

## **Setting up Grove Pi and Using GrovePi via Python API**

### **STEP 0: Enable I2C**

Follow method 1 from this tutorial link below to enable I2C ->

<https://www.raspberrypi-spy.co.uk/2014/11/enabling-the-i2c-interface-on-the-raspberry-pi>

### **STEP 1: Install Grove Pi Firmware Updater Tool**

```
cd ~  
sudo curl -kL dexterindustries.com/update_grovepi | bash
```

### **STEP 2: Update Grove Pi Firmware**

```
cd ~/Dexter/GrovePi/Firmware  
./firmware_update.sh  
sudo reboot
```

### **STEP 3: Check Firmware's Updated Version**

```
cd ~/Dexter/GrovePi/Software/Python  
python grove_firmware_version_check.py
```

Latest GrovePi has firmware version: 1.4.0

### **STEP 4: Setup SSH Keys for Github**

To setup SSH Keys from your VM and your Raspberry Pi on Github, follow the tutorial here ->

[Adding a new SSH key to your GitHub account](#)

\*\* If you face any issue following the above tutorial, find a solution yourself and post your solution on Piazza (only when someone asks for help, don't spoil the joy of finding the solutions for others)

Additionally, setup your git user configuration on both the VM and the RPi

```
git config --global user.name "Your name"
```

```
git config --global user.email "Your @usc.edu email"
```

#### STEP 4: Login to Github Classrooms and get your assignment repo

Find your assignment here -> <https://classroom.github.com/a/uffHbUqI>

#### STEP 5: Clone your Repository from STEP4 into Raspberry Pi

Note -> you should have gone over the instructions for the github setup for your VM mentioned in the main lab02 document before you proceed here.

```
git clone git@github.com:usc-ee250-fall2020/YOUR_REPO.git
cd YOUR_REPO
git pull
Git checkout lab02
```

#### STEP 5: Modify Code

Modify the code in this file -> *GrovePi-EE250/ee250/lab02/grovepi\_sensors.py*

#### STEP 6: Push changes to you repository

Based on the type of workflow you followed from the main document, you need to push the modified code into your repository.