



2019 BEST/TI Camp Code Workshop

Overview

- Coding camp for students using Texas Instruments calculators, innovator hub and rover robots
- BRI provides the hardware and curriculum; hub pays for shipping costs only
- Texas Instruments provides online training of instructors (1.5hr webinar)
- Hubs may use the workshop as a fundraiser; you may charge for camp participation (\$??? per participant suggested)
- Estimated size is up to 24 student participants; limited currently by hardware available
- Camp dates, location, instructors are set by the hub/host; subject to logistics of hardware availability

Three Camp Options

All camps are half-day format (~4hrs per day). Offering lunch is a hub decision.

1-Day Curriculum

BEST Robotics introduction (Mechanical, Electrical)

Introduction to coding on TI calculators

Program Rover to

- change color of RGB LED
- drive a Square
- drive a path using driving commands
- perform a multi-step dance

3-Day Curriculum

BEST Robotics introduction (Mechanical, Electrical)

Day 1: 10 min of code for TI-Innovator™ Hub – Units 1 and 2

(Introduction to coding on calculator, Write programs on calculator to control RGB LED on Hub, play music, program a traffic light)

Day 2: 10 min of code for TI-Innovator Rover - Unit 4 (skill builders ONLY, skip application)

Skill Builder 2 of “On ramp to Robotics”(skip SB1) – clock activity

Day 3: Skill Builder 3: On ramp to robotics, Mars challenge – introduce the challenge, explain the geometry concepts, talk about scaling, trial runs, final run

5-Day Curriculum

3-day curriculum, plus

Day 4: Introduction to Rover sensors (distance sensor, color sensor)

Mars Mineral Challenge - Students explore the fundamentals of using sensors to control a robotic vehicle.

(Activity: Search the surface of Mars for mineral deposits)

Day 5: Students explore connections between distance, rate, time and angles as they write a program that guides Rover around obstacles.

Camp Training Session

The initial training session will be held on Monday June 17, 12pm – 2pm Central Time via WebEx. The link will be provided for those interested in hosting a camp. Alternate dates MAY be offered depending on the response.

Texas Instruments will review the training session curriculum and use of the TI calculators, innovator hubs, rovers. Trainers will need at least one hardware set to be adequately trained. Logistics of hardware is handled by BRI so early communication about interest is imperative.

How to Host a Camp Code Workshop

- Contact the Director of Operations, bestops@bestinc.org, ASAP to begin coordinating logistics.
- Identify a local trainer (e.g., a local teacher or hub personnel) to deliver the camp.
- Select location, dates and times for the camp.
- Recruit attendees. Create event registration via Eventbrite. BRI can help with registration setup and will provide student recruiting materials.
- Trainer studies curriculum and attends the online training when it is offered.
- Receive equipment and Host your camp!
- Coordinate equipment return shipping with Director of Operations.
- Pay shipping invoice from BRI.