

Girl⚡Powered: Everyone is Equal in STEM



We are team 952R, the Reigning Ridgely Roboticists. We attend Ridgely Middle School in Lutherville, MD. Our team consists of 4 people, Michelle, Ian, Nerissa and Caleb.

What Girl Powered Means to Us:

Many people misunderstand what feminism is. Most people think feminism is thinking that girls are better than boys, but that is not the point of feminism. Feminism means that girls and boys are viewed equally and that no one is superior. This is what Girl Power is about. In the STEM world, girl powered means that girls are given the opportunity to contribute to STEM equally as boys. Currently, the STEM fields are dominated by men, with only 24% of the people in STEM fields being women. Girls are capable of achieving challenges in STEM fields and have as many good ideas as boys have. Girls can be just as interested as robotics. Girl powered also means getting people more interested and involved with STEM and robotics. It means having a more diverse group of people in robotics. Diverse people equal diverse solutions.

Team roles:

Nerissa: Building, programming, and developing strategy, engineering notebook, and STEM project. Team Captain. 7th grader, second year in robotics

Michelle: Building, programming and developing strategy, engineering notebook, and STEM project. 7th grader, first year in robotics

Ian: Programming and driving, and building. 6th grader, first year in robotics

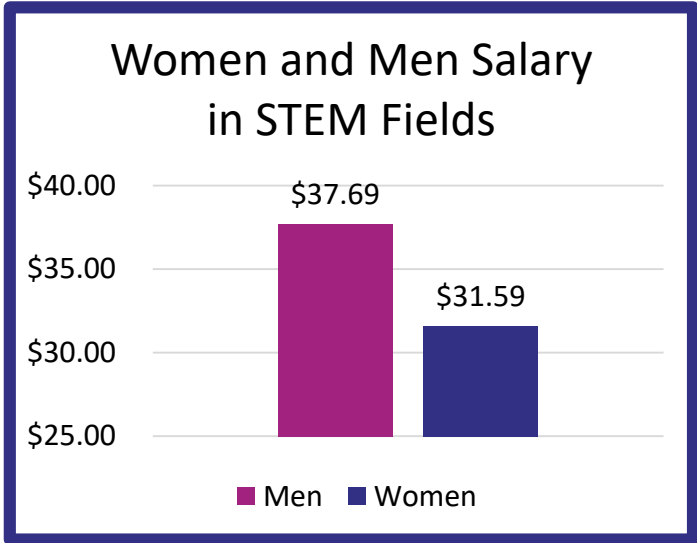
Caleb: Programming and driving, and building. 6th grader, first year in robotics



Programming

Each person has several roles on our team because we want to let everyone try out various roles on the team to let them find what role they like the best. We don't really have specific roles on the team, we help each other in all fields. While trying out different roles, each team member discovered the roles each of us were interested in and good at. This way, everyone is happy and more motivated to achieve.

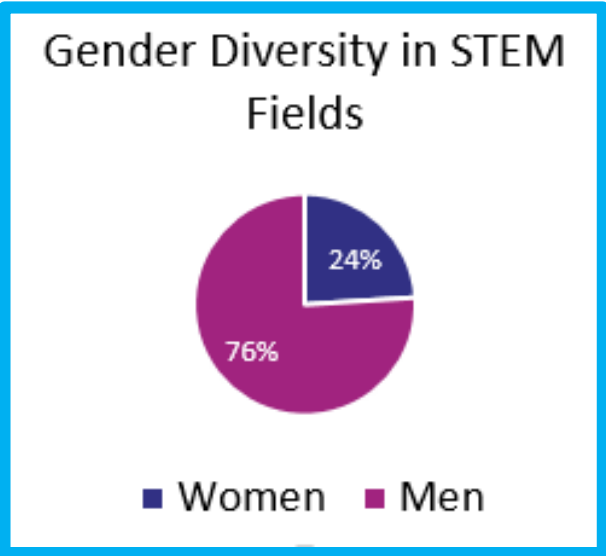
Girl powered means that everyone's ideas are accepted and anyone can join robotics. It is also about supporting your teammates and making them feel like they belong on the team. We don't want gender or ethnic stereotypes to affect the diversity of people in STEM. When you are Girl Powered, you stand up for your ideas, regardless of which gender you are, or your ethnicity. It means you won't just stand there and watching others work. It is about getting involved Robotics is about having fun, learning new things and working together. Anyone can do these things!



There is a huge wage gap of \$6.10!



Working on the robot



Less than ¼ of the people in STEM fields are women.

Girl Power: Demonstrated on Our Team:

We have equal girls and boys on our team. It shows that in robotics our team is diverse and isn't dominated by a certain gender. We encourage each other to explore new ideas and try different things. When we are making decision, we consult everyone on our team before implementing anyone's idea. We ask everyone if they have other ideas and if 2 people have different ideas, we make a compromise between these ideas to make everyone feel respected. We listen to each other's ideas and always make that they ideas are heard. We let everyone know that they are an important part of the team and crucial to our success. Everyone is treated equally with respect. For example: We let our team members vote on the 3 disabilities we narrowed down to (Tourette, Dyslexia or Autism) we wanted to do for STEM project.

An Inclusive Environment:

We have created an inclusive environment by giving everyone a role on our team. We let everyone contribute to the group. We work together cooperatively and we accept everyone's ideas. We make everyone feel welcome and we show that anybody can do robotics. We always encourage each other at competitions and always share the credit.

We have also attracted more girls and created a more diverse environment by telling our friends about the Robotics team. Having a friend doing a club with you is always more fun than doing it alone. For example, I told Michelle and more of my friends about robotics and they decided to join the robotics team and found it to be really fun.



Touching up on our robot

How Team Diversity has Impacted Our Success:

Our team is very diverse so we share more ideas with each other to create the most effective robot. We all think differently so we have many solutions to different problems we face. We have learned to respect to each other. We are all different, and our differences help us unite as a stronger team!

STEM Role Model: Katherine Johnson

Katherine Johnson was a notable mathematician whose greatest achievements include the calculations that helped launch Project Apollo's Lunar Lander. Her contributions were vital for the success of the project. At the time, most women did not have STEM related occupations and were treated to stay at home to cook or clean. During the 1950's and 1960's many African Americans were discriminated and could not have higher paying and important jobs. Katherine Johnson worked very hard to defy these two common stereotypes. In 2015 President Obama presented Johnson with the Presidential Medal of Freedom for her contributions to the aeronautics field at NASA.



Katherine Johnson

Katherine Johnson has inspired us to work hard and have confidence even though some of our team members are girls. She also inspires us the work together, because she also worked with other women to complete extraordinary projects.

Our Story:

Nerissa: When I first heard of Robotics, I knew it was something I wanted to participate in. When I first arrived at tryouts last year, I realized that most people were boys, which made me want to get more girls involved in Robotics. I was placed on an all-girls team and we were able to work together to win the build award and land a qualification to states. At competitions, we did not see many girls, especially all-girls teams. At the Maryland State Championships, a team even told us that we shouldn't drive because we were all girls. This made me realize that some people still feel prejudice towards girls in STEM. Our team is working to change this. The next season this year, I was able to convince a few of my friends to try out for Robotics. This year, I saw more girls at tryouts which made me really happy. I was placed on a team with 2 other boys and 2 girls and we were able to work together to qualify for States at our first competition by winning the Design Award! At the first competition this year, I also saw an all-girls team that was really successful which gave me confidence and showed me that girls can do it!



First Competition!

Michelle: I joined robotics this year because I was motivated by my friends who also are in robotics. I have always had a great interest in STEM. I like STEM topics because you can relate almost anything in society to it. It's very inspiring to see the STEM world advancing and improving and I want to make contributions too. Girl Powered is very important to me because I believe that more people should be interested in STEM. I want girls and boys to be equal and not be biased toward each other. During competitions there were mostly boys so I wanted to get more girls to join. I want to show the world what girls can do.



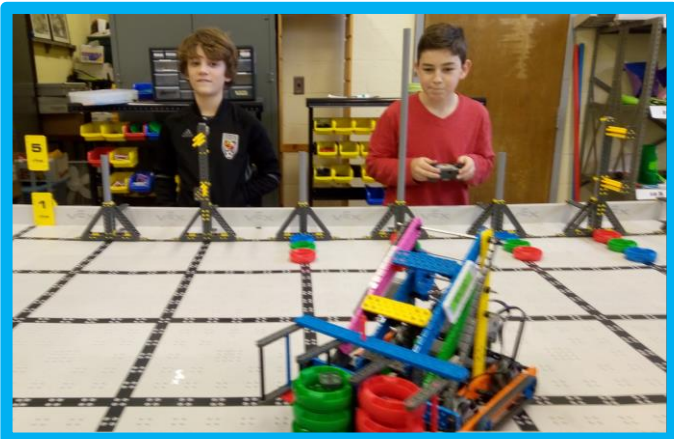
Design Award!

Caleb: Last year my brother was in robotics which was why I also wanted to join and because it seemed very interesting. I went to States last year with my brother and I noticed that there were a lot more boys than girls. In robotics there are more boys than girls. I wanted to get more people to join robotics to that there could be a more diverse group of people. I believe that no one is more superior to anyone else and everyone is equal. I want to create a more diverse environment within the STEM fields.



Match Play!

Ian: I have 2 brothers who were in the robotics team so I was interested in it too. I believe that being girl powered is an influential part of being on a team. I think that each team should respect everyone and treat them equally. When you are Girl Powered, you support everyone else. STEM is very important and more people should be interested. Telling your friends about robotics is one you can get more people interested.



Driving

Credits:

Michelle Wang

Nerissa Wong

Ian Gorman

Caleb Margolis

Team: 952R