ARDUINO

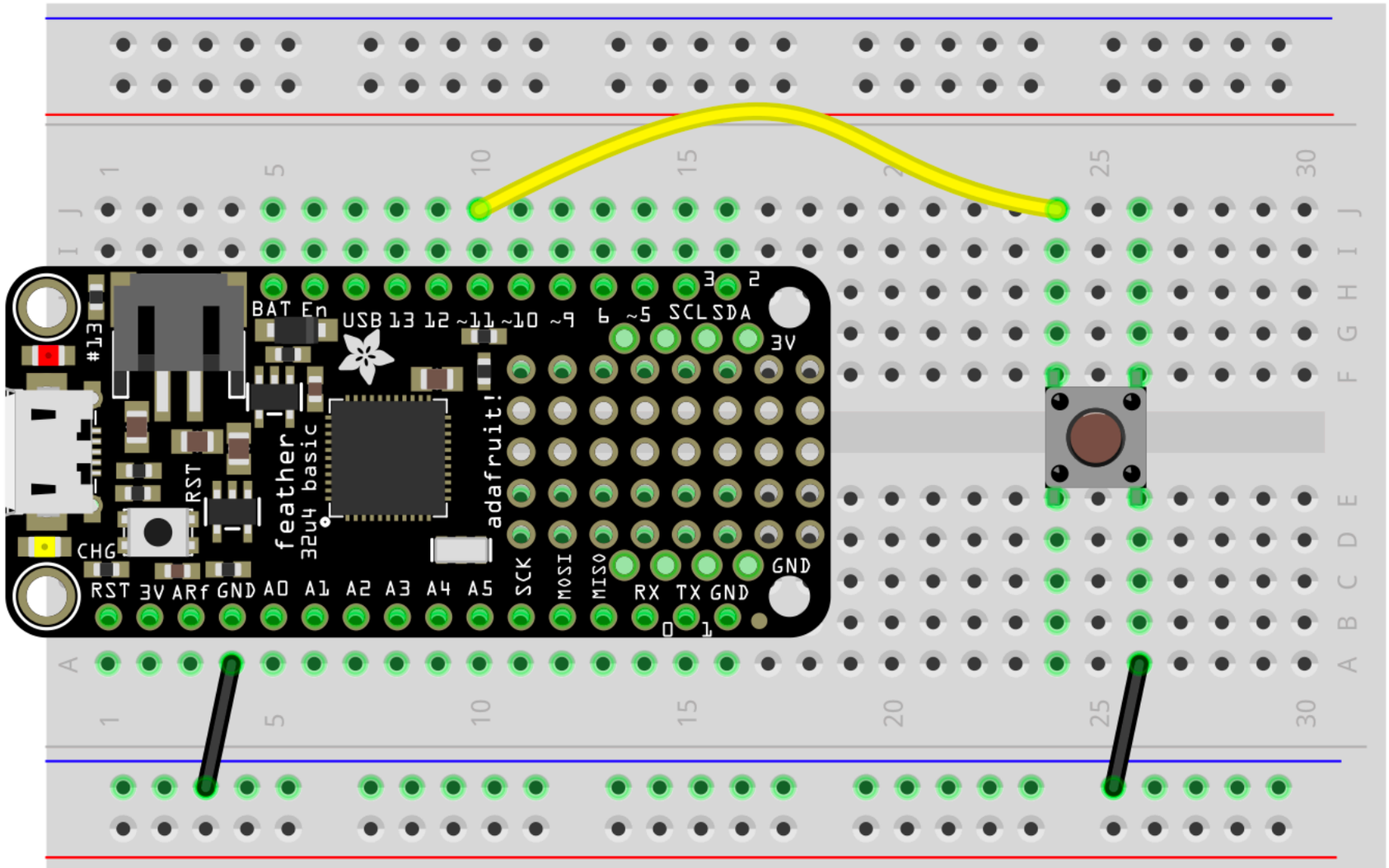
+

PROCESSING

HID

ARDUINO -> COMPUTER

BUTTON INPUT



keyboard | Arduino 1.8.16

keyboard

```
#include "Keyboard.h"

const int BUTTON_PIN = 11;

void setup() {
  pinMode(BUTTON_PIN, INPUT_PULLUP);

  // initialize control as a keyboard
  Keyboard.begin();
}

void loop() {
  // read the pushbutton:
  int val = digitalRead(BUTTON_PIN);

  if (val == LOW) {
    Keyboard.print("x");
    delay(100);
  }
}
```

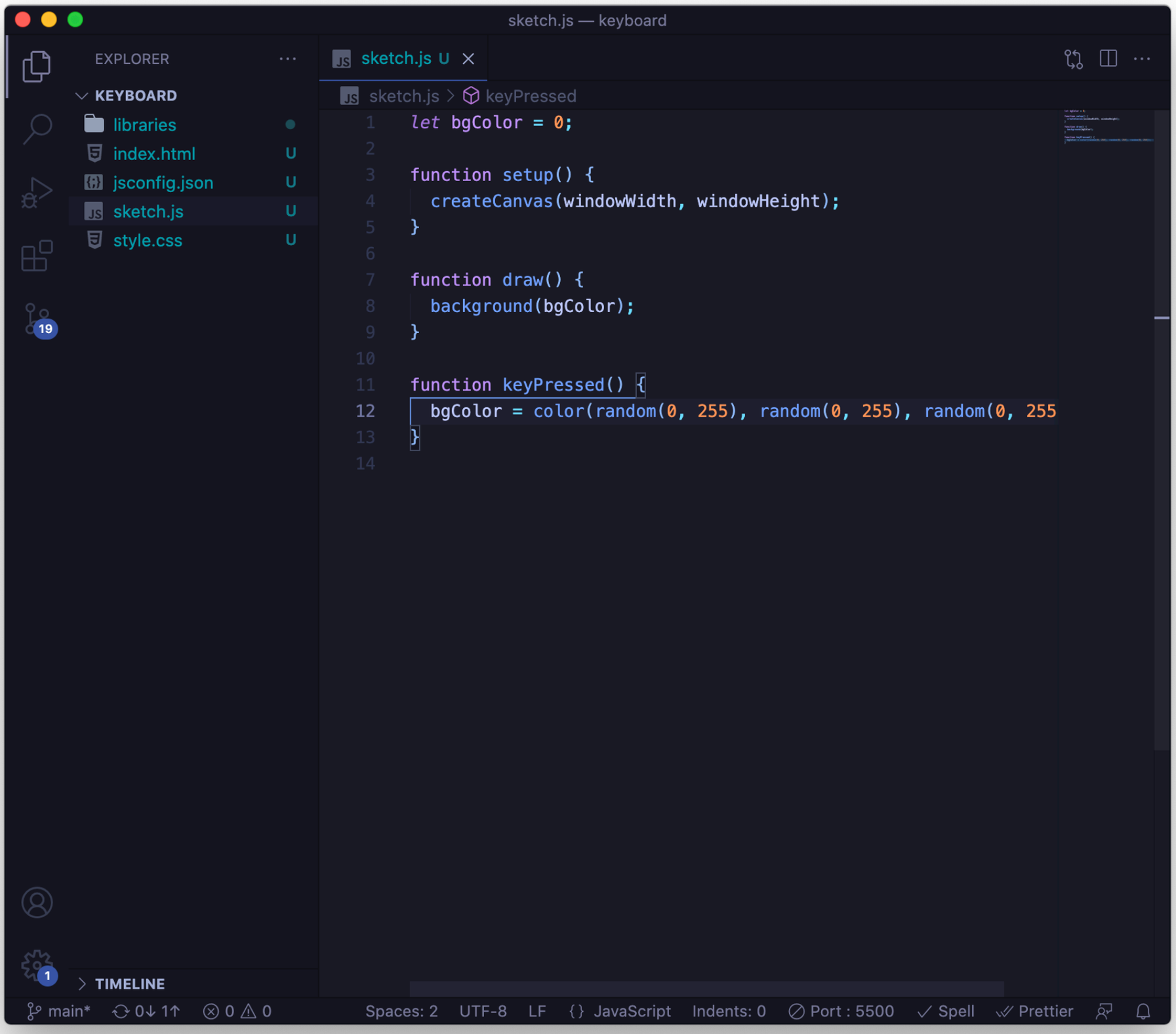
Done uploading.

```
done in 0.019 seconds
CPU reset.
```

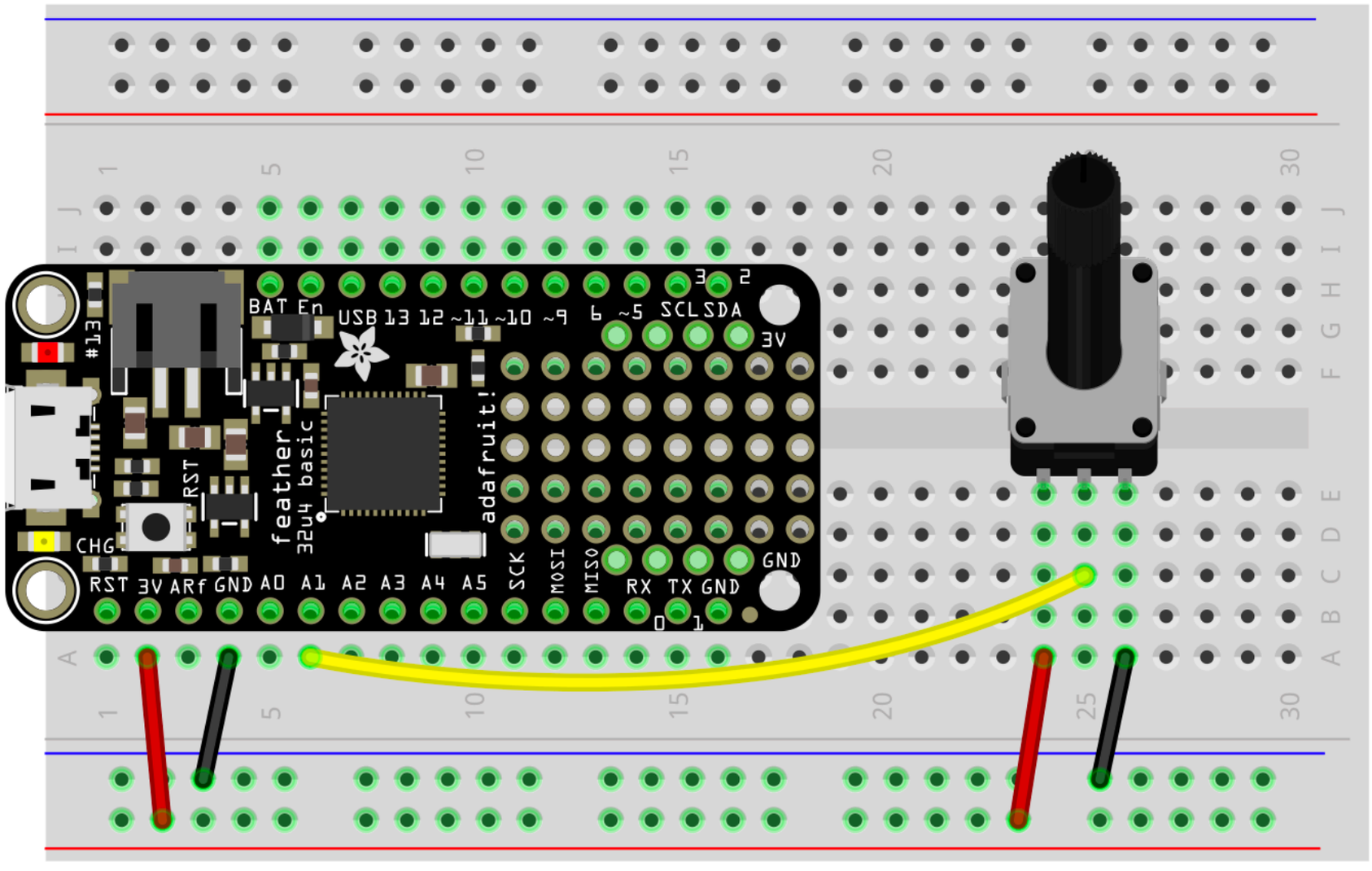
17 Adafruit Feather M0 Express, Small (-Os) (standard), Arduino, Off on /dev/cu.usbmodem14201

TRANSLATE BUTTON PRESS INTO KEYBOARD PRESS

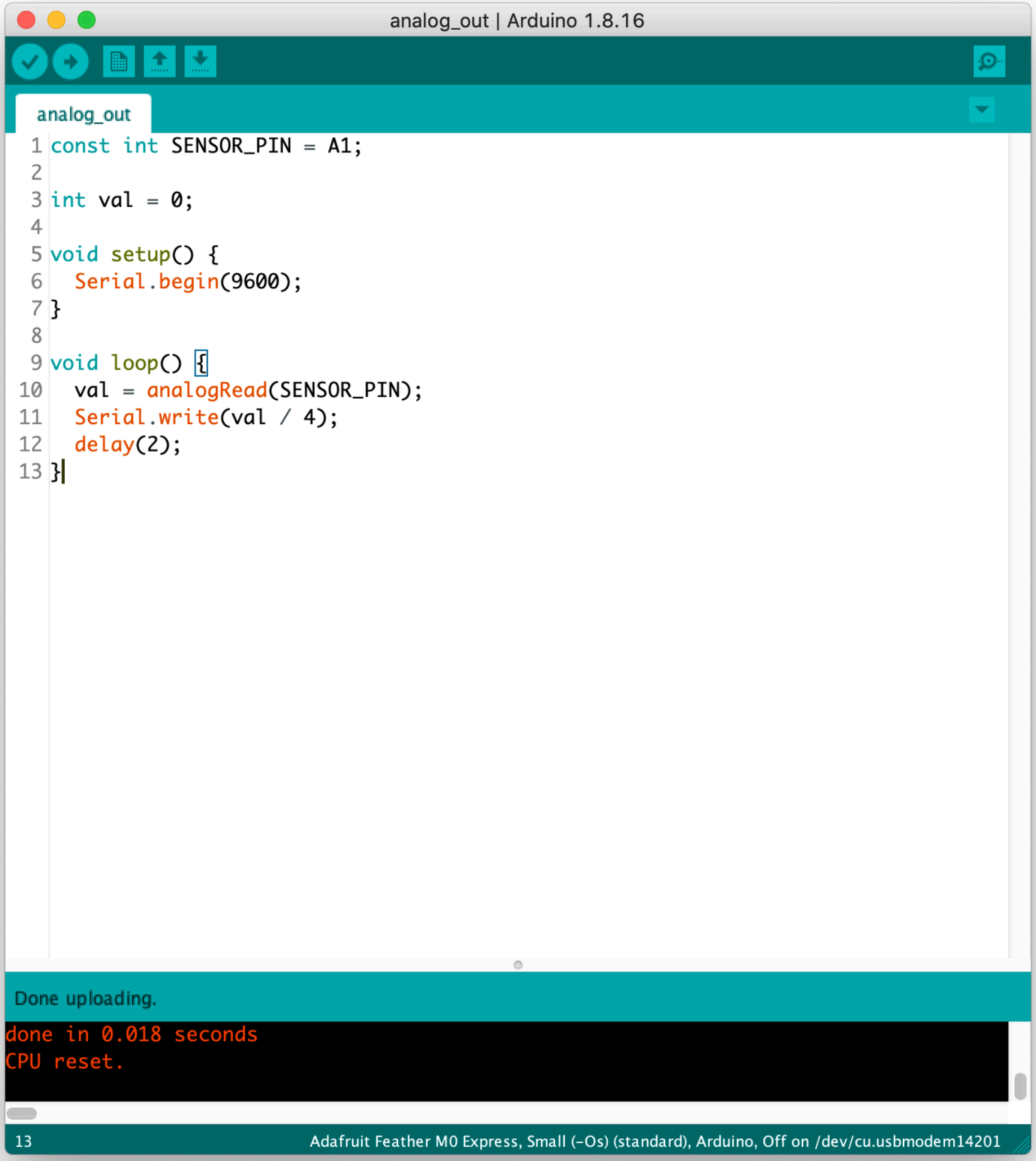
RESPOND TO KEYBOARD PRESSES

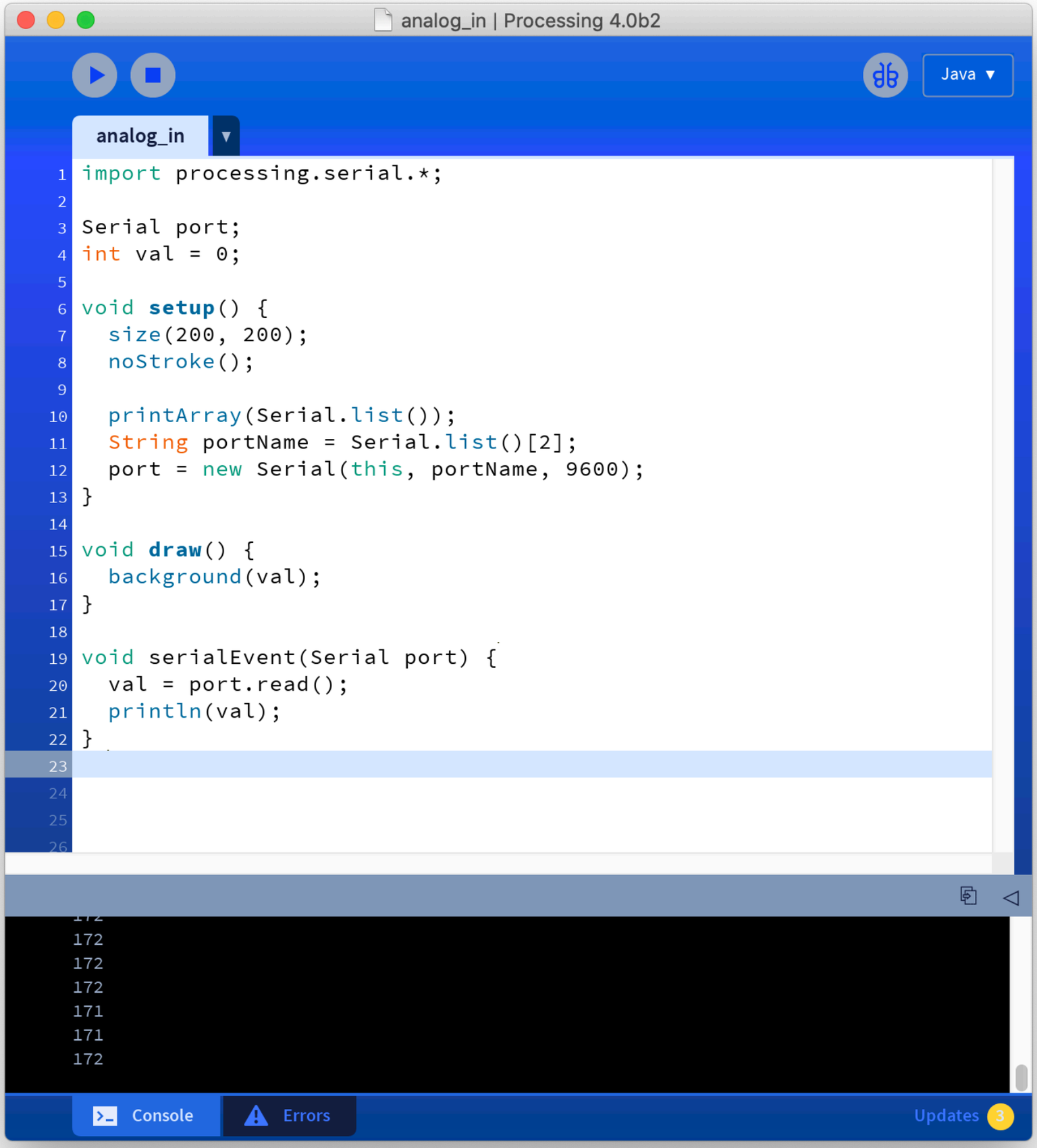


POTENTIOMETER (OR OTHER ANALOG SENSOR) INPUT



WRITE VALUES VIA SERIAL WITH ARDUINO



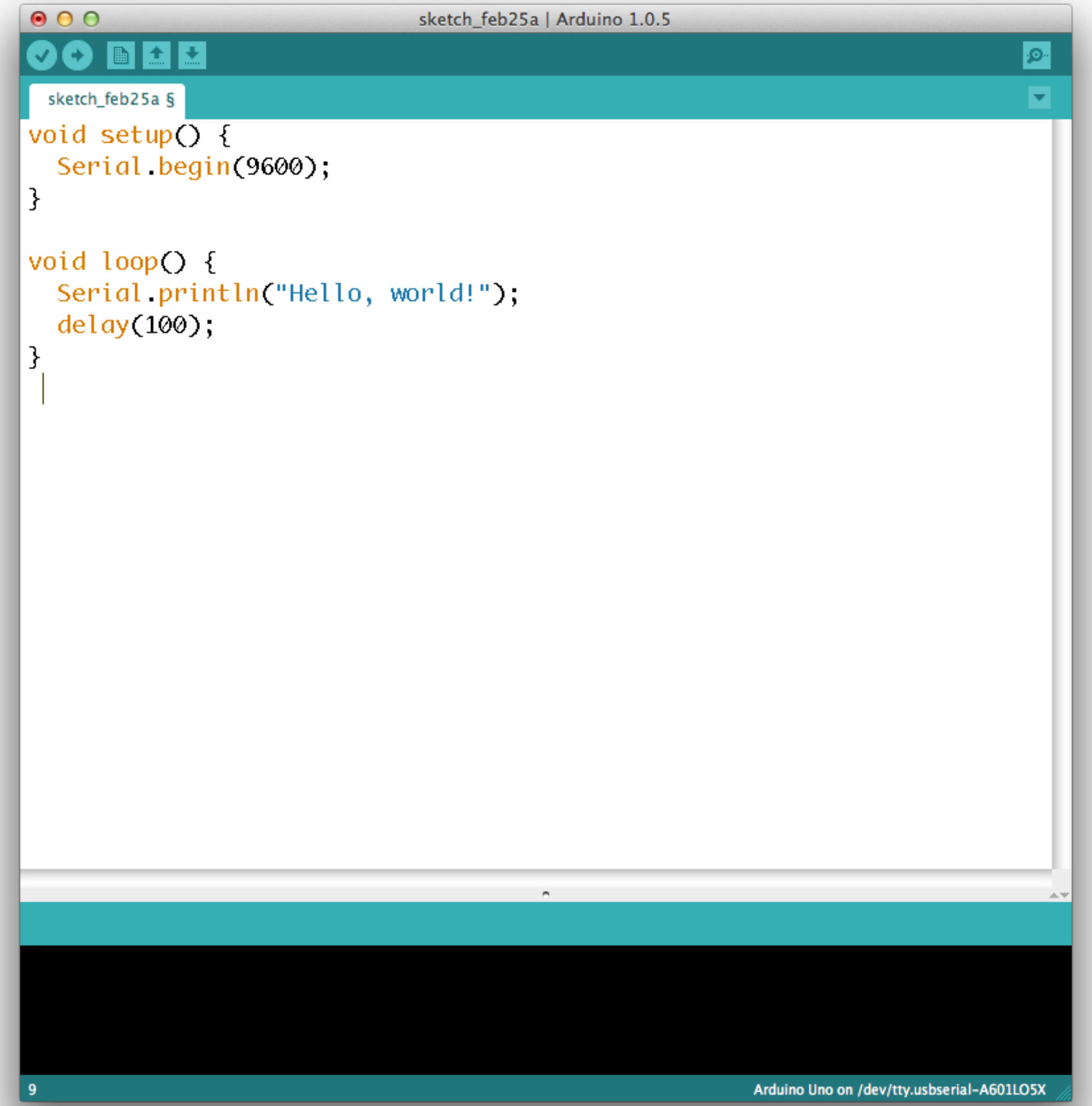


READ VALUES VIA SERIAL WITH PROCESSING

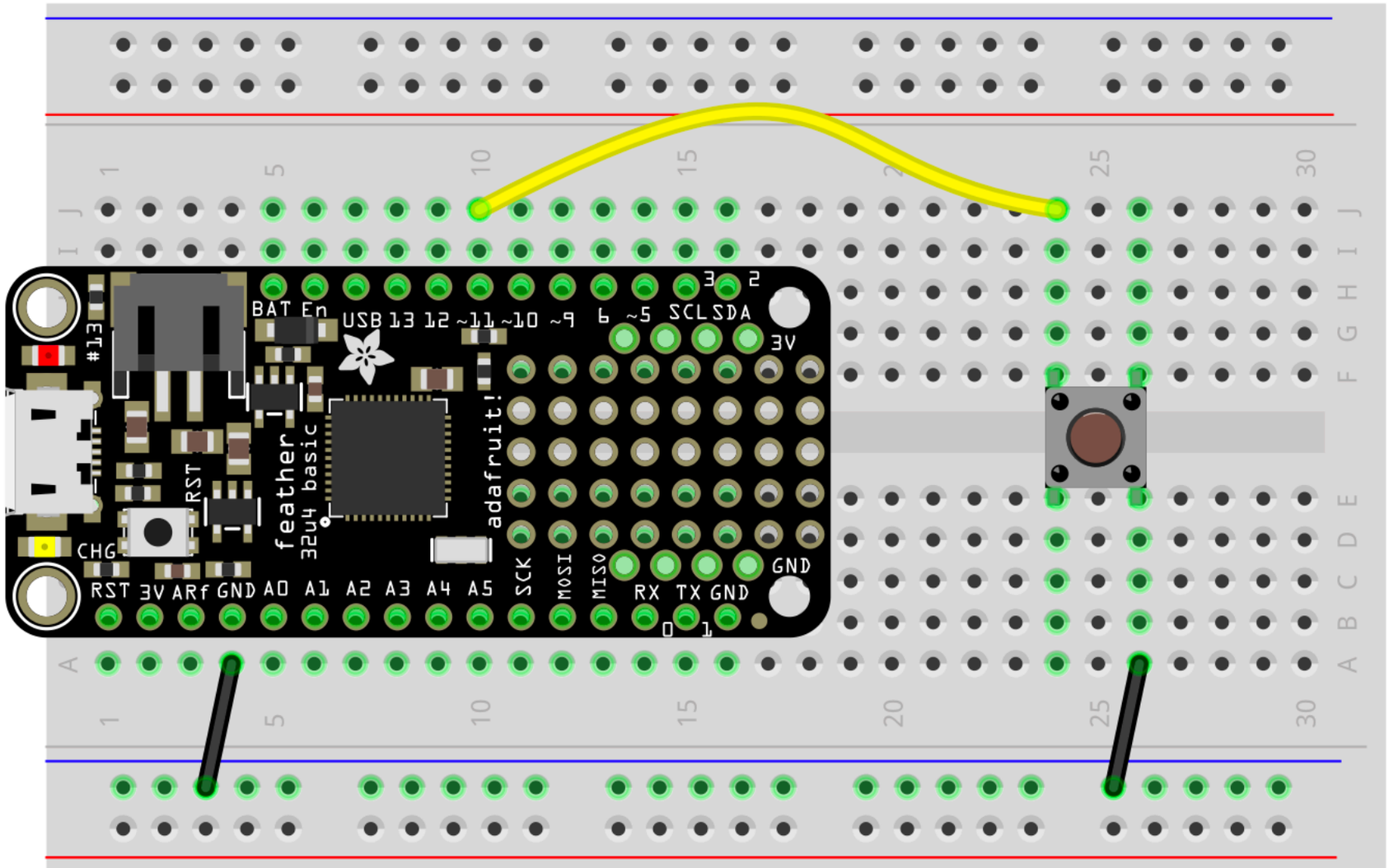
SERIAL

ARDUINO -> PROCESSING

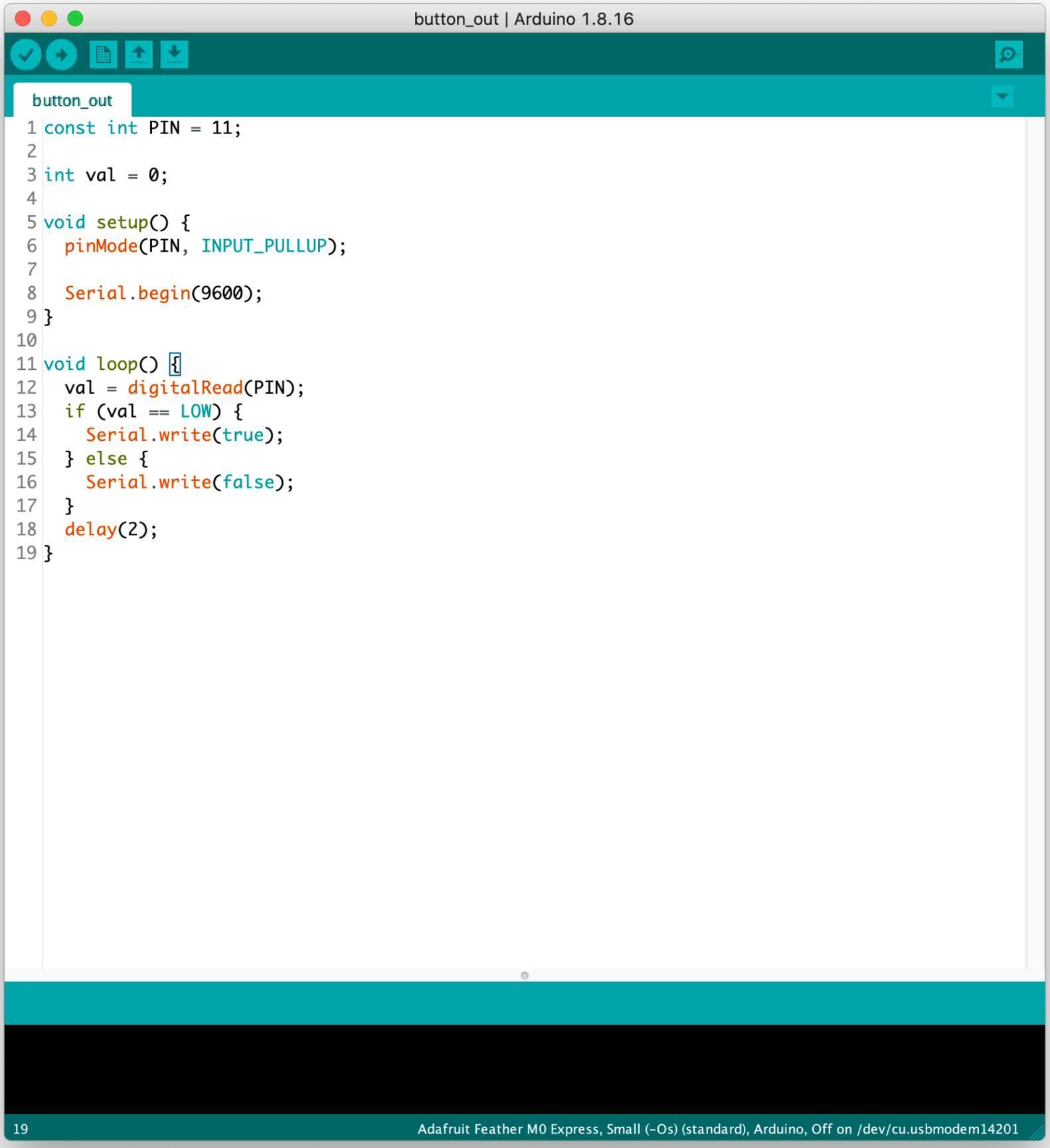
PRINT MESSAGE VIA SERIAL



BUTTON INPUT



WRITE VALUES VIA SERIAL WITH ARDUINO



button_in | Processing 4.0b2

Java ▾

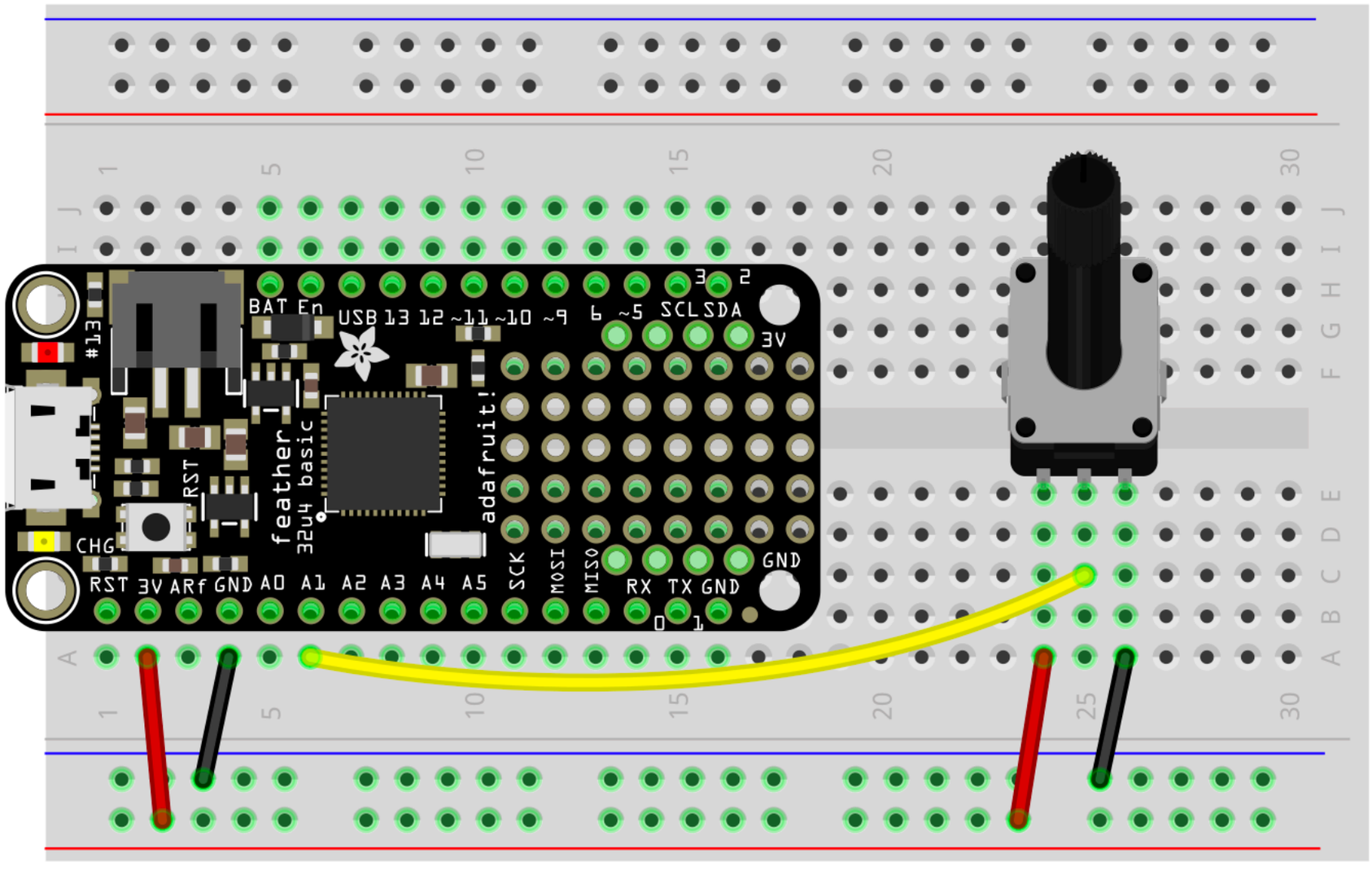
button_in

```
1  import processing.serial.*;
2
3  Serial port;
4  int val = 0;
5
6  void setup() {
7    size(200, 200);
8    noStroke();
9
10   printArray(Serial.list());
11   String portName = Serial.list()[2];
12   port = new Serial(this, portName, 9600);
13 }
14
15 void draw() {
16   background(255);
17   if (val == 1) {
18     fill(255, 0, 0);
19   } else {
20     fill(0);
21   }
22   rect(50, 50, 100, 100);
23 }
24
25 void serialEvent(Serial port) {
26   val = port.read();
27 }
28
29
```

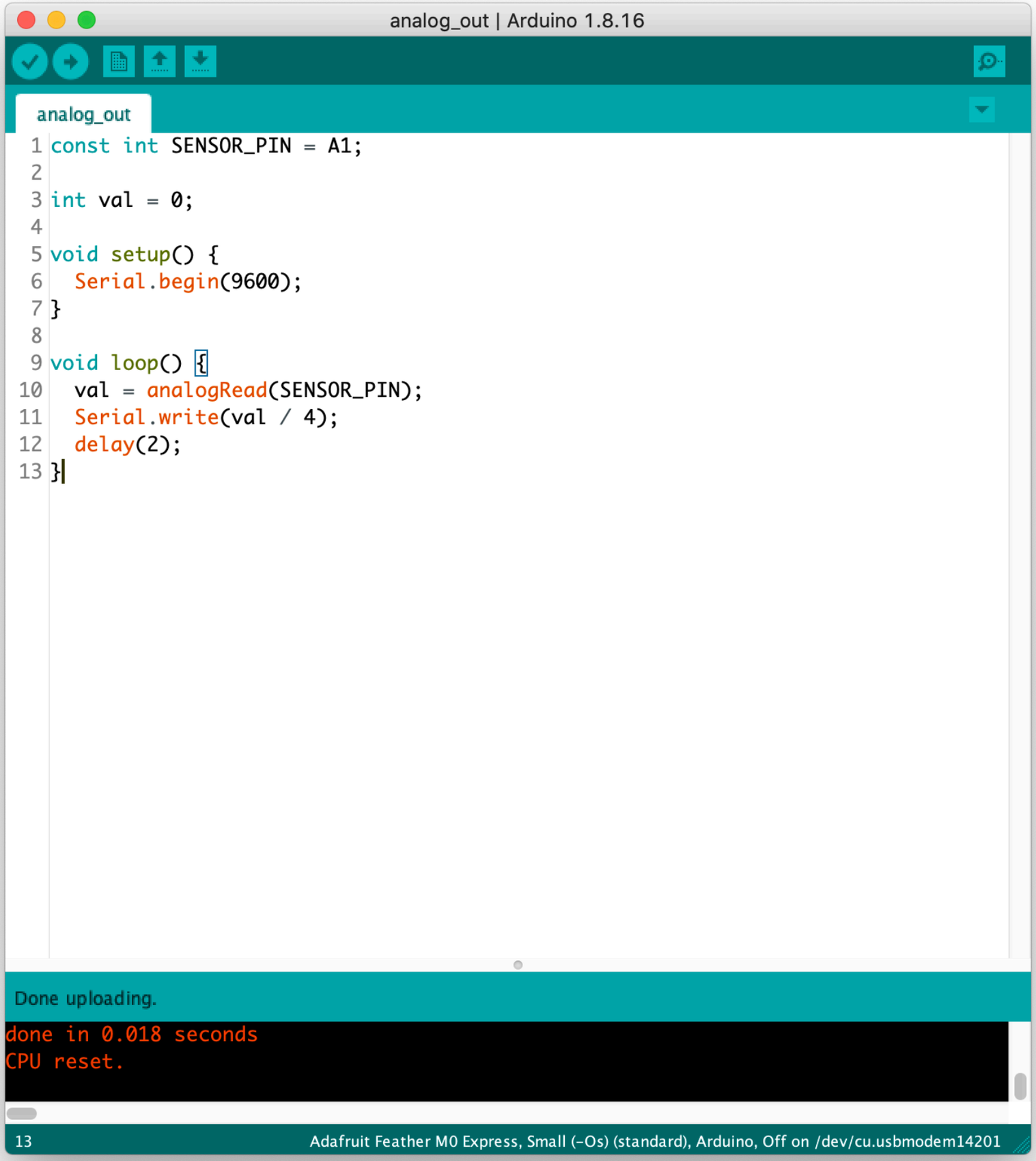
Console Errors Updates 3

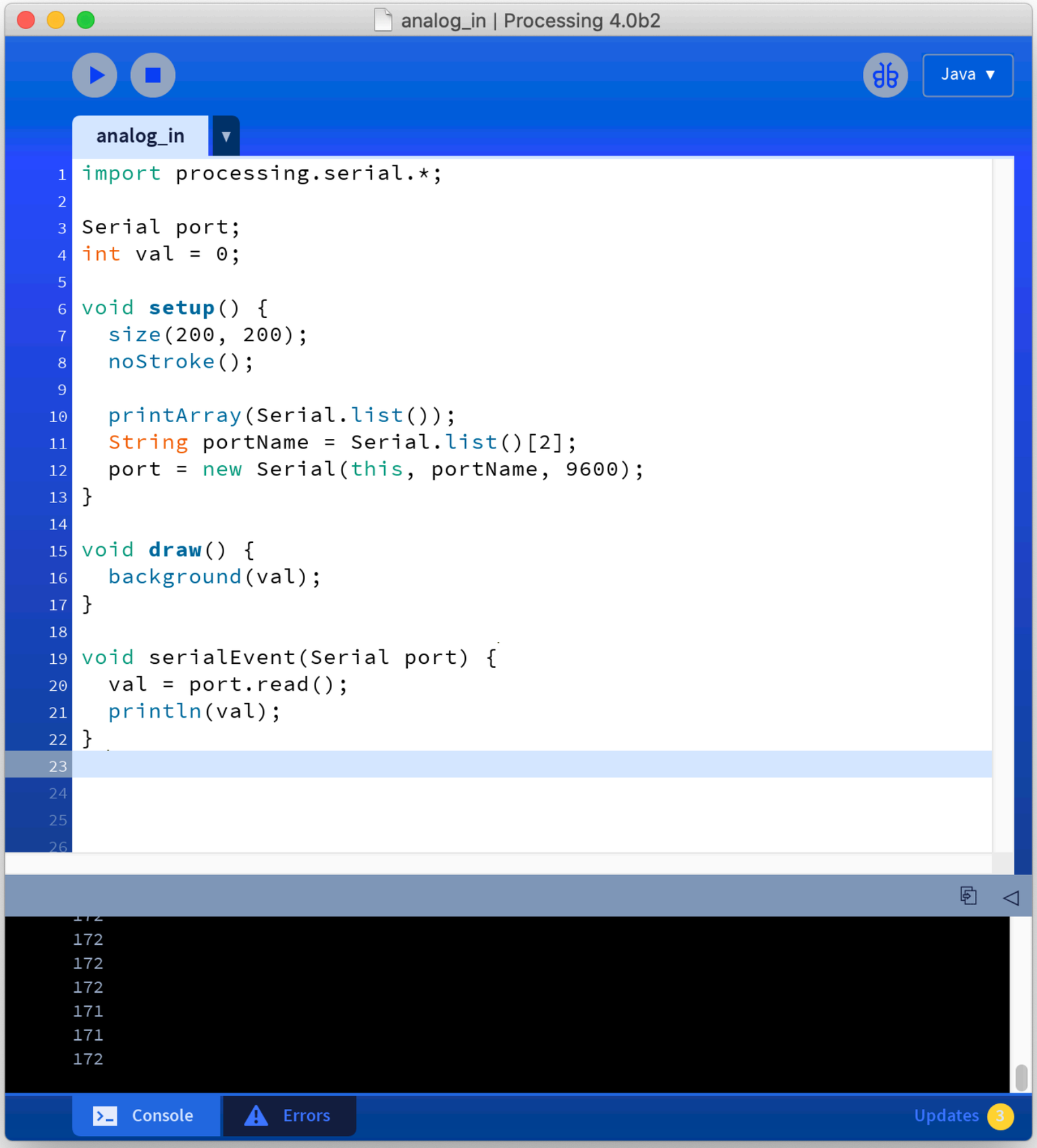
READ VALUES VIA SERIAL WITH PROCESSING

POTENTIOMETER (OR OTHER ANALOG SENSOR) INPUT



WRITE VALUES VIA SERIAL WITH ARDUINO

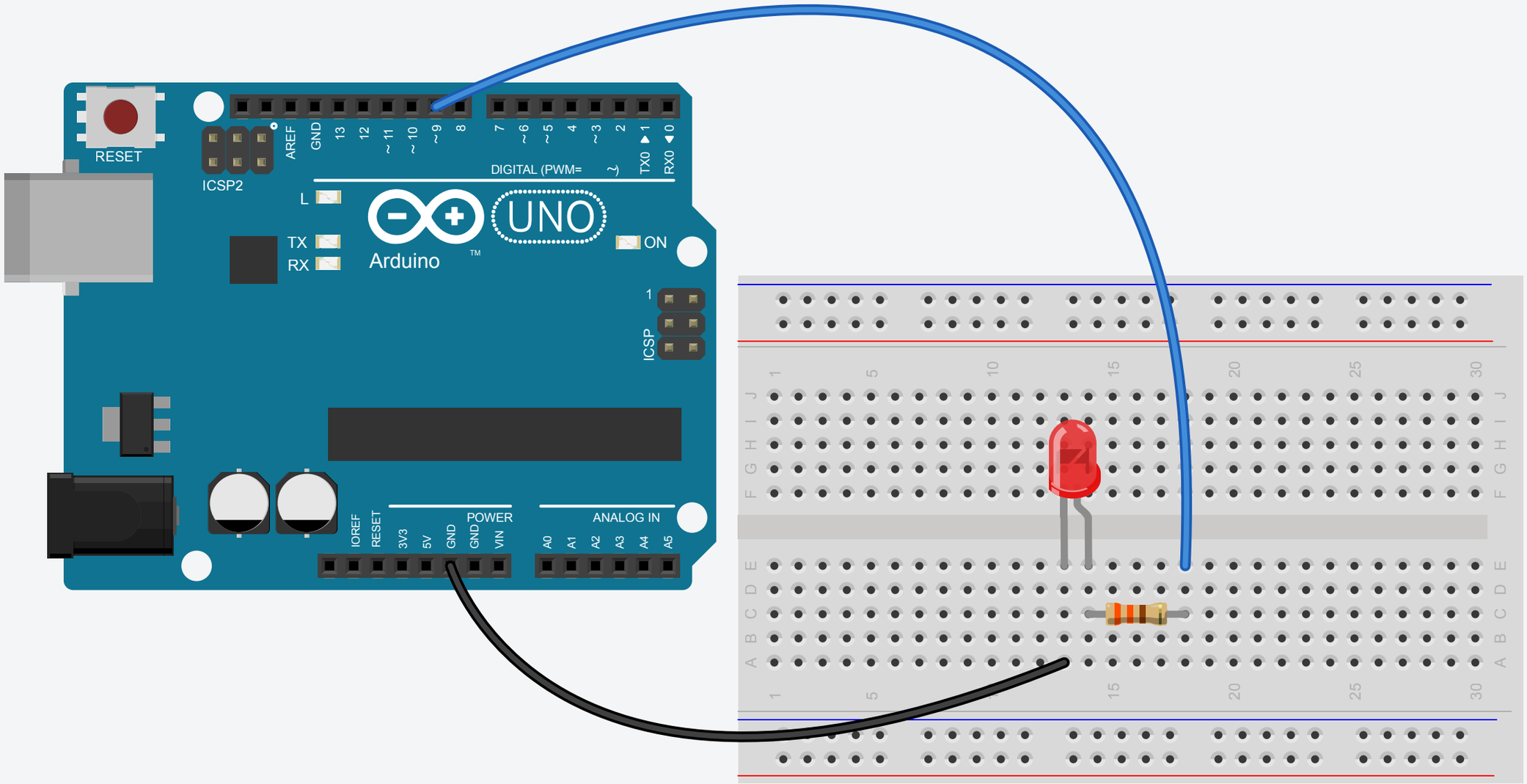




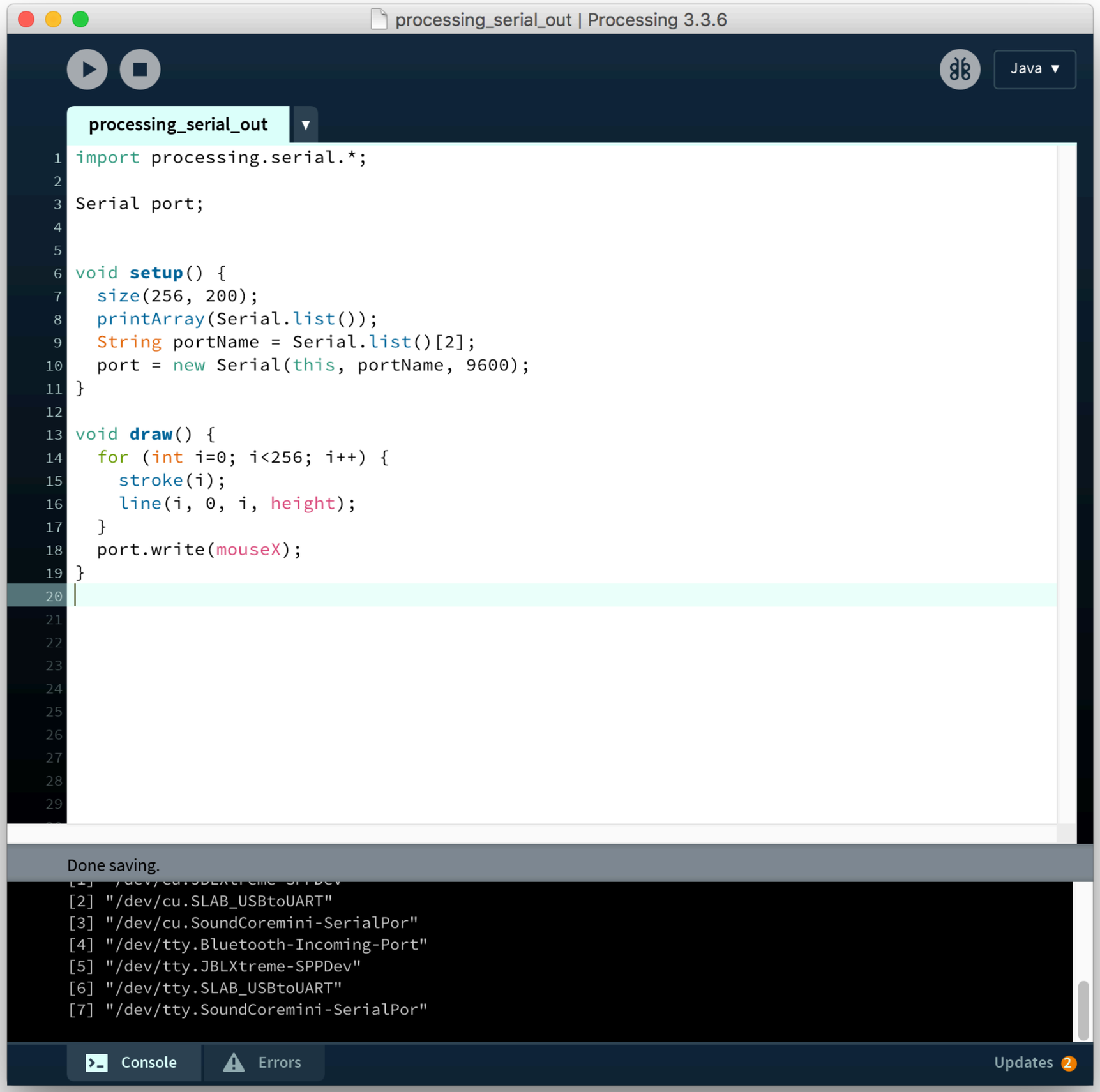
READ VALUES VIA SERIAL WITH PROCESSING

PROCESSING -> ARDUINO

PWM LED OUTPUT



WRITE VALUES VIA SERIAL WITH PROCESSING



READ VALUES VIA SERIAL WITH ARDUINO