks to my grandpa who is an engineer himself and a master fixer, and I set out to prove that nothing can stop a girl with power tools. Through hard work and determination, I was able to prove my worth to my team and arose as a leader. Now as a senior, I am club president- the first female to hold this position in Engineering Club.



I got involved in STEM when I was little.
I always loved designing and drawing things- machines, inventions, backpacks, you name it. My grandfather was an upholsterer but he taught me how to use tools and my hands to create things. I was only partially into it at first, as I was very dedicated to dance. After my grandfather passed away, I decided I wanted to create things as well, which led me to take physics and calculus. I really enjoyed both classes and am now pursuing a degree in engineering.



From a young age, I was thrilled by the idea of creating and fixing things. Yet it has always been a problem in my family. They would always say that engineering was only for a boy or that women could never get the same respect in engineering like men do. But through all my life I have lived with a sea of boys. Currently, I am 1 of 3 girls in my family and the others were born about two years ago. But the idea of being the only girl in my family never stopped me from being me, so why would a career in a mostly man dominated career be any different? So I took courses in engineering, even with my family's disapproval. I found engineering not only as an outlet to the idea but a way of seeing things around me. What could I change and what does the future need?

Engineering and STEM allow for this to happen.

My name is Sunayana



I've always had a crush on the problem solving and innovative abilities that engineering values. So when I began studying certain topics outside of school, and doing research, I tried to similarly incorporate these values, not knowing that I was cultivating a great interest in the field of engineering. From building microbial fuel cells to studying microtubule depolymerization in neuronal cells, and even discerning different metals for catalysts in a hydrogen fuel cell, all to find the solution to a question, I found the creative aspect of enginering to line up with my passions of contributing uniquely to society. But until I joined my first engineering class in high school, and then the robotics team, I wasn't aware that I was a bit unique in my interests, due to being a girl. As a female with such interests, I've learned that being a girl really does not define what I can or cannot do. Sometimes it's hard to get my ideas heard in male-dominated classes, and being a girl I am not always readily welcomed into a male-heavy effort, but I've carved out a spot for myself as a team member on our robotics team and plan to continue pursuing my interests in engineering.



It all started with crayons when I was awarded an art trophy at age four. Since then, my creativity further expanded and challenged me when I moved to America in 2010. I soon realized that even when people speak different languages and have diverse cultures, they could learn, communicate, and apply the same information that influences not only an individual, but in retrospect the entire world. This is when I started to look forward to taking STEM classes more than other classes. Like a snowball rolling down a hill, my confidence and curiosity in math and science grew as they interbred with my creative side; this prompted me to enroll in engineering courses, summer programs, and the Engineering Club to further challenge and inspire me to become a problem solver who views the world differently.





Over our four years in high school we have grown in number; presently our engineering team consists of a female majority. Only two of us started freshman year, but we have networked and encouraged other girls to give robotics a try. We've continued promoting exploration of STEM with outreach programs.

We are still outnumbered in school engineering classes, but this only motivates us further to continue achieving and exploring this vast field. We have interests ranging from biomedical engineering and chemical engineering to environmental engineering and mechanical engineering, but the common interest that unites us all is our desire to show the world that "we can do it!"

Credits

Rachel Eichman
Allison Wilcox
Annie Hanichak
Ann Reyes
Sunayana Jampanboyana
Suyeon Hong
Elizabeth Cao

Featuring

The women of 4001E

Sponsored by Parkland High School
Coached by Robert Yocum
Additional male members of the team:

Sam Bartynski
Mathew Braccili
Mathew Driscoll
Zach Dunn
Anthony DiMaggio
Tilman Guenther