

High school girls take robotics talents to state championship this weekend

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Web Posted 1/15/2008 2:33:00 PM

Article :

Three Umatilla teenagers headed for a state robotics competition almost missed their chance to compete at a lower level this fall when their van had a flat tire on the way to Eastern Oregon University in La Grande. Jessica Kestler, Katelin Kestler and Angelica Cole arrived with only minutes to spare.

"We got there three minutes before registration closed," said Jessica.

The girls shook off their anxiety and, nine hours later, the trio of fledgling robotics engineers accepted the hefty first-place trophy and began thinking about their next challenge - this Saturday's state competition in Hillsboro.

The three Umatilla High School freshmen, who call themselves "nerds," hatched the idea this summer after Angelica discovered the winning robotics team at a First LEGO League-sponsored competition in La Grande this fall would win more than just a trip to state.

"They wanted the full-ride scholarships that Eastern Oregon University was offering," said Dave Wickstrom, who coaches the girls.

The three, such good friends they often finish each other's sentences, trooped over to Wickstrom's house en masse one day late last summer and begged him to coach their robotics team. It took a little arm twisting and fancy talking.

"It was a very serious conversation," Angelica said. "It felt like there was a lot on the line."

The retired science teacher said he hedged for a while until he realized scholarship money was the motivating force.

"Anything I can do to get kids a scholarship, I'll do it," Wickstrom said. "I'd jump through a ring of fire."

Wickstrom said, after all that, he didn't end up doing much coaching - just stood back and let them go. Their work ethic was incredible, he said.

"They worked every day after school until about 6 or 7 at night, then went home and did homework," he said.

First order of business was coming up with a name (the Cherribombs) and raising more than \$1,000 to pay for the robotics kit, registration fees, hotel and matching T-shirts with the sponsors' names. When the robotics kit arrived, they set up shop in Wickstrom's garage and got to work building their robot and an obstacle course to go with it.

They learned to program their robot to perform various tasks - launch a satellite, plant trees, position windmills, fetch oil barrels from a derrick and install solar panels. Each task is worth a

specific point value. The team must complete as many of the 15 tasks as possible in 21⁄2 minutes.

"There are three motors on the robot," Jessica said. "Each is connected to the brain."

"You tell it which motor to move and how long," Angelica added.

"The robot is totally autonomous," Wickstrom said. "There is no remote control."

Early in the process, the weather turned cold and the team moved inside the house.

"We kind of invaded their living room," Jessica said. "They're probably still finding little pieces behind the couch."

"My wife (Nancy) lost her living room for several months," Wickstrom said, adding that she supported the girls' efforts.

Building and programming a robot was only part of the preparation. The team was required to perform an energy audit on a public building and report to a public body with results and suggestions. The girls chose the public library and made their report at a city council meeting.

They also researched ways to use hydrogen, created a display and answered questions put to them by a panel of college professors.

"The panel asked very pointed questions," Wickstrom said. "These girls cold-turkey defined 'gracious professionalism.'"

Three weeks before the regionals in December, the team received a letter containing some bad news. EOU was tightening its purse strings and weren't offering full-ride scholarships anymore, only partial scholarships of \$2,000 over four years.

"When we got the letter, we were so disappointed," Katelin began, "but we'd already involved so many people," Angelica finished.

They pressed on.

The competition was two-part with points awarded not only for the robot's performance completing tasks, but for a presentation of the energy audit and energy research. Before the presentation of trophies, they knew they sat third or fourth for the tasks, but "we knew their presentation was stellar," said Wickstrom.

The table full of trophies dwindled until there was only one left - the championship trophy. The girls came unglued when they heard their names.

"We were in total shock and disbelief," Jessica said.

The team travels to the Intel Oregon 2007 First Lego League Championships in Hillsboro this weekend. First- and second-place winners go on to nationals.