

Girl Powered: The Unconventional Story of 62X

By, Katie Mumford

With Justin Ansell, Dean Reiter, Tara Reddy,
and Isaac Dienstag

Controller in my hands, I waited for the bells to ring.

Breathe in...2...3...Breathe out...2...3...

It was the finals match.

Three little girls were watching me in the stands with excitement--everyone was.

I was the only female driver there.

After my autonomous worked, I started putting up ten stacks. The crowd went wild. I won the tournament!

It's easy to read about a successful Girl Powered team. But to truly understand, you have to read the story of how a team *became* Girl Powered.



Chapter 1: Getting In the Zone

2018. My sophomore year.

As an avid soccer player and cross country runner, I had no idea what Vex robotics was. I took and loved Programming classes at school, but that was about it. After a long term injury, my friend suggested I come to my school's robotics practice. As cheesy as it sounds, I was mesmerized the moment I entered the workspace!

There were 7 boys (former State and World Champions) and two girls. The mentor, seeing I was at first taken back by all the experienced teams, invited me to a competition.

In an unspoken way, it seemed obvious that I'd go on the all girls team. But, they didn't actually need my help. A senior boy, Dylan, had no teammates, and needed a drive coach and scout. I didn't even know what those terms meant, but he trusted and me immediately. Within seconds of stepping inside the gym, my inner soccer player came out. I scouted, strategized, and coached--we got to finals!

Chapter 2: A Turning Point

2019. Junior year.

I was hooked--I learned two things: I absolutely loved everything about robotics, and that team roles should be given based on skill and team chemistry, not just based on gender.



Due to my love of strategy and leadership skills from sports, I created a team with Justin and Dean, two classmates who had been in Vex since the age of 8. Dean was the programmer, Justin the driver and main builder.

I settled into my role as the team leader and alliance captain quickly (I refused to be called “scout”). Every practice, I set up goals and timelines with Justin and Dean to keep them on pace. At tournaments, I meticulously watched the matches of every team we played. I took notes on their driving and build quality to come up with the perfect strategy against them. I also started and maintained the notebook.



Not all fun and games (and flags and caps)...

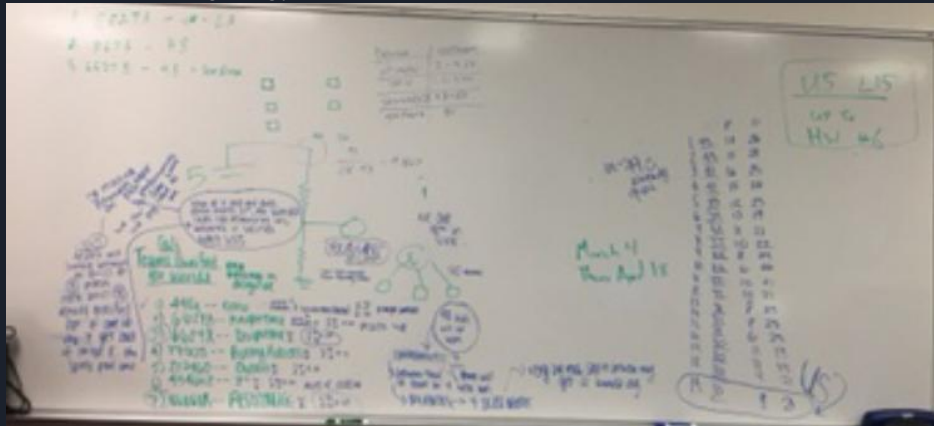
While Justin, Dean, and I worked together really well, there were indeed moments where I felt I wasn't being understood or listened to. I'd make a suggestion, it'd get turned down, and then several weeks later it would be accepted when someone else said it.

They needed a leader who could combine their bright engineering skills with strategic management. But my competitive side was often "too intense" and I was told I needed to "calm down." But, I've heard the "the boys were mean to me so I left the team" story one too many times, and was determined to be different...to prove that I can work with them.

I held a meeting and discussed why we all love robotics. I realized I'd been on a team with these people for months and couldn't even explain why they liked it. Turns out, Dean and Justin love the building and programming aspect the most. They weren't as competitively motivated as I was. Once we understood that about one another, the dynamic changed for the better. I knew to motivate them with ideas of getting the best design rather than simply winning. This concept of working with one another despite having different goals was very powerful for me, as well as our program.

Moments of Doubt

Headed to the California State competition, we knew we were up against some of the best in the nation. I spent hours researching every team, finding footage of past matches and taking notes about their experiences. It was the most I could do, in addition to updating our notebook. Along the way, I encountered one of the most frustrating moments of my robotics career. Based on our skill level and the distribution of teams at States, I saw that our most likely shot at qualifying for Worlds was through skills.




Not one person on the team believed it. Not even our coach and former World championship winning mentors and teammates. They felt there was no way we could do it. I spent days showing them my research, and finally, weeks later and one week before States, they understood. It took writing it all out on the board several times, as seen on the left.

Unsurprising Surprises at States: My “I told you so” moment

At the State Championship, my pre-comp research paid off! Justin and Dean felt totally calm the entire day as the moment we got our schedules I knew of every team we were playing and how to defeat them. We agreed that without my sporting background, they never would have gotten a more competitive perspective that really paid off. We ranked 6th in the State and made it to Semifinals! Last year, Justin and Dean weren't even picked during alliance selection at states.

We also received the California State Championship Build Award for a great interview, notebook, and build quality. My teammates agreed that it was a group effort, but if I hadn't pushed them to work extra hard and kept them focused it wouldn't have happened. Justin said “forget Girl Powered, we are Katie powered!” It was cheesy, but felt so gratifying. Though we had ups and downs, my skills and talent ultimately spoke for itself, and even the most stubborn of teammates acknowledged it. Plus, I was right: We made it to Worlds through skills (just as I predicted!)



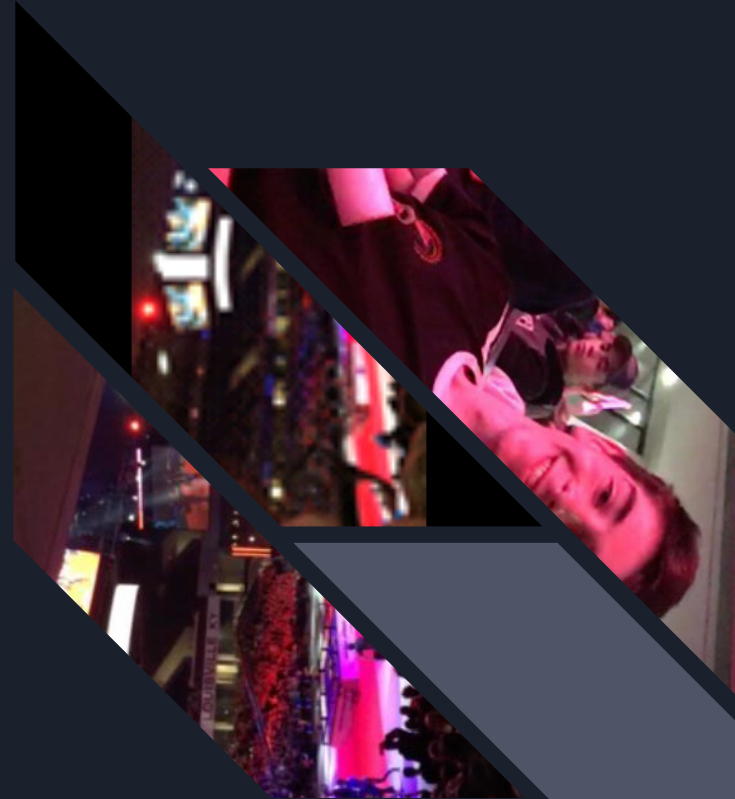


What in the Worlds? An life changing experience.

Participating at the World Championship was beyond incredible. I stayed up until 3 am every day with our schedule, watching live streamed matches of our competitors the next day. I interacted with brilliant minds from all around the world and exchanged ideas and experiences.

Justin and Dean were so happy to have made it, they in fact felt that simply being there was enough. But, I could sense we could do more. We ended up placing 16th in our division, and though we lost to our Div champions, we were so happy to have made it that far.

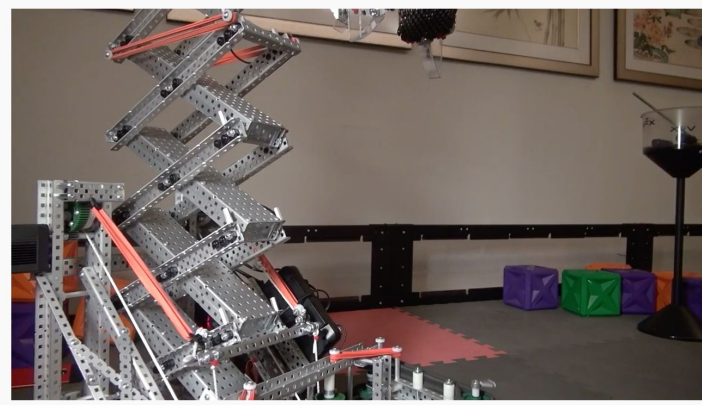
Going into the summer...I knew that I wanted to be 110% into robotics.



Chapter 3: Summer

I spent months over the summer hand crafting our new notebook. I organized a “robot in three days” build session with our 62 team program, filmed and edited the Youtube reveal, which as of right now has 14,000+ views. I used the notebook as a tool to truly learn about the building intricacies of robotics so I could better understand the build process this year. I was done only researching--I was ready for more.

In fact, I thought of even becoming our new driver. I learned from a former World Champion that it often comes down to driver practice...and I was ready to outwork every person -- male or female -- in Vex to prove that. At Worlds, I barely saw any females, and virtually zero female drivers. I even saw a mocking “Battery Powered” photoshopped logo floating around online...and knew I wanted to change that.



Team 62 Vex Tower Takeover 2019 Early Season Teaser

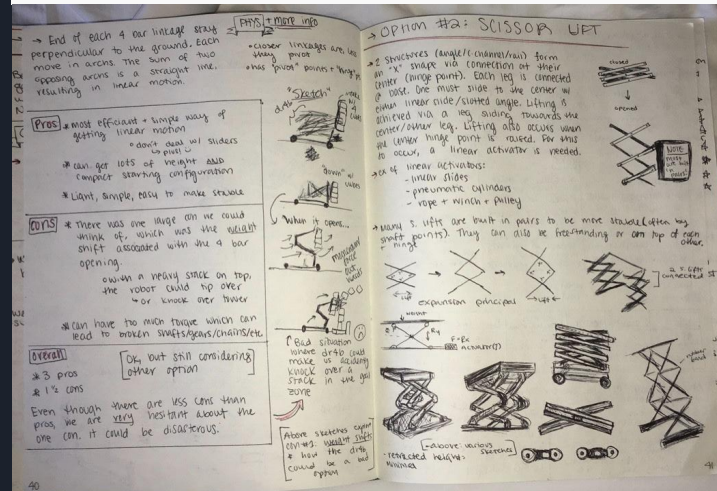
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Since then, I have become the driver, and qualified for States.

Being girl powered to me is the same as the most amazing robot in the world cannot function without its battery, a winning team cannot function without a thoughtful leader at its helm, whether male or female..Often being the only girl, I've learned to feel the pressure of being a positive role model as moms and young girls approach me at tournaments all the time. In judges interviews, I get asked questions that I know the boys aren't being asked. That's all the more reason I want to succeed by having my skills speak for themselves.

I am fortunate to have access to STEM role models which include a female dentist I work for and my former teammates (especially Dylan) who inspire and encourage me. And as much as I fight to prove it's all because of my abilities, my robotics coach Andrew Theiss, is really my inspiration. Without his unwavering support and ability to see through the boys' issues, I would not have had the opportunity to succeed as much as I have. He sees no gender bias' and welcomes one and all to our team, treating everybody fairly. He even admits mistakes, like when he didn't have me compete in a tourney so that others could have a chance--then realized I would've won it. It takes a wonderful leader to admit that. And, a local mentor, Aaron ??, who offers advice and ideas without judgement. He's amazing as a role model as he still competes in robotics as an adult.

So, as I stared back at those little girls who followed me around the entire tournament, I knew that I had to win--it was up to me to prove to them and the 100 others watching that girls can do it. And, I did.