

Robotics Expo Aims to Increase Students' Interest in Science, Technology

LINCOLN, Neb. – Robots aren't just for science fiction movies. They're for everyday life, because they help students build their skills in science, engineering and technology – key skills for the 21st century.

Nebraska students will get a hands-on glimpse of robotics Jan. 30 during the Nebraska Robotics Expo, a collaboration between the University of Nebraska-Lincoln, the University of Nebraska at Omaha and others. The event, scheduled at the Strategic Air and Space Museum near Ashland, will feature more than 400 elementary, middle and high school students from 60 schools across the state.

Gov. Dave Heineman will make opening remarks at 8:30 a.m. U.S. Sen. Mike Johanns will give closing remarks at 4 p.m. In between, the students will see exhibits of some of the latest technology and innovation, said Neal Grandgenett, a UNO professor of education and one of several university facilitators of the event.

"The expo provides youth an opportunity to learn about science, technology, engineering and mathematics concepts through hands-on activities and challenges," said Brad Barker, science and technology specialist with Nebraska 4-H Youth Development, another collaborator.

The event includes two components.

Children ages 9 to 14 will use special LEGOs kits to build robots at the Nebraska *FIRST* LEGO League tournament sponsored by Nebraska 4-H. Participants will use the robots in various competitions.

The second component is the SPIRIT (Silicon Prairie Initiative on Robotics in Information Technology) Showcase. Students from 17 Omaha public and parochial schools will participate, displaying their engineering skills with the CEENBoT educational program – one of the only robotics platforms recognized by the National Science Foundation.

The CEENBoT platform was developed by students attending the UNL Department of Computer and Electronics Engineering, housed at the Peter Kiewit Institute in Omaha.

"This is a true Nebraska collaboration, representing the whole University of

Nebraska system and many different Nebraska partners,” said Bing Chen, chair of the CEEN department. “Our collective goal is to expose students at an earlier age to the opportunities in engineering in order to meet the rapidly growing demand for engineers, and to meet the technological needs of the 21st century so that we continue to maintain our scientific and engineering dominance.”

Nebraska has emerged as a national leader in these efforts, thanks to several National Science Foundation grants awarded to various UNL and UNO entities.

Grandgenett said organizers have been amazed at the response to the Jan. 30 event.

“Initially, we had hoped to attract 100 or so participants. The response has been amazing,” he said. “Organizations and businesses also very much want to help and assist with the expo. It’s going to be just a wonderful day for the students and a true technology showcase about what is being done and what can be done when institutions work together across Nebraska.”

The public is invited to attend the Nebraska Robotics Expo. In addition to the competitions, the public is encouraged to tour the museum and see the Da Vinci exhibit, which has more than 30 working models of Da Vinci’s designs.

Corporate sponsors such as Cox Communication will be present to explain how phone, Internet, and cable connectivity reaches area homes and businesses. Corporate Sponsor Lockheed Martin will present applications in robotics.

Other sponsors include the Boys and Girls Club, Union Pacific, OPPD, Time Warner Cable, Great Plains Communications, Peter Kiewit Institute, the University of Nebraska - Lincoln, the University of Nebraska – Omaha, the Nebraska NASA Space Grant Consortium, the Nebraska Manufacturing Coalition and Central Community College’s Mechantronics program.

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