

Courage to Continue

“There isn’t going to be robotics this semester.” These words were the undoing of all the hope that we had held onto. These words meant that we couldn’t build a robot, program, compete in competitions, or get together as a team to work on robotics until January, at the earliest. But January would be too late.

We weren’t going to take this sitting down. We had made it to Worlds the season before, just to have it ripped away by the COVID-19 Pandemic. We weren’t going to have this chance taken from us again.

So, we got together as a team. We decided that we had no choice but to write a letter, arguing our point: robotics needed to happen. We worked hard, getting together virtually, writing about why robotics needed to go on. Just two days after we sent our letter via email, we got a response from our principal, saying that we would be able to get our team going!



This was the first instance, this season, where our determination paid off, and this dedication is what makes our team Girl Powered.

We believe that being Girl Powered means persevering when an obstacle is placed in your way. Being told that robotics wasn’t going to continue was definitely an obstacle that we have faced this season, but we faced it head on, and we emerged with a good outcome.

Another obstacle we have faced this season, as well as last, has been COVID-19. It cut last year’s robotics season short, and we had planned on going to Worlds after winning the Innovate Award at our state’s championship. This pandemic has also affected us this season, as we cannot meet in the ways we would wish to and we can’t practice as easily.

Of course, we can’t make one true solution for COVID-19, so we’ve had to work around it by meeting virtually. This allows us to still talk about the robot and build it together while following guidelines for social distancing. We have also switched our Engineering Notebook, which used to be on paper, to a virtual document, which allows for everyone to have access to it, whether they have the robot or not. Early on, we made the decision to have only one driver per match, a new rule that VEX allows to aid in social distancing. Though this is not ideal, we believe it is the best and safest option.

There are also lots of smaller problems that we face in robotics every day. Maybe it’s not having a fully stocked kit, or not having a piece work the way we thought it would. But even these everyday problems require perseverance. We need the determination to keep going, even through these more minor problems. We need perseverance to help us figure out

how we can go on without the missing parts, or how to get the parts. We need it to figure out how to change the piece to get it to work, or make a different piece to solve the problem. Even something as trivial as trying to find a time for everyone to frequently get together on a video conference takes perseverance, but it's this determination to make it work that makes our team Girl Powered.

We are an all-girls robotics team consisting of three girls, in seventh and eighth grades. Even though we don't have a very large team, we still make an effort to include all team members. Whenever we have a meeting, everyone gets the invite, so that everyone is able to join and be included in the meeting. Although we wish everyone could come to every meeting, that isn't always possible. To combat this, our Engineering Notebook is available to everyone on the team, so we can all see everything that has been done at each meeting. This means even if someone can't be in a meeting, they can still be included and know what happened. We also make sure that before a big decision is made, everyone can agree on it. We want to be certain everyone's voice has been heard, and that they agree with the decision that is being established.



Despite everyone having jobs on the team, every team member's ideas are taken into account in all subject matters. For example, a problem might arise with our robot's base. Even though Mina's strengths don't lie in building, she can still share her solution and it will be fully considered. This means that everyone is included in all parts of the team, no matter their strengths or weaknesses.

Through different experiences, in this season and past seasons, we have figured out some of the roles that we work best in and like most. When our team first formed, we all tried different roles, then moved to the roles we have now. By trying the different roles, we gained understanding of what each role entails, and we are able to understand the difficult parts of each job. This helps us because when one person has trouble, another person can help.

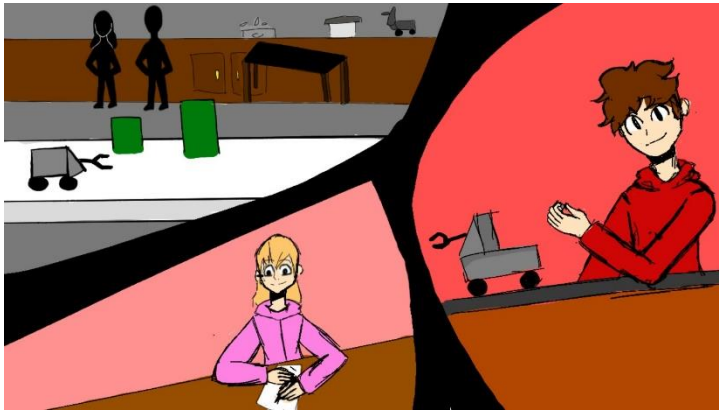
Another thing we gain by trying different roles is a better understanding of our teammates. When you try a job, you learn to understand that job. By doing this, you understand the traits someone needs to work well in it. This helps you get to know the teammates that work in each job better.

There are some aspects of robotics that all our teammates work on, like game strategy and ideas. Even though some of us are better in some elements, that doesn't mean that only one person can help in that area. Everyone's ideas are taken into account and considered. All of our strengths combine to help the team. This helps make our team well rounded, since we all have different things to contribute. We all have some similar strengths,

which we can use to our advantage. This way, we can come up with even better ideas to think about and use.

When we meet as a team, we usually work together on each topic. When we have a meeting about building, all of us are helping with building, whether that means troubleshooting or coming up with more ideas. We all work together on overall ideas such as robot design, game strategy, and online challenges.

Of course, we all have our own strengths. Addie and Paela take the lead on building,



since they have the best understanding of how VEX pieces fit together; Paela and Mina take the lead on the Engineering Notebook, since they are the strongest writers; and Addie and Mina take the lead as drivers, since they are the most practiced at maneuvering the robot and they understand the controls best.

With all of us having our own strengths and weaknesses, we have different perspectives on our strategy and how to solve problems. We all think about things in different ways, which helps our team immensely. It gives us the opportunity to hear different perspectives, instead of just one. This is important because hearing from different people can help you find the best solution. It can help you find a solution more successful than something only one person might think of, because you can merge more than one idea together.

Our STEM Role Model is Mrs. Madsen, Paela's mom and our volunteer coach. She is extremely supportive of us; she takes time to meet and help us, and she asks us good questions that make us think. She inspires us to be more inclusive by reminding us to ask the input of everyone, and helping us make sure everyone agrees before a big decision is made. Mrs. Madsen has been a volunteer coach in past years as well, and she did the same for us then. She has also been there as we faced the more major obstacles that couldn't be dealt with without adult help. Mrs. Madsen has driven Paela, and others if they couldn't get a ride (in past years), to competitions, and to each other's houses to drop off the robot. Through the pandemic, she has, in general, encouraged us and lifted our spirits.



To us, being Girl Powered means having perseverance, and continuing on no matter the obstacle. Everyone faces obstacles in life, and robotics is no different. We have to persevere if we want to get through these obstacles. Perseverance is one of the most important qualities to have in robotics, because you face obstacles all the time, and whether they are big or small, they affect you and your team. But the most important thing to do is

keep going. When you face an obstacle, whether it's all encompassing or just a little glitch, remember: keep pushing forward, do your best to find a solution, and you'll eventually be through it.

"Success is not final, failure is not fatal: it is the courage to continue that counts." –Winston Churchill

CREDITS

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