

Studuino Library

Setup (Macintosh)

Ver0.9.4

Feb. 6, 2014



This manual explains how to setup the Studuino Library. Use this manual to setup Arduino Language Development Environment before using the following processes:

- Controlling the accelerometer using Arduino language
- Editing source code converted to Arduino language in Studuino Programming Environment

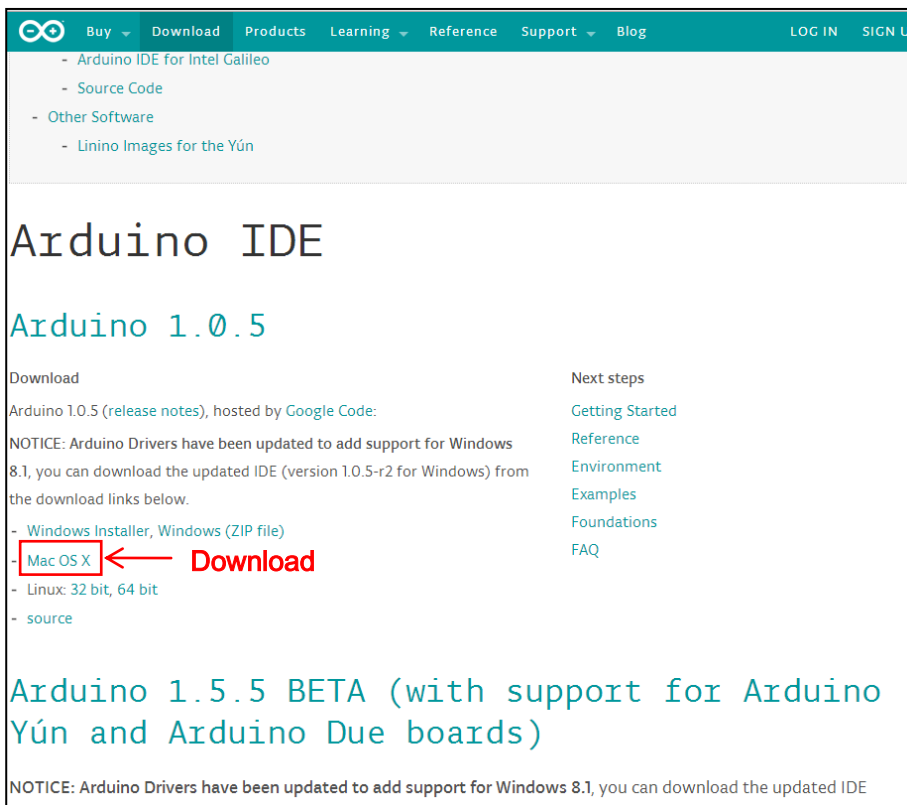
Index

1. Installing Arduino IDE.....	3
2. Arduino IDE Settings.....	4
2.1. Microcontroller File Settings	4
2.2. Registering Studuino Library	6

1. Installing Arduino IDE

Arduino IDE (Integrated Development Environment) is the software that is used when creating a program in Arduino language. If the PC you are using already has Arduino IDE installed, please proceed to **Environment Settings** in **2. Arduino IDE**

1. Go to the Arduino webpage (<http://arduino.cc/en/Main/Software>) ,and download the latest version of Arduino IDE.



2. After the download is complete, a file named **arduino.app** will be created. Move **arduino.app** to the application folder or any folder of your liking.

Installation of Arduino IDE is now complete.

2. Arduino IDE Settings

Now we'll setup Arduino IDE in order to create programs using Studuino Library. The instructions in this section are for installing Arduino 1.0.5.

2.1. Microcontroller File Settings

In order for Studuino and Arduino to communicate, you'll need to configure the microcontroller files for Arduino IDE.

1. Go to the Studuino webpage, (<http://www.artec-kk.co.jp/studuino>), and download the microcontroller file **boards.zip**.

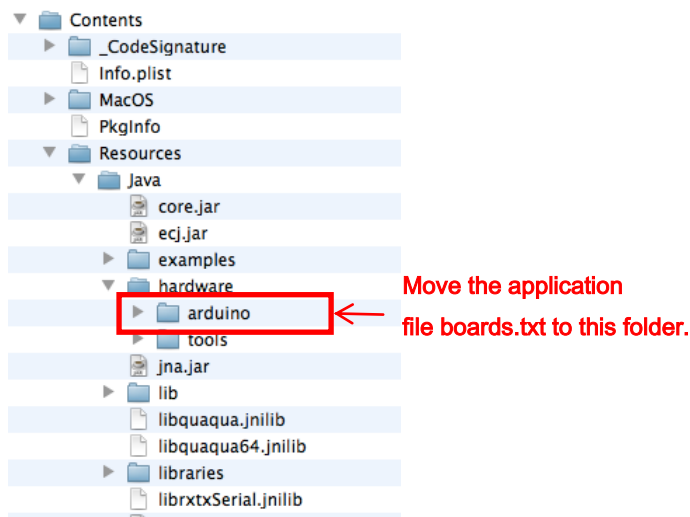


2. When the download is complete a file named **boards.txt** will be created.

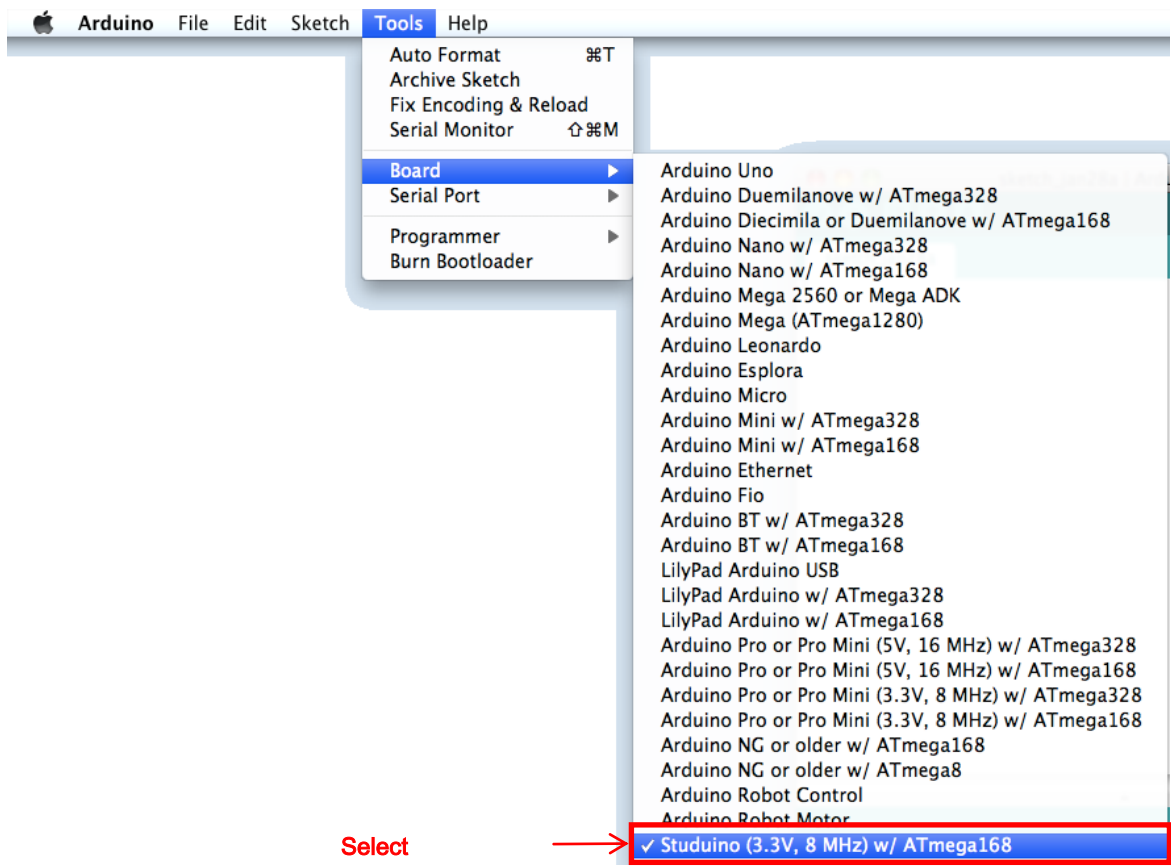
Move the file **boards.txt** in

(\Applications\Arduino.app\Contents\Resources\Java\hardware\arduino) that was

created in the Arduino IDE folder. (Right-click arduino.app and select **show contents**).



3. Start Arduino IDE
4. In the Arduino menu, select **Tools > Board > [Studuino (3.3V, 8MHz) w/ ATmega168]**.



Now Studuino and Arduino IDE can successfully communicate.

2.2. Registering Studuino Library

Next, you will need to register the Studuino Library in order to control functions of Studuino in Arduino IDE.

1. Go to the Studuino webpage, (<http://www.artec-kk.co.jp/studuino>) , and download the Studuino Library set named libraries.zip.



2. When the download is complete, a **libraries** folder will be created. In the libraries folder, there should be two folders named **MMA8653** and **Studuino**. Be sure to put these folders in the Arduino IDE folder

(\Applications\Arduino.app\Contents\Resources\Java\libraries)

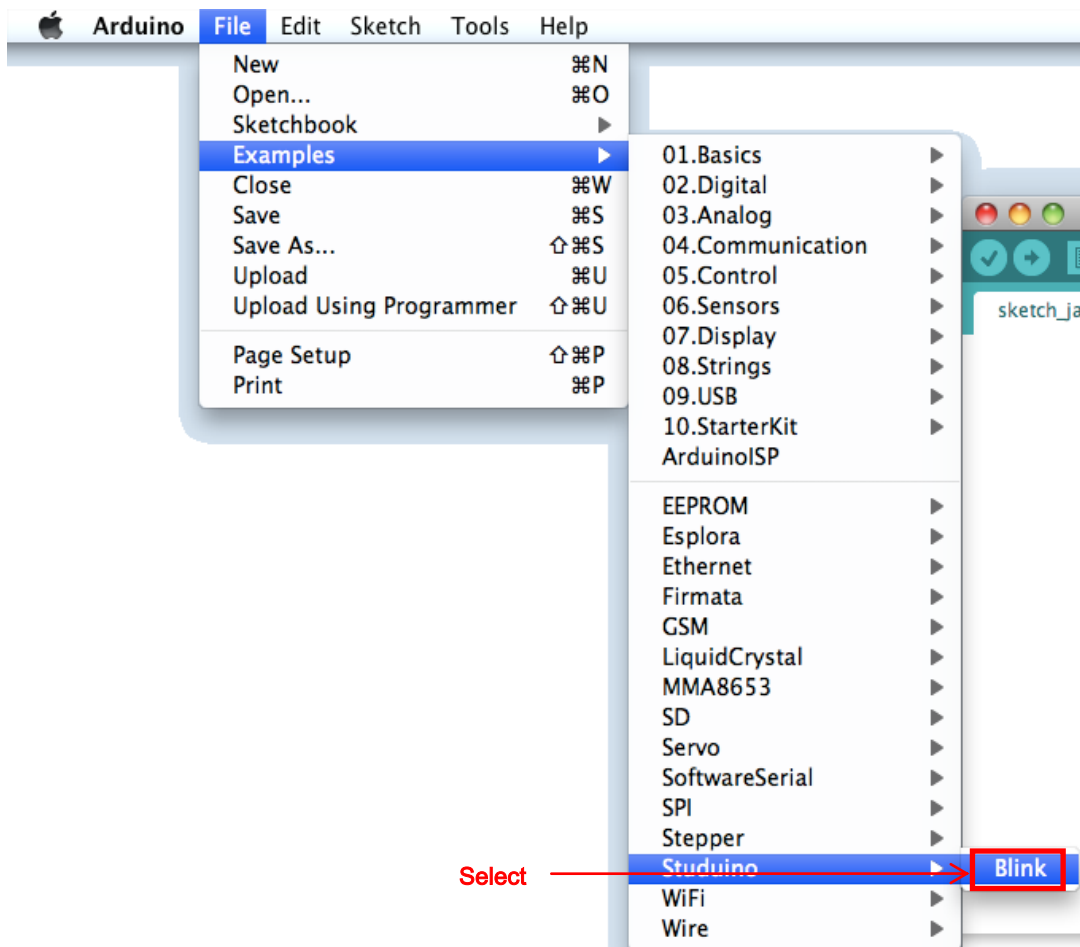



The **MMA8653** folder contains a library to control the accelerometer in Arduino language. The **Studuino** folder contains a library to control Studuino in Arduino language.

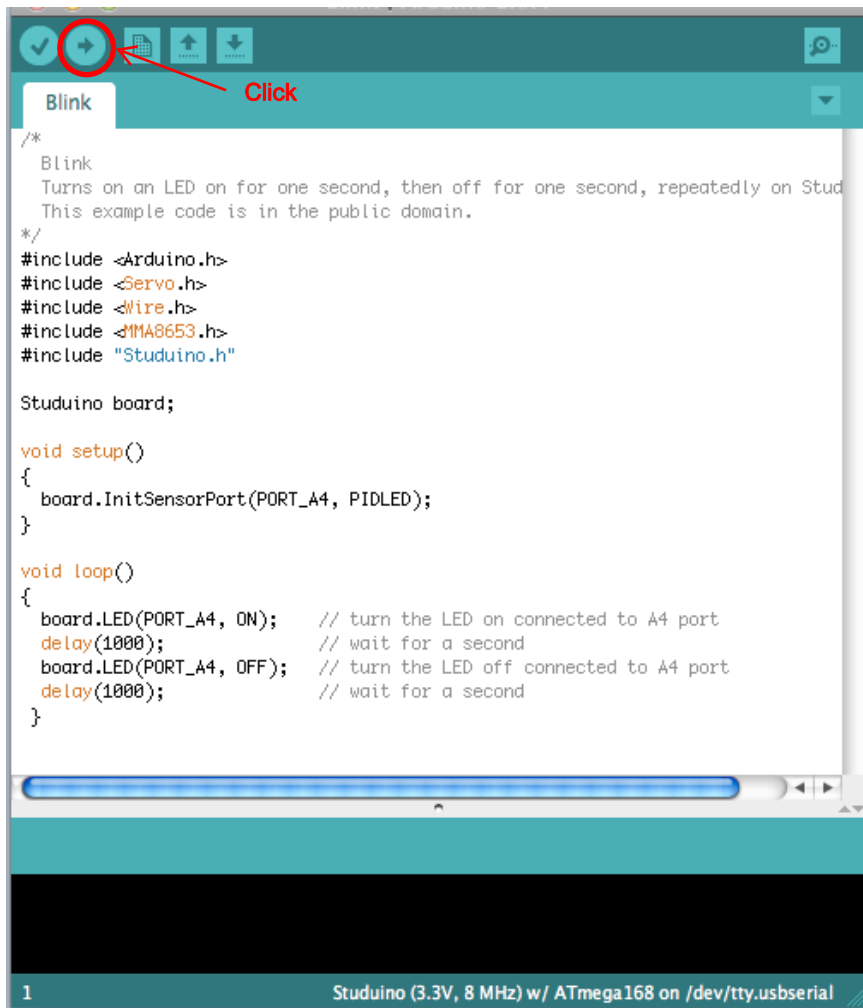
Now an environment for programs created in Studuino Library using Arduino Language is set. Next, we'll confirm that programs can be created and transferred from Arduino to Studuino using the Studuino Library.

3. Start Arduino IDE

4. Select **Blink** in the Arduino IDE menu from **File > Examples > Studuino**



Make sure the LED is connected to A5 and the Studuino is connected to the PC via USB. Click the  Arduino IDE button to transfer the program to your Studuino. The LED connected to the Studuino board will blink in 1 second intervals after the program transfer is complete.



Refer to the Studuino Library Function Reference for details on programming using Studuino IDE.