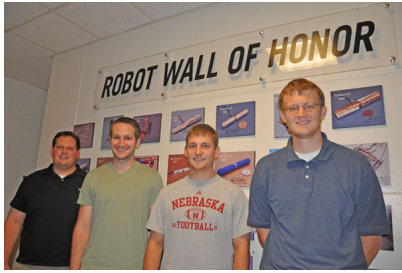


## Surgical robot by UNL MME grad students wins ASME competition

Written by Wauneta Breeze  
Friday, 07 September 2012 17:10 -

---



### Courtesy Photo

**UNL graduate students in the Department of Mechanical & Materials Engineering won first place for their surgical robot entry in the Graduate Student Robotics category at the 2012 ASME Student Mechanism & Robot Design Competition. From left, they are: Joe Bartels of Wauneta, Neb., Jack Mondry of Orlando, Fla.; Eric Markvicka of Ravenna, Neb.; and Tom Frederick of Omaha, Neb.**

A team from the University of Nebraska-Lincoln's Surgical Robotics Lab won first place in the American Society of Mechanical Engineers' 2012 Student Mechanism & Robot Design Competition, Graduate Student Robotics category, with their project: Miniature In Vivo Surgical Robot for Single-Incision Surgery.

Mechanical & Materials Engineering graduate students Jack Mondry, Thomas Frederick, Eric Markvicka, and Joseph Bartels presented their creation at the Chicago event in mid-August. Their platform for R-LESS (robotic laparo endoscopic single site) surgery aims to streamline the crowded operating table while still providing the dexterity necessary to perform general surgical procedures.

This is the first time a team from UNL's Surgical Robotics Lab, led by Professor Shane Farritor, entered and won at the ASME Student Mechanism & Robot Design Competition. Recent Nebraska finalists have included David Miller, fourth in the 2007 graduate level Mechanisms competition, and Chi Min Seow and team, who won the 2010 graduate level Robotics division;

## Surgical robot by UNL MME grad students wins ASME competition

Written by Wauneta Breeze

Friday, 07 September 2012 17:10 -

---

both were students working in the lab of MME Associate Professor Carl Nelson.

The 2012 event was ASME's 36th mechanisms and robotics gathering among its annual technical conferences.

"It's one of the longest running and most prestigious events in student robotics, with international participation," said UNL team leader Jack Mondry.

This year's Nebraska entry was Mondry's design, nicknamed "Jackbot" in the lab's tradition of naming robot iterations after their developers. Frederick and Markvicka collaborated on the robot's mechanical components, and Bartels focused on the controls for the device. The team worked on the robot for six months as part of their lab projects.

"It's easy for people to see the immediate impact this robot could have on their lives through less invasive surgical procedures," Mondry said. "We hope to see a commercialized version of the robot within a couple of years."