



ENGINEERING A BRIGHTER FUTURE
TEAM NEWSLETTER



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LA REGIONAL!

The Robodox is truly thankful for everyone who helped

and gave their support to our team for this year's FRC season, with our first ever regional win, we are hoping that this will kickstart our wayward path to greater success in the future.



LA REGIONAL!

After all of the unprecedented circumstances that the 'Dox have encountered during this build season, we successfully brought home our first-ever blue banner during an FRC season after 21 years!

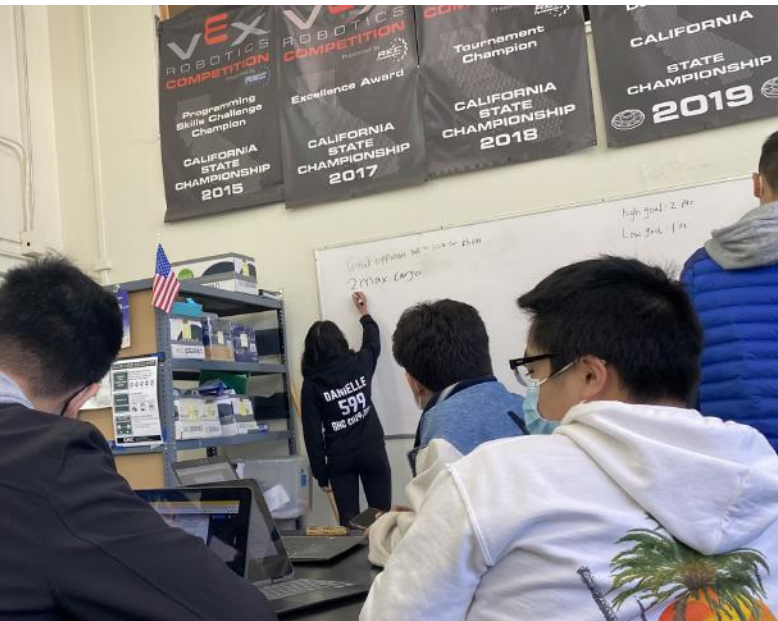


This monumental accomplishment would never have been possible without the initiative and determination of all of our coaches, mentors, and team members who make up all of our technical and administrative teams!



Keep reading the newsletter below to find out the journey that the Robodox took to achieve this success!

VENTURA DEBRIEF



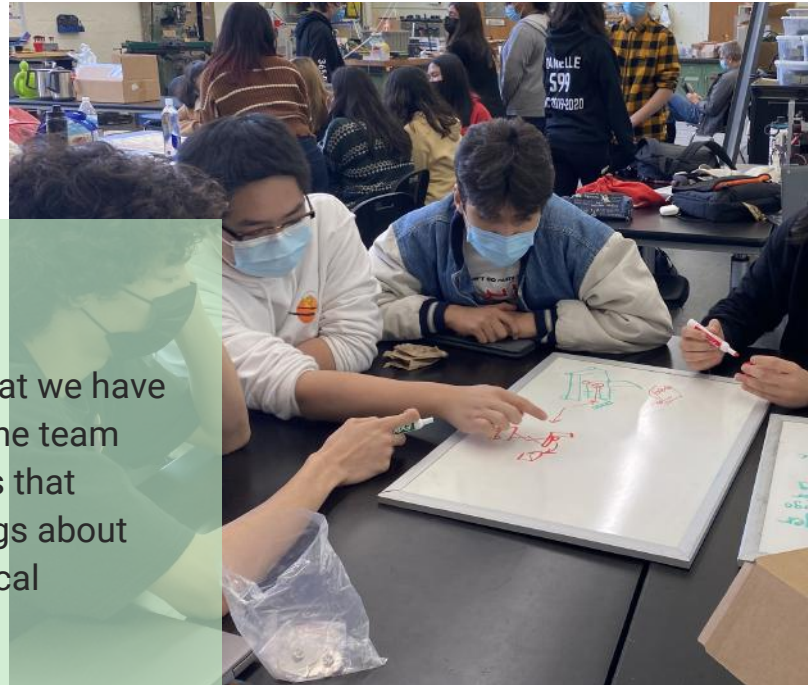
After Ventura Regional (03/09-12/22), the team went back to K1 for a formal debrief and planning for the next regional, LA Regional. With the team's drive for success, we took the initiative to kickstart different projects to improve Ozzy right in time for LA Regional!

“ PLUS/DELTAS

After each competition, it is a Robodox tradition that we have a formal meeting for Plus/Deltas, which is where the team communicates the various positives and negatives that happened during the competition. We held meetings about the overall event, logistics, matches, and all technical divisions.

OBSTACLES

Together with the Plus/Deltas and Ventura Regional, numerous issues with Ozzy were identified. From something as simple as autonomous inconsistencies to mechanical issues with the climb and drive, and even to the electrical issues that we experienced, all divisions were ready to face the challenge of rebuilding and improving Ozzy for LA Regional



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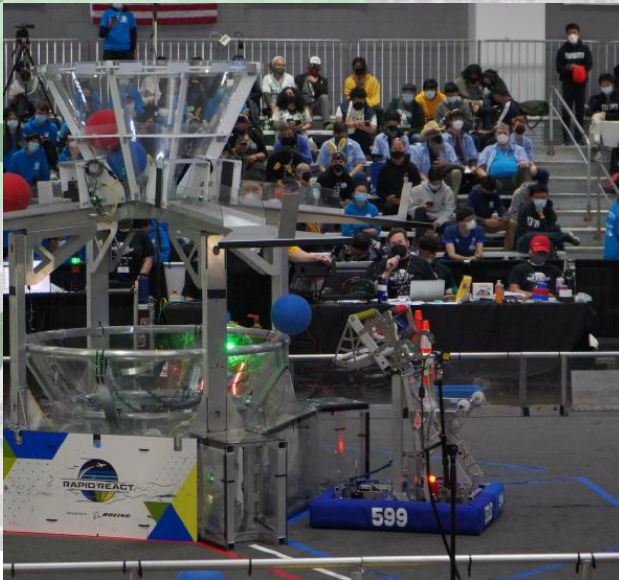
PROJECTS

The 'Dox planned various projects to improve the different subsystems listed below, which all paved the way for a better experience during LA Regional.

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FIXING AUTONOMOUS

The programming divisions wrote up new and improved code for our 2-ball autonomous!



“

MECHANICAL ISSUES

Fabrication and assembly disassembled the gearbox to replace the aluminum gears with steel gears which all helped to improve drive.



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SPARE BUMPERS

First-years from our fabrication and CAD division took the initiative to make spare bumpers and tinker the previous bumper attachment method to make it faster and more reliable in between matches!

”



PROJECTS

More projects by the 'Dox!



SPARE INTAKE/OUTTAKE

The 'Dox had a general consensus to make two extra intake/outtakes so that we will be prepared to swap out this subsystem in between matches if there are damages!



CLIMB MECHANISM

One of our CAD veterans modified the locking mechanism for our climb so that both arms lock onto the rung at the same time. The design was passed to fabrication so that we could manufacture the parts for assembly and testing!



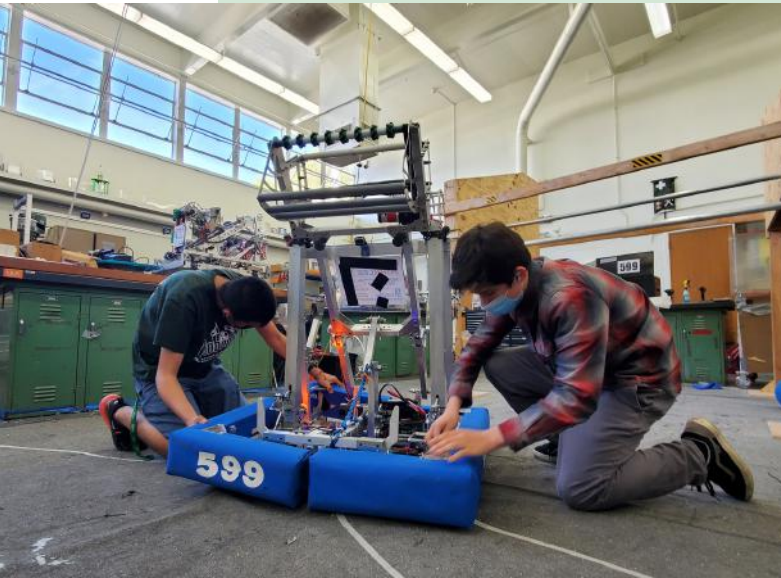
IMPROVING PITS

Our operations team took the initiative to improve our pits for LA Regional. They rearranged the tools within each drawer and decided to cut the load for the pits to make it more spacious for pit crew to maintain and fix the robot!



DRIVER PRACTICE!

Driver practice is a crucial step for preparation for competitions because this is where we formally get to test all of the improvements and projects that we initiated for a better experience at LA Regional! With this, we also see different components to improve and fix to ensure Ozzy's success!

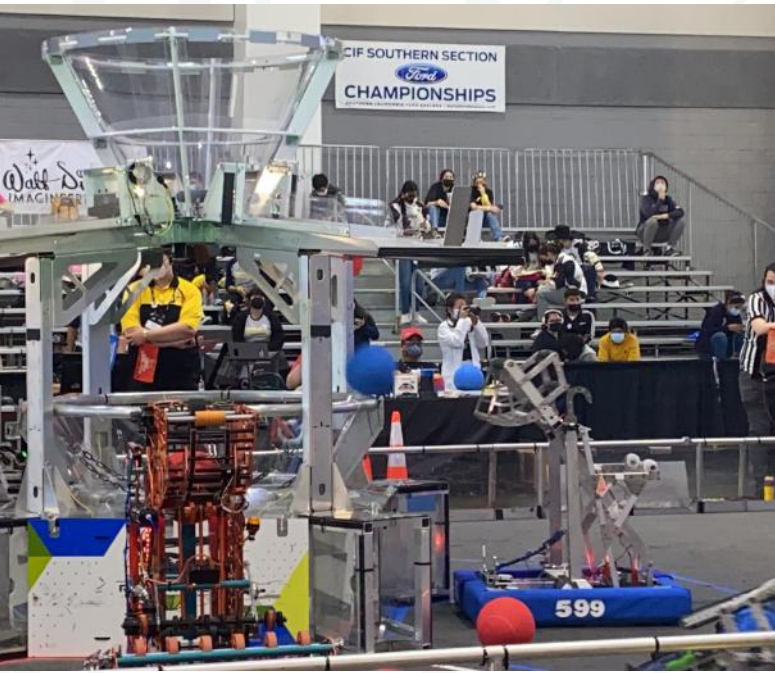


IMPROVEMENTS!

After the numerous fixes on the subsystems for Ozzy, we have improved the drive, shooter, and the climb! We thoroughly tested each spare intake mechanism, and the change of gear material helped to make the drive smoother and the gearbox stronger.



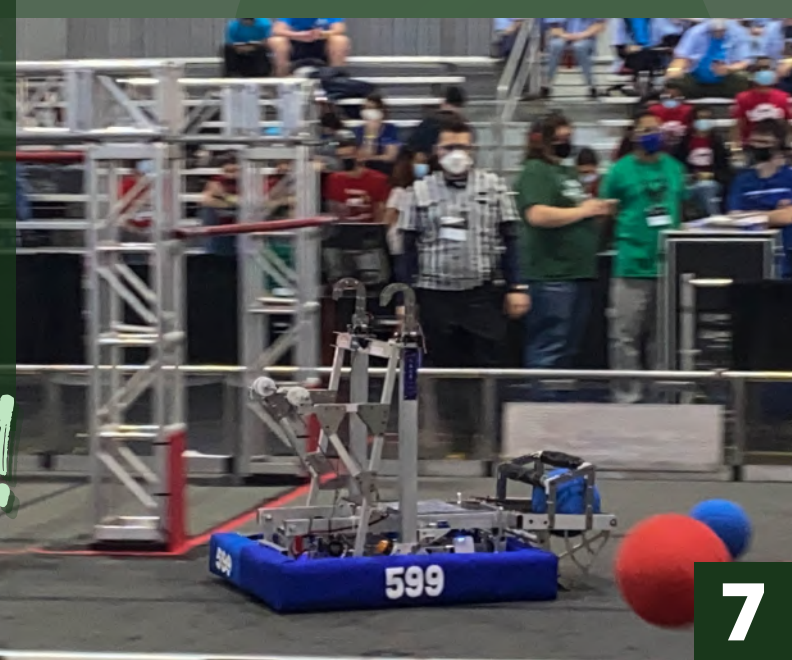
PRACTICE DAY



For LA Regional, we were finally able to participate in the practice matches and test out Ozzy's autonomous, drive, intake/outtake, climb, and the arm! Generally, the matches went smoothly, however, our pit crew and drive team encountered a problem with the climb that they had to fix as the day passed by.

BREAKDOWN!

For practice day, we brought our drive team, pit crew, scouters, robot first aid + dox spot, and also one of PR members for documentation! With everyone's initiative, we collectively worked past obstacles that we came across during the matches.



Ozzy in action!

'DOX TAKE INITIATIVE!

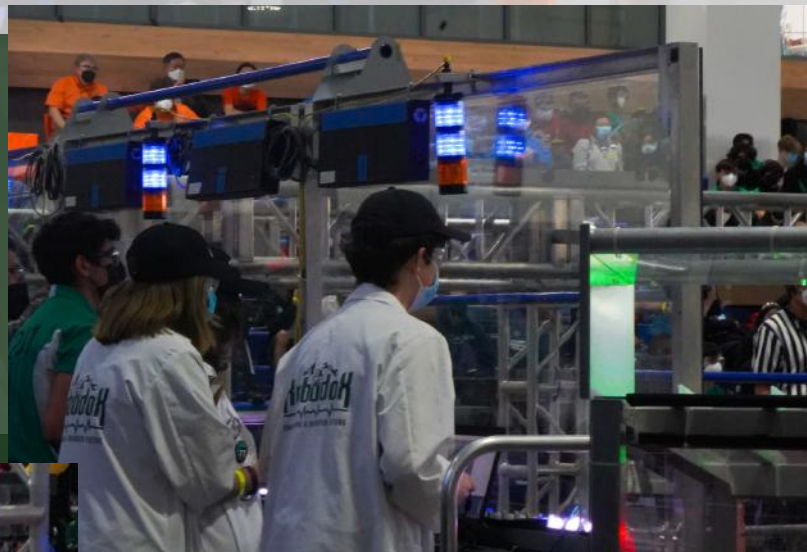
The Robodox were proud to join the Space Cookies' (Team 1868) Menstrual Equity Initiative for this year's FRC LA Regional! For all of the three days of competition, we provided free menstrual products for the female restrooms!



By the end of the competition, there was a significant amount of products that were used by our fellow women! Seeing how this has helped people outside of our own team, we look forward to future competitions where we can continue the menstrual equity initiative!

PREP FOR QUALIS!

By utilizing the practice matches, our drive team got comfortable with their stations and with the field, which made them find the perfect spots to place the robot for the autonomous portion of the matches!



The mechanical fixes to the climb prior to quals demonstrated its effectiveness, as Ozzy successfully climbed to the mid rung!

The practice matches also helped our drive coach get comfortable with collaborating and communicating with other coaches to prepare for their upcoming matches throughout the day, which contributed to their success in between matches!



READY TO ROCK!



Attending practice day has been an imperative step towards success for all the teams at LA Regional, as it was the day where we could troubleshoot all of the issues and obstacles that we may encounter with less pressure. After a whole day of practice matches, the 'Dox are ready to rock the first day of qualification matches!

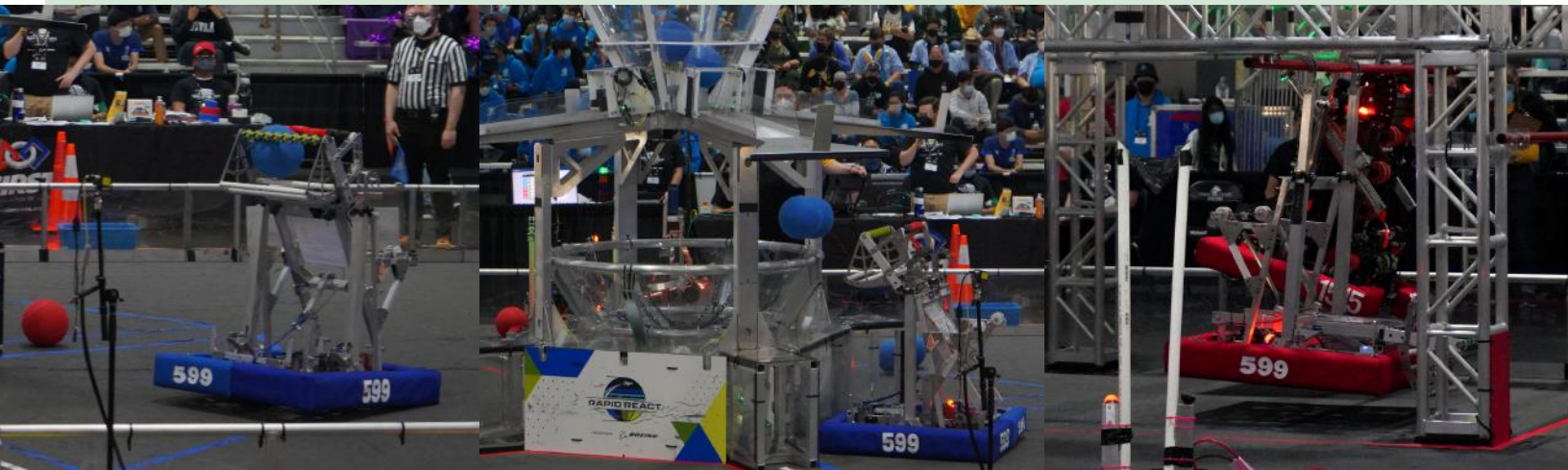
OPERATING FIRST AID!

We successfully established another Robot First Aid booth in another FRC Regional as we continue our Robodox tradition! As the competition started, some of the 'Dox volunteered to run RFA alongside the competition's Spare Parts station, which helped many different teams who needed spare parts or different supplies for their pits and their robots!



BREAKDOWN OF MATCHES!

Ozzy has been promising throughout the sets of qualification matches as we reached rank 8 as our peak! From our last competition in Ventura, we have improved our climb, shooter, drive team synergy, and especially our team spirit. Ozzy has been commendable in consistently racking up points from the lower hub as we reach 15 points alone! Additionally, we commend our programming team as they have significantly improved our 2-ball autonomous. Lastly, we are grateful for our drive team as they coordinated with their alliance members for a successful match, and they have also shown their great capabilities with defense!



PITS

With our drive to maintain and improve our robot's success, the pit crew has been efficiently solving any issue that we came across in between matches! We give a commendation to our drive technician who took the initiative to explain all of the intricacies of our robot with the judges as they know every tiny detail about Ozzy from the design to the assembly! A huge improvement that we had for our pits was the checklist for each subsystem to ensure that everything is ready to go for the next match!



ASK 'DOX

Let us take a break from the matches to dive in to what our 'Dox think about LA Regional!

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HOW WAS LA REGIONAL FOR YOU?

- The competition was so fun! We enjoyed making connections and watching our own robot perform. It was a formative experience for everyone involved. We learnt about vision, turrets, and the different ways to go about it. Seeing all the different robots gave me ideas of what we could do in the future. For the competition in Houston, we'd like to continue making our autonomous program work, and definitely get more sleep. [Programmer]



- “We were really reliable and consistent throughout the game and were able to make many improvements from the Ventura regional, so I wasn't that surprised we were chosen. In these few weeks I am hoping to improve my defensive capabilities even more.” [Chief Engr.]

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- All the hard work has paid off. I was really concerned before Ventura but you guys identified issues and made improvements for LAR. This is no small feat and you guys should be proud of yourselves. What you guys are doing is something that most adults cannot do. Even my coworkers whom I've been showing you guys off to are impressed. A few of them are not confident to do what you do. For those who are not going to Worlds, still be proud that you guys made a bot that is Worlds worthy. Continue to be proud of your efforts and stay motivated to make this bot even better for Worlds. [Mentor]

BREAKDOWN OF FINALS!

Throughout all of the finals, Ozzy showed its defensive capabilities which showed to its importance to block consistent shots from the opposing robots! We must also highlight our consistent 2-ball auto and our drive team for their well-balanced synergy which paved a way for our success as a whole team!

The 'Dox is truly grateful for our alliance with Circuit Breakers (696) and Code Orange (3476) throughout finals! All of us put our best efforts throughout all of the final matches, which ultimately paid off after receiving our medals and our blue banner!



DOX ROX

With the pandemic, the Robodox encountered the obstacle of passing down the knowledge that was built upon numerous seasons of experience from our seniors/alumni. Nonetheless, this did not stop us from our upward mobility and growth as individuals and as a team. We are grateful of what we have achieved in this year's FRC season considering how we started with more than 60% of our team composed of 1st-year/2nd-year rookies! We can't wait of what's to come for Champs and for succeeding years!



LAR DEBRIEF



After LA Regional (04/02-3/22), the team went back to K1 for a formal debrief and planning for Worlds at Houston. With our ecstatic team spirit for LA Regional, we commend everyone who supported every competing team, which contributed to the overall enjoyment of everyone there!

From the start of build season, to Ventura Regional, and finally to LA Regional, the Robodox have significantly improved team strategies and our robot, Ozzy, to become what it is today!



SCRIMMAGE



We were thrilled to participate in the scrimmage with several teams bound for Houston such as Code orange (3476) and μ Botics (7157)! Throughout the friendly competition, we documented several issues that we have to fix for Ozzy and we will resolve before we leave. Overall, the 'Dox found this scrimmage an outlet for trial and success, as we found joy in competing against what we aspire to become. We hope that this season will be the start of our team's establishment of well-connected networks with other teams!

PLUS/DELTAS!

Together with our determination for improvement, we identified all of the problems that we encountered during LA Regional and during the scrimmage with teams such as 7157 and 3476, and kickstarted different projects to fix everything for Houston Champs! We are planning to improve our autonomous and our gear ratios for our drive train in order for us to have a better experience for Champs!



BOUND FOR WORLDS!



With our graciously unexpected win, we have decided to bring our drive team, pit crew, executives, and coaches to the Worlds Championships at Houston! As we gather back in K1, the 'Dox will be more hands on for Ozzy's *operation* to make our robot become *healthier*!

We thank all of our mentors and coaches who have dedicated their time and effort to push the students on the team for further improvement and success. 599 is now ready for their final competition in Houston!

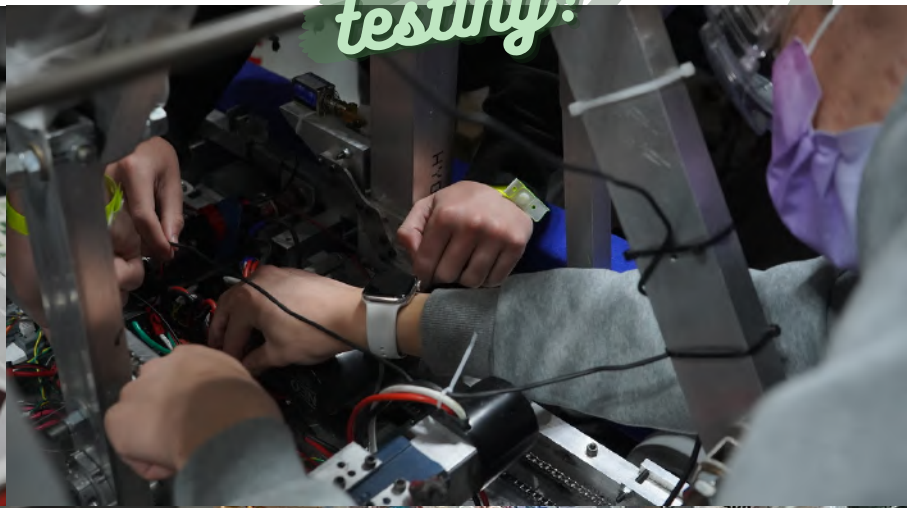


FRC LA REGIONAL!

robot brochure!



testing!

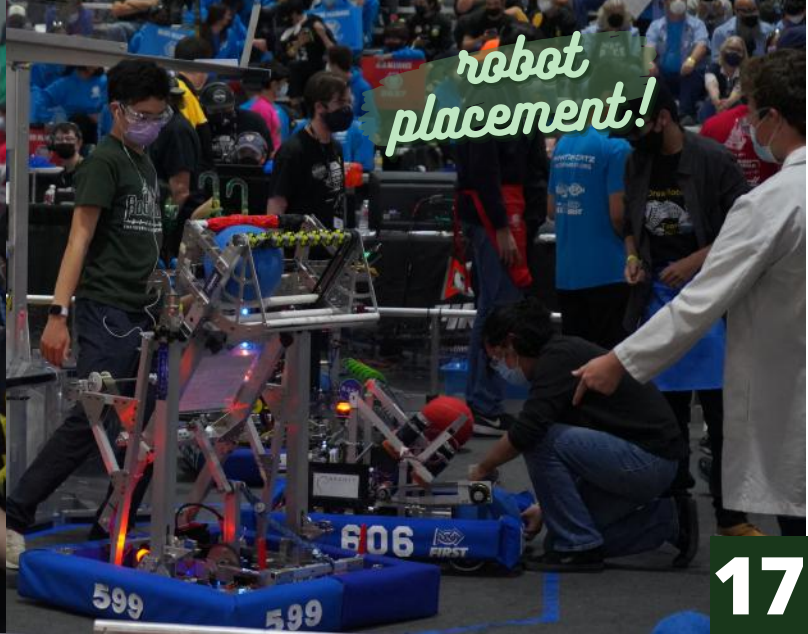


queueing!

pits!



robot placement!



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