

2011 SSEF STEM Event

Interactive Robotic Exhibits

Georgia FIRST is the state arm of the parent organization US FIRST Robotics. Their mission is to inspire young people to be science and technology leaders by engaging them in exciting mentor-based programs that build STEM skills that inspire innovation and foster life capabilities including self-confidence, communication, and leadership. Through their four premier programs, FIRST Lego League, ages 6-8 and 9-14, FIRST Tech Challenge and FIRST Robotics Competition for high school students, they are changing kids' perspectives about their futures. At this exhibit, participants were able to drive a FRC robots to see what it is like to compete at the high school level of robotics.

Lockheed Martin 5th Gear, a premier partner of FIRST and Georgia FIRST has developed a simulation of our FIRST Robotics Competition game for 2011. Participants experienced what it is like to actually drive a FRC robot and compete against other robots in the game LogoMotion.

Lego Education-Welcome to a LEGO® way to teach! LEGO® Education combines the unique excitement of LEGO® bricks with hands-on classroom solutions for science, technology, engineering and math (STEM), literacy, and more. LEGO® Education helps educators create engaging and enriching learning experiences. Participants had the opportunity to program an NXT robot using Lego Mindstorm software.

Intuitive Surgical's da Vinci® Surgical System combines superior 3D high definition vision with their patented EndoWrist® Instruments allowing for enhanced dexterity, precision and control. The end result: a break-through in surgical capabilities. Participants had an opportunity to experience what it is like to actually perform robotic surgery on the da Vinci.

Mobile Music Touch (MMT) is a system which uses tactile cues to teach the user how to play musical instruments. Currently the MMT System is being used to explore Passive Haptic Learning (PHL) and Passive Haptic Rehabilitation (PHR). In conjunction with the Shepherd Spinal Center, the PHL study researches the ability to learn to play simple songs on a piano keyboard by feeling the song on his/her hand in the form of vibration while focusing on an unrelated activity, such as reading email.

The Boe-Bot is a mobile, reprogrammable robot that comes with a suite of sensors (visible light, touch, and infrared). The Boe-Bot allows the user to learn simple programming and electronics skills. This simple robot is a great way for kids of all ages to break into the world of robotics.

The SpelBots are an all-women humanoid robot soccer team from Spelman College that competes internationally with universities, conducts humanoid robotics research, and provides K-12 outreach events nationally. In 2009, the SpelBots tied in the championship match in the RoboCup 2009 Japan Open in Osaka, Japan. The SpelBots have appeared on CNN, CBS Evening News, NPR and other media outlets and are sponsored by the National Science Foundation, General Motors, Apple, Boeing, and Google.