



C-STEM 1-Day Workshop on Physical Computing with Arduino and Robotics (Linkbot and LEGO Mindstorms NXT/EV3)

Date:

Saturday
March 10, 2018
10:00am – 5:00pm

Location:

UC ANR 2801 Second St.
Davis, CA 95616
Sacramento Valley Room

Registration:

Register* here:

goo.gl/hA8XJG

Deadline:

Wednesday, Feb.28, 5pm

*Open to 40 participants.

*Participants must purchase a take-home Arduino starter kit (~ \$30) to attend the workshop. The kits will be ready for you at the event.

*Lunch will be provided.

For more information, please contact

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or contact info@c-stem.ucdavis.edu

and visit c-stem.ucdavis.edu

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This C-STEM 1-Day Workshop will provide 4-H coordinators and volunteers with hands-on experience on how to use freely available C-STEM Studio and RoboBlockly, as well as C-STEM Linkbot, LEGO Mindstorm, and Physical Computing with Arduino Expanded Learning curriculum. Participants will learn physical computing using general purpose input/output (GPIO) pins with Arduino, control of Mindstorms NXT/EV3 and Linkbot robots, and how to bring physical computing and free C-STEM resources into their teaching of STEM, computer science, making, and robotics in the after school program. Whether or not you have previous coding, making or robotics experience, you will enjoy the workshop enormously.

This workshop focuses on:

Providing computing education utilizing user-friendly RoboBlockly, computer programming in C/C++ interpreter Ch, and Barobo Linkbot or popular Lego Mindstorms NXT/EV3

Implementing new teaching strategies and opportunities for personalized and collaborative learning through hands-on activities

Maker-friendly technology

A range of ideas for interfacing various hardware and software in the after school program.

Using GPIO pins on Arduino for sensory based control of Linkbots and/or Lego Mindstorms NXT/EV3.

Building circuitry using a breadboard for Arduino.

The GPIOviewer for tinkering with the General Purpose Input/Output (GPIO) pins on ChDuino for tinkering with the GPIO pins on Arduino board.

Using physical computing to interface electronic components like LEDs, buttons, and photo-resistors

Working to bridge the gap between formal and informal learning, and preparing students to be college and career ready in STEM fields