

Software installation

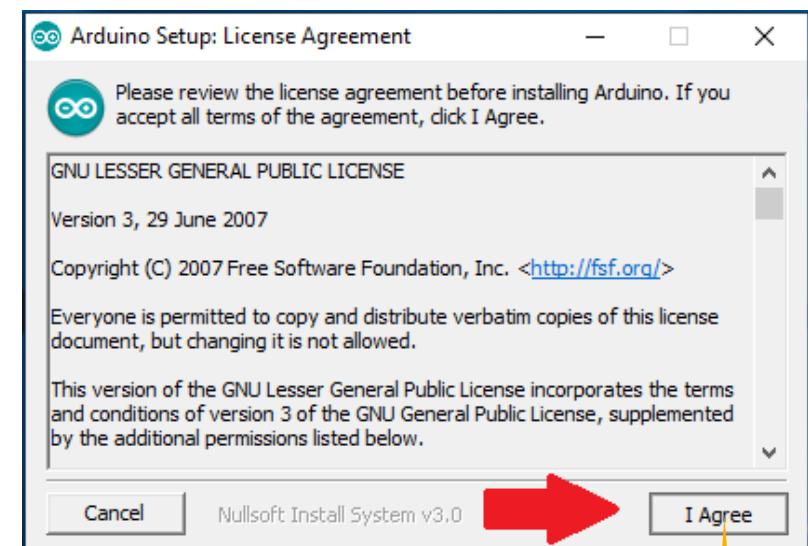
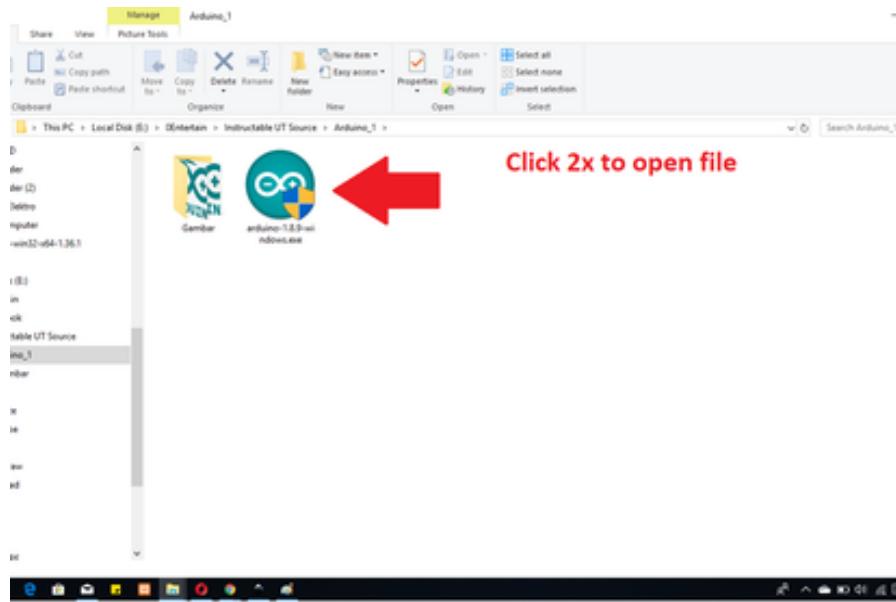
Download Arduino IDE

<https://www.arduino.cc/en/software>

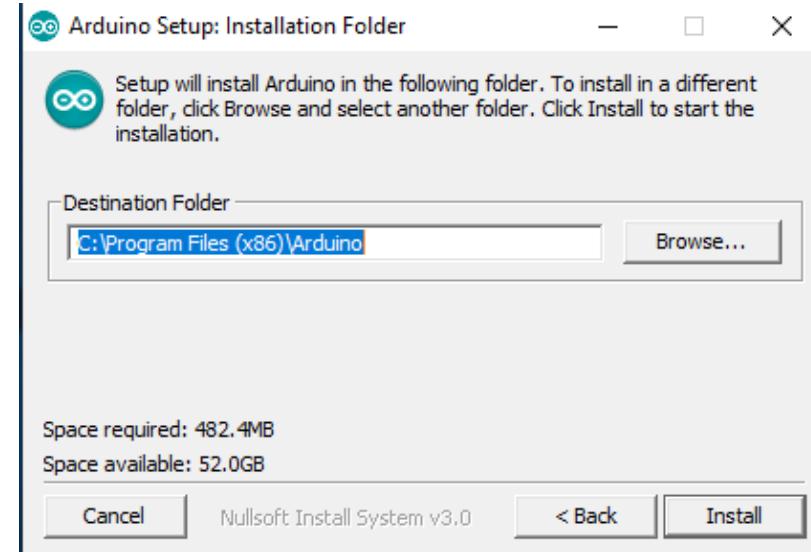
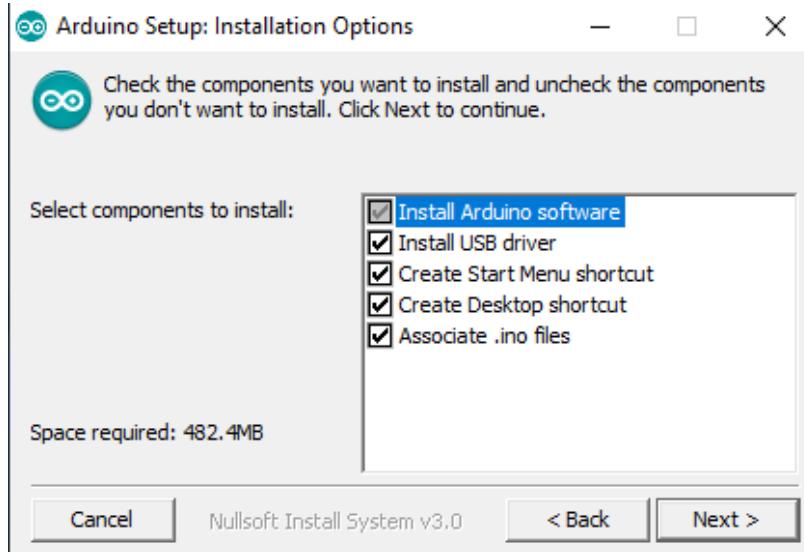
The screenshot shows the Arduino website's navigation bar with links for PROFESSIONAL, EDUCATION, STORE, HARDWARE, SOFTWARE (which is highlighted in yellow), CLOUD, DOCUMENTATION, COMMUNITY, BLOG, and ABOUT. Below the navigation is a search bar and a sign-in button. The main content area features the "Arduino Web Editor" with a "CODE ONLINE" button and a "GETTING STARTED" link. A yellow callout bubble points to the "CODE ONLINE" button with the text "Click". Below this is a "Downloads" section for the "Arduino IDE 1.8.15". It includes a download icon, the version name, a brief description, a "SOURCE CODE" link, and a "DOWNLOAD OPTIONS" section with links for Windows, Linux, Mac OS X, and a Windows app. A yellow callout bubble points to the "Windows app" link with the text "Click". To the right of the download section is a "Help" button.

The screenshot shows the Arduino website's navigation bar with links for HARDWARE, SOFTWARE, CLOUD, DOCUMENTATION, COMMUNITY, BLOG, and ABOUT. Below the navigation is a search bar and a sign-in button. The main content area features a "Support the Arduino IDE" section with a "JUST DOWNLOAD" button and a "CONTRIBUTE & DOWNLOAD" button. A yellow callout bubble points to the "CONTRIBUTE & DOWNLOAD" button with the text "Click". Below this is a cartoon illustration of a small robot character standing next to a jar labeled with the Arduino logo. A yellow callout bubble points to the jar with the text "Click". At the bottom of the section is a link: "Learn more about donating to Arduino."

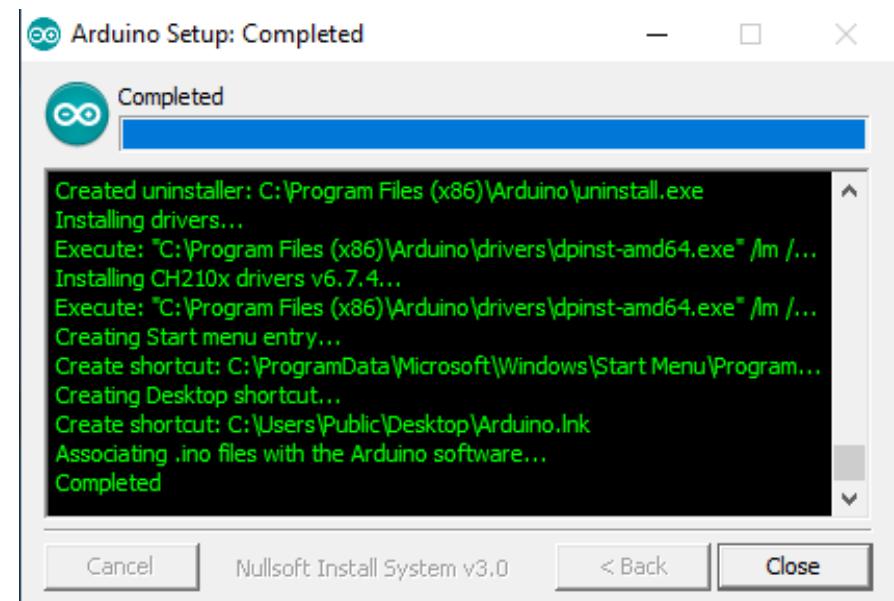
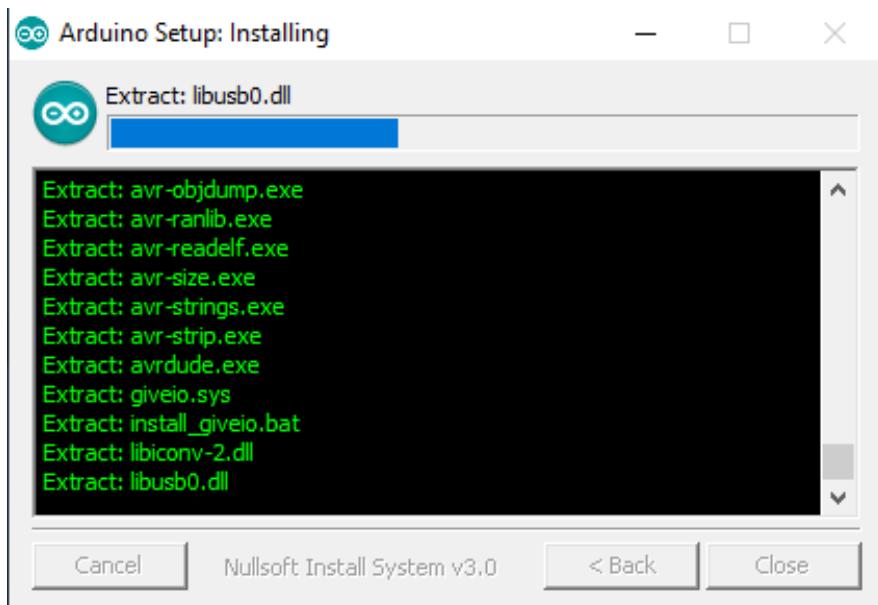
Run installer



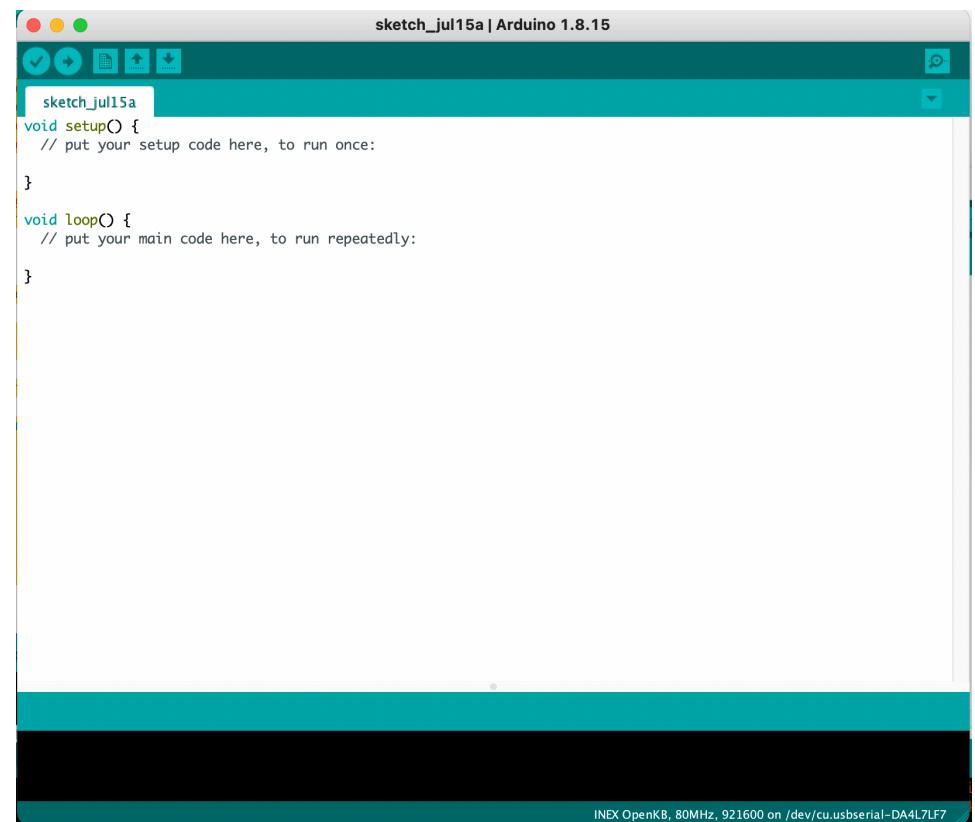
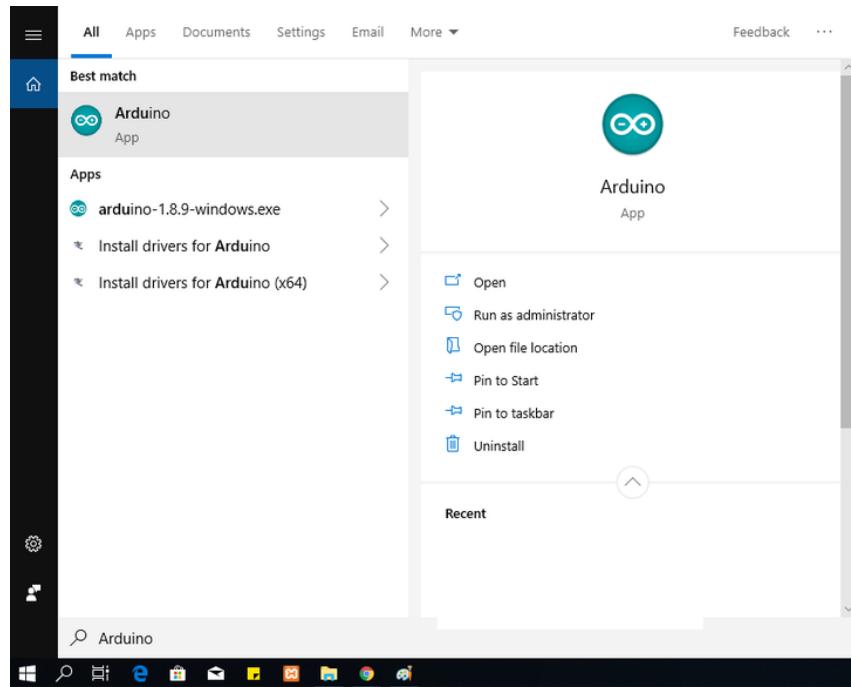
Follow installation steps



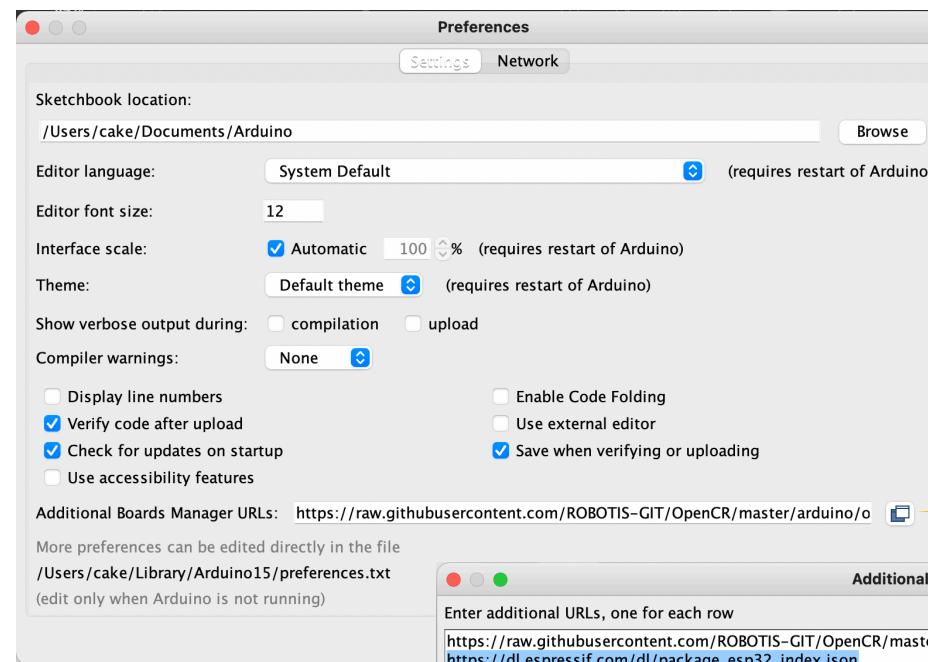
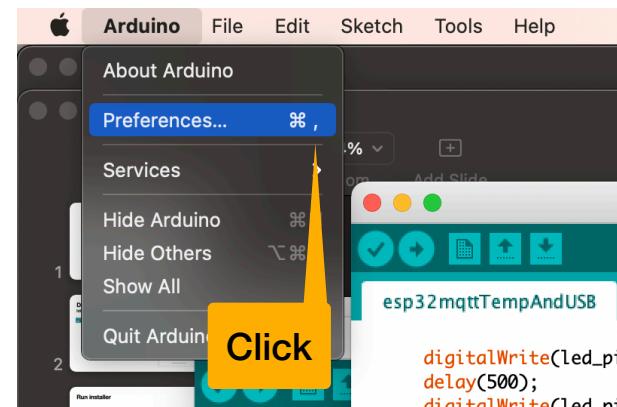
Follow installation steps



Open Arduino IDE

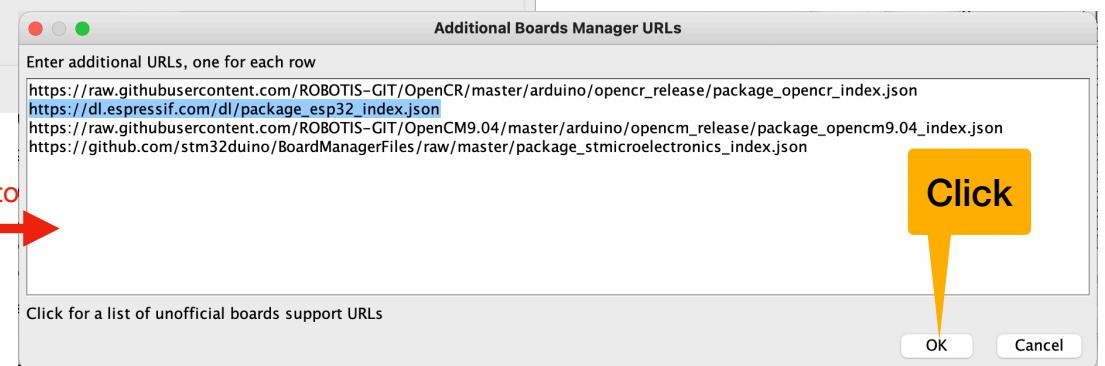


Install ESP32 Board

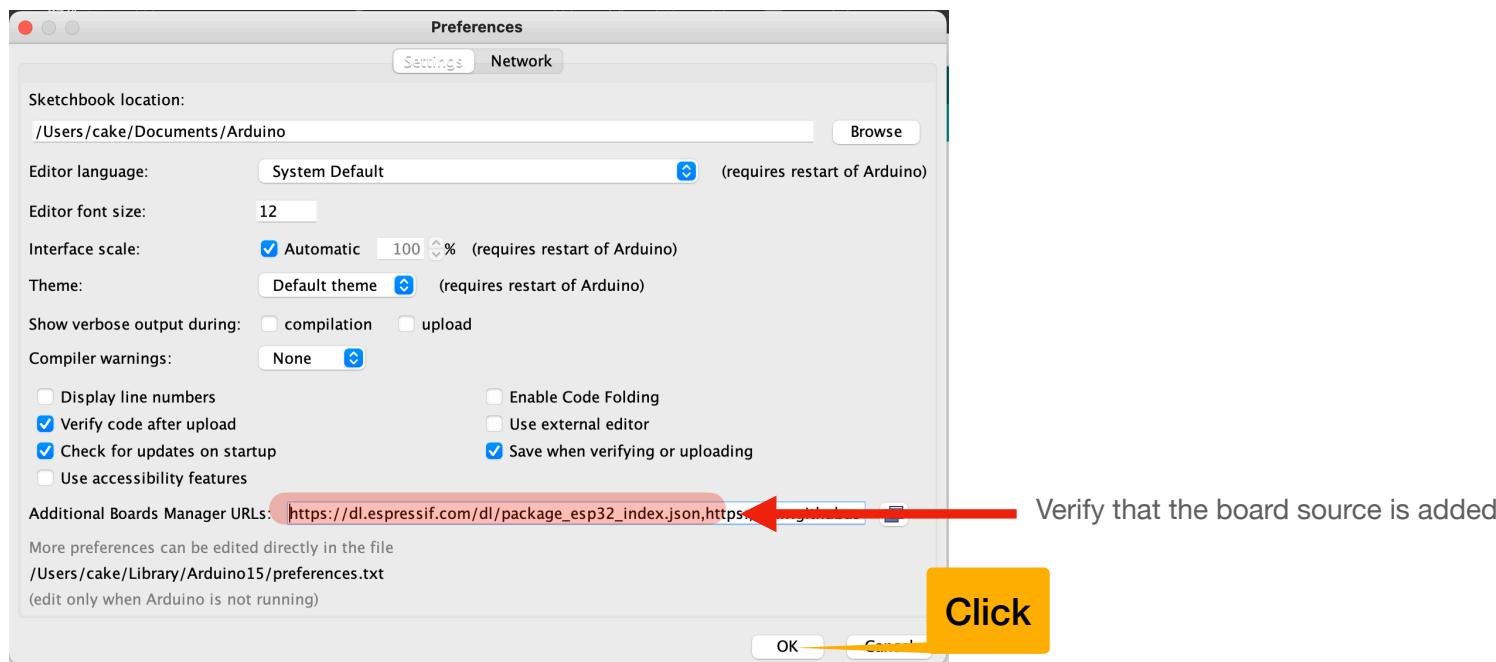


https://dl.espressif.com/dl/package_esp32_index.json

Add this to
→

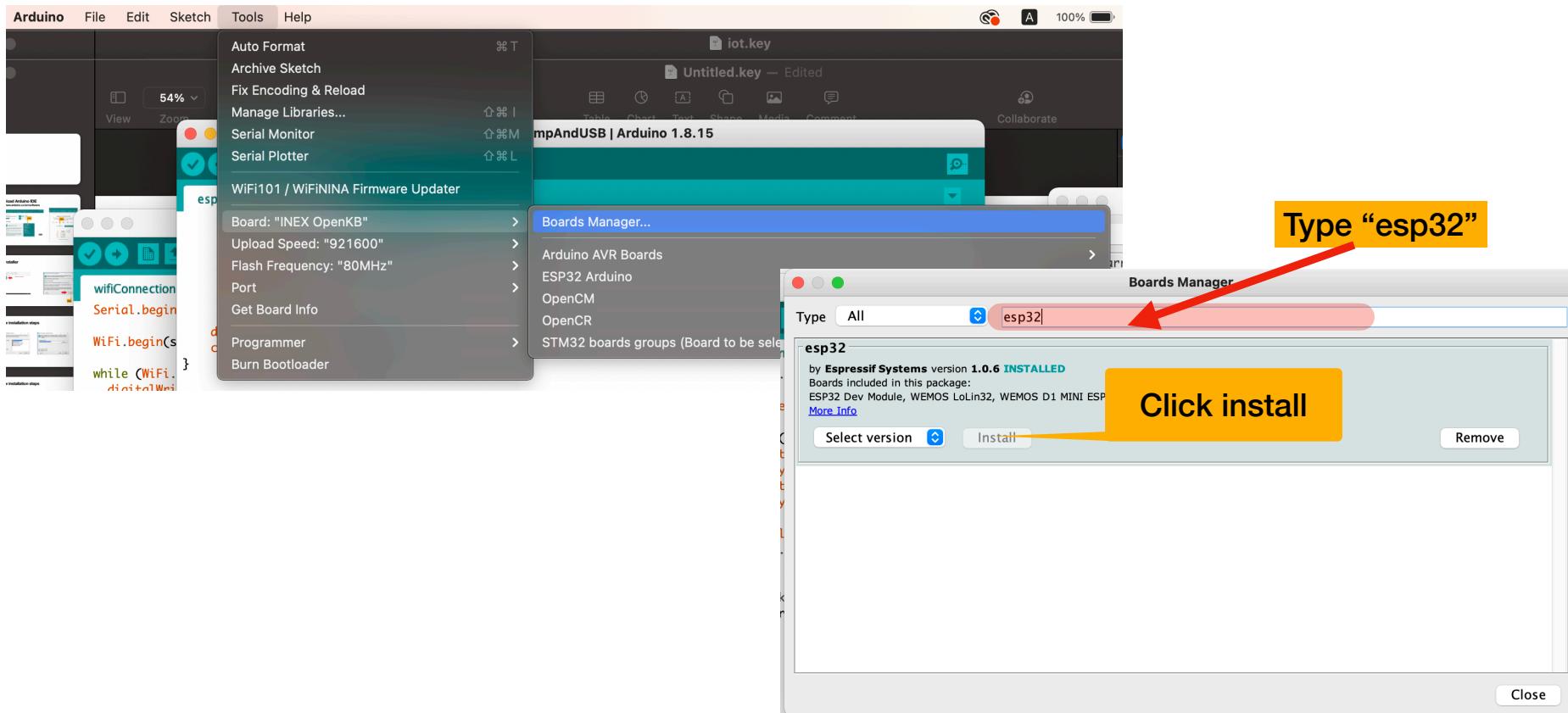


Install ESP32 Board



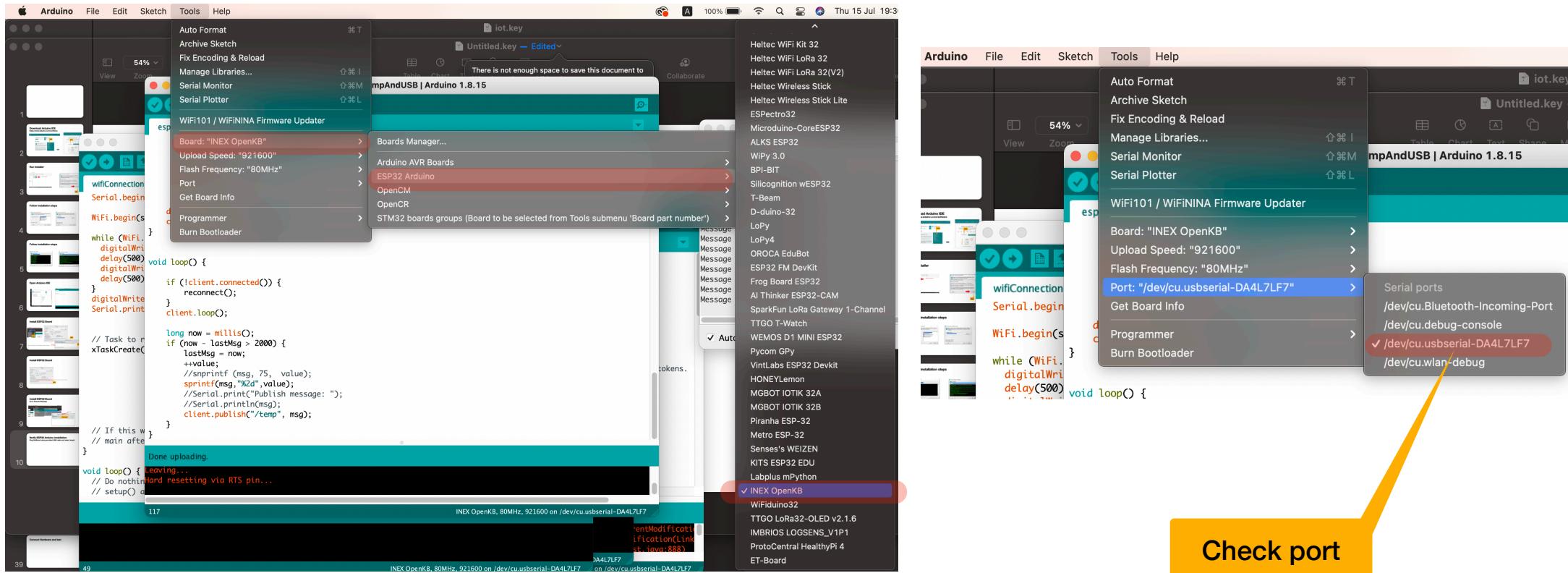
Install ESP32 Board

Go to Boards Manager



Verify ESP32 Arduino installation

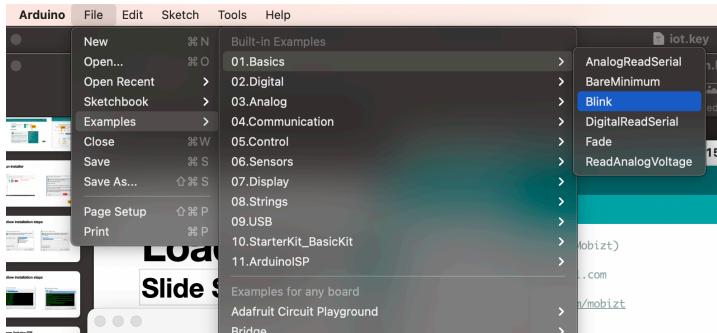
Plug KidBoard using provided USB cable and select board



Check port

Load blink program to test

Load blink program to test blink LED



Blink | Arduino 1.8.15

it is attached to digital pin 13, on MKR1000 on pin 6. LED_BUILTIN is set to the correct LED pin independent of which board is used.
If you want to know what pin the on-board LED is connected to on your Arduino model, check the Technical Specs of your board at:
<https://www.arduino.cc/en/Main/Products>

modified 8 May 2014
by Scott Fitzgerald
modified 2 Sep 2016
by Arturo Guadalupi
modified 8 Sep 2016
by Colby Newman

This example code is in the public domain.

<https://www.arduino.cc/en/Tutorial/BuiltInExamples/Blink>

```
/*
 * the setup function runs once when you press reset or power the board
void setup() {
  // initialize digital pin LED_BUILTIN as an output.
  pinMode(LED_BUILTIN, OUTPUT);
}

// the loop function runs over and over again forever
void loop() {
  digitalWrite(LED_BUILTIN, HIGH);    // turn the LED on (HIGH is the voltage level)
  delay(1000);                      // wait for a second
  digitalWrite(LED_BUILTIN, LOW);     // turn the LED off by making the voltage LOW
  delay(1000);                      // wait for a second
}
```

INEX OpenKB, 80MHz, 921600 on /dev/cu.usbserial-DA4L7LF7

Change "LED_BUILTIN" to "2"

Click to program. If everything is ok, you will see the red LED blink

Done uploading.
Leaving...
Hard resetting via RTS pin...

26 by connecting to a WiFi network INEX OpenKB, 80MHz, 921600 on /dev/cu.usbserial-DA4L7LF7

Blink | Arduino 1.8.15

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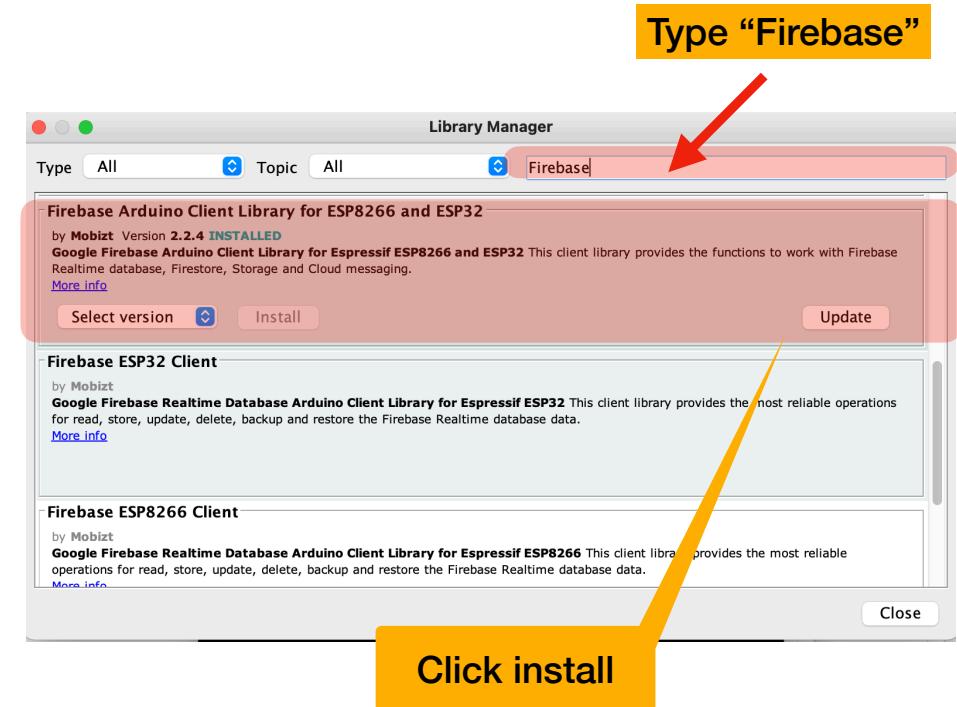
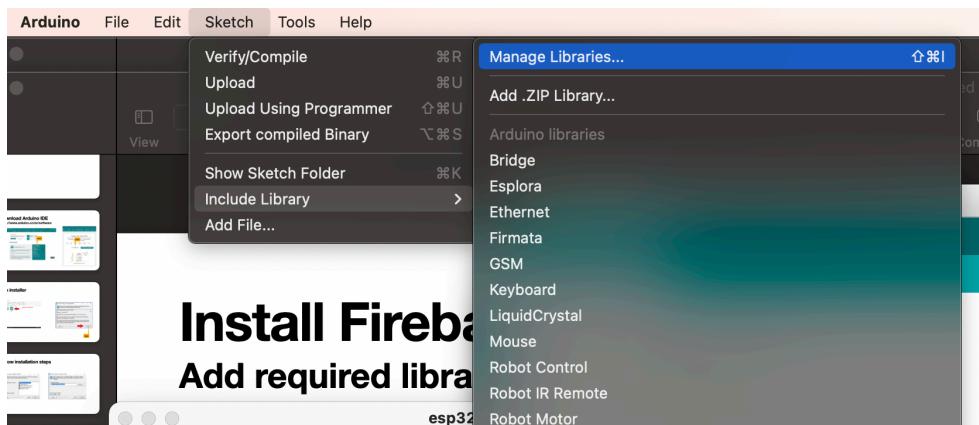
```
/*
 * the setup function runs once when you press reset or power the board
void setup() {
  // initialize digital pin LED_BUILTIN as an output.
  pinMode(2, OUTPUT);
}

// the loop function runs over and over again forever
void loop() {
  digitalWrite(2, HIGH);    // turn the LED on (HIGH is the voltage level)
  delay(1000);              // wait for a second
  digitalWrite(2, LOW);     // turn the LED off by making the voltage LOW
  delay(1000);              // wait for a second
}
```

INEX OpenKB, 80MHz, 921600 on /dev/cu.usbserial-DA4L7LF7

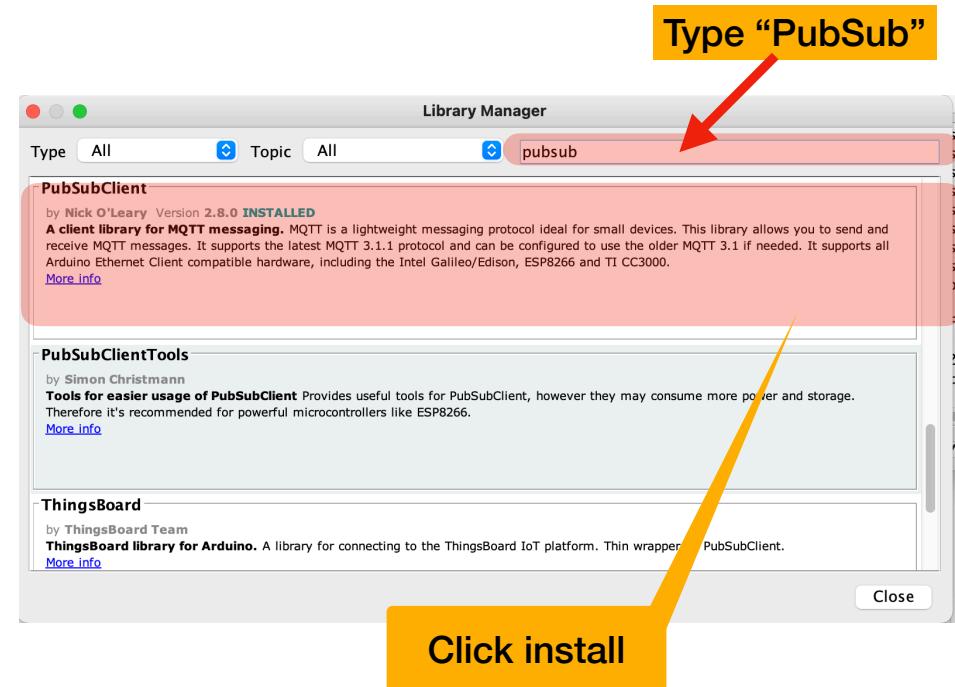
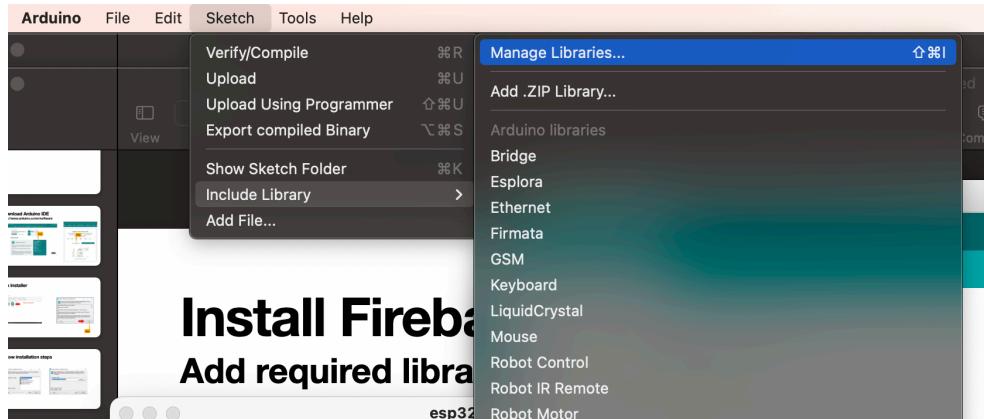
Install Firebase Arduino client

Add required library using Library Manager



Install PubSub Arduino client

PubSubClient is a MQTT library for Arduino



For windows user, MobaXterm is useful

MobaXterm is a multitools program <https://mobaxterm.mobatek.net/>

