Interactive Workshop for K-12 Educators

June 24 - 25, 2010 at iRobot, Bedford, MA
http://stream.cs.uml.edu/
Registration Deadline: May 27th, 2010

Classroom robotics offers a unique means to provide hands-on activities to motivate interest in STEM subjects. This workshop will provide educators the opportunity to explore how they might use robotics in their own STEM instruction through interactive sessions as well as through presentations by other educators currently using robotics as a way to teach STEM. Representatives of local technology companies will also describe potential careers for students interested in robotics and STEM disciplines.

Featured Robotic Workshops

- Sound Science with the LEGO NXT
- Robots in the Technology Engineering Curriculum
- Artbots: Attracting Students to STEM

Interested educators should submit the registration form to Phyllis Procter either via email to robots@cs.uml.edu or by fax to 978-934-3551 no later than May 27th, 2010. The workshop will be filled on a first-come first-serve basis. The registration fee for the workshop is $50. All fees are due by May 27th, 2010; refunds available for cancellations before June 10th, 2010. See website for additional details. Limited funding assistance for accommodations is available. PDPs will be awarded for completing the workshop and follow-up activities.

The STREAM 2010 workshop is organized by the University of Massachusetts Lowell and iRobot.
Interactive Workshop Sessions

**Sound Science with the LEGO NXT**  
*Bill Church and Barbara Bratzel, Shady Hill School*

In this workshop, we will explore the science of sound with LEGO NXT hardware and Labview Educational Edition software. Using the high-tech data-logging capabilities of the hardware and software, we will investigate a decidedly low-tech toy, the can-and-string telephone. We’ll move on to building robots: an applause meter that spins faster as the sound gets louder and a sensor-controlled musical instrument.

**Robots in the Technology/Engineering Curriculum**  
*Chris Beaton, Ashland High School*

This workshop is designed to demonstrate and explore the implementation of Robotics in the MA Engineering/Technology Frameworks. You will be challenged to solve an engineering design problem using the Engineering Design Process, the iRobot Create, and the Botball CBC controller.

**Artbotics: Attracting Students to STEM**  
*Diana Coluntino and Adam Norton, The Revolving Museum*

In this workshop participants will experience the structure and process of the Artbotics program. Typically run in semester or week-long sessions, this all-day workshop will introduce kinetic art concepts, a variety of sensor and motor types, and computer programming with Cricket Logo. Participants will create interactive art which will be presented in a short exhibition at the end of the day.