



By Sanjay and Arvind Seshan



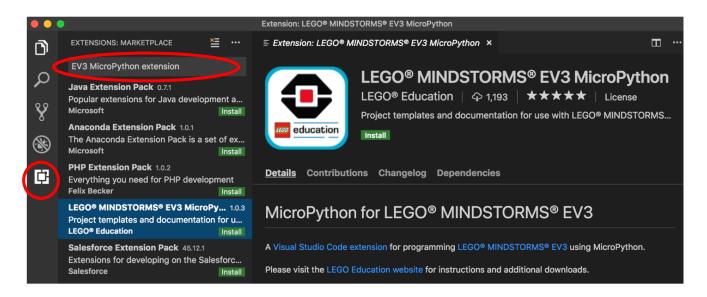
### **BEGINNER PROGRAMMING LESSON**

## **LESSON OBJECTIVES**

- 1. Learn how to install Visual Code Studio
- 2. Learn how to prepare a microSD card for the EV3

# STEP 1: INSTALLING VISUAL STUDIO

- 1. Download and Install Visual Studio Code (a source code editor) from the following page: <a href="https://code.visualstudio.com/Download">https://code.visualstudio.com/Download</a>
- 2. Launch Visual Studio Code
- 3. Click on Extensions in the left bar and then search for "EV3 MicroPython extension" in the search bar
- 4. Install the Extension



## **STEP 2: MICROSD CARD**

- 1, Download the EV3 MicroPython microSD card image file from the LEGO Education page (<a href="https://education.lego.com/en-us/support/mindstorms-ev3/python-for-ev3">https://education.lego.com/en-us/support/mindstorms-ev3/python-for-ev3</a>)
- 2. Download and install Etcher, microSD card flashing tool (<a href="https://www.balena.io/etcher/">https://www.balena.io/etcher/</a>)
- 3. Place your microSD card in the computer and launch Etcher
  - In Etcher, select the EV3 MicroPython microSD card image file downloaded to the LEGO education site
  - Select the microSD card you inserted into the computer
  - Flash the card

#### Links to documentation and firmware

△ Download the EV3 MicroPython documentation (incl. API, sample code).

△ Download the EV3 MicroPython micro SD card image

### **April 25 Update:**

There is a known bug. Use this version of Etcher: <a href="https://github.com/balena-io/etcher/releases/tag/v1.5.26">https://github.com/balena-io/etcher/releases/tag/v1.5.26</a>

# STEP 3: INSTALLING THE MICROSD CARD

- 1. Start with the EV3 brick off
- 2. Insert the microSD card into the EV3 brick
- 3. Turn on the EV3 Brick with the center button and wait till the light is green





Tip: The microSD card is hard to remove from the brick. Add a small piece of tape to the end before inserting.

## **REVERTING BACK**

- If you want to go back to the original LEGO firmware, just turn
  off the brick
- 2. Remove the microSD card and turn the EV3 brick back on

## **CREDITS**

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More lessons are available at www.ev3tutorials.com



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