## ELEVATE SPRING FRC's 2024 Music Game Game

Every year, each match is comprised of two parts: the autonomous period (15 seconds) where drivers are not allowed to guide the robot, and the teleoperated period, in which drive team members control the machine (remaining 2 minutes and 15 seconds). The drive team is comprised of a driver, an operator, and a drive coach. Two other team members are a part of the Field Team: the technician and the human player.



RJ 3729 harmonizing with team 7747, Hancock High Tech, at the end of a qualification match. Photo by Sam Fago '24.





At each event, a select few teams are awarded for having shown merit in engineering and professionalism. Last year, the team received the Innovation and Control Award at the Heartland Regional in Olathe, Kansas. The award recognizes excellence in "innovative control system or application of control components – electrical, mechanical or software – to provide unique machine functions." And this year, 3729 received the Creativity Award at the Central Missouri Regional in Sedalia, Missouri. The judges decided that the team's process exemplified "creativity that enhances strategy of play and was intentionally designed and not discovered."



3729's Field Team: Oliver Howe '24, Henry Hughes '25, Gabe Shekleton '25, Charlie Puschaver '26, and Elena Gott '27.

Photo by Sam Fago '24.

In this year's game, CRESCENDO, teams earn points by launching foam rings, or "notes," into different structures on the field: the Amp, the Speaker, and the Stage. Every time one is successfully scored in the Amp, it receives a charge, and two charges can be used to amplify the Speaker. When amplified, all notes scored are worth more points for ten seconds.

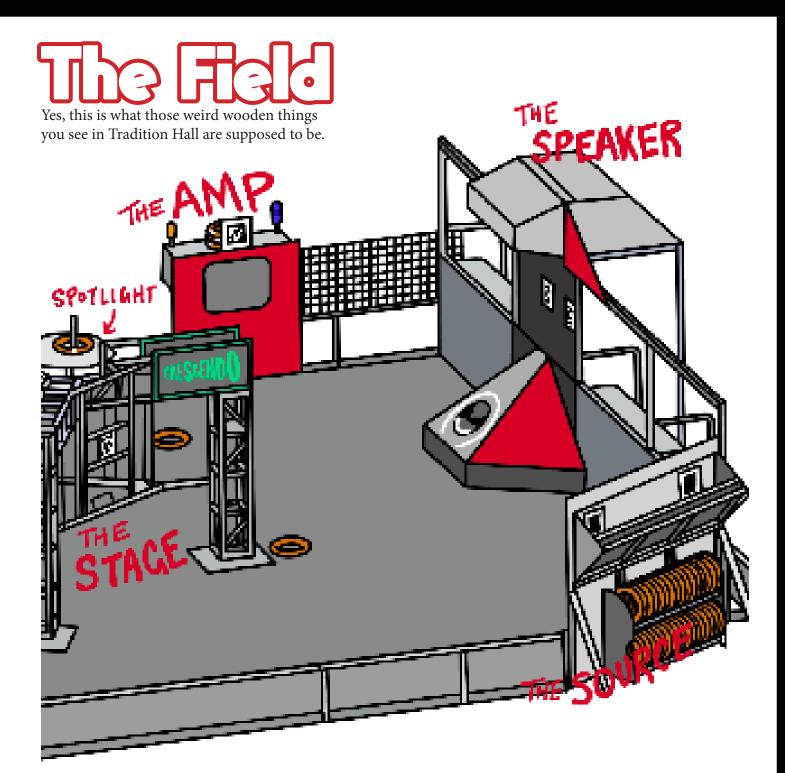
In the last seconds, teams must try to balance on a chain, and score one final note into the "stage" element of each side. There are also three Human players, one from each team, two who drop notes onto the field at the Source, and one who operates the Amp buttons, and can throw a final note on stage to land around a pole. This is called a Spotlight, and it gives extra points to a team only if there are robot(s) hanging on the chain directly beneath it. Two robots hanging on the same chain is called a Harmony.



Sal Ramos '24, a member of the Electrical sub team, posing with the Creativity Award at the hotel in Sedalia, Missouri.



Stop by the Innovation Center, located on the first floor of the SIC, on Tuesdays or Thursdays after school to check it all out in person!





The team finishing a round with a climb on the stage at the Central Missouri Regional.



The robot preparing to score in the Amp in Tradition Hall.

Photos by Sam Fago '24



The team scoring a note in the Speaker at the annual Coronado Scrimmage in Colorado Springs. ROBOTICS **ELEVATE 07**