

GETTING STARTED

In these robotics lessons you will be using the Robocar to complete various coding and robotics challenges.



GETTING STARTED

The Robocar you will be using has a LEGO EV3 device attached to it.

Do not remove or adjust the EV3 device or any of the LEGO pieces attached to the Robocar.

Do not disconnect or adjust any of the wires attached to the Robocar.



GETTING STARTED

Lesson Steps

- 1) Start the EV3 coding app. [Start App](#)
- 2) Power on the EV3. [Power Up](#)
- 3) Connect app on iPad to your EV3. [Bluetooth Connect](#)
- 4) Ready-to-go check-in. [Ready To Go](#)

GETTING STARTED




Start the LEGO Education
EV3 Classroom App

Be patient. It will take a moment to load.



GETTING STARTED

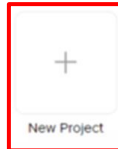


Start Here

Get familiar with EV3 in three fun activities!

START

Recent projects



← Click the New Project button.

Unit Plans

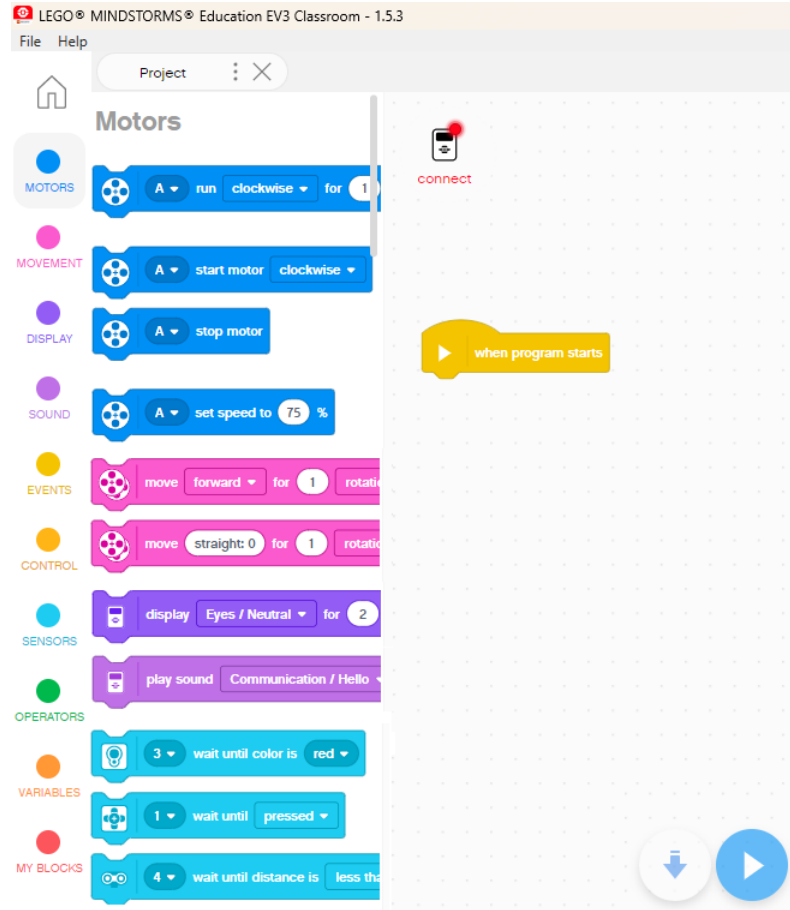


Core Set Models



GETTING STARTED

The EV3 Classroom app uses a block-based coding environment that looks and works like Scratch.

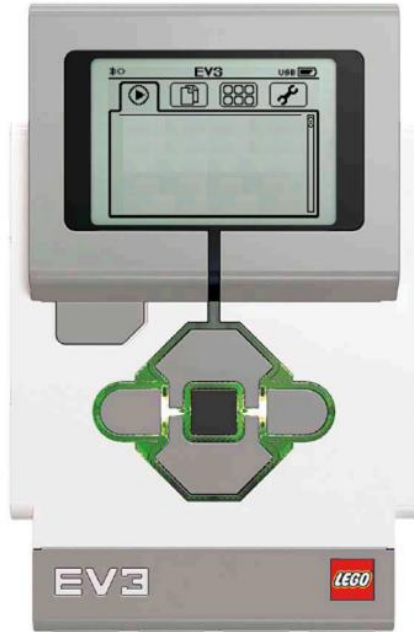


GETTING STARTED



Power on the EV3 device.

The EV3 is a micro-computer that controls your robotic systems.



The EV3 navigation buttons will be backlit in green when the EV3 is ready for use.



GETTING STARTED



Look at the EV3 navigation buttons.
Do not use the buttons.
Do not select any programs.

Understanding What the EV3 Buttons Do

- 1) Back - undo an action, stop a program, go back, shut down EV3.
- 2) Select - select an action.
- 3) Menu movement - navigate the EV3 menus up, down, left, or right.



GETTING STARTED

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File Help

Project

The left sidebar contains a home icon at the top, followed by a 'Project' tab. Below this is a vertical list of block categories, each with a colored circular icon and a text label: MOTORS (blue), MOVEMENT (pink), DISPLAY (purple), SOUND (purple), EVENTS (yellow), CONTROL (orange), SENSORS (cyan), OPERATORS (green), VARIABLES (orange), and MY BLOCKS (red). Each category contains several specific block icons.

Motors

The main workspace shows a sequence of programming blocks on a grid background. At the top is a yellow 'when program starts' block. Below it are several blue motor blocks: 'run clockwise for 1', 'start motor clockwise', 'stop motor', 'set speed to 75 %', 'move forward for 1 rotation', 'move straight: 0 for 1 rotation', 'display Eyes / Neutral for 2', and 'play sound Communication / Hello'. At the bottom right, there are two circular buttons: a download icon and a play icon.

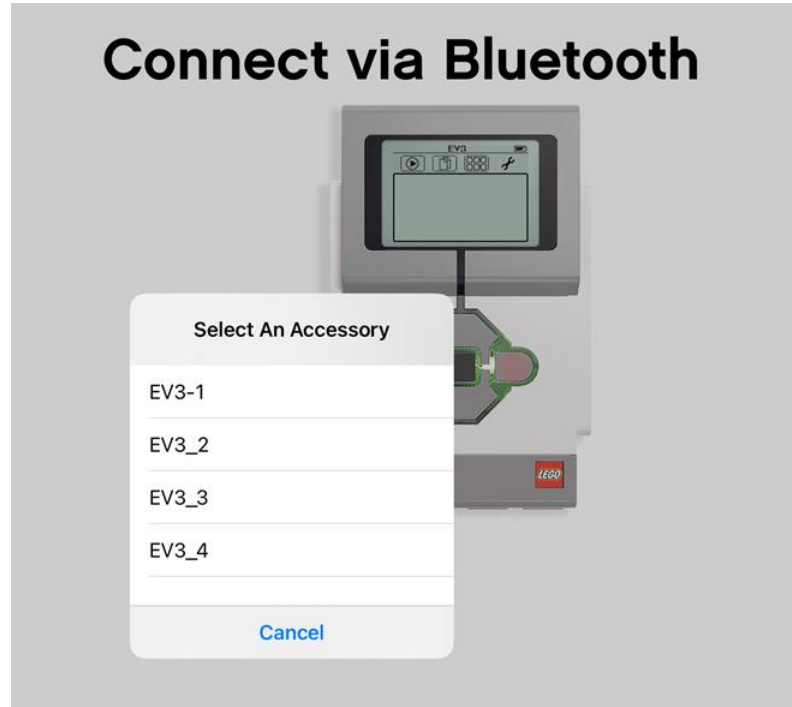


connect

Click on the EV3 icon at the top of the screen to connect to the EV3 using Bluetooth.



GETTING STARTED



Select the correct EV3 device to complete the Bluetooth connection process.
Do not adjust any of the EV3 settings.



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LEGO MINDSTORMS Education EV3 Classroom - 1.5.3

Project

Motors

MOTORS

- run clockwise for 1
- start motor clockwise
- stop motor
- set speed to 75%
- set motor to hold position
- run for 1 rotations
- start motor at 75% speed
- start motor at 100% power
- reset degrees counted
- degrees counted
- speed

Movement

- move forward for 1 rotation
- move straight: 0 for 1 rotation
- start moving straight: 0

FEWER CODEBLOCKS

Brick was successfully connected DISMISS

EV3 ready.

Notice that the EV3 Classroom app has found the EV3.

Also note that the EV3 Classroom app shows the devices connected to the input and output ports and the status of those devices.



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Are you able to connect the EV3?

Check in with Mr. Desmond to confirm that you can connect to the EV3.

