

From Riveters to R^2

TEAM 92509A

Our Story: In the spirit of Rosie!

In 2018, The Girl Powered Initiative took a group of eight young women and turned them into eight female STEM advocates. The founding members of the St. Martin's Riveters created a culture of robotics that was inspiring, inclusive, and empowering. They found the VEX IQ program, asked their coach if they could register. As a self-funded team, the Girl Powered Grant allowed them to participate in an organization that has changed their lives forever. Each Friday, they would practice their craft, invite younger girls to come and learn, and encouraged their classmates to consider joining, or starting, a vex robotics team. For the first two years, team 92509A was made up of all girls. After The Riveters inaugural season, that culminated with a trip to EX Robotics Worlds Championship, St. Martin's Robotics participated doubled! This year, we have added two boys to our team and now are The Riveters and Red Heads, aka R². In the spirit of Rosie, team 92509A has inspired more St. Martin's student get involved in STEM because we can ALL do it.



The First Riveters: Pictured from left to right, Lilly, Hannah G, Avery, Priscilla, Hannah P, Emma, Sophee. Not Pictured, Belle

What does girl powered mean to us?

Girl powered, what is it? The dictionary defines it as “ a reference to an attitude of **independence**, **confidence**, and **empowerment** among young women”. I am lucky to be surrounded girls and women everyday that are the embodiment of girl power. Sadly, it was not always like that.

In society today, girls are able to do anything they put their minds to. Unfortunately, we have seen that throughout history women have not been equally represented in fields like science, robotics, and engineering. However, thanks to women like Naomi Fraley, the inspiration for Rosie the Riveter, and many other women, we are able to do anything without anyone holding us back because of our gender. Every year, we see an increase in female representation in the STEM world. Those faces remind the world that females deserve equal access to education. We are fortunate to live in a country where all genders, races, and economic classes, have access to schools. Around the world, young girls still are fighting for equal education. However, we still believe that women like Susan B. Anthony, who fought women's rights, and Marie Curie, the first woman to win the Nobel Prize, could see society today, they would be very proud that teams like ours are making sure that females are visible in robotics.

Our team today

While we started as an all girls team, we did not feel right asking the two boys to join another team. We have been on the receiving end of that kind of treatment before. So, when they asked if they could be Riveters, we said "SURE"! Today, we have 5 members. Our team captain Sophee, who also, drives, builds, and programs, was in 6th grade when The Riveters started. Lilah, our blogger, and website designed, was on the team last year. Leana, our new driver and builder, joined this year. Patrick, a programmer and driver, was interested in robotics, but scared to join last year. Lastly, Chris who drives and is our design scribe, is also new this year.



Challenges we faced

Being a team with so many new members was hard. We struggled to really get our ideas to gel at first. Then we started using decision matrixes to make sure every voice was heard. Once we started listening to each other, our robot design process went so much easier. We started to look at the users of our robot, and design based on their perspective. Because of this, we won the deign award at the Southern Maryland Tournament.



Lessons Learned

Our biggest lesson that we learned this year is the power of teamwork. Once we started to work as a team, we began to get a lot done. A team for us means that all of our voices are heard, we all get a chance to drive, we all are important, and if one of us is feeling down, then the team isn't as effective. While we have learned so much about programming, engineering principles, and the design process, the ability to cooperate and collaborate on a team is a lifelong skill that we can take with us to high school, college, and beyond.

Our STEM Role Model

Our STEM is our coach Keya Belt Robinson. She is fun, caring, kind, selfless, and smart. She gives up a lot of her time to make sure that we can be our very best. Last year, she changed her plans with her husband to take us to one last competition so that we could try to make it to states. Last year, she was our counties Independent School Teacher of Year, but that is not why she is our role model. She has taught us that learning can be fun. Science is not boring. Programming isn't just for nerds. Physics is more than just hard, and chemistry is super cool.



Why Rosie, why the red lips?

We chose The Riveters because Rosie the Riveter was used to recruit females for a male dominated industry. At worlds our first year, our drivers wore red lipstick because an article we read while learning about Rosie. “The first and most famous manifestation of red lipstick was in fact in New York when the suffragettes took to the streets, banded together, and as part of their defiance and fight for the vote, they all wore bright red lipstick.” We think Rosie’s red lips are an act of defiance against male stereotypes. As a team, we want to remove the stereotype that STEM is male driven. We also think that girls can be, and look like, girly girls and still be athletes, drive robots, write awesome code, and build the next best thing. Not all princesses wear dresses. Some of us build, drive, and program robots!

Diversity is important

Our goal in creating an all-girls team was to have a place where everyone could have a chance to pursue robotics. Without an early exposure to STEM fields, like robotics, there will not be nearly as many female interest in them. In a world where technology is continuing to become increasingly important, we believe that diversity will make the STEM field better. Diversity isn't just about gender or race, diversity is also about socioeconomic as well. We try to fund our team through grants, sponsors and fundraising so that ALL students can join. We are glad to be a very small part of making robotics more diverse, and hope that as time goes on, STEM fields will continue to diversify and that everyone will feel like they have a place in this ever growing field.