SIUE hosts record numbers prepping for 2013 Botball Tournament

Southern Illinois University Edwardsville hosted a record 36 teams during the Botball Workshop in the Morris University Center (MUC) Conference Center during the weekend.

The teams are preparing for the seventh annual Greater St. Louis Botball Tournament to be held April 20 in the MUC's Meridian Ballroom. The workshop was an opportunity for the teams to discuss the rules of this year's tournament, and to learn tips on programming their robots to achieve goals.

Gary Mayer, Ph.D., an assistant professor of computer science in the SIUE School of Education and one of the event organizers, was encouraged by the record participation. "Getting young people engaged in STEM (science, technology, engineering and mathematics) activities such as the Botball program is important, because it helps develop critical thinking skills that can be applied to any career field," Mayer said. "Botball puts the focus on the student as the students need to devise solutions and implement them through the building of the robots and programming the robot's behaviors.

Saturday's program revolved around teaching the basics of programming and the use of sensors by the teams. The Sunday session was more of a free-form play day as teams experimented with their robots' capabilities.

The theme of this year's tournament is the Mars Sample Return Mission (MSR). The students are building autonomous robots that will travel around the board game with four goals:

- Retrieve samples cached by the Mars Science Laboratory, Curiosity
- Gather, sort, and separate unusual and interesting samples detected from orbit
- Load the samples into return containers
- Assemble the return vehicle (rocket) and prep it for launch

Mayer described the tasks in the tournament challenge as never having a single solution. The teams receive a kit with hundreds of parts such as sensors, motors and structural pieces. Students are free to be as inventive with the kit components as possible. The result is a fleet of unique robots that allow the students to see the strengths and weaknesses of different approaches, especially in head-to-head competition.

"While the Botball Education Robotics Program is a great tool for STEM education, it is also a lot of fun for the students," Mayer said. "It's an outlet for creative minds, an opportunity to meet others with similar interests in science and engineering, and a way for the community to get involved with the students' successes. The students get a task, a robot kit and about eight weeks of time. With those resources, they build an autonomous robot that they take great pride in."

Edwardsville High School is the defending champion.

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