C-STEM Free Half Day Workshop on Mindstorms NXT/EV3

Date:

Saturday
January 27, 2018
1:00pm – 5:00pm

Location:

UC Davis
Bainer Hall, Room 1062
1 Shields Ave
Davis, CA 95616

Registration:

Cost: Free
Due: January 20, 2018

For more information, please contact info@c-stem.ucdavis.edu and visit http://c-stem.ucdavis.edu/pdregister to register for this training.

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"Oh my gosh! I barely can contain myself ....soooo fun!!! So challenging and so rewarding at the same time!!!"

Jessica Fernandez
Math Teacher
Glenn Edwards Middle School

This free C-STEM Half Day Workshop will provide K-12 teachers with hands-on experience on how to use Mindstorms NXT/Ev3 through freely available RoboBlockly and C-STEM Studio for teaching robotics, coding, math, and science. C-STEM Studio is the simplest possible way to control single or multiple Lego Mindstorms NXT and EV3 for various STEM applications. This workshop is targeted at grades 5-12 teachers. Bring your own device (BYOD) of laptop of Windows or Mac OS X and NXT or EV3, and take the curriculum, know-how, pedagogy, and excitement to your classroom teaching. You will enjoy the workshop enormously.

- How to utilize user-friendly RoboBlockly curriculum for coding, robotics, math, and theme-based projects with NXT/EV3.
- How to use Ch Mindstorms Controller with graphical plotting to control NXT/EV3 and learn math and science.
- How to use RoboBlockly and Ch Mindstorms Controller to generate Ch/C/C++ programs for scaffolding.
- How to control NXT/EV3 in Ch/C/C++ programs.
- How to control virtual NXT/EV3 robots in RoboSim in Ch/C/C++ programs for effective classroom management and teaching, especially for a math class.
- How to use NXT/EV3 to teach robotics, computer science, engineering, Common Core State Standards (CCSS) Math, and Next Generation Science Standards (NGSS) supported by C-STEM Math-ICT Curriculum.
- How to play melody and music notes in NXT/EV3.
- How to control multiple NXT/EV3 in a single program for team formation and group dance in a single program.
- How to process sensory information from multiple NXT/EV3 in a single program for multi-robot coordination, with many sample applications with assembly instruction, videos, and source code.
- How to control multiple NXT/EV3, Linkbots, and Arduino in a single program.
- How to control NXT/EV3 from Raspberry Pi.
- How to integrate NXT/EV3 with C-STEM software into other computer science education curriculum such as those provided by Code.org and Exploring Computer Science.
- How to advice your students to use NXT/EV3 for RoboPlay Video Competition, which integrates creative writing, story-telling, art, music, film production with math, programming, and robotics.
- How to use NXT/EV3 for 1-week Girls in Robotics Leadership (GIRL) summer camps.