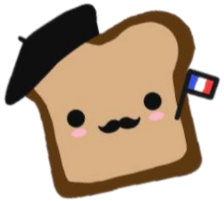
VIQC Middle School

Girl Powered Challenge 2023



Team 11471K

French Toast Mafia

Anelie Copelin and Lilliana Misterkiewicz

Niagara Falls, New York

Presentation by Lilliana Misterkiewicz

This is a story of two girls with one common goal: **TO WIN**

Let me start off by introducing the team...

Anelie is one of our drivers, the builder, and coder. She enjoys going to plays, horseback riding, playing piano, and playing softball.

Lilliana is the other driver, coder, and notebook writer. She enjoys playing softball, writing, playing the alto saxophone, and Just Dance. Together we work as one unit to accomplish anything we put our minds to.

When you hear the phrase “Girl Powered,” what comes to mind?

When we think of the phrase “Girl Powered,” we think of strong girls who stand up for what they believe in and pave the way for girls who come next. Girls have come a long way in STEM, but there is still work to be done. As an all-girl team, we are determined to help young girls succeed in STEM and be a positive role model for girls around the world.

“Girl Power means to change the world for the better so girls in STEM have a fair chance.”
-Anelie

“Girl Power means to empower women in STEM and to add my creative outlook to the engineering community.”
-Lilliana

Though STEM has been predominately male dominated in the past, STEM icons such as Dr. Hayat Sindi helped pave the way for women in STEM. The term “Girl Powered” implies that girls can do anything they put their mind to, whether that is in STEM or in everyday life. This encourages Anelie and I to be a part of changing the world which motivates us to work hard, never give up, and find unique ways to accomplish tasks throughout robotics. When problems arise, we remind ourselves that we are doing this to encourage other girls to be involved in STEM. This motivates us to be persistent in our building, driving, coding, and journaling.

We bring our Girl Power trophy to every event! This trophy motivates us to do our best and represents how much power we bring to each competition!

"Challenges never change, but only move up to a new level,“
-Dr. Sindi

How does your team take initiative to create a more inclusive environment that attracts a diverse group of students?

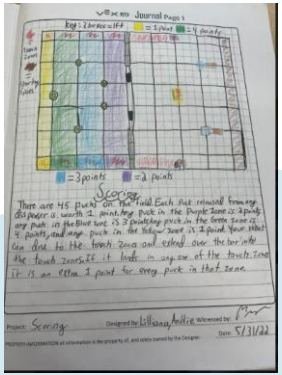
Robotics has taught us to come together by recognizing each others ideas and outlooks for the problem at hand. We had many team meetings where we discussed ways to improve our robot, team chemistry, and potential compromises based on both our ideas. We learned to work as a cohesive unit to create strategies, brainstorm, build, code, and journal. With other teams at our school, we started to brainstorm, strategize game plans, and potentially improve each other's robots. During competitions, we bond with other teams about common goals and even common interests. We are able to create trust with the other team and most importantly, have fun.

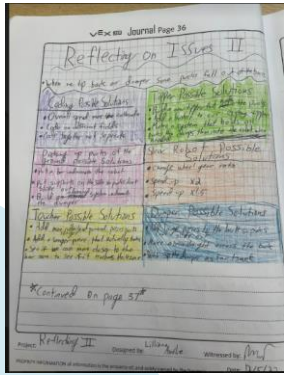
Do team members try various roles on the team and what do they learn from this experience?

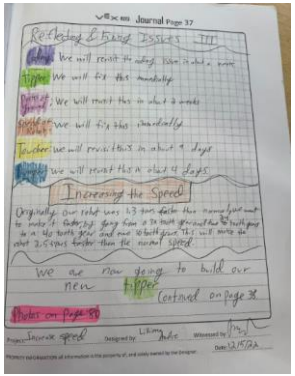
This is our second year as a robotics team and we have established a very precise system to keep our team well-organized. In our first year as a team together, Anelie was the main builder and I was the main coder but towards the end of the year we realized it would be more beneficial doing both together. We start off every morning by discussing possible strategies and brainstorming new ideas for our robot. Once we come to an agreement about the tasks for the day, we immediately start to work.

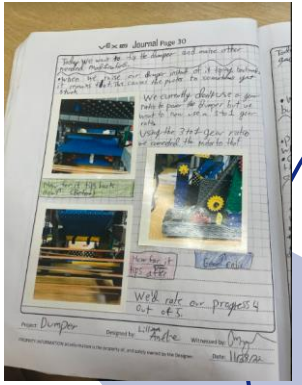
While Anelie builds, I journal about the success' and hardships of that day's work. I also journal about ways to solve problems and strategies that we have developed. When I journal, I am able to learn how to write about a design process, come up with multiple solutions to problems, and overall enhance my writing ability. When we code, we both sit down and code together using multiple different methods such as, trial and error, and measuring the distance between two points. Coding enhances our problem-solving skills, critical think skills, and creativity. It also makes many future careers possible. Building gives us a hands-on experience with the future of STEM while also building on our collaborative and leadership skills. All of this helps us learn valuable life skills and help enhance our STEM knowledge.

Examples from our journal:



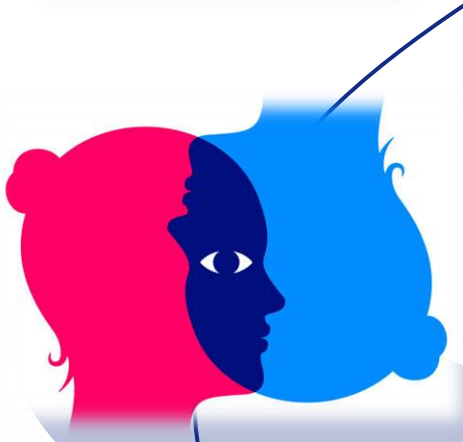


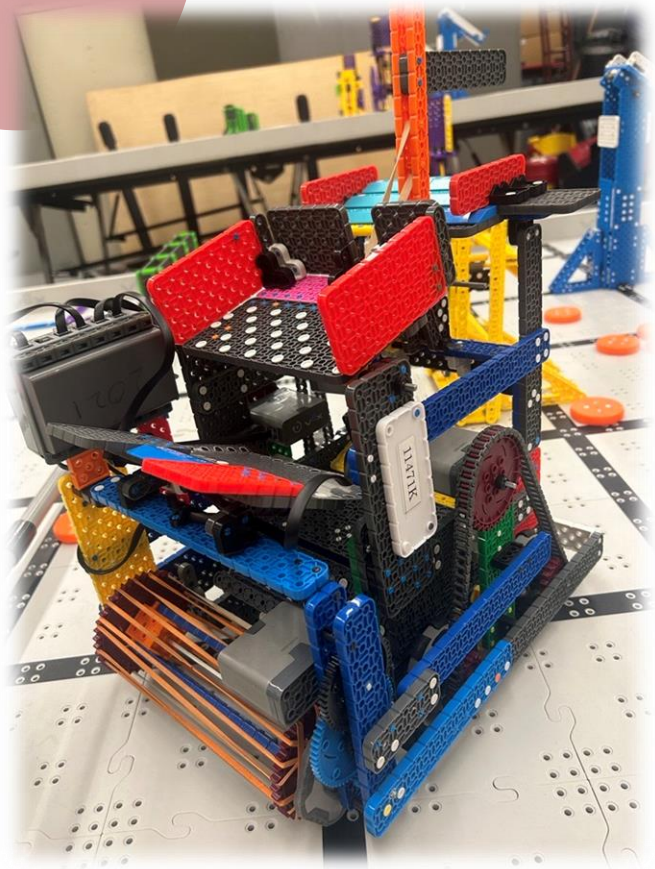




How do you believe diversity of perspective changes your robot design, your team chemistry, and even your ability to succeed?

I believe diversity of perspectives changes the way our team performs by having multiple perspectives on an issue instead of just our own. When there are more sets of eyes on an issue, one person could see something that the other can't. Different opinions also play a significant role in our team chemistry and design process. Different opinions lead to unique solutions, a successful team, and an inimitable final robot. When we face challenges a second set of eyes help see what the other might have missed.





When we are designing our robot, we are able to point out necessary modifications that the other may have missed which can improve our robot. I am a very strong writer, coder, and driver which leads to a detailed engineering notebook, elaborate code, and various successful driver scores. Anelie is strong builder, coder, and driver which leads to a well-built robot, strong code, and various successful driver scores. This also results in increased trust and a strong friendship. Together we make a successful team that is able to divide and conquer various issues.

Who is your STEM role model, and why? Does this person inspire you to have a more inclusive team/program?

Our STEM role model is Dr. Hayat Sindi, born in Makkah, Saudi Arabia where women do not receive the same education as men. When she applied to the University of London she was turned down because she couldn't speak English. Despite being turned down, she became the first Saudi woman to be accepted at Cambridge University and received her PhD in biotechnology. She then went on to start an institute to provide STEM education for the youth in the Middle East. Sindi later invented a biomedical sensor and a Magnetic Acoustic Resonance Sensor (MARS). Her powerful example motivates myself and Anelie to stand up for what we believe in and put forth our best effort no matter the task at hand.

Overall, girl power is incredibly important in our every day life and our robotics journey. It involves inclusion, strength, a diligent mindset, and female empowerment. Most importantly it is encouraging women to get involved in the STEM world. As we continue our STEM journey we will face adversity but if we can be that inspiration for that one little girl somewhere in the world, our STEM journey will be worth-while. We want to break glass-ceilings and take part in a career involving science, technology, engineering, or math to continue and eliminate stereotypes in the STEM world. We chose to enter the girl power challenge to show that girl power is the future of not just STEM but the entire world.