PRESENTING THE GIRL-POWERED ROBOGATORS

GIRLPOWERED ROBOGATORS

16734Z

WHO WE ARE...



We are the Girl-Powered RoboGators VEX IQ Robotics team from Ware County Middle School. Our team is made up of three girls and two boys. We are all sixth graders, and this is our first year on the middle school robotics team. Four of our team members were on a VEX IQ team in elementary school, and one team member is brand new to robotics.









WHERE WE'RE FROM...

We are from Waycross, Georgia, which is located in southeast Georgia near the Okefenokee Swamp. Our team is called the RoboGators because alligators are common in our area and a gator is the mascot for our school. There are not many VEX IQ programs in our area. Our school has the only middle school program that we know of in South Georgia. This means we have to ride the bus for four hours to get to the nearest competition, but we don't mind because we love robotics.









Getting the grant...



Girl[#]Powered

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The first time that we heard we got the grant to have our own robot and be a Girl Powered team, we decided what Girl Powered meant to us. We decided that Girl Powered meant that both boys and girls have great ideas that can further improve the robot. We wanted to give everyone a chance to do hands-on activities with the robot. We felt like this was the right thing to do to make sure everyone was heard. We usually take votes if we make big decisions about the robot. Girl Powered means that everyone's ideas are considered and that everyone is included in the design and development of the robot.

ASSIGNING TEAM ROLES...







There are many jobs that a robotics team has like designing, building, programming, and driving the robot. Our team decided that everyone should be able to do all of the roles. If a team member does not know how to do something, they are taught by another group member. As they learn the new role, they give input on how to improve it. Since we sometimes get sidetracked, we decided that one team member needed to be the manager. In addition to the other tasks, she keeps us in line and makes sure we accomplish our goals in practice. At competitions, she keeps up with the schedule and makes sure everyone gets to the right place on time. We recognize each other for our contributions and make sure that all team members are successful. We know that we all bring value to the team. If we receive any awards, the entire team is part of the celebration.

MAKING ADJUSTMENTS...



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We believe that having team members with diverse perspectives helps us be more successful. Our different backgrounds give us new ideas and approaches to solving a problem. This season our robot has gone through many changes. We started out with an elevator lift that was able to push and pick up hubs, but not hang. We used this design at our first competition. We did pretty well, and even won the judge's award. We soon figured out that if we supported our robot's lift more, it would work out more efficiently. It worked correctly, and we used that design for the second competition. Now, we think if we change the lift design the robot will be more efficient. We are working on our new design for the next competition. All of the changes made were a result of input by different team members and were voted on by the team. With each change, our robot \mathcal{P} has gotten better.

SHARING WHAT WE'VE LEARNED...



Many of us first became interested in robotics a few years ago when the high school robotics team visited our elementary school to do a demonstration. Like the high school team, we are also interested in promoting VEX robotics and STEM in our area. Our team has been out to events in the community to demonstrate and share information with the general public. In the past we have presented for the Ware County Board members. They were interested in being able to drive the robots and learn about how they work. We also worked a booth at the county fair where we shared our program with the public. At school, we share the ideas and techniques we have gained from robotics with our peers. We created a roller coaster video that was part of our stem research project, and we share that as well because some kids are not interested in robotics but may be interested in roller coasters. We hope that others will see how both girls and boys on our team work together and this will encourage students of both genders to get involved with robotics and STEM.

OUR STEM ROLE MODEL...





Our STEM role model is Mrs. Michele Yaun-Bell. Mrs. Yaun-Bell was the STEM coach for our elementary school and began our elementary robotics program. The idea to create a team for our school began when she attended a technology conference in Atlanta where she learned about coding and robotics. Although there were no other elementary teams in southeast Georgia, she wanted her students to be exposed to robotics. She invited our local high school team to come demonstrate and provide assistance with learning how robots work. Mrs. Yaun-Bell worked long hours to learn about the VEX program and to prepare her students. She also made it a point to include students of various backgrounds in the program. The first year, we worked at the school to learn how to build and work the robots. During the second year of our robotics program, we attended competitions in Atlanta. Our school also invited other elementary and middle schools in our county and surrounding counties to attend a robotics demonstration. Our current middle school attended the local demonstration and decided to create a competition team of their own, which is why we are now able to continue with VEX IQ. Although this was outside of the box for Mrs. Yaun-Bell, she did not allow the fact that there were no other teams in the area to keep her from moving forward. It is because of her hard work that our school system has an elementary and middle school VEX IQ program today.

ACKNOWLEDGEMENTS

We hope that you've enjoyed learning about our team. Nothing that we do would be possible without our community sponsors, coaches, and parents. We would like to thank Google for sponsoring this challenge and VEX for encouraging students from all backgrounds to get involved with STEM.





WARE COUNTY MIDDLE ROBOTICS SPONSORS **Pineview Physical Therapy** Real Estate Works Terralyn Brown Wal-Mart Neighborhood Market **Woodard Pools Moore Farms - Ware County LLC** PAK's Karate Waycross Jeffrey S. Parker, Attorney at Law **Taylor Pools** Smith & Manus D.M.D. Carswell Chiropractic Waycross Heating & Cooling Integrity Health & Wellness Lee & Davis Country Meats **Pearson Family** Sid Halstead State Farm Insurance lardens Concrete Finishing **Mavis Discount Tire** Vong's Palace Restaurant Waycross Internal Medicine Lee Hardware & Building Supplies Southeastern Chiropractic V&H Builders Robbie Roberson Walker Jones Sanders Family Kwalyti Tooling & Machinery Rebuilding **TRW Timber Company** Lucas & Thomas Family Dentistry Lina Heath Harper, MD Southern Property Maintenance **Guy's Automotive** The Body Shop of Waycross Melody Fielder "4M Casa" Waycross Family Pharmacy Walker's Lawn Care anders Honey Company Walker Tree Surgeon Members of Winona Park UMC ley, Agent; GA Farm Bureau

ROBOTICS

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CREDITS

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