

Girl Powered[®]

Engineering Female Empowerment in STEM

When we hear the phrase “girl power,” we immediately think of the empowerment role that girls play in our society. Our Project Manager, Ivana Bilicic, and our mechanical engineer and Head of the Engineering Notebook, Akiko Kono, play crucial roles in the robot construction progress.

Girl power means a lot to us, as it inspires us be in leadership roles when we are adults. Our approach in robotics includes giving girls larger roles in the building process rather than minimizing these roles, creating a diverse and forward-thinking environment, and putting girls in leadership roles throughout the program. We believe that although we may not all look or act the same, every single member of our team has something important to contribute to our robot. As a team, we are committed to treating everyone with equal respect. We believe that educating and exposing less-experienced-team members to all aspects of the design process will help all of us grow in both character and knowledge.



Left to Right: Akiko Kono and Ivana Bilicic

Our team is made up of a diverse group of students with different personalities and perspectives. This effects our chemistry and design but we believe this is to our advantage. By creating an accepting and supportive environment, we promote all different ideas. Our program is like a family. We often disagree and sometimes argue, but it is always resolved leaving our friendship stronger. We organize get-togethers outside of school and eat lunch with one another even when we do not have a robotics meeting. This family-like relationship makes or team stronger and improves the culmination of our work.



Driving during one of our earlier matches

Our team has 6 members; two 7th graders and four 8th graders. We all have various levels of experience and are eager to learn more as we progress through our careers in robotics. Our Project Manager is 8th grader Ivana Bilicic. Before finding her comfortable position of overseeing work, she tried building and coding but quickly realized these are not her strongest areas of work. Akiko Kono, an 8th grader, is our mechanical engineer and Head of The Engineering Notebook. Akiko quickly developed a skill for building although she had no experience with building. Our Head Software Engineer is a returning 8th grader, Ciaran Nimick. He is both a talented builder and coder, but has slight issues keeping up with the Engineering Notebook, prompting him to focus on coding. Milo Daluiso is our Head Mechanical Engineer and is an 8th grader. Resting in the position of mechanical engineer he quickly learned and progressed through the field of VEX robotics and eventually began to lead the mechanical build. Though he lacks a knack for code or artistic skill, he makes up for it with his skill in mechanics. Our Co-Software Engineer, 7th grader Zain Karu has a skill for coding. Zain is helpful addition to the team and assists the building and coding in any way he can. And finally, 7th grader Vincent Lee is our electrical engineer. He has a skill for building but has a passion in the electrical field.



Our Team

Left to Right: Vincent Lee, Zain Karu, Ciaran Nimick, Akiko Kono, Ivana Bilicic, and Milo Daluiso

Our team is lucky enough to have Ms. Sunny Sheybani as one of our mentors. As a female engineer, she inspires us to strive towards working as a girl in the STEM field. Our program has a strict rule that students must do all the work on the robot and in the design process, but she helps us with ideas and when technology might be finicky. Seeing another girl, like Ms. Sheybani, helps us learn that we can aspire to be anything we want to be.



The inspiration of engineering as we create new pieces to our robot

Being on the robotics team means that we always have minds working. Thoughts and ideas on how to improve our robot swirl throughout our brain as we try and improve our robot day by day. As a team, we have experienced losses throughout our competitions, including skills runs gone wrong, brains disconnecting in the middle of a match, and even components of our robot falling off. We take these defeats and use them as motivation to improve our robot and strive for excellence in what we do. There are also several times we have miscommunications on our robot, but we figure out a solution and keep moving forward. In robotics, errors are quite common, but also useful as they give us a chance to improve. We try to spread this mindset throughout our other teams, and we make sure to keep this in our own minds throughout struggles.



Having an open mindset as we fix issues

We, 7035M, are committed to putting girls in roles that empower them. We value the importance of diversity and what that brings to our ideas and design. We embrace defeat and let it motivate us to make our robot better. We value female role models who inspire and help us.

This is what girl power mean to us, to our team 7035M.



Wining the Excellence Award at Palos Verdes Highschool

Credits:

Engineering Female Empowerment in STEM

Team 7035M

Ivana Bilicic

Akiko Kono

Milo Daluiso

Ciaran Nimick

Zain Karu

Vincent Lee