Who Runs the World, Girls

When hearing the phrase Girl Powered our team, 95E, thinks of women redefining male dominated fields and industries. Since we compete in robotics, we often focus on ways women are redefining Engineering and more specifically Robotics. We have taken the girl powered initiative by recruiting more girls into robotics. This is apparent in our team which consists of six people four of which are girls.

Before VEX begins, we announce tryouts at all of the base high schools in our county. During tryouts, first we introduce ourselves. Then, we perform a manual dexterity test during which we build a tiny race car using kits provided by our coaches. The amount of time taken by each potential team member is recorded also. When we build the race car, it shows the team leaders if potential team members work well under pressure, their skill with building, and how well they follow instructions. After the manual dexterity test, potential team members are interviewed by all of the team leaders. Based on the interviews and the results from the manual dexterity test the team leaders select members for their teams. By having our tryouts in this format, we allow potential for anyone interested in robotics to become part of the program, we increase the diversity in our program, and form the most effective teams possible. It was through this try out process that we choose the six members of our team four of which are girls.

Ashley Hiller working on the toy car.

In our team we have all contributed to different aspects in building and programming our robot. Janie Edgar, one of the co-leaders, has had roles in helping design parts of the robot, helping build the robot, and writing the engineering notebook. Thomas Bruner, the second co-leader, has had a hand in designing the robot, building it, and programming it. From these various roles, he has learned how to best work with others, how to explain designs, and how to help build an effective robot. Cassandra Martinez, has had roles in helping build the robot, and testing the robot. From this she has gained knowledge about the structure of robots and how it helps the robot's performance overall. Ashley Hiller, has contributed to the team by designing and building. From this experience she has learned great leadership skills, which will help her in

the future when she chooses to be a leader. Chloe Tomlinson has learned how to program, design, and build. Doing this she has gained the knowledge on how to fix problems if they are not working. Thomas Comte has worked on the robot in many ways he has been involved in design and build. He has learned valuable lessons in teamwork.

Chloe Tomlinson and Ashley Hiller preparing te robot for the competition the next day.

Diversity of perspective alters the way one thinks which in turn alters their approach to engineering and robotics. Different approaches to engineering and robotics results in various designs. With numerous different possible designs available our team can choose the most effective design to implement onto the robot. A Teams chemistry is altered when multiple diverse people are added. Guys and girls are different so when they mix on a team the chemistry

changes and when you are able to make the chemistry work your team is able to work better with multiple ideas and new ways of thinking are introduced. If a team consists of people who all think the same way a good idea may come out, but when the team differs the chance of a better idea increases and with it the chance of success. During the course of this season we have all learned how to work as a team and used our differences to drive us forward.

Picture of our team and our programmer Jamie Creigton after winning the 2018 Walker State Qualifier competition.

For Chloe Tomlinson, her role model is her mom. She states, " The reason my mom is my role model is because she graduated from Georgia Tech with a major in engineering. My mom is always talking to me about ways to improve our robot and is very supportive of my ideas and changes."

For Ashley Hiller, her role model is her dad, Mr. Ray. She states, "He is my role model because he completed college with a degree in engineering. He now works at Kason industries as a mechanical engineer."

For Cassandra Martinez, her role model is her cousin, Jorge Cervantes. She states, “He inspires me because he has won the BEST CAD award two years in a row and he is a senior and works for a paid internship at Grenzebach Corporation. He is an extremely hardworking student and will be a very intelligent engineer in the future which is all I aspire to be.”

For Janie Edgar, her role model is her teacher, Mrs. Brown. She states, “Mrs. Brown would be my role model because she introduced me to STEM in middle school during the technology classes she taught. She also recruited me into VEX.”

For Thomas Bruner, his role model is Elon Musk. “When you think about innovation and engineering, you immediately think about Elon Musk. His progress and innovation in the field of engineering inspires me to be creative and dedicated to the problems I work on and any task I undertake.

For Thomas Comte, his STEM role model is his 8th grade science/STEM teacher. “I not only had him for the 8th grade physical science, but also for a special STEM elective. Dr. Willis challenged us to think outside the box. He also showed us that we don’t need to be geniuses to figure out the problems that we were given. He also was a kind man and a friend to all. I am honored to have learned from him and will use what he taught me throughout the rest my life.”

All of our STEm role models encourage diversity by inspiring us and encouraging us to branch out and work with new people even if they are different from us.

Credits

Entrants: Janie Edgar, Ashley Hiller, Cassandra Martinez, and Chloe Tomlinson

Team Number: 95E

Title: Who Runs the World, Girls