

Statesman

Westlake robotics team battles to quarterfinals at Salt Lake City meet

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Students from the 2468 Team Appreciate FIRST Robotics Competition robotics team recently attended a competition in Salt Lake City, Utah, where they advanced to the quarterfinals and won the Innovation in Control Award.

This was the first of their three competitions this spring. Their second occurs in Alabama over spring break, and the third in El Paso at the end of March. If they perform well, they will then advance to Worlds in Houston.

At each competition, teams play in matches. Each match is between two alliances, each comprised of three different FRC teams and their robots. An alliance's three robots work together to compete in each match. In early qualification matches, teams are randomly assigned together. Following those matches, based on rankings, the top eight teams select their alliance in a draft-like format for the later elimination rounds.

This year's contest is called Power Up and involves robots manipulating box-like cubes around the field, and onto seesaws of various heights. Each alliance owns one side of a seesaw, and they try to have the seesaw tilt to their side by loading it with more cubes. The robots also attempt to climb a platform at the end.

Each match lasts for 2 ½ minutes. The first 15 seconds are autonomous, after which the robot is remote-controlled.

Westlake's FRC team has been hard at work since January to finish their robot, with just over six weeks given to design, build and program the robot from scratch.

"We like [early competitions] because it gives us a chance to see what the game is like early in the season," robotics program leader Norman Morgan said. "So when we go to the next tournament, we'll have a distinct advantage over teams who have not been at a tournament, because we know how the matches go."

In addition to the actual building of the robot, another large part of the FRC team throughout the year is their focus on outreach. Senior Shrey Majmudar is involved with this side of the robotics program, which focuses on increasing interest in and support of STEM and FIRST (For Inspiration and Recognition of Science and Technology).

"[One] thing we do through outreach is a lot of political advocacy," Majmudar said. "We have started a program called SACOT, the STEM Advocacy Conference of Texas. What we do through SACOT is work with Texas legislators to shape a better future for students in Texas. A lot of that is advocating for STEM-education funding."

In addition, the outreach team works towards the larger, non-technical awards given to FRC teams, which are based on community impact and an application that includes a large essay and presentation. The outreach team also runs the business side of robotics.

At the Salt Lake City competition, the team won the Innovation in Control Award for the first time. The award was based on the team's innovative approach to designing parts of their robot's overall system, which included coding for the robot to follow a path drawn on a computer screen, used in the autonomous part of the competition, and sensors that would automatically cause a series of subsystems to begin operation when the robot sensed a cube was near.

Sophomore James Nguyen, a subsystem designer and base driver, said that there is a bright outlook for this year's competition season.

“I feel very confident,” he said. “I think with some more driver practice and some optimizations of some subsystems, we’ll be able to make it really far in the tournaments we attend.”

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