

Pico Pong STEM Kit



Explore the interaction between the virtual and physical worlds with this unique kit. You will learn how to code a simple game (Pong) in the Scratch programming environment and then use a Pico sensor board to collect a variety of sensor data: light, pressure, flex, sound, and position. You will then use these data to control the game paddles. It's the epitome of "edutainment!"

Big Concept: Computer Coding and Sensors

Scientific Inquiry Skills:

- If / Then logic
- Use of sensors to collect data
- Applying formulas to sensor data
- Use of science notebook

Grade Levels: 5th grade and up

Number of Kits per Set: 15

Student Group Size: 2

Time Required: 90-120 minutes

Web page:

cns-eoc.colostate.edu/picopong.html

Funding: Bohemian Foundation

Faculty Collaborator: Dr. Jaime Ruiz

These kits are used for STEM Friday field trips, teacher workshops, and are available through the EOC Lending Library.



College of Natural Sciences
Education & Outreach Center



Colorado
State
University

CNS Education & Outreach Center Mission Statement

The College of Natural Sciences Education & Outreach Center is an incubator for innovation in STEM education. We serve both CSU and 4th-12th grade students and faculty through a variety of programs. Many of our programs focus on authentic scientific research experiences that aim to promote enthusiasm for the STEM disciplines, especially for students traditionally underrepresented in these fields. Particular emphasis is on finding new ways to promote scientific creativity and innovation, attributes essential for global challenges in the 21st century.

Learn more:

www.cns-eoc.colostate.edu

STEM Fridays

STEM Fridays are facilitated by CSU undergraduate students studying to become science teachers, mentored by EOC staff. The science content has been developed at the EOC to give students a mini scientific research experience in a safe university laboratory setting. All content is tied to Colorado Science Education Standards and is compatible with the Next Generation Science Standards.

Learn more:

www.cns-eoc.colostate.edu/cnseocstemfriday.html

EOC Lending Library

The EOC has a variety of STEM materials and kits available for weeklong loans by classroom and informal educators. Please visit the following link to see which kits are currently available.

Learn more:

www.cns-eoc.colostate.edu/stemkits.html

Discovery Begins Here