

# The Almanac

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## Robot blog: How M-A's robotics team grabbed third place in nationals

This spring, the robotics team at Menlo-Atherton High School emerged from relative obscurity to win the regional trials, pick up the General Motors Industrial Design Award in San Jose, and then go on to the national playoffs in Atlanta.

From April 21 to 23, M-A's robot builders joined 8,500 students from 340 teams to compete in Atlanta's Georgia Dome before 20,000 fans. The team wound up third-ranked in the United States.

Each team in a three-team alliance has two drivers and an adviser who stand behind large glass shields just behind the the playing field baseline. The playing field is roughly the size of a basketball half-court.

Drivers use joy-sticks to remotely control their robot on the playing field. The main driver controls the robot's speed and direction -- navigating the robot around the playing field. The second driver controls the movement of the robot's arm, which is used to grab, lift, and stack tetrahedrons on top of goals on the playing field.

Team member Chris Cornelius, an M-A freshman, wrote this account in "blog" -- or Web log -- style.

**By Chris Cornelius**

### **M-A High School**

**April 21:** Today, the Menlo-Atherton robotics team began competition with 340 teams from around the country, as well as a few from Canada, Brazil, Norway and Israel.

Each team has been placed into one of four divisions. The teams play matches against one another in alliances of three. The highest ranked alliance in each division will play off to determine the final winner.

Today's schedule featured "practice rounds" -- teams play one another, but are not scored. These rounds let teams work the bugs out of their robots.

Today, we had several accomplishments. First, the drive sprocket for the main arm was changed, greatly improving the speed of the arm. This speed change allowed the programming team to experiment with an improved and expanded autonomous mode. This should allow the team to score more points during the first 15 seconds of the game, when the robot must operate on its own.

### *April 22*

In several intense matches, the M-A team scored up to 73 points in one round.

At one point, the M-A team was en route to cap a goal, when another robot moved into the M-

A robot's path. A collision occurred, and the other robot fell over. The referees stopped the M-A robot and called a penalty against it. The general opinion of the M-A team is that the referees made the call in error.

Tomorrow morning, the team will compete in several more qualifying matches. Then the top teams will pick their alliances. The M-A team is in luck because its ally from the Davis competition, the Adambots (team 245), is in the top eight, and might pick our team to be in their alliance.

The M-A team looks forward to competing tomorrow in the qualifying matches for its division, where it will receive points toward the finals matches on Saturday. The top eight scoring teams in each division will play off to advance to the final four.

*April 23*

The team began the day by playing in its final two qualifying matches. The results placed the M-A team in 27th place.

The M-A team was then selected by team 245, the Adambots (representing Rochester Adams High from Rochester Hills, Michigan) to participate in an alliance with the team "Thunderchickens."

This alliance went on to win the "Achimedes" division finals, and then moved up to compete against the other division-winning alliance.

In this competition, the M-A team and its allies defeated one other alliance -- but was stopped in the semi-finals by a powerful alliance that went on to win the entire competition.

This amazing turn of events has elated the entire team. Even with the M-A team's insanely bad luck in some of the qualifying matches, the team managed to come out third in the entire country.

## **PLAYERS**

The M-A team's departing seniors are: Scott Ashford, Scott Bauer, Colin Cronkite, Andrew Fitch, Kyle Imatani, Josh Lange, Mark Sheridan, Ben Steele, Grant Watters, Seth Weil, and Jonathan Whiteaker. The team roster also includes: Andrew Chao, Chris Cornelius, Robbie Eaton, Oliver Goldberg-Seder, Matt Ing, Steven Kent, Alp Kutlu, Webster Lincoln, Christina Robinson, Evan Shea and Andrew Stern.

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