

# Engineering the future

## Students participate in competitions, learning skills through their creations

After dropping the controller and snapping the circuit board in half, junior Justin Sorem was in trouble.

He and his partner junior Kyle Wittman had little time until their battle bot had to compete. With a soldering iron and a bit of skill, Sorem fixed the piece in time to steal the competition.

It was this kind of innovative, on-your-feet thinking that led engineering students to success in class and competitions.

Students who took Charlie Lauts's advanced engineering courses had the unique opportunity to build and create a variety of mechanically-powered contraptions.

"It's a lot of fun," junior Kyle Wittman said. "We get to branch out and do things that a lot of kids don't really get to do."

Wittman and partner Sorem took first in the robotics challenge Jan. 10 at Johnson County Community College after the quick fix with the controller.

Working in class and for competitions was a complicated, multistep process that took time, patience and a lot of work.

"The design process takes quite a few steps," Lauts said. "We have to research the task we need to accomplish. Then we need to sketch ideas, and then you build your first prototype and figure out its flaws. And then you go back to the drawing board and kind of start over again until you get something that actually works."

Senior Michael Latham spent four hours of his school day in engineering classes. He knew about the difficulties that came with executing a design.

"Sometimes you will come up a cool design, or some great idea, but you may just not have the stuff with you at the moment to do it," Latham said. "A lot of times you have to scrap parts from other things or even have to buy something."

Latham, however, did not let complications hold him back. He and partner senior Jacob Magnuson placed at every competition they went to.

Students involved in the program attended multiple competitions, including ones at the University of Kansas, JCCC, and even in Arkansas. Anywhere from 15 to 35 students competed at each competition in a diverse spread of challenges.

Students could construct a catapult or similar mechanically-powered device, a robot that had to perform a certain task or a "battlebot" that fought other robots.

Although students got opportunities to build some devices in class, preparing for a competition was a little different.

"I'm more motivated to do well when it's for a competition because you want to win, whereas in class you just want to get a good grade," Magnuson said.

Like in many programs, the engineering program lost a dedicated group of seniors this year. While some teachers might worry about the future success of the program Lauts was confident underclassmen were ready to step up and be leaders.

“I have a good senior class this year, and it’s just like anything else, you hate to see your seniors leave, but the juniors are right there waiting to be next, so it looks pretty good,” Lauts said.