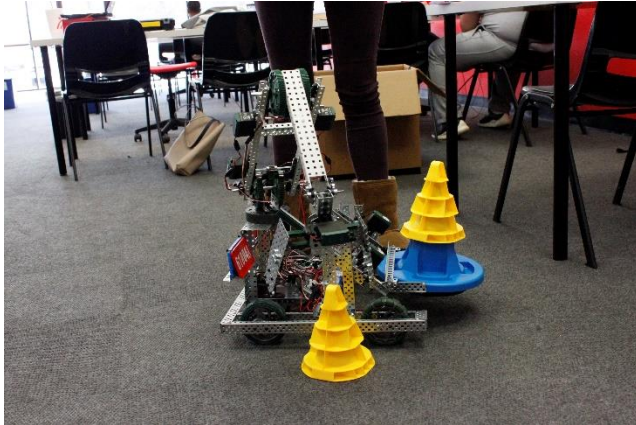


From bolts to bot... My stem journey

When “Girl Powered” comes to mind I think of people taking time to make sure that when the next generation of females enters the work force we will have the necessary background and skills to be successful. This ideal reflects in how my robot is built because it’s not about gender, but what I can build and how I can be successful.

My journey to becoming successful began in March, a few months after I began my homeschooling journey. Everyone else in my homeschool group was involved in robotics except for me and it piqued my interest. I tried it and fell in love with the world of robotics, so I continued to attend our weekly meetings through the summer. I built a robot using parts that were available. In my first competition, I received 36th.

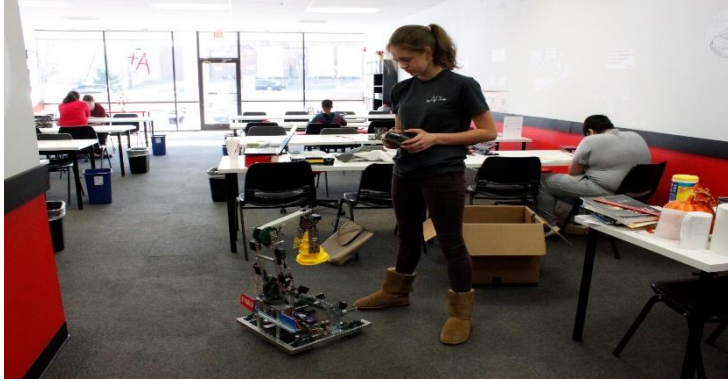
Around that time, I heard about grants getting girls involved in robotics and stem. During our search we came across the girl powered grant sponsored by Northrup-Grumman, so I applied and was accepted. After receiving the grant, I began to make changes from the parts I received and prepared for the next competition. I attended the competition and was selected up by the number two alliance and our alliance made it to the finals. I also received judges award which was awarded based off my interviews.



Practice before by most recent competition with my improved robot.

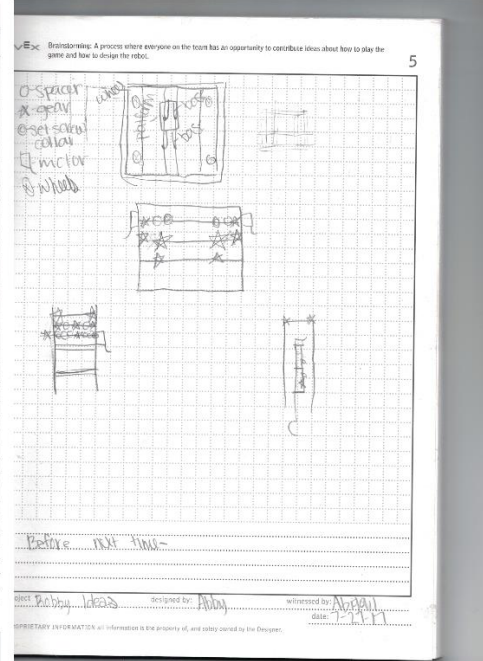
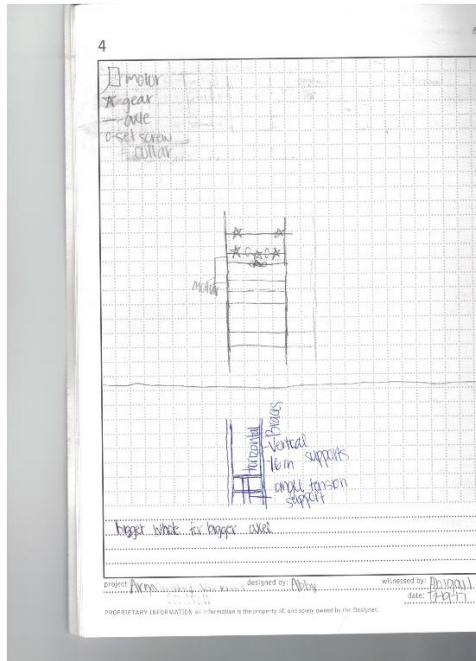
My success would not be possible without the help and support of my mentor and coach. He has shown me how to design, build and program a robot. In addition to encouraging me to pursue robotics he also encouraged other girls. His daughter worked with a team to patent the angle of the F-22 fighter jet to make them replaceable. He has a plaque from his daughter's patent and he use it to encourage me in my design.

The ways that I have created a more diverse environment is inviting other girls to come to competitions and having them assist with various things including driving, securing nuts and bolts and ensuring we arrived to matches on time. It gave them an opportunity to see that robotics is accessible.



from an article by Ali Renckens after receiving my grant. The article was published in the local newspaper, so that more people would know there is an option for those interested in robotics.

Throughout this journey of stem, I have learned a great deal including the importance of working as a team to achieve a goal. I have mastered the basics of computer programming along with grasping how an effective robot works and how to create one. I've learned to use my engineering notebook to keep track of effective and ineffective changes. I've been able to set goals and prioritize improvements. I know going forward that I can do anything because of the opportunities that have been afforded me. None of what I have learned or accomplished would have been possible without Girl Powered or my coach.



Learning how to use a design notebook and the importance of designing before you build.