



Girl Powered

Team 7700E Rolling Robots
Rolling Hills Estates, CA
by Maddie Jiang and Ashley Wills

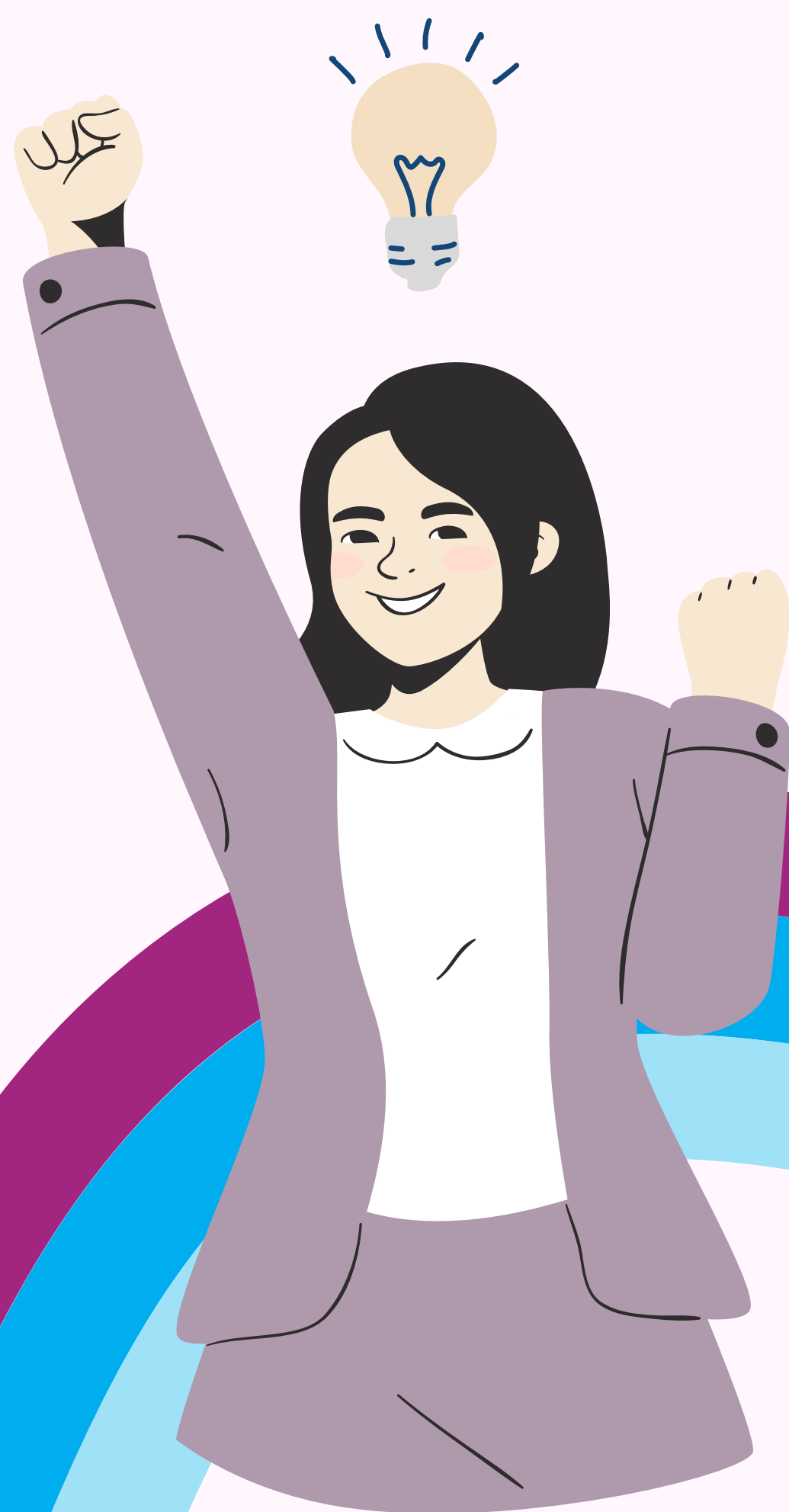
girl power

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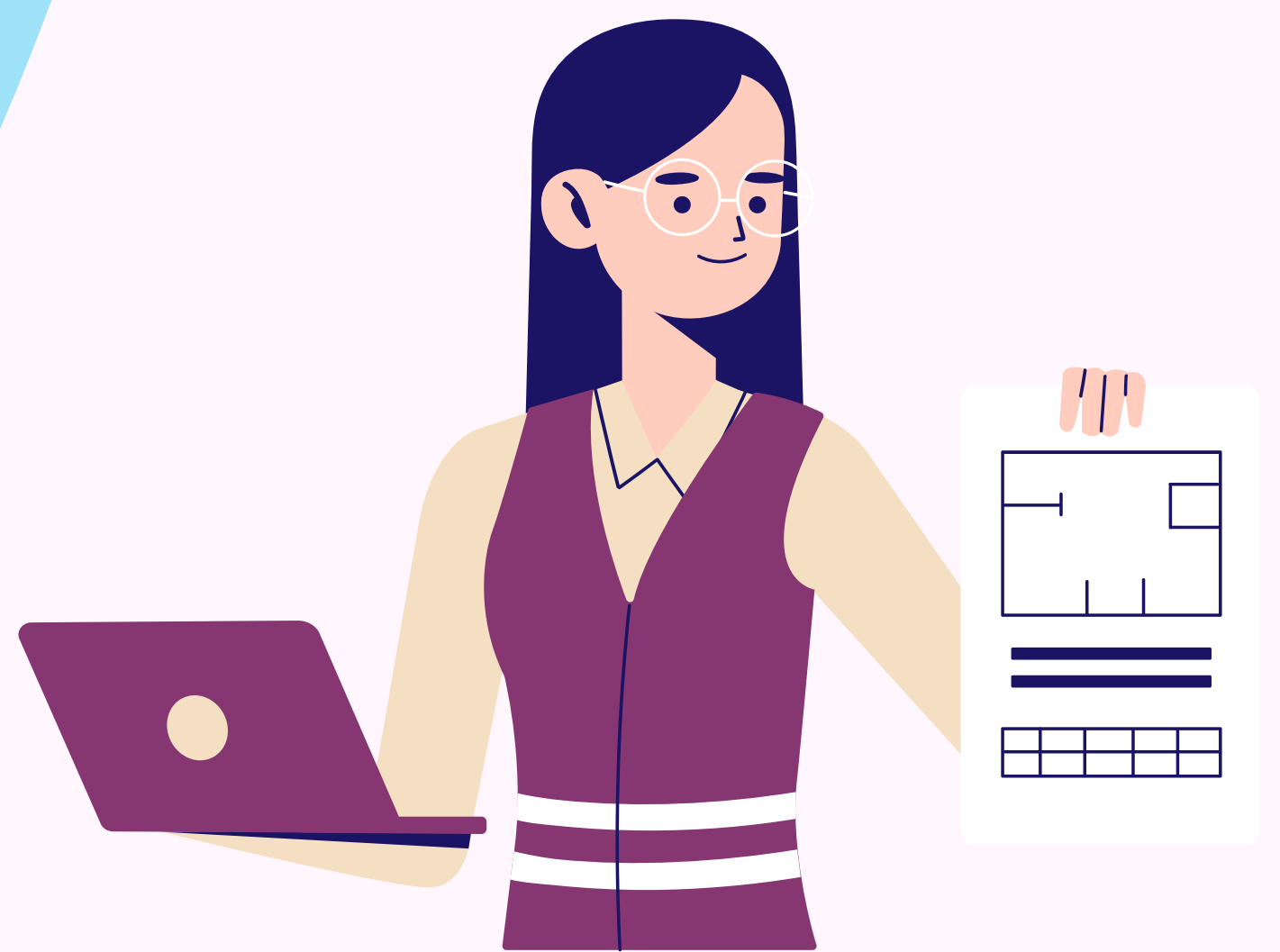
Used in reference to an attitude of independence, confidence, and empowerment among young women.

EMPHASIZING EQUALITY

For many years, the STEM field has always been a gender imbalanced expertise as roughly only 7% of robotics engineers are female; but times are starting to change. We believe that all women deserve an equal chance at robotics without experiencing discrimination, lower salaries, or unfair expectations. During this year's 2022-2023 Spin Up season, we have learned to collaborate and overcome many challenges over time.



WHAT DOES *GIRL POWER* MEAN TO 7700E?



Girl Power to us is a word of encouragement to all girls that they have as much potential and power as boys. Girl power encourages an inclusive environment where all opinions are valid and everyone holds to the same standard.

Our contributions to our team as girls show that we can work just as well as boys and don't need special treatment. When I do robotics, I don't have to acknowledge the difference about being a girl, because in the end we are all just contributing to the common goal.

Speaking of goals, one of the girls on our team suffered a devastating accident mid-season last year making her unable to walk. Everyone expected her to quit robotics but she persevered. Despite her injuries, she made the commitment to return as soon as she could, attending each session without fail even when she was wheel chair bound and contributed to her team's success in the world championships. To me, that is true power.

Girl power is not something just given, it is something that we must discover within ourselves by taking initiative.

we accommodate for
each others ideas

we are an inclusive
environment where
all opinions are
heard

7700E (SIMPLIFIED)

On team 7700E we embrace each other's
differences by having a balanced team
that consists of two girls and two boys.

we believe that
all girls deserve
a chance at
stem

MEET TEAM 7700E



MADDIE J.

**main programmer,
builder, and driver**

When I first got into robotics and started Vex IQ, there were only two girls in the whole robotics lab including myself. This inspired me to continue my journey in robotics and encouraged more girls to become interested in STEM.



ASHLEY W.

**team manager, note
booker, builder, and
driver**

Every other year that I've done robotics, I've always been the only girl on my team. In the beginning felt that my opinions were ignored by when the boys were making all the decisions. By making my contributing to the team, I have become more confident about expressing my ideas.



RYAN B.

**main builder,
and driver**



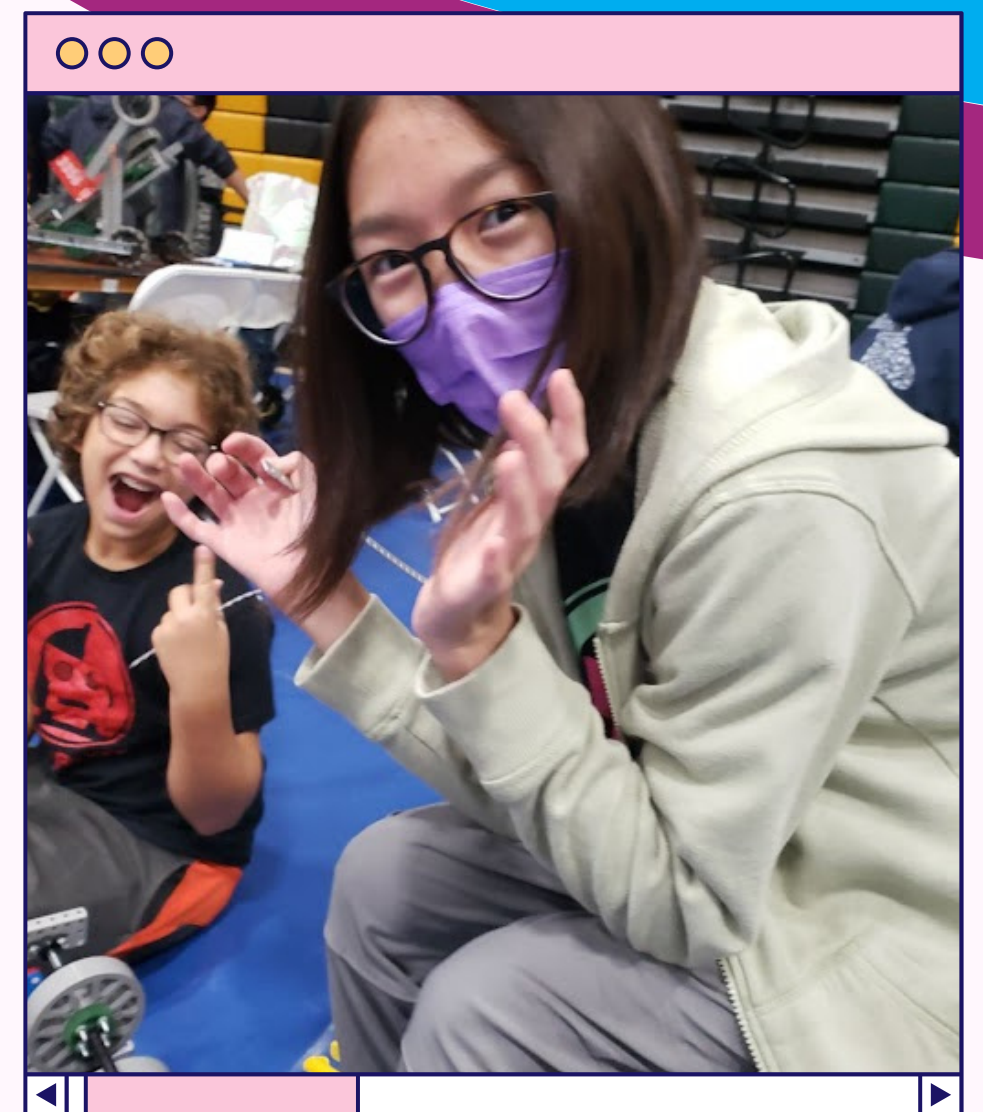
ETHAN S.

**builder and
programmer**

Our team also switches out roles from time to time so we can become more independent when our teammates are not present.

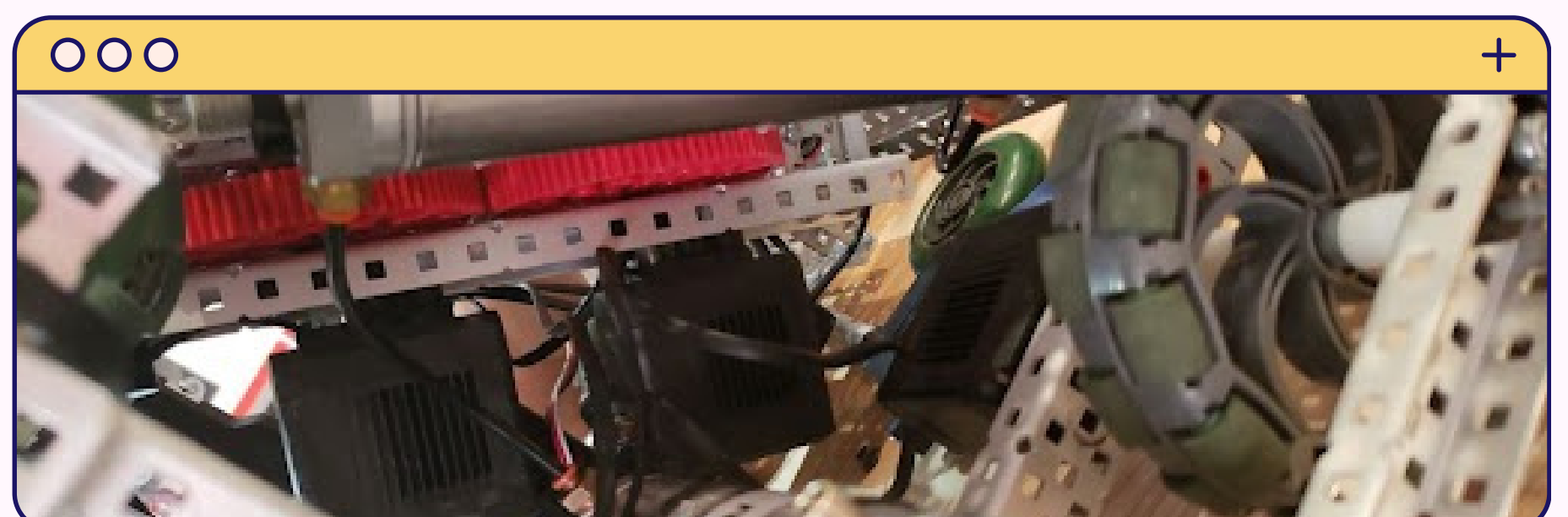
EMBRACING GIRL POWER WITH OPEN ARMS

On our team, both the girls and the boys on our team carry the equal weight of the creating process. Since everyone has different strengths, we allow them to accentuate their strengths by giving everyone main team roles. By having a two girl-two boy team, we can make better decisions together. When we are brainstorming ideas, this allows for less "because he's a boy" or "because she's a girl" bias when proposing an idea. There's less singling out between team members



Maddie and Ryan preparing the robot for an upcoming Qualifications match at an October Competition.

For example, Ryan our main mechanic, wanted to change our intake from one motor to two motors. When he proposed this idea, we had our main programmer, Maddie say how she felt. Since the code would need to be changed, she had to approve of it.



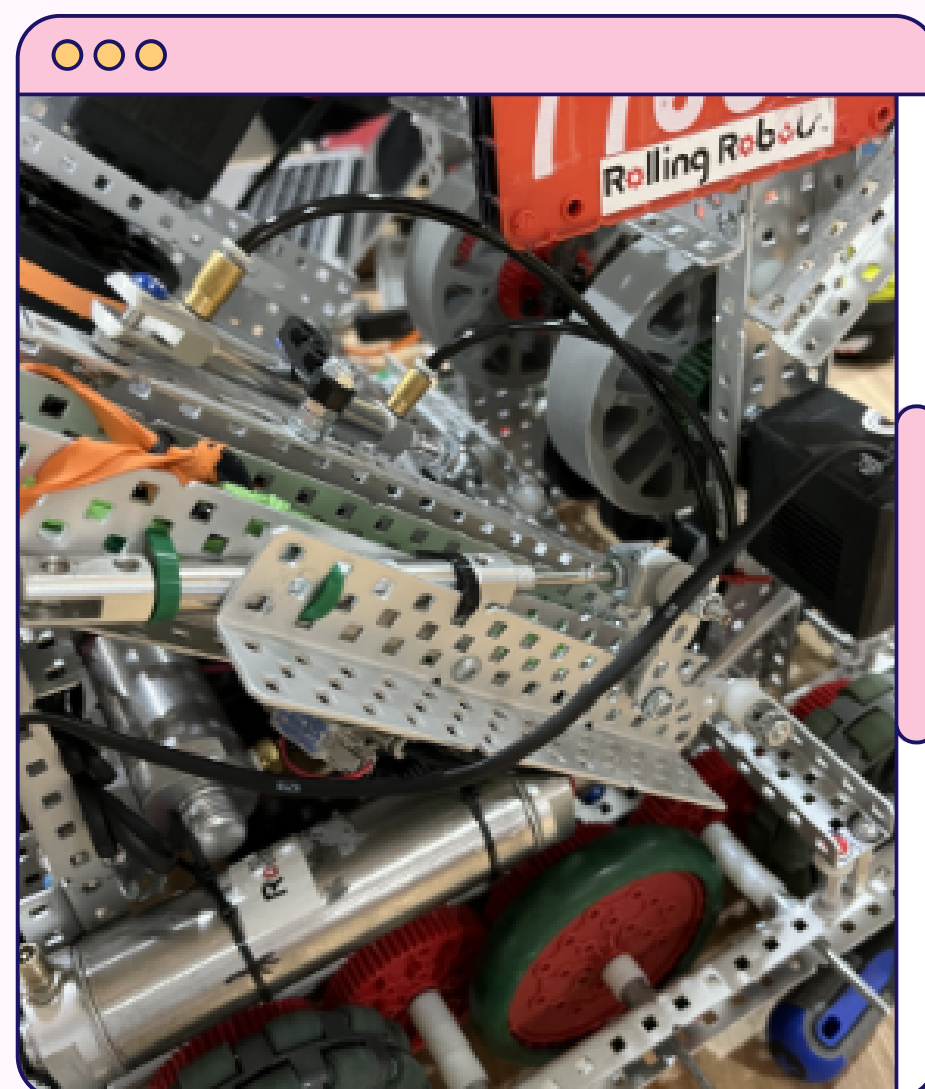
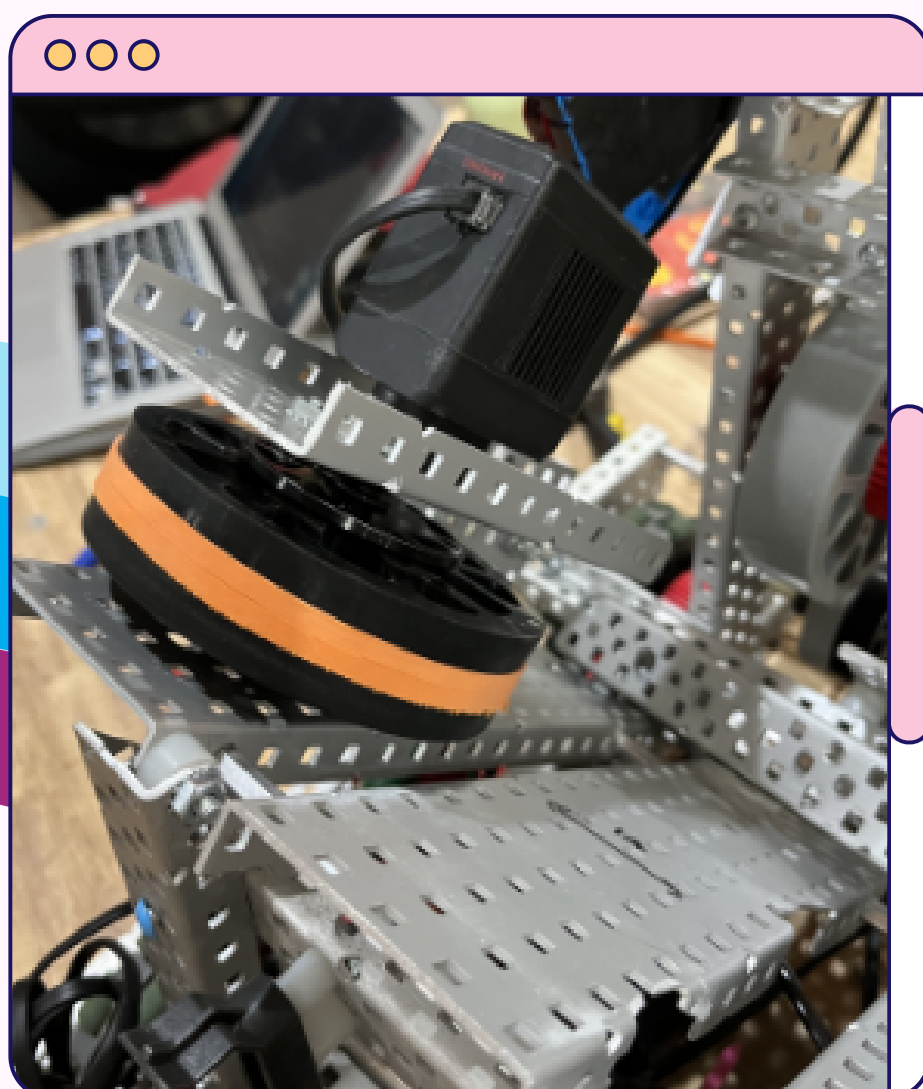
HOW DIVERSITY HELPS OUR TEAM

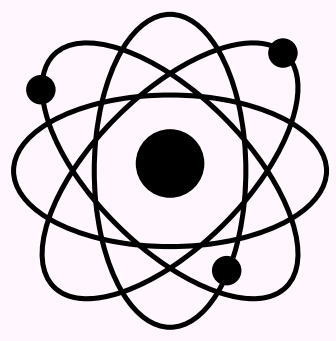
We all have different specialties and weak points in our team, so communication is important to make sure our robot has a good design based off all of our different perspectives.

When building our robot's intake for discs, we decided it would be best to have a team vote and discussion before building each part. Whoever came up with the design would explain their reason for such an idea and everyone's opinions were welcome instead of ignoring each other's opinions and building things on our own.

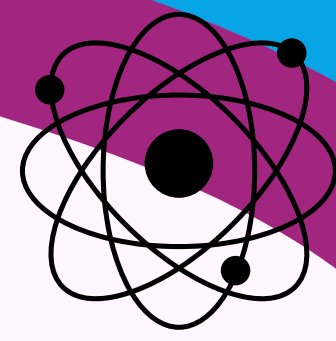
Our team compliments each other since Ryan is our main builder and is better with hands on activities. He also teaches us some tricks when building. Maddie and Ethan work on code together and can accommodate Ryan's requests for the code. Ashley is our team manager and note booker so she helps us make sure we stay on task.

This allows for a much more productive work day as everyone's voice could be heard and girls can help boys for the same amount of help in return.





OUR STEM IDOL



Marie Curie is our STEM idol because of her courage to pursue her interests despite what others thought of her at the time. She was very headstrong when she and her husband, Pierre Curie, were on the search for the radioactive material of Radium and Polonium. She became the first person to win the Nobel Prize twice in two separate scientific fields. When her husband passed away, she succeeded her husband by taking his spot as Head of the Physics Laboratory at the Sorbonne.



MARIE SALOMEA SKŁODOWSKA-CURIE



Even though Marie Curie was not an engineer, she inspires the girls on our team to be more confident when expressing their ideas. She also lets us know that if we work hard enough at something, and want it a little more and work harder for it, we will reach our goals someday. She inspires us to keep up our consistent efforts, make sure everyone understands our ideas, listen to others for their suggestions, and be open minded to what is possible.

H																	He
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