



After rebuilding our entire robot in just three weeks, we competed at the Contra Costa Regional in week 12, our final event of the 2025 season.

Preparation & Rebuild

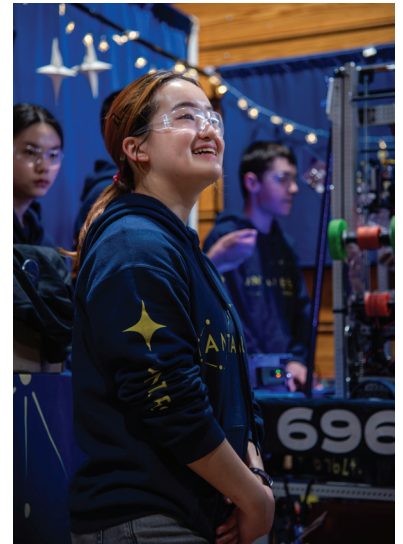
Heading into Contra Costa, the team had just wrapped up a demanding few weeks. After a tough showing at the Pinnacles Regional, we decided to build a V2 robot, allowing our drive team to continue practicing with the original bot while a new one was under construction. In just five days, our fabrication and design subteams built an entirely new robot with a lighter manipulator, a narrower two-stage elevator, and a streamlined funnel system. Our electronics team also assembled a new chassis with a much cleaner electronics layout. Over the next two weeks, our programming team resolved key issues with autonomous mode and alignment and transferred the code to the new robot, now named Cygnus. This left time for the drive team to practice ahead of the competition.



Thursday and Friday

We arrived at Pittsburg High School on Thursday, March 27. A small group moved the robot into the pits, then joined the rest of the team for dinner at Taqueria Los Gallos Express before turning in for a packed weekend.

On Friday, we quickly finished setting up the pit and getting inspected in the morning before starting practice matches after lunch. Cygnus experienced a few early issues with CAN wiring and alignment, but our pit crew kept things running smoothly— giving us valuable time to practice our auton routines and match strategy. Unfortunately, in our last match of the practice day, one of our elevator gearboxes broke; with pits closing soon after, we didn't have time to fix it that night. Our build team quickly regrouped and devised a repair plan for Saturday morning before our first match.



Saturday

Despite having less than half an hour, our pit crew was able to send the robot to the field in time for the first match of the day and once on the field, Cygnus delivered our strongest performances of the season. While we discovered a minor code error slowing down our manipulator for our second match, it was fully working by mid-morning and allowed us to score consistently throughout the day. Many of our team members also traveled daily to assist with scouting, collecting both quantitative data and qualitative insights that would help shape our alliance strategy on Sunday. Mentors and parents also set up a stall and organized lunch for us. After matches concluded, we celebrated Eid with Afghani food for dinner and closed out the evening with a strategy meeting to compile our picklist for alliance selection.

This regional, we also began what we hope will turn into a new tradition on our team, having senior members and mentors volunteer at FIRST events. We had an impressive 7 students and 3 mentors volunteer for FIRST at this competition: helping with field setup, queueing, scoring, quiet room operations, and photography. We not only got a chance to make an impact beyond our own team, but we also gained valuable insights on how teams structure their outreach and awards programs, plan travel to regionals and - for our mentors - how mentors approach teaching students.



Sunday

On Sunday, we completed the last of our qualification matches and entered alliance selection. Our final rank was 21st, a significant improvement over our 32nd-place finish at the Pinnacles Regional a month earlier. Based on our strong performance and consistent point scoring, we were selected as the first pick by the C-Otters to form the 8th alliance during alliance selection and advanced to the elimination rounds. Even though one of our alliance partners had limited scoring abilities for the match, we held our ground and gave it our all. We scored a season-high 81 points ourselves, but were knocked out by just 4 points. Despite the tough matchups, our team showed some of the most consistent and impressive performance all season.

Reflection

While Contra Costa came with its share of minor technical challenges, the team demonstrated remarkable growth in strategy, engineering, and execution. The rapid robot rebuild paid off, and we saw a marked improvement from our first regional. In the 15-second autonomous section we were reliably able to score 10 points per game, and nearly doubled our average points per match from 20 to 39. Most importantly, we ended the event proud, not just of our stats, but of our ability to adapt and improve under pressure. As we head into the offseason, we're excited to build on this momentum. Whether through new outreach programs, offseason competitions or summer projects, Team 6962 is ready for what comes next.



More frequent updates can be found at [instagram.com/frcteam6962](https://www.instagram.com/frcteam6962)

Team photos are on team6962.smugmug.com

Our YouTube Channel is <https://www.youtube.com/@frcteam6962>