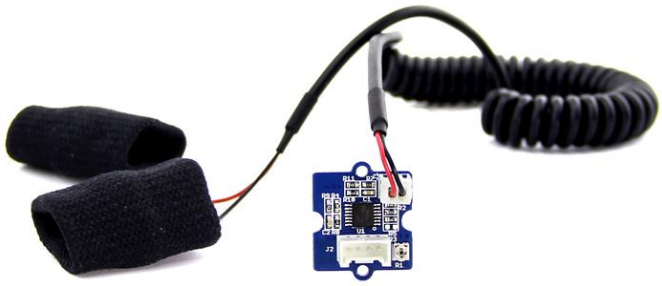
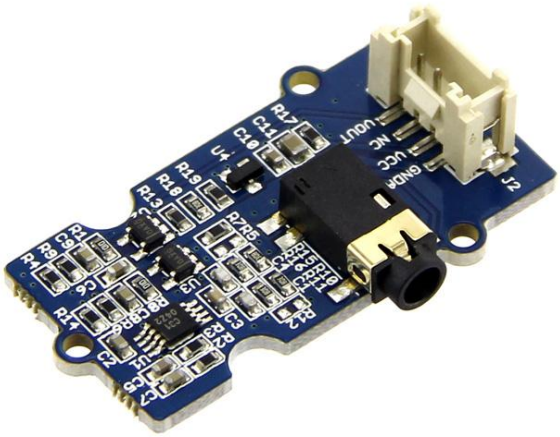
1.- Hardware

1.1- connect Galvanic skin response GSR sensor to WIO terminal



https://wiki.seeedstudio.com/Grove-GSR_Sensor/

1.2.- connect EMG sensor to WIO terminal via the Grove male jumper conversion Analog sensor port

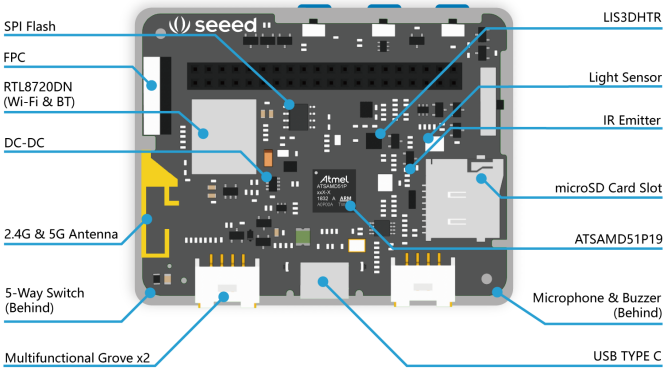


https://wiki.seeedstudio.com/Grove-EMG_Detector/

https://wiki.seeedstudio.com/Wio-Terminal-Getting-Started/

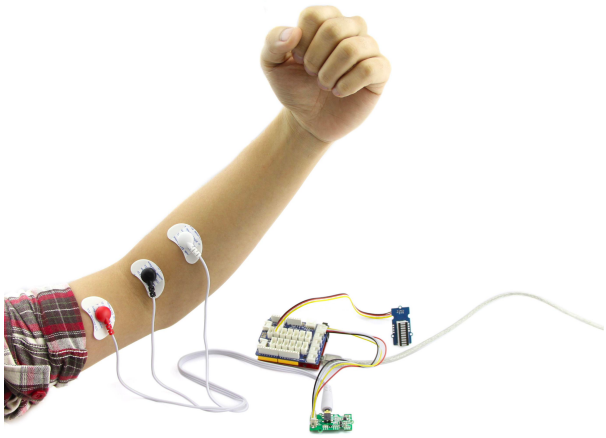
1.3 Wio Terminal :

```
//                          Grove - GSR sensor
// A0  -------------------------- Grove Connector
//                          Grove - EMG Detector
// A2  -------------------------- Grove Connector
```



In standby mode, the output voltage is 1.5V. When a detected muscle is active, the output signal rises, and the maximum voltage is 3.3V. You can use this sensor in a 3.3V or 5V system.

Finally, tack the three electrodes to your muscle, and keep a distance between each electrode.



2.- Software

2.1.- Arduino IDE 1.8.19

2.1.1.- Download the Arduino IDE to your computer from here:
https://www.arduino.cc/en/software

2.1.2.- Launch the Arduino application and connect the WIO Terminal to USB:

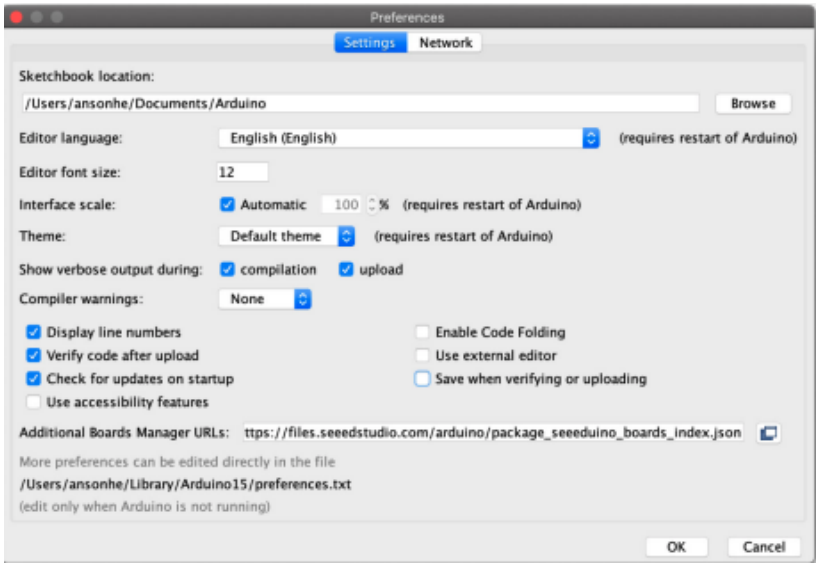
Double-click the Arduino IDE application you have previously downloaded.

2.2.- Add WIO Terminal Board Library

Go to Arduino File | Preferences

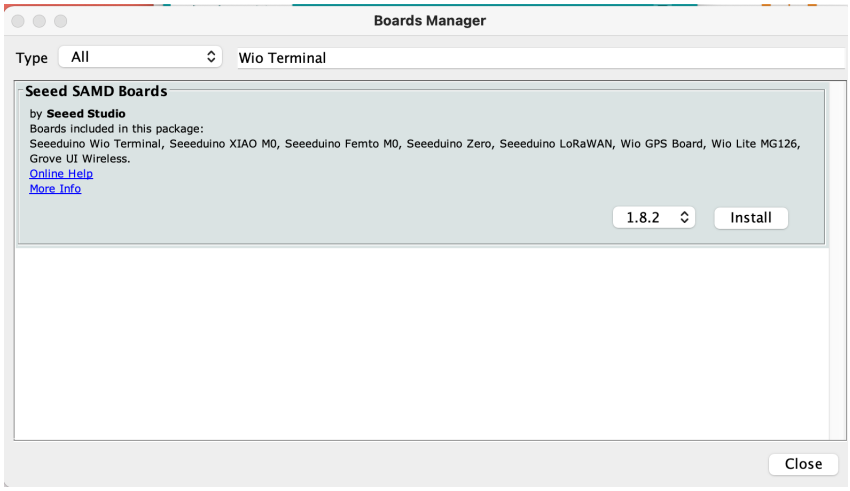
Add Additional Boards Manager URL:

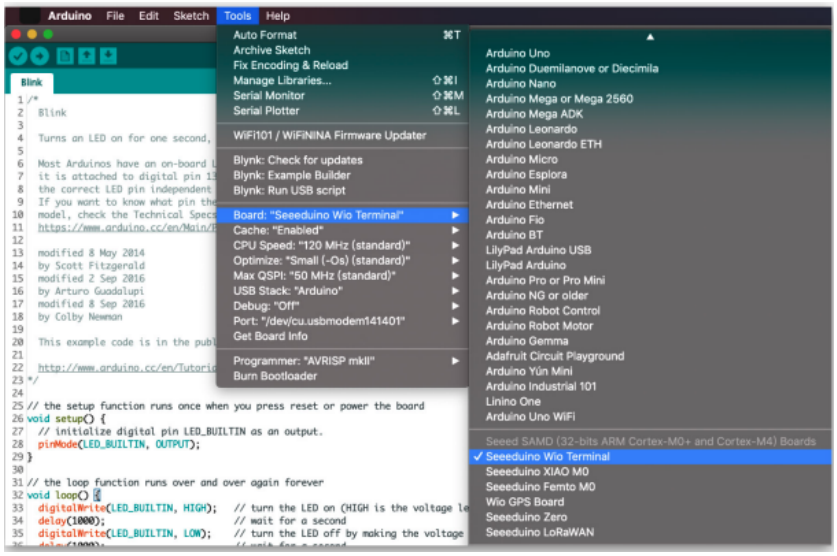
https://files.seeedstudio.com/arduino/package_seeeduino_boards_index.json



2.3.- Set up the Seeed SAMD Arduino Core

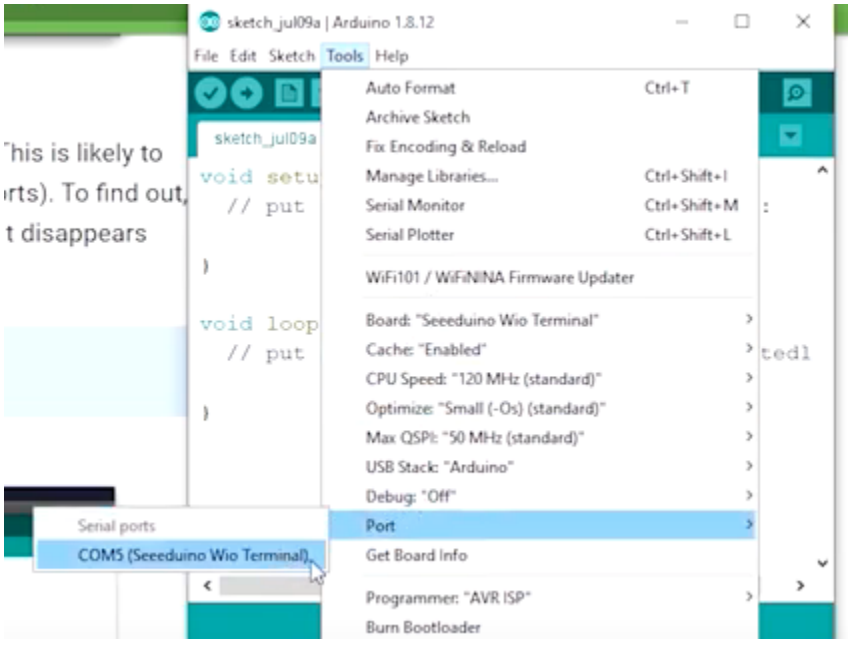
Open the Arduino IDE, click Tools ➡ Board ➡ Boards Manager, and search for Wio Terminal in the search box. Then, install Seeed SAMD Boards





2.4.- Select your board and port:

Select the Tools > Board menu entry that corresponds to your Arduino. Select the Wio Terminal



Note

For Mac Users, it will be something like /dev/cu.usbmodem141401

2.5.- Upload the program to WIO Terminal

Now, simply click the Upload button in the environment. Wait a few seconds and if the upload is successful, the message "Done uploading." will appear in the status bar.

2.6.- Installing the SD Card library for Wio Terminal

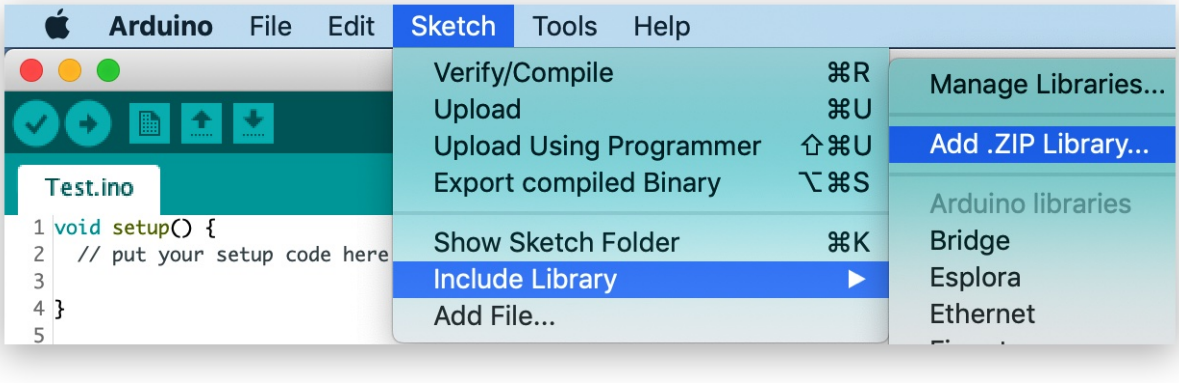
This repo introduces how to install the File System library used on Wio Terminal. It provides the basic functionality of File operating with the SD card, allowing to Read/Write in or from the SD card using the SPI interface.

Installing the File System Library

Download the entire repo Seeed_Arduino_FS:

https://github.com/Seeed-Studio/Seeed_Arduino_FS

Open the Arduino IDE, click sketch -> Include Library -> Add .ZIP Library, and choose the Seeed_Arduino_FS file that you have just downloaded.



2.7.- Install the Dependent SFUD Libraries

https://github.com/Seeed-Studio/Seeed_Arduino_SFUD

2.8.- Install Seeed_Arduino_Linechart:

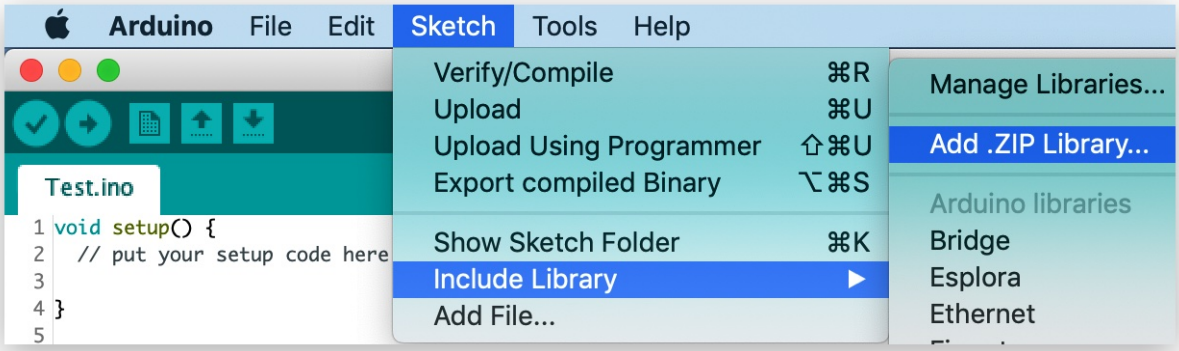
https://github.com/Seeed-Studio/Seeed_Arduino_Linechart

2.9.-Installing the TFT LCD Library Separately¶

Visit the Seeed_Arduino_LCD repositories and download the entire repo to your local drive.

https://github.com/Seeed-Studio/Seeed_Arduino_LCD

Now, the TFT LCD library can be installed to the Arduino IDE. Open the Arduino IDE, and click sketch -> Include Library -> Add .ZIP Library, and choose the Seeed_Arduino_LCD file that you've have just downloaded.



3.- Install the project

3.1.- To display the converted BMP files on the TFT LCD screen, move them to the SD card.

3.2.- Then, copy the RawImage.h file to the sketches on the Arduino IDE.

https://files.seeedstudio.com/wiki/Wio-Terminal/res/RawImage.h