



C-STEM PD 1-Week Workshop

on Arduino, Raspberry Pi, and Cyber-Physical Systems

June 25-29, 2018
8:30am-4:30pm
Bainer Hall Room 2071
UC Davis

Arduino and Pi for the Maker Movement, CPSbot for building your own robot!

The C-STEM 1-Week Workshop on Arduino, Raspberry Pi, and Cyber-Physical Systems provides professional development for K-14 teachers on electronics, sensors, and physical computing. Arduino and Raspberry Pi can be programmed through the freely available C-STEM Studio in Ch Arduino, ChIDE, and Arduino IDE. Ch Arduino package is the easiest way to get started tinkering with electronics using Arduino. Ch Arduino is a simple graphical user interface to interact with I/O pins of Arduino boards. C/C++ interpreter Ch is the simplest way to program Arduino using the standard Arduino C functions. The Raspberry Pi is a low-cost card-sized computer. Participants will learn the software development concepts for interface with hardware using Arduino and Raspberry Pi with various enlightening examples. Participants will also learn the principles and design of Cyber-Physical Systems using CPSkit, a versatile robot kit for teaching and learning cyber-physical systems. Participants will learn the design thinking and product realization. This workshop is designed for K-14 teachers and their students to join the Maker Movement, to integrate Arduino and Raspberry Pi into science and engineering curriculum, to develop their own robotic system, and to support the following C-STEM curriculum and the capstone course for the C-STEM Math-ICT:

- **Introduction to Physical Computing and Making**
- **Physical Computing with Arduino**
- **Principles and Design of Cyber-Physical Systems (the capstone course)**

CEU credits available!

Registration deadline: June 12th, 2018
\$975 for course

Each participant will get CPSkit with Arduino, Raspberry Pi 3, software license for a laptop, and lunch.

If you have no prior computer programming experience, we recommend that you also attend the C-STEM 1-Week Institute on Integrated Computing and STEM Education.

For more information, contact
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or visit:
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