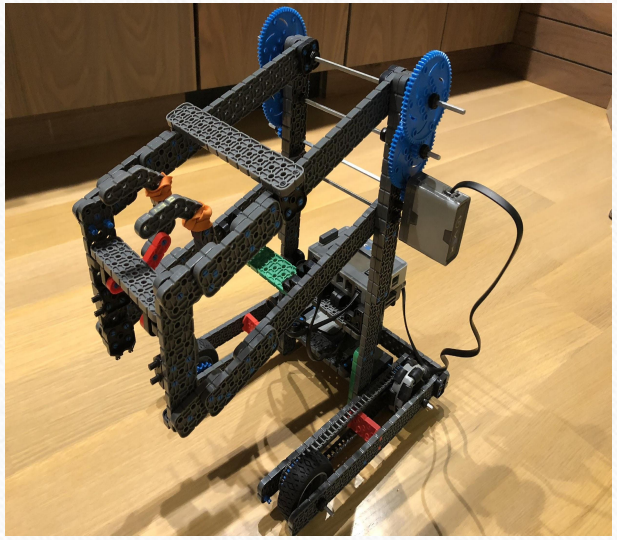
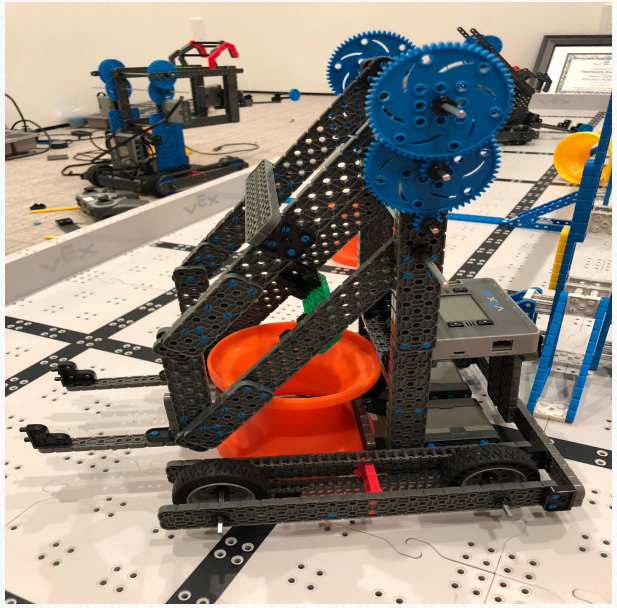
Girl Powered

Electric Pythons

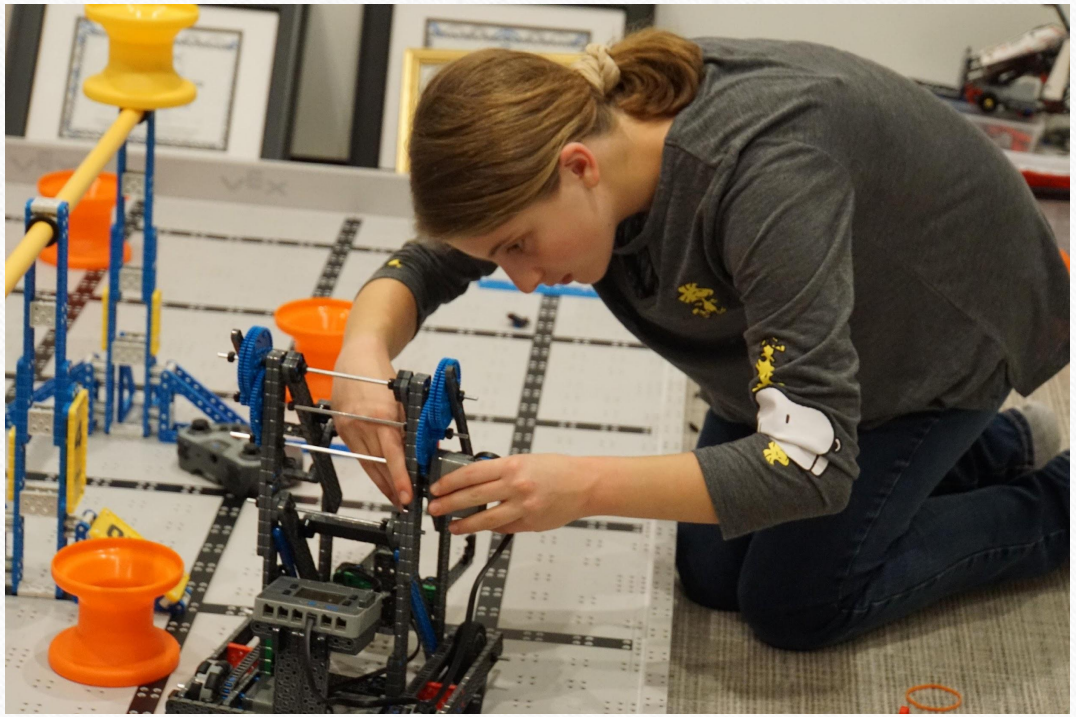
My name is Anna Birman, I am in 8th grade, and I recently joined the robotics team, The Electric Pythons. I feel so lucky to live in Silicon Valley, the booming center of technology and a cultural melting pot. Revolutionary inventions and mindsets are forming right here. I am surrounded by people who are helping kids learn how to think creatively and logically, and they help us understand that we are capable of inventing and creating something that will help the world. I often look around and think, what better place to think, design, and tinker, than my home, Silicon Valley? In 6th grade, I was introduced to tools like a 3D printer, laser cutters, soldering irons, online 3D design and vinyl sticker cutters. It was overwhelming and so cool to experience these machines for the first time. It took a while to learn how to use them and how to be independent in using them, but I did eventually become proficient.



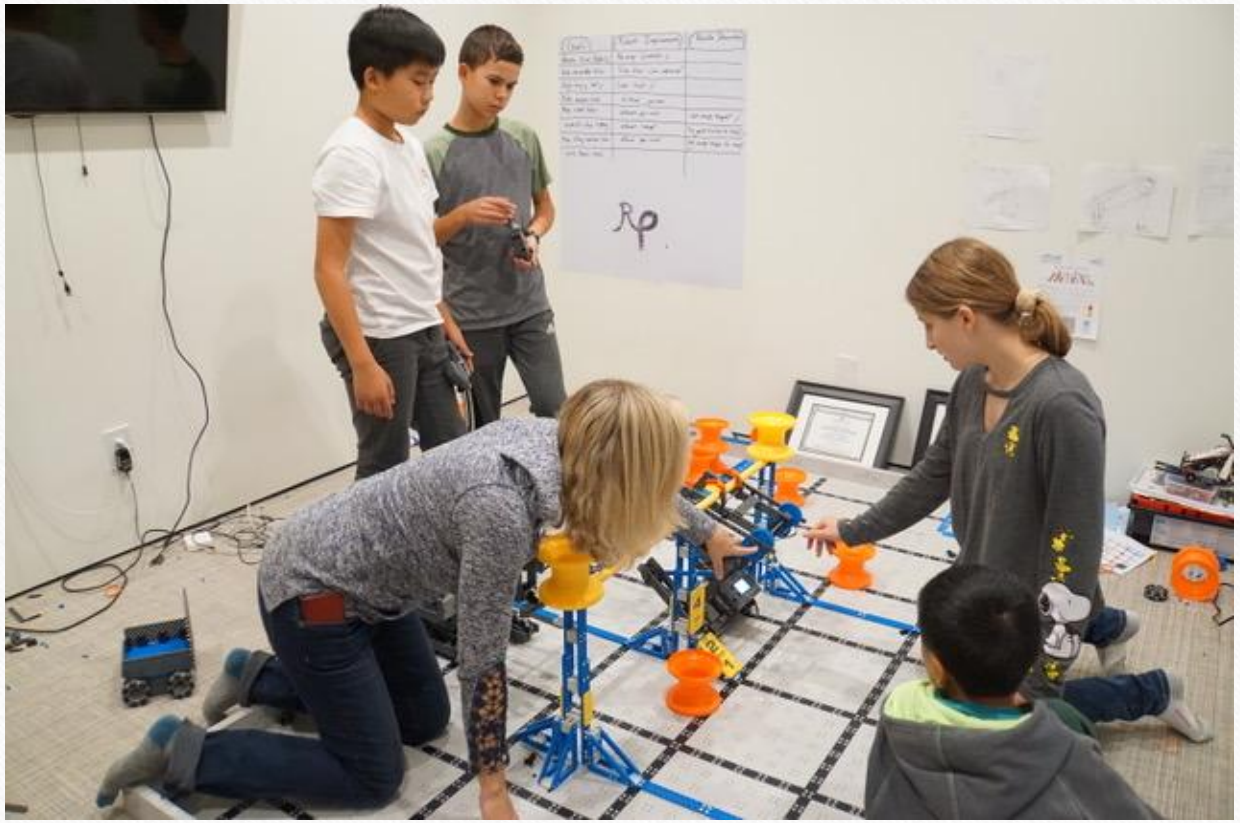


Around the same time, I received an offer to join the robotics team, the Electric Pythons, and I was excited. I had never been on a robotics team before, and I ran through a lengthy list of pros and cons in my head. The pros greatly outnumbered the cons. For example, being a member of a robotics team will help me wrap my head around the engineering process and the fact that I am capable of designing and building parts of a robot. Also, what an opportunity to learn a whole new set of skills, such as building mechanisms, programming, designing, learning concepts of mechanics, and learning how to record the proceedings of the meeting in a systematic and detailed way. Not to mention developing skills like troubleshooting, problem-solving, communication, and learning to be flexible with ideas because the robot will not be perfect the first time around.

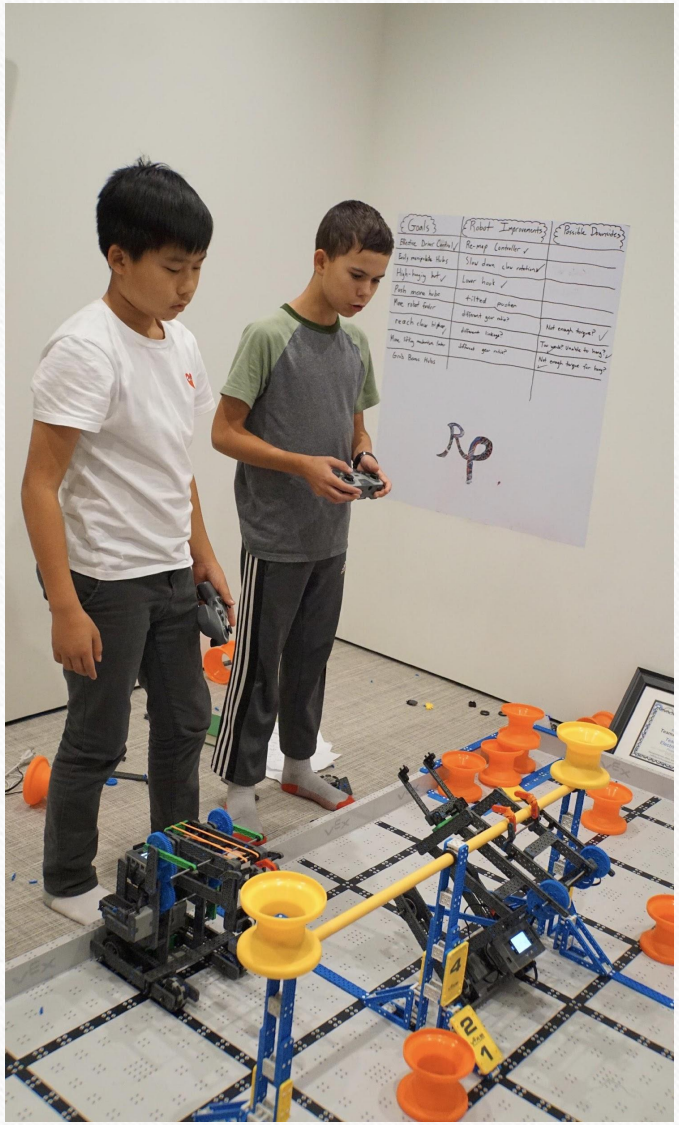
I am the only girl on the Electric Pythons, and frankly, gender does not make any difference. We are all equal in how the work is split up and each member is the leader of different aspects of the VEX IQ program. For example, a team member, Rohan, is leading the team in the VEX IQ Promote Award Online Challenge, I am leading the Girl Powered Online Challenge, Caden and I lead the Engineering Notebook process, Timur leads programming, Michael leads the STEM Project, and each member contributes to building the robot.



Electric Python's team leader and organizer, Alina Dayanova, is knowledgeable in the world of engineering and robotics and often starts team discussions about how to improve the robot. Ms. Dayanova asks the right questions at the right time that make us think about how to solve a problem. She is a Girl Power on our team.



Our team has many diverse minds, which I believe contributes to our success as a team. Some of us think very logically and systematically. Some of us are very good at getting everyone organized and on track. Some are very detailed recorders and observers. Some love to think creatively and lead more creative STEM projects, like videos and essays. Some of us have immense independence in trouble-shooting and building, and these people guide the rest of the team in the building process.



All 3 members of the original team are very inclusive and patient with the 2 new members, me being one of them. I watched many demonstrations done by the team and online tutorials on how to build four-bar linkages, drive bases, and attach gears. However, the hands-on portion was the most beneficial for me. My team members would say that we need to build a four-bar linkage and show me how to build it. Then, they would show me a model from previous robots the team has built. My job was to replicate it and tweak it to fit our robot. Through trials like these, I can now problem solve with our robot and build a base, support for the robot, a claw, and experiment with hangers and gears. I am excited to learn other engineering concepts and how to build many other mechanisms.

“Life begins at the end of your comfort zone.”
-Neale Donald Walsch, American Author

I encourage you all to try something new.

“Don’t be limited by other people’s limited imaginations.” -Mae Jemison, Endeavor Astronaut

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Team 73290A

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Rohan Parasnis

Caden Ng

Timur Dayanov

Michael Ma