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ON CAMPUS: Camdenton students to face world's best

Robotics team takes top spot at regionals



From left, Camdenton students Kyle Gulshen, Jacob Harmon and Connor Brady, the Robotics drive team for robot plus one human player, Dalton Lobosky, not pictured, put game pieces into play at a recent competition.

By [Dianne Steingrubey](#)

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Camdenton 4-H LASER Team 3284, in its second year, defended its title at *FIRST* (For Inspiration and Recognition of Science and Technology) Robotics regional competition held in St. Louis in mid-March. Team 3284 is headed back to compete in *FIRST's* World Championships.

The World Championships will be held April 27-30 in St. Louis, with 344 teams competing.

“It was exhilarating to win, but it was more of a thrill to get the robot working than to win,” sophomore Brigitta Reth said. “But the fact that we did do well was just icing on the cake.”

The St. Louis regional competition brought 28 teams together to compete and more than 5,000 spectators. *FIRST* holds 48 regional events across the world. Fifty-plus countries are involved, with more than 2,200 students competing this year.

The previous weekend, the team came in as regional finalists in Kansas City, touted as the toughest regional competition in the world, where they competed against 56 teams.

“It’s really cool to see everyone else’s robot ideas,” said sophomore Brandon Kapp. “When you see 56 robots, like up in Kansas City, you’re going to get a lot more ideas.”

Thirty-one students of LASER Team 3284 have logged 2,500 hours building every night after school and the weekends as they only had six weeks total to take the basic kit of parts and the 180-page rule book to figure out how to design, engineer, build, market and program a robot to do a specific task.

“This is a real-world experience,” sophomore Connor Brady said. “It’s not just building robots like handy-work with your hands. We have programmers, people in the business department working on the Chairman’s Award and writing essays. We even have a graphics department.”

The Chairman’s Award is an award for exemplary efforts in spreading the *FIRST* message, as well as talents in organizing materials for their presentations at the competition. It remains *FIRST*’s most prestigious award.

“This competition isn’t all about robots,” Reth said. “*FIRST* was started because there was a 20 percent drop in students getting a bachelor’s degree in science or mathematics engineering and that’s why Dean Kamen started *FIRST*.”

“They want to hear what we’re doing to get more students in science, technology, engineering and mathematics. It’s a big challenge in and of itself,” Reth said.

“We have started two fellow robotics teams and we have presented at the Missouri School Board Association,” she said. “Our team spent two days at the State Fair, where we talked about the *FIRST* message, presented our robot and replayed video of last season’s game. We’ve also presented to civic organizations such as the Optimist, Rotary and Lions Club.”

Getting support

Twenty-one mentors, including parents, teachers and members from the community who offer their expertise of science and engineering, logged nearly 1,500 hours as well. Overseeing team operations and funding is Coach Mitch Comer and his wife, Sherry

Comer, Afterschool Services Director. Mitch Comer said he put in on average 55 hours a week after teaching.

“It could not have been done without the mentors,” said junior Dalton Lobosky. “If we had a question they knew the answer. Not only did they give us the answer but they walked us through step-by-step to make sure we fully understood what is going on. It broadens your knowledge and you can apply that anywhere in life. It’s something you can’t pay for.”

In their rookie build season, the team had less than six weeks to build a robot that could play soccer.

“They give us a game and every year it changes,” said Brady, who logged more than 300 hours himself. “People have so many different ideas on how to solve that problem, it’s just really interesting. Last year we made our robot and we thought that is the only design there is, but there’s thousands and when you see others you think ‘why didn’t I think of that?’ It’s really interesting to see what everyone’s (robot) has to offer.”

This year the team competed in a robotics game called “Logo Motion.” Two alliances of three teams competed on a 27-by-54-foot field with 9-foot poles, attempting to earn points by hanging as many triangle, circle and square logo pieces as possible with their robot. This year their alliance included teams from Hazelwood Central High School and University City High School.

For extra points the first 30 seconds of the match, Team 3284’s robot, Jenny II, performed autonomously, which only half of the other teams’ robots could do. According to Mitch Comer the team also earned additional points during the matches as they were able to deploy a Mini-Bot to climb vertical pole.

In the St. Louis competition the team almost went undefeated; winning 10 out of 11 matches. The team was also awarded the Underwriters Laboratories Industrial Safety Award and the Motorola Quality Award.

“At the competition on the floor where the drivers were, whenever the game ended and we won, we all turned to each other and hugged and high fived,” said Brady. “It was a good sense of accomplishment.”

Reth said through this experience she was learned more about the public relations field.

“I was not that great in speaking to a stranger about something or speaking in front of crowds. It’s gotten a lot easier for me,” she said.

It takes hard work

Sophomore Devon Humiston said he learned robotics takes dedication.

“When I first got into this I thought it was going to be a fun activity I can do after school for a couple hours and then go home,” he said. “And then I find myself here until 9:30 p.m. every night and midnight on the weekends.”

Lobosky said he enjoys the hands-on experience of being part of the robotics team.

“Robotics allows students to get the hands on access that most students won’t get to obtain if they just go to school and do bookwork,” he said. “If someone wants to be an electrical or mechanical engineer they can get those experiences building the robot and being guided by mentors who are professionals in that certain department of engineering.

“For instance, we had a few programmers with some background knowledge of C++, which is what program we were using, but they had a very good mentor who walked him through it and showed him how to use it and allowed them to learn to their fullest capabilities using C++. He wouldn’t have got that in a classroom,” Lobosky said. “You can learn so much in depth and above the level of just bookwork at school out of the classroom in an environment where everyone is trying to go for the same goal.”

All of the students involved in *FIRST* can apply for scholarships, and one out of every three students who apply is awarded a scholarship. Senior Sierra Comer has already been awarded a scholarship to Missouri Science and Technology.