

Join Us for...



# STEM ROBOTICS AND MAKER\* CHALLENGE

This year's challenge: Build a robot that moves Baxter into manufacturing and service robot-designated spaces within a specific time frame while chronicling the Engineering Design Process.

## BAXTER ON THE BOARDWALK

STEM K-12 robotic activities focus not only on collaboration, problem solving and critical thinking skills but also these STEM skills:

### SCIENCE—

Students investigate the physics of motion and energy transformation.

### TECHNOLOGY—

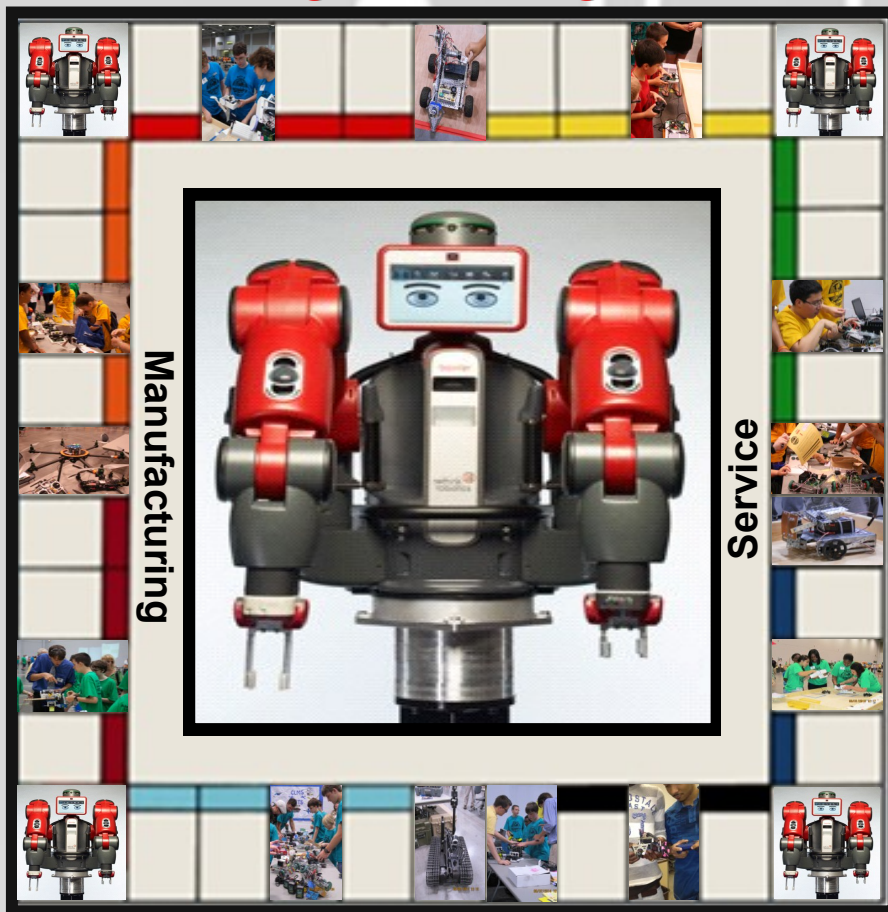
Students are introduced to basic computer programming, motor control, electronics and feedback systems.

### ENGINEERING—

Students create a micro-controller for robotic manipulation and begin to understand "Mechatronics" and the relationships between electronic and mechanical systems.

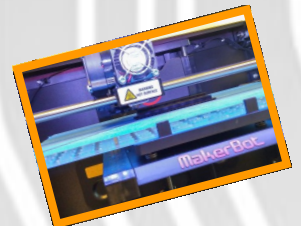
### MATHEMATICS—

Students demonstrate knowledge and application of measurement, ratios and proportions, conversion of units, applied geometry and probability through computational thinking.



### \*MAKER CHALLENGE

Select student teams will be given limited resources to design and produce a product and present their experiences using the Engineering Design Process. Construction of a prototype utilizing the 3D printer will take place onsite during the day.



**June 12, 2015**  
**Public Invited 10:00AM - 4:00PM**  
**Virginia Beach Convention Center**  
 For more information contact  
**Office of Technical & Career Education 648-6180.**



SRC is a partnership between VBCPS students, teachers, parents and local military and business STEM advocates.