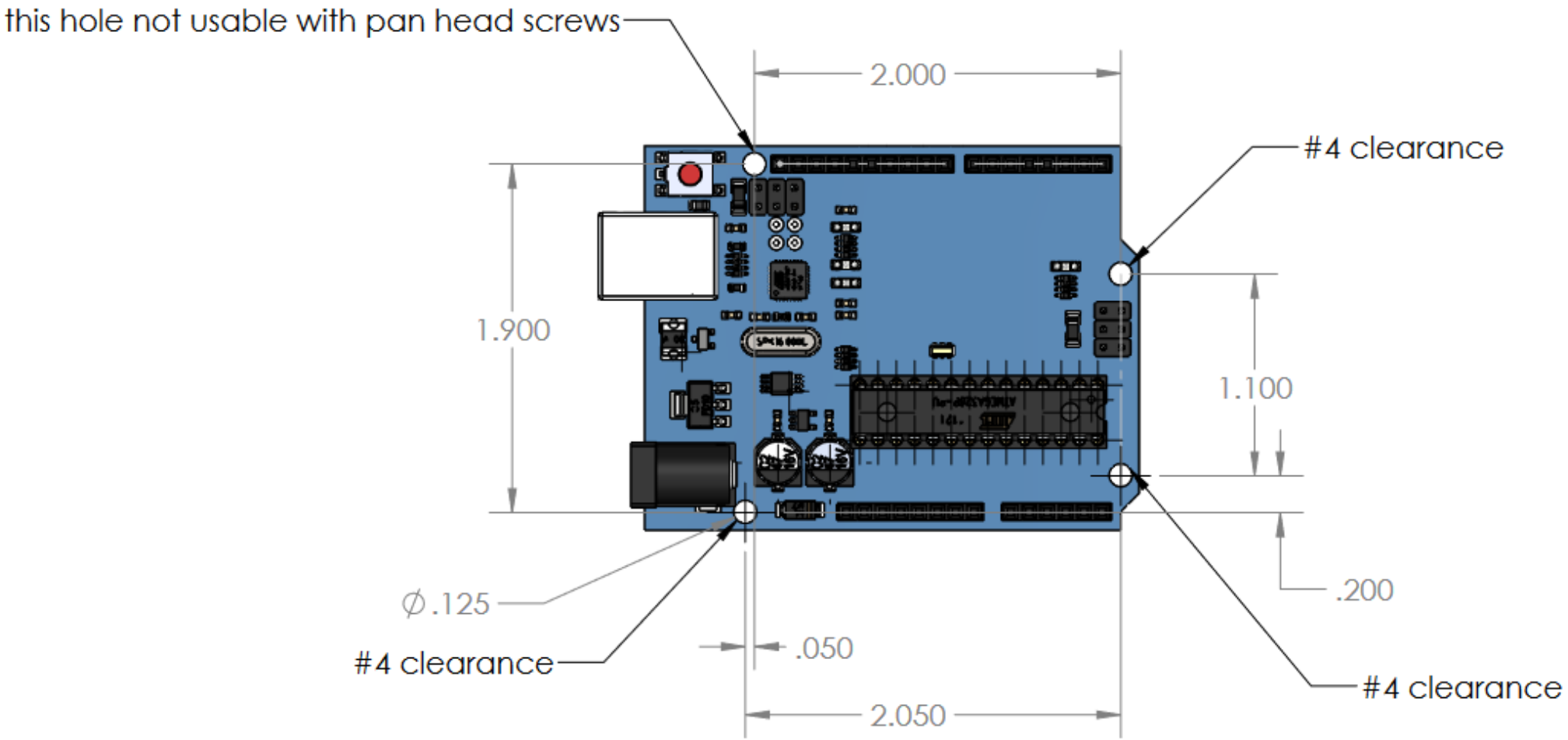
Arduino UNO

Lafe Spietz

Arduino

- Open Source
- Not a company
- A wide range of products sold by many vendors around the world
- The Arduino UNO is one of the most popular and easiest to use of the boards
- Can be programmed on Windows, Mac and Linux using the Arduino IDE
- Programmed in a c-like language based on Processing(a language designed for artists)

Arduino UNO


this hole not usable with pan head screws
2.000
#4 clearance
1.900
1.100
.200
∅.125
#4 clearance
.050
2.050
#4 clearance

Downloads

Arduino IDE 2.3.2

The new major release of the Arduino IDE is faster and even more powerful! In addition to a more modern editor and a more responsive interface it features autocompletion, code navigation, and even a live debugger.

For more details, please refer to the **Arduino IDE 2.0 documentation**.

Nightly builds with the latest bugfixes are available through the section below.

SOURCE CODE

The Arduino IDE 2.0 is open source and its source code is hosted on **GitHub**.

DOWNLOAD OPTIONS

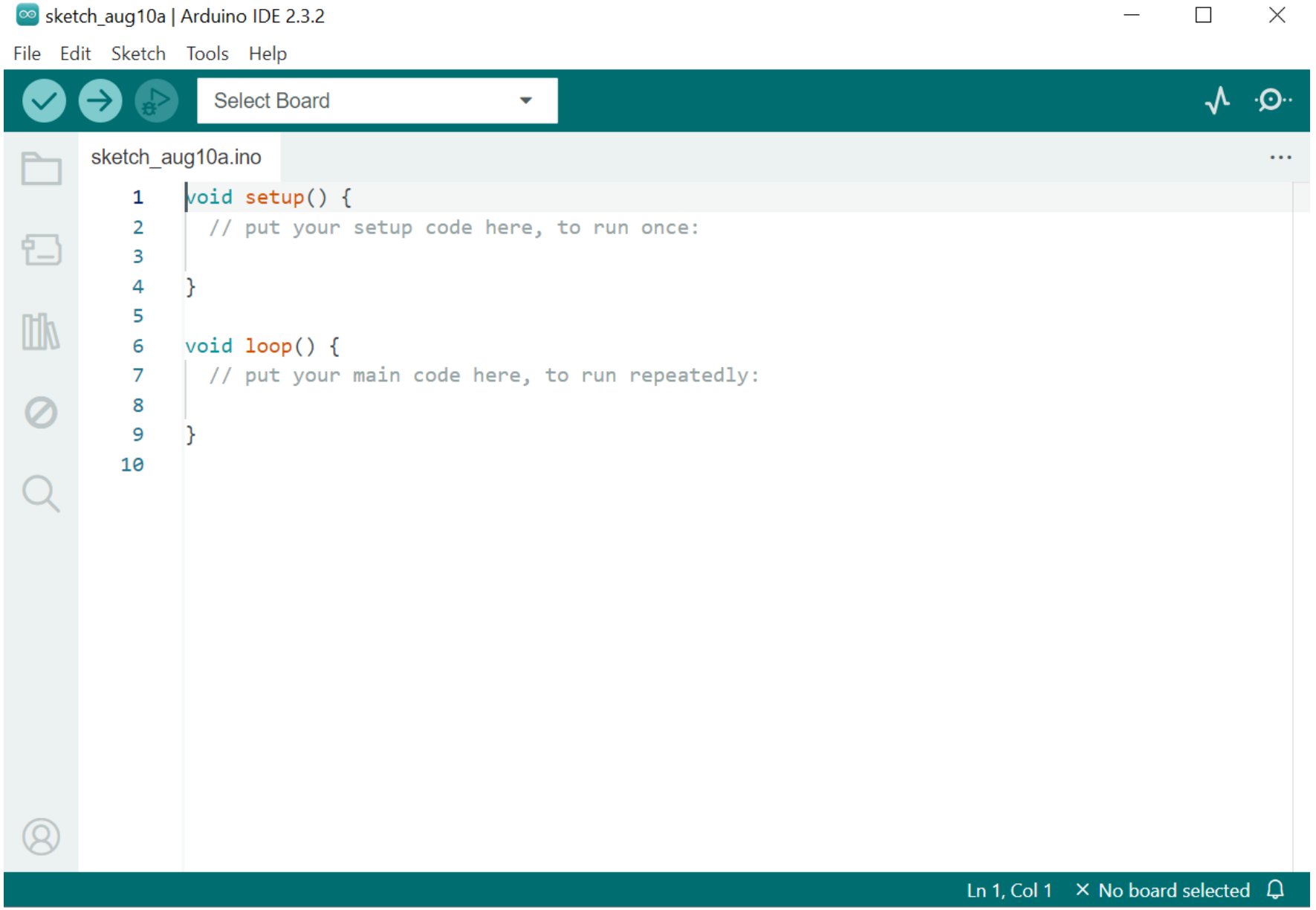
Windows Win 10 and newer, 64 bits
Windows MSI installer
Windows ZIP file

Linux AppImage 64 bits (X86-64)
Linux ZIP file 64 bits (X86-64)

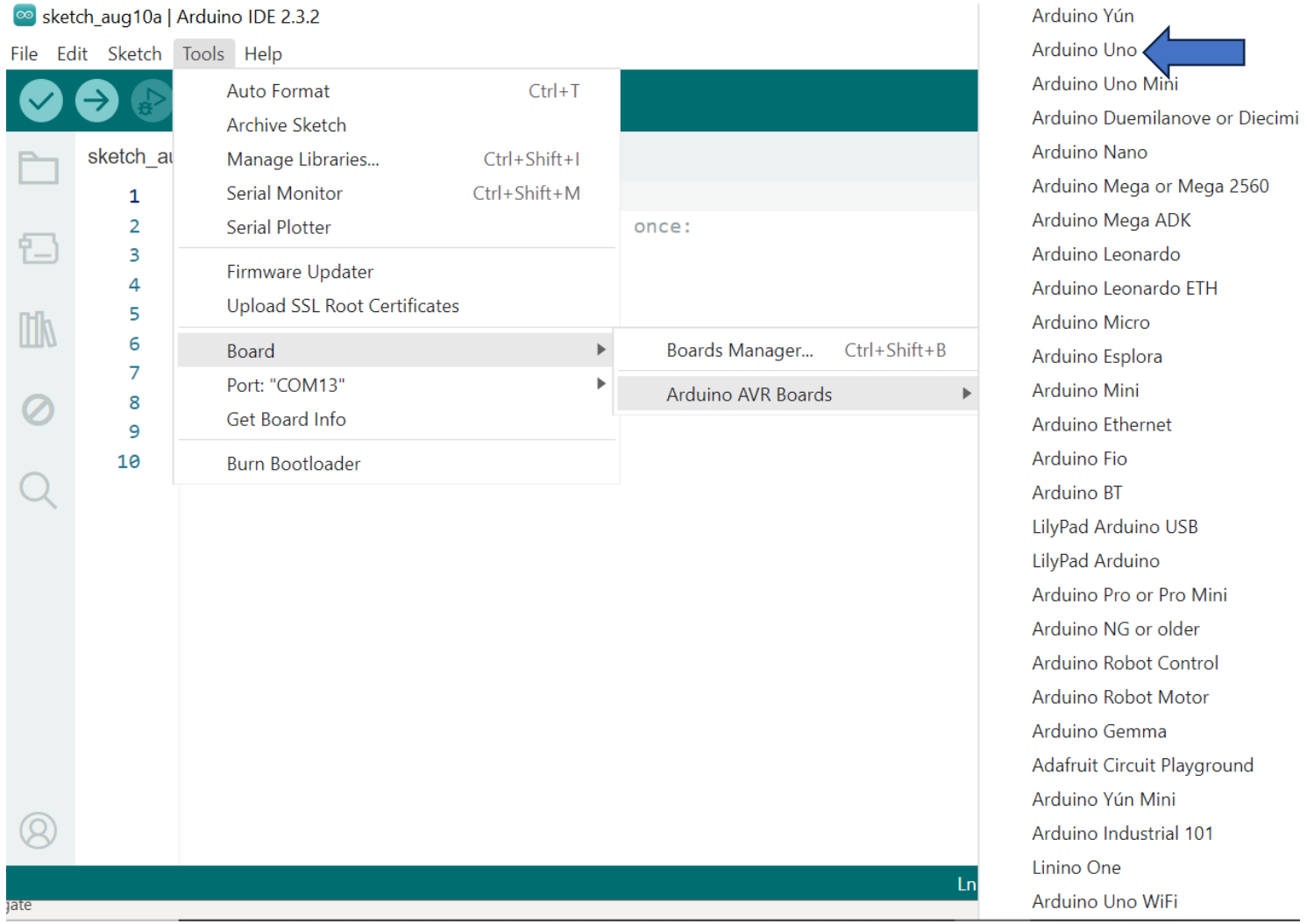
macOS Intel, 10.15: "Catalina" or newer, 64 bits
macOS Apple Silicon, 11: "Big Sur" or newer, 64 bits

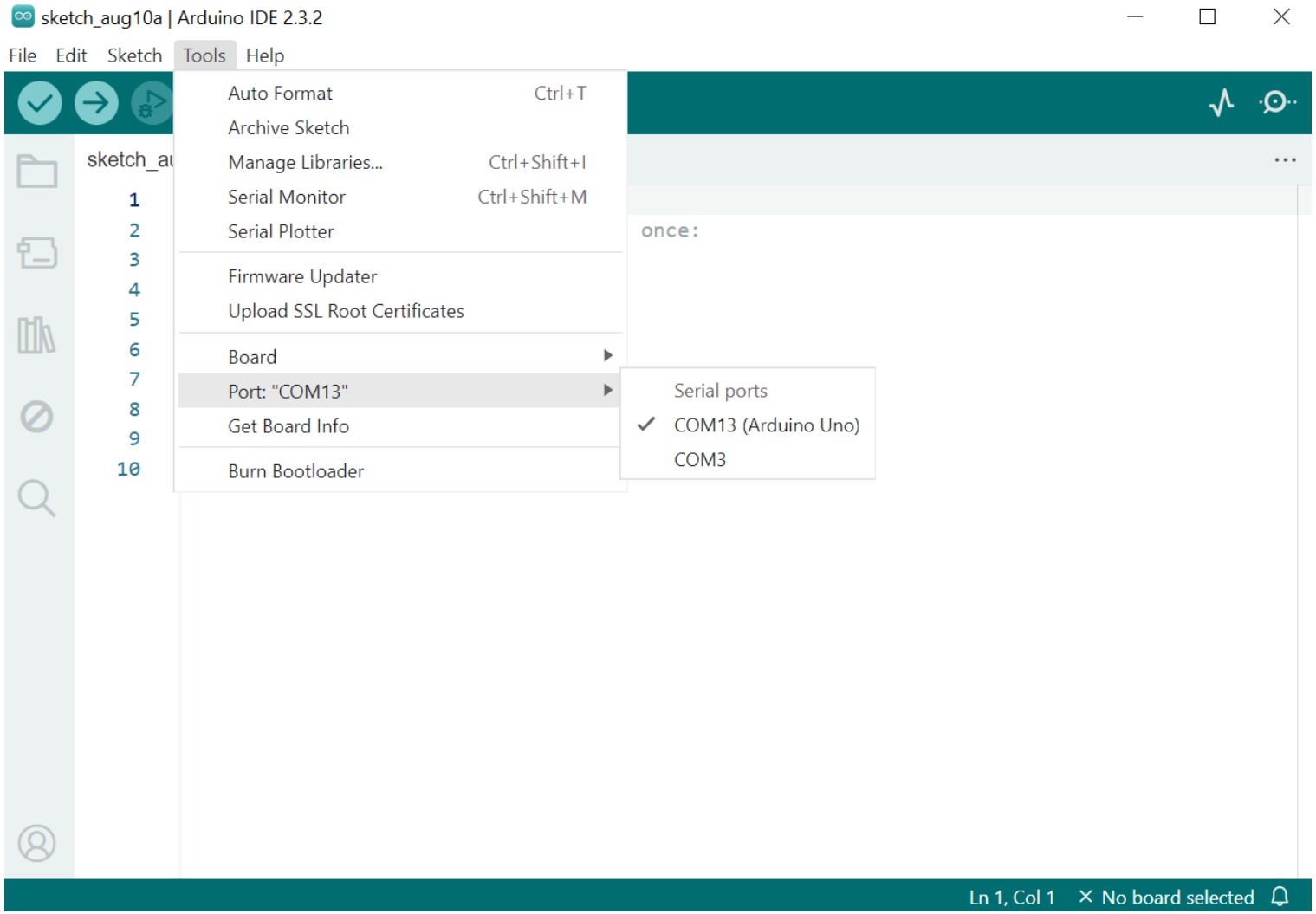
Release Notes

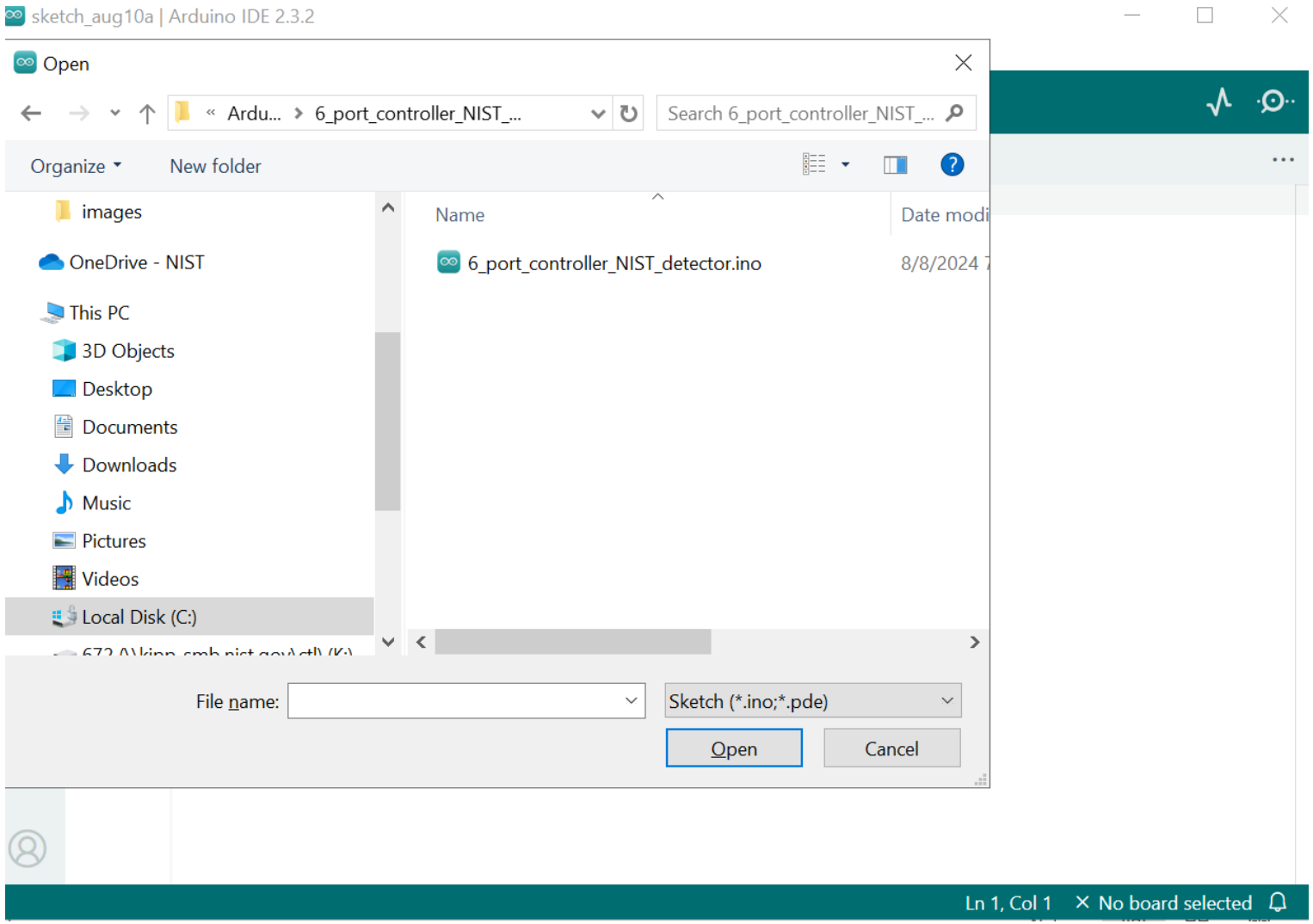
https://www.arduino.cc/en/software

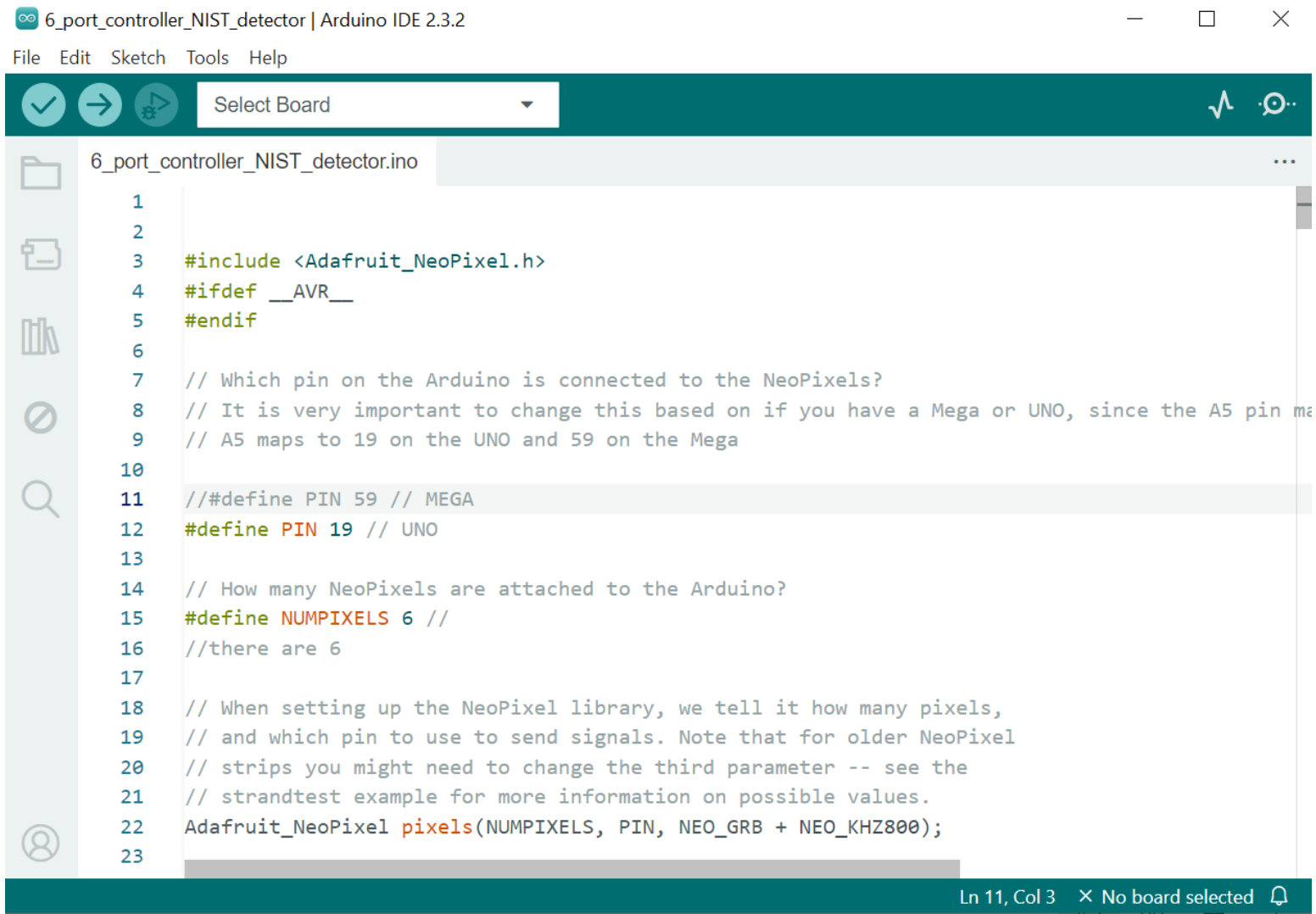

sketch_aug10a | Arduino IDE 2.3.2
File Edit Sketch Tools Help
Select Board
sketch_aug10a.ino
1 void setup() {
2 // put your setup code here, to run once:
3
4 }
5
6 void loop() {
7 // put your main code here, to run repeatedly:
8
9 }
10
Ln 1, Col 1
No board selected

Select the UNO




sketch_aug10a | Arduino IDE 2.3.2
File
Edit
Sketch
Tools
Help
Auto Format Ctrl+T
Archive Sketch
Manage Libraries... Ctrl+Shift+I
Serial Monitor Ctrl+Shift+M
Serial Plotter
Firmware Updater
Upload SSL Root Certificates
Board
Port: "COM13"
Get Board Info
Burn Bootloader
Serial ports
COM13 (Arduino Uno)
COM3
once:
Ln 1, Col 1
No board selected


sketch_aug10a | Arduino IDE 2.3.2
Open
Ardu... › 6_port_controller_NIST_...
Search 6_port_controller_NIST_...
Organize
New folder
images
OneDrive - NIST
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
Name
Date modi
6_port_controller_NIST_detector.ino
8/8/2024
File name:
Sketch (*.ino;*.pde)
Open
Cancel
Ln 1, Col 1
No board selected


6_port_controller_NIST_detector | Arduino IDE 2.3.2
File Edit Sketch Tools Help
Select Board
6_port_controller_NIST_detector.ino
1
2
3 #include <Adafruit_NeoPixel.h>
4 #ifdef __AVR__
5 #endif
6
7 // Which pin on the Arduino is connected to the NeoPixels?
8 // It is very important to change this based on if you have a Mega or UNO, since the A5 pin ma
9 // A5 maps to 19 on the UNO and 59 on the Mega
10
11 //#define PIN 59 // MEGA
12 #define PIN 19 // UNO
13
14 // How many NeoPixels are attached to the Arduino?
15 #define NUMPIXELS 6 //
16 //there are 6
17
18 // When setting up the NeoPixel library, we tell it how many pixels,
19 // and which pin to use to send signals. Note that for older NeoPixel
20 // strips you might need to change the third parameter -- see the
21 // strandtest example for more information on possible values.
22 Adafruit_NeoPixel pixels(NUMPIXELS, PIN, NEO_GRB + NEO_KHZ800);
23
Ln 11, Col 3
No board selected

6_port_controller_NIST_detector | Arduino IDE 2.3.2

File Edit Sketch Tools Help

Arduino Uno

6_port_controller_NIST_detector.ino

```
1
2
3   #include <Adafruit_NeoPixel.h>
4   #ifdef __AVR__
5   #endif
6
7   // Which pin on the Arduino is connected to the NeoPixels?
8   // It is very important to change this based on if you have a Mega or UNO, since the A5 pin maps to different digital output pins
9   // A5 maps to 19 on the UNO and 59 on the Mega
10
11  //#define PIN 59 // MEGA
12  #define PIN 19 // UNO
13
14  // How many NeoPixels are attached to the Arduino?
15  #define NUMPIXELS 6 //
16  //there are 6
17
18  // When setting up the NeoPixel library, we tell it how many pixels,
19  // and which pin to use to send signals. Note that for older NeoPixel
20  // strips you might need to change the third parameter -- see the
21  // strandtest example for more information on possible values.
22  Adafruit_NeoPixel pixels(NUMPIXELS, PIN, NEO_GRB + NEO_KHZ800);
23
```

Output Serial Monitor ×

1

New Line 9600 baud

Ln 14, Col 51 Arduino Uno on COM13 2

Send control characters down serial