

Title: Girl Power

Team Number: 25146D

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Twenty-eight percent, only twenty-eight percent of the science and engineering workforce is made up of women. This is an alarming statistic. What is even more alarming is that this starts at a young age. In several studies children were asked to draw a scientist or mathematician, girls were twice as likely to draw a man than a woman. Boys almost always drew men. This shows that girls' ideas of STEM careers are warped from a young age. In addition, as they get older many girls often feel that they are not meant to be in STEM and that it is an interest for only boys or "nerds", and would be made fun of if they were involved. We need to change this, our team has taken the Girl Powered initiative and put it to practice, we have a diverse team made up of two girls and one boy, and actively encourage more girls to join our school's club.

Our team started in the 2018-2019 season when we were in 6th grade, it started out as Malinda and Kaylee, two girls. We worked hard every day and wanted to show that girls can do amazing things in STEM. Our team went through the design process and made sure to always record, sketch, and brainstorm in our engineering notebook. Working hard we developed many robot designs, but none that worked how we wanted. The last few weeks before our very first competition we were still not happy with our robot, although we were not sure how to improve it. I think it is also important to note that neither of us were builders, even though we still are interested in the mechanics, it is not what we enjoyed the most or understood very well, although these experiences have helped our knowledge. I loved the programming and the simpler mechanics, Kaylee loved the organization and notebook, and we both loved to learn these new things and gaining experiences that will help us in the real world. So, the last few weeks before the competition Bergen gave us some helpful suggestions to improve our robot. It was just what we were looking for. We got right to work building and used every spare minute we got to get our robot ready for competition. Finally, it was time for the competition and we were ready, we had a robot functioning much more to our standards. We were eager for our first competition. When we got there though we noticed how much better some of the other robots looked compared to ours, we didn't let this discourage us though, even though it was hard. There was also a lack of girls' teams, it was just us and one other girls' team. We worked hard in the qualification matches, but did not do very well and found areas that we could greatly improve. When it came to elimination matches we did have an alliance, unfortunately there robot stopped working before the match even though they tried to fix it, it couldn't do much more than just drive around. It comes time for the match and we are nervous but ready to try our best even if our best is losing. We ended up losing the match and from there we assume that's it for us. After the matches are complete there is the award ceremony, we sit next to the rest of our club. We don't expect to get called down for anything, but then they start to announce the middle school excellence award. The announcer starts by saying that this is a team of two, my heart starts beating faster as I know that we are one of the few teams of two there. They go on, I think it can't possibly be us, then Bergen turns to me and tells me to get ready. I start to think maybe, but uncertainty still clouds my thoughts, how could this team of girls who seems to have failed with building their robot when all the boys' teams did so much better in that area possibly

win the highest award. I am pulled out of my thoughts as they call our team name. Kaylee and I run down as excited as can be and in shock. We also realize we are going to state. Us, two girls, out of all the other amazing teams here, are going to the state competition. We showed that girls can be great at STEM, even if it doesn't appear to be so on the outside. We worked hard and built a completely new robot for the state competition. At state, we did well and got a good alliance, unfortunately, we lost the elimination match due to disconnect errors from both our team and our alliance. Now it came to the award ceremony, we won the Energy Award for our great spirit. It was felt great to be able to win an award at state our first year.

Now it comes to the 2019-2020 season, we were 7th graders. We add a member to our team, Bergen. We realized that girl power doesn't just mean girls do everything, it means to realize your strengths and weakness and finding out how to improve and be as strong as you can, and in our case, our team needed a builder, someone who was good with mechanics, and that would be Bergen. Our amazing coaches encouraged us to do what was best for our team and they thought this was a great decision. They thought it would make our team stronger while still showing the meaning of girl power. Our coaches also always encourage us to try our bests and give up their time to help us achieve that. Our team worked hard for the Tower Takeover competition and we were ready for our local competition. We did good in qualification matches and made it to the quarterfinals in elimination matches. There, we won the middle school Excellence Award again sending us to the state competition. We were thrilled. Diligently, tirelessly, and sedulously, we worked to improve our robot for state. At state we won the middle school Excellence Award. We couldn't believe it, we qualified for Worlds! It was exciting and we again showed how powerful girl power could be. Unfortunately, we didn't get to go to Worlds due to Covid-19, but qualifying was a huge honor. We showed what girl power can do. Our team recognized our weaknesses and built from them not letting pride get in the way, and showcased our talents. We hope girls all over the world can take inspiration from our story and can find ways to show the world their girl power. And that we inspire more girls in our school and community to get involved with STEM and show them that is possible to succeed in such a male-dominated field. It is a goal that we can help raise that twenty-eight percent and that it can be seen as cool for girls to enjoy STEM and go into a STEM career. Most importantly, we hope that every girl will be able to show girl power in her own unique way.



