

# the tipping point

2496R

Irvine, California

VanPhuong Nguyen





# powering diversity!

written by 2496R

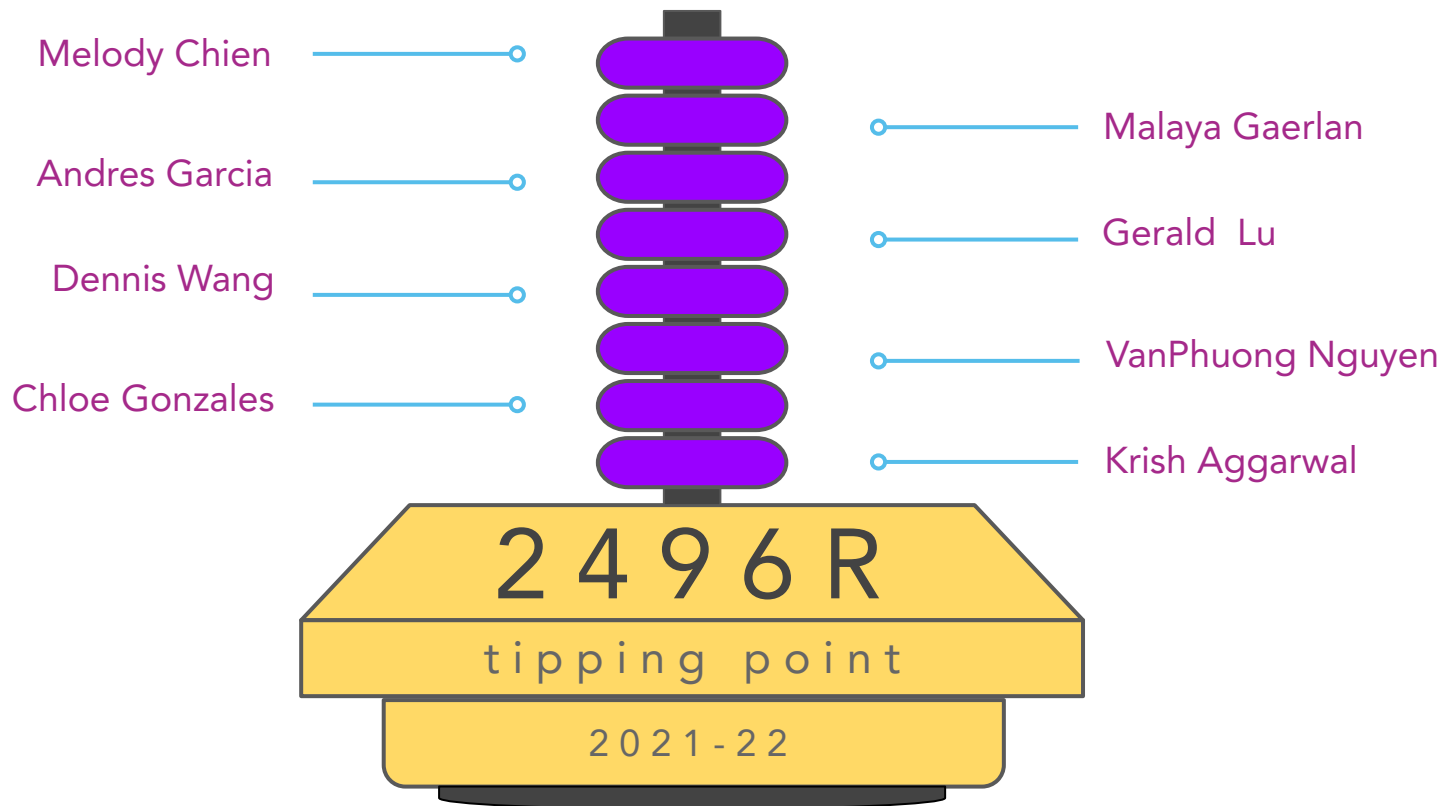
If someone were to mention “Girl Power” or “Girl Powered”, they might be laughed at or be told to stop saying unnecessary things because *clearly*, gender norms have vanished into thin air. Take a look at the world around us; despite the increase of females in the STEM industry, it is still associated to a male face sitting in front of a computer screen. It’s not just the STEM industry, however; the world has still yet to realize that “Girl Powered” is about opening the gates for *everyone* of the next generation to be able to enter.



# rubber “banding” together

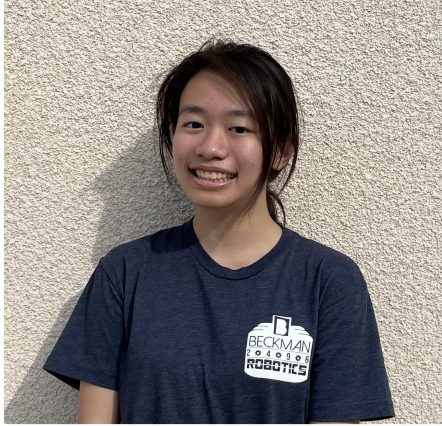
In 2496R, we're anything but a group of high school students with the sole goal of winning every tournament - rather, we've become a group of friends navigating through the Tipping Point season! Our team has chosen to completely subvert gender norms and instead, “rubber band” together. Everyone is able to pitch in ideas, learn from one another, and most importantly, have fun! With our team collaboration as our biggest asset, who knows where we'll be able to reach!

# introducing our ring stack!





## our senior members!



### Melody Chien

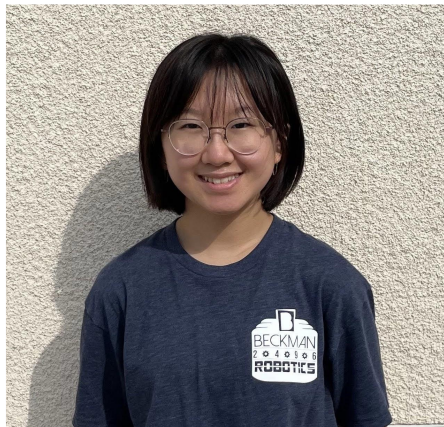
Melody Chien is a senior, and this is her 5th year in the VEX Robotics program. She is one of our builders, lead designers, and part of our primary drive team as a coach. Melody is hardworking and reliable, always open to guiding the younger members of our team!



### Malaya Gaerlan

Malaya Gaerlan is a senior, and this is her 2nd year in the VEX Robotics program. She primarily builds, is one of our team's lead designers, and participates in building and our scout team. Malaya is creative in her ideas, and will always lend a helping hand when needed!

## our sophomores!



### VanPhuong Nguyen

VanPhuong Nguyen is a sophomore; this will be her 6th year in the VEX Robotics program. She is our team's notebook manager and lead scout, and also partakes in building. VanPhuong does her best to help keep our team constantly organized and on track!



### Chloe Gonzales

Chloe Gonzales is a sophomore, and this is her 1st year in the VEX Robotics program. She is a documentor, builder, and part of our scout team. Although she is still exploring and learning, Chloe is willing to lend a helping hand wherever necessary!

## other awesome team members!



**Andres Garcia**

lead programmer, lead  
designer, builder, and  
driver



**Gerald Lu**

lead designer, builder, and  
coach



**Dennis Wang**

lead programmer, builder,  
and scout



**Krish Aggarwal**

documentor and scout



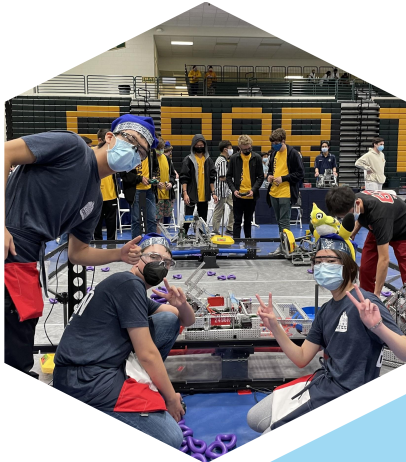


# programming /\*inclusivity\*/

Even if some of our team members are new to the VEX Robotics Program, we all encourage each other to ask questions and wander outside our comfort zone - experience is not always equivalent to knowledge and everyone still has much to learn from one another. Whether it's building, designing, or scouting, everyone's voice is of equal value; if disagreements occur, we try our best to compromise with the options we have. Rather than focusing solely on the success, the fun we have with one another allows us to "program" an innate team dynamic instead of forcing one. We hope that our open and inviting team dynamic will encourage more people within the school to try out for robotics each year!

# trying pneumatic roles!

Throughout our season, all of our team members have been able to try a variety of roles, such as building, scouting, and programming. Our members either learn from a teammate who can share their prior experiences or work together on the role/task. Not only are new skills obtained, but all our members have learned to collaborate together and respect one another. Even if one doesn't yet possess the skills and knowledge of a role, a willingness and dedication to learning is what our team values the most! As pictured, Melody, as one of our drive team members with refereeing experience, often informs our team of common rules to keep a lookout for during matches and how we could counteract strategies the other alliance uses.





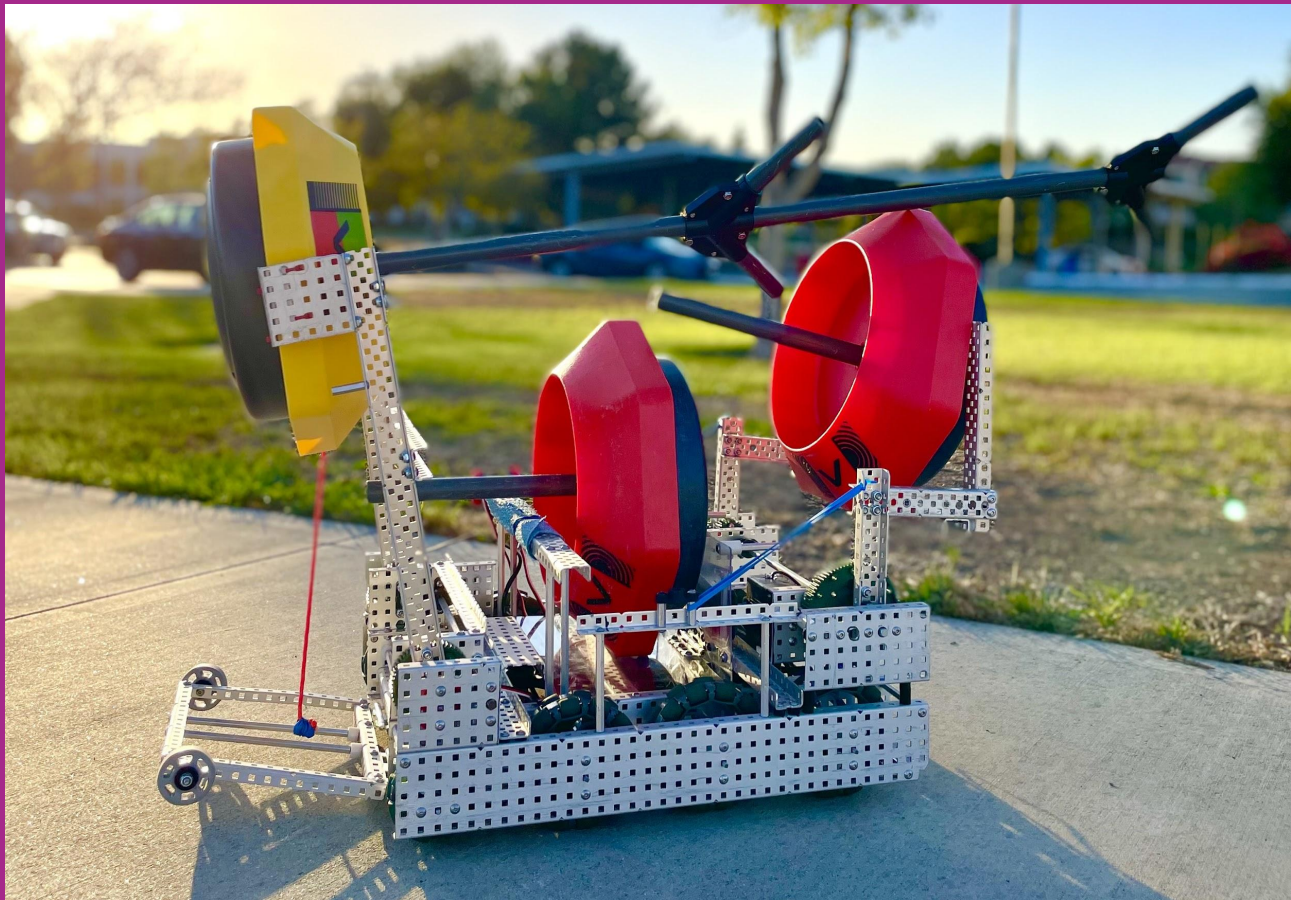
success!

team chemistry

design

eight  
V5 members  
x  
one  
robot  
=  
2496R.

the role of diversity in our formula to succeed.







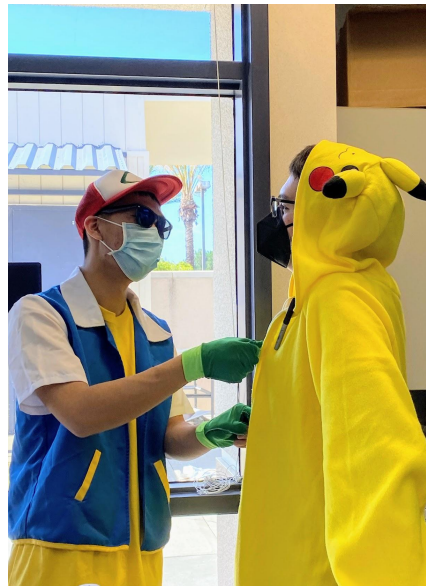
# designing our own season

Our robot design is a result of the combined ideas, evaluations, and suggestions from *all* of our team members. No matter how preposterous someone may believe their idea or question is, we always encourage it to be voiced - we strongly believe that the only possible results will be that something new will be learnt or a new idea will be sparked!



# pikachu-powered!

Our team all love Pokémon! Like Pokémon, each of our team members have different *strengths* and *skill sets*. However, rather than *battling it out*, we combine our skills into our robot to help it *evolve* ; even if problems arise, we are able to earn more *experience points (XP)* as we progress throughout our journey to become the *best version of our team together* ! Best of all, no longer do any of our members feel the need to hide in their *Poké Balls* because we've learned to *trust* and *battle* alongside one another as friends!





# driving to victory!

From the two competitions our team has competed in, we have received 1 Tournament Champions Award and 1 Excellence Award! Our success thus far is attributed to both continuously working through the engineering design process all season long (e.g. brainstorming numerous ideas, identifying problems, and developing solutions) and the constant collaboration of our Drive team and Scout team members throughout competitions.





our STEM inspiration



# Mr. Sit

## coaching our program to success!

"Girls in STEM have gone a long way the past decade thanks in large part to programs like Girl Powered. It is still not where it needs to be so we will continue to push for inclusion."

Mr. Sit



## - Mr. Sit -

As a former engineer and current engineering teacher, Mr. Sit is our program's advisor and STEM role model. Mr. Sit dedicates countless hours to the program and our engineering room, which we could all call a second home! Not only are we shown the significance of the engineering design process, but we also are taught the importance of sportsmanship and inclusivity from Mr. Sit! He encourages us all to persevere, think outside the box, learn from one another, and always try our best! Our Beckman Robopatties program continuously gains new members with varying degrees of experience, genders, and backgrounds every year - if not for Mr. Sit, we would not be able to have such diversity in our program as we do now! Thank you, Mr. Sit!



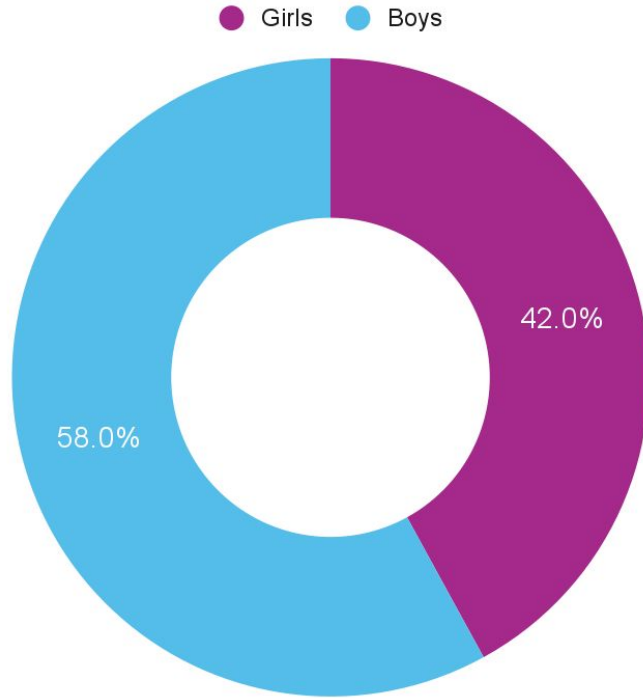
# (mobile) goals for the future!

Although the arrival of the Tipping Point season has allowed us to return to in-person practices and competitions once more, the impact of Covid-19 on our team, program, and the VEX community are still evident. Out of our eight team members, five have never been able to attend a maskless competition. Our team has joked numerous times about how we've worked together for several months now and only see half of each other's faces. Regardless, life goes on, competitions come and go, and we continue to persevere as the season moves forth - after all, it's the spirit and natural dynamic that make a team, not how much of each other we can see. We hope to proceed further in the season by not only encouraging each other to do our best and learning new skills from one another, but by also passing on our experience and knowledge to inspire future generations of students to take interest in STEM.





# Balancing the Gender Gap



For the 2021-2022 Tipping Point season, 20 out of 48 members in our program are female! We hope that next season and in the future, the gender gap will balance out– or perhaps, reach a tipping point!



through all the high (branches) and  
low (branches), we aspire to  
become the "tipping point"!

# credits!

Entrant: VanPhuong Nguyen

## Other Team Members:

Melody Chien, Malaya Gaerlan, Andres Garcia, Gerald Lu, Dennis Wang, Chloe Gonzales, Krish Aggarwal

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