



**Top row:** Sonny (mentor), Jaden Tu, Andy Zhou, Gideon Steele, Yves Kloeckner, Brandon De la Cruz Ramires, Cole Chu, Xander Betts, Tysen Silverstein, Alison Bulson (coach), Khangai Sukhbaatar, Alex Hernandez, Thomas Workman, Enrique Arce-Larreta (coach), Russell Brinton  
**Bottom row:** Giorgio Chon-Stone, Ella Frandsen, Samuel Gray, Andrea Ramos, Hanxiao Shi

Tysen Silverstein (11) tunes the mill.



Kirill Rassoul-Agha (10), Giorgio Chon-Stone (10), Angela Zhou (11), and Vanessa Tran (10) prepare to cut plywood.

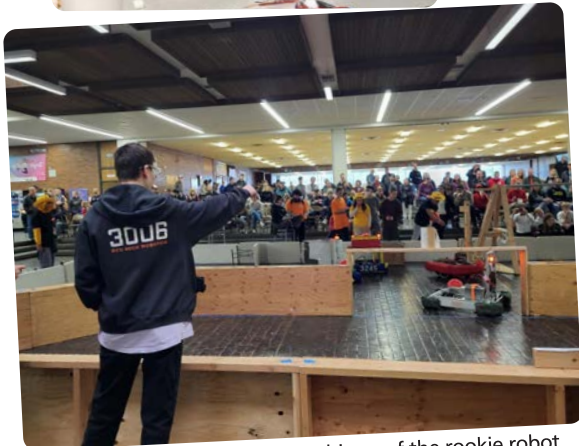


Jerry Zheng (10) and Jason Guo (10) gingerly assemble a robot out of wafers, graham crackers, and candy at the robotics holiday social.



## AMES SCRIMMAGE

West High participated in a pre-season scrimmage hosted by the Academy for Math, Engineering & Science. (AMES) and Cottonwood High School. Red Rocks competed with other Utah FRC teams in an alliance to complete a challenge in which the robots had to score points by moving balls around a course and avoiding obstacles. West had two robots competing - one made by rookies and one made by veterans. The scrimmage was a great way to gain more experience in building and to teach rookies about the process.



Yves Kloeckner (10) directs the drivers of the rookie robot during a match at the AMES scrimmage.

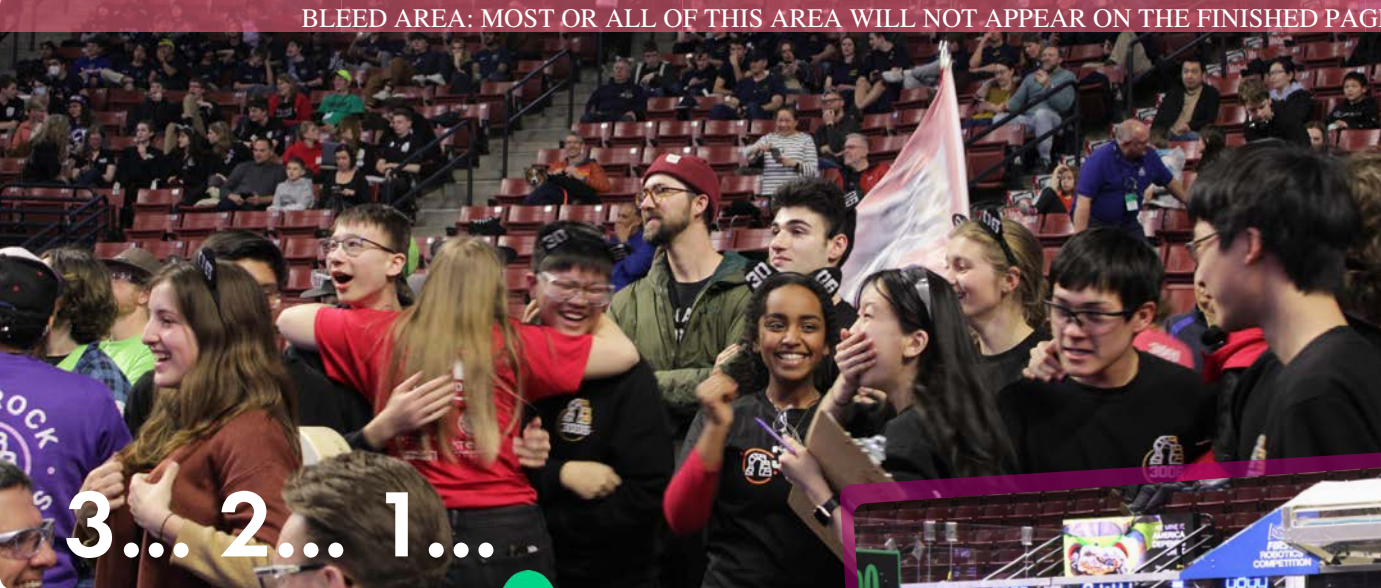
# ROBOTICS

Since the team's inception in 2009, Red Rock Robotics has become a well-known and established team in the FIRST Robotics Competition (FRC) community, and a force to be reckoned with! Because of funding from sponsors and the district, participants didn't have to pay a fee to join, and the shop was fully equipped with every tool needed to build a robot and more!

**RED ROCK'S FEARLESS MASCOT**, Rockman! Thomas Workman (10) dons the rocks to inspire the team.







3... 2... 1...

# CRESCENDO!

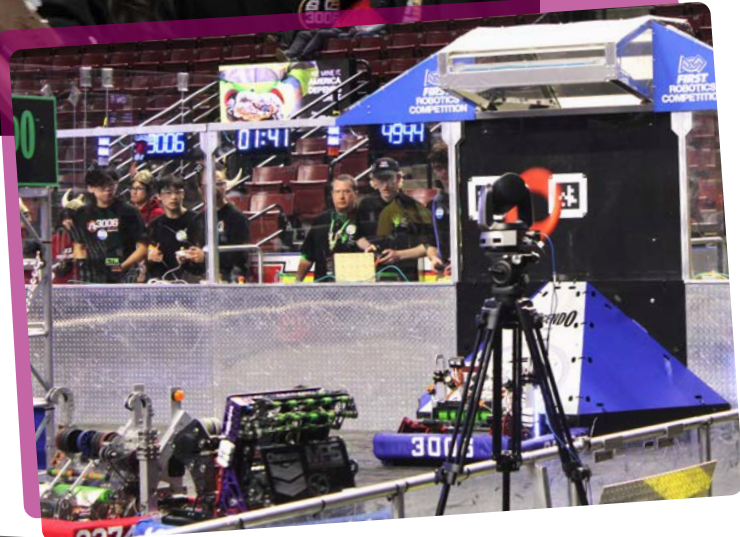
The FRC competition is structured in 2-minute and 30-second matches, where robots can score points by performing certain tasks. Each match has a 15-second autonomous period, where robots are preprogrammed to move by themselves. For the rest of the match, robots are controlled by human drivers. The last 15 seconds are called the “Endgame”, which has different sets of tasks for extra points. There are two opposing “alliances” who play in a match, each consisting of 3 teams’ robots. A team typically plays in 12 qualification matches with/against randomly selected teams, before the playoff matches (which determine which teams qualify for the World Championship) at a competition.

In the 2024 FRC game, “Crescendo”, the game elements were named after components in music. Robots could score points by launching “Notes” - orange foam rings - into “Speakers” or “Amps”. During the Endgame, robots can also climb onto a metal chain mounted on a “Stage” or score a Note into a “Trap” for additional points. An alliance can also incur penalties, which reward points to the opposing alliance.



A huge shoutout to amazing physics teachers Alison Bulson (left) and Enrique Arce-Larreta (right)! They contributed countless hours, stayed many late nights, and worked tirelessly behind-the-scenes to make Red Rock Robotics possible!

Drive team Giorgio Chon-Stone, Jason Guo, and Khangai Sukhbaatar (all sophomores, top right) maneuver the robot to shoot an orange Note into the Speaker.

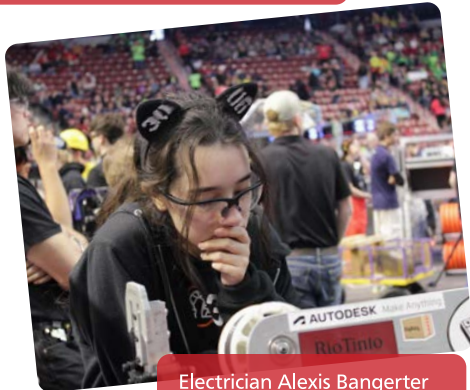


Red Rock (team 3006) plays hard defense against team 1410's robot, blocking them from picking up Notes.

3006 successfully climbs onto the Stage chain with teammate 7634, achieving “Harmony”, which is worth extra points.



Stephanie Than (12) and Jason Guo (10), center, strategize with alliance partners for the playoff matches.



Electrician Alexis Bangerter (10) performs a pre-match checkup of the robot.



Red Rock Robotics, formally registered as FRC team #3006, participated in the 2024 Utah and Colorado Regional competitions. At the Utah Regional, Red Rock ranked 9th out of 46 teams during the qualification matches. They scored the highest number of Notes into the Speaker during the driver-operated period, and were the fifth top offensive robot.

Team 3006 became an alliance captain for the double-elimination bracket playoffs, choosing team 3009, the “High Scalers”, and team 4944, “The Hi Fives”, as alliance partners. They progressed to the 12th playoff match, placing as the 4th out of eight quarterfinalist alliances.

