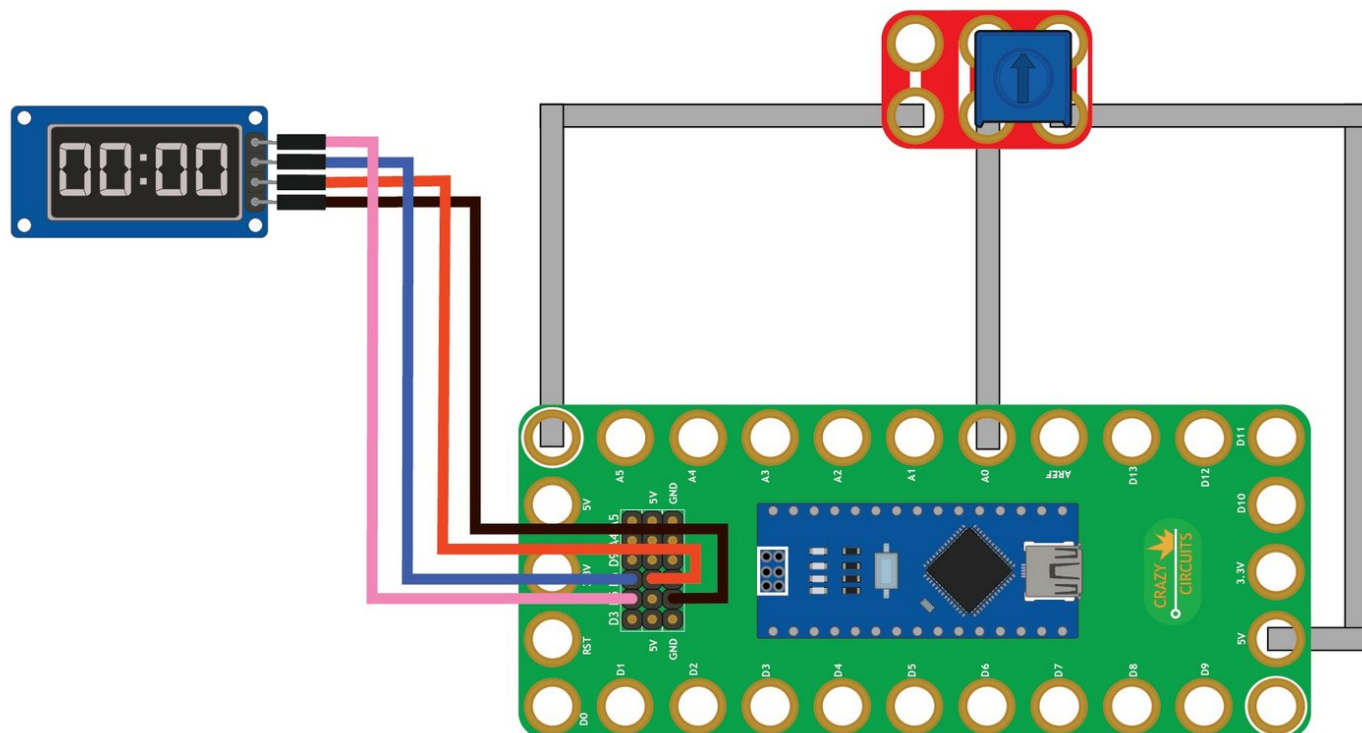




14 - Potentiometer with 7 Segment Display

Use our Programming 101 kit to control a 7 segment display with a potentiometer.

Written By: Pete Prodoehl



INTRODUCTION

Use our Robotics Board to control a 7 segment display with a potentiometer.



TOOLS:

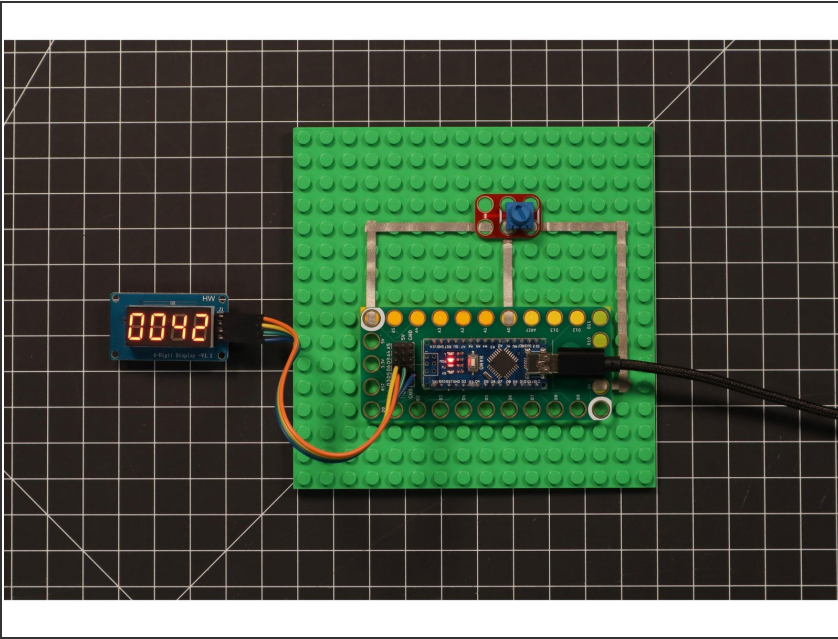
- [Scissors](#) (1)
- [Computer](#) (1)



PARTS:

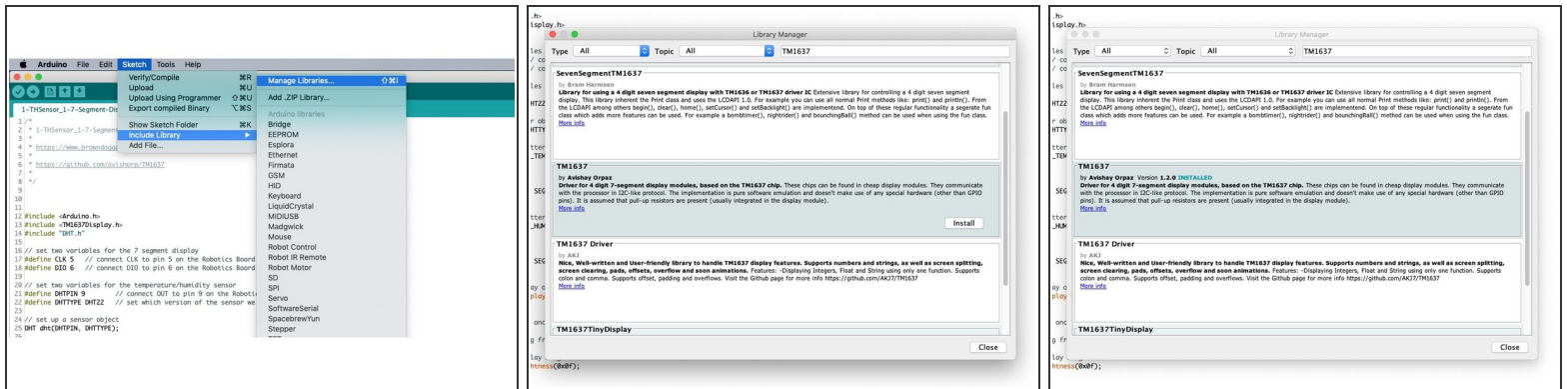
- [Crazy Circuits Robotics Board](#) (1)
- [Crazy Circuits Potentiometer Chip](#) (1)
- [7 Segment Display](#) (1)
- [Jumper Wires](#) (4)
- [Maker Tape 1/8th inch](#) (1)

Step 1 — Build the Circuit



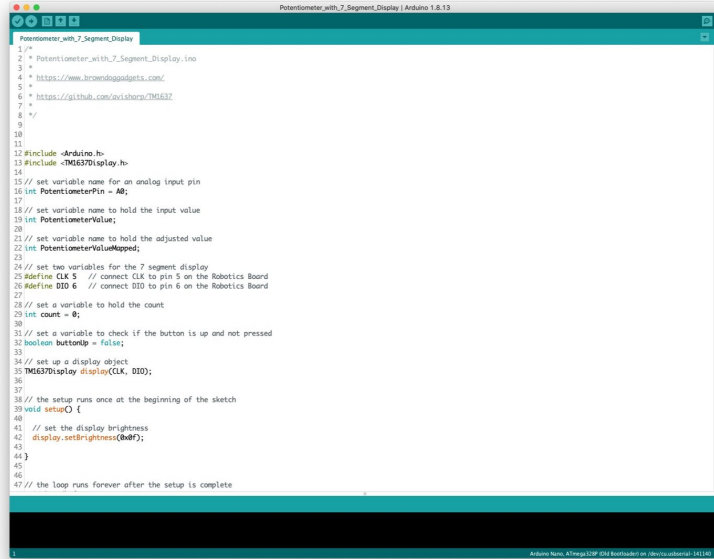
- Build the circuit as shown in the diagram using the components specified.
- ① You can use any color jumper wires for the 7 segment display, just make sure they are plugged into the right place.

Step 2 — Install TM1637 library



- Install and launch the Arduino software.
- Click on the **Sketch** menu, select **Include Library**, and then **Manage Libraries...**
- On the top right side type **TM1637** and it will show the results in the bottom of the window. We want the **TM1637** by **Avishay Orpaz**. Click the **Install** button.
- The library will be downloaded and **installed**, and then show the word **Installed** along with the version number. Click the **Close** button in the lower right corner. You are now ready to upload your Arduino sketch!
- (These instructions can also be found in the PDF file **Installing-TM1637-Library.pdf**)

Step 3 — Upload the Code

The image shows a screenshot of the Arduino IDE interface. The title bar reads 'Potentiometer_with_7_Segment_Display | Arduino 1.8.13'. The code editor contains the following code:

```
1 //  
2 * Potentiometer_with_7_Segment_Display.ino  
3 *  
4 * https://www.browndoggadgets.com/  
5 *  
6 * https://github.com/ovishorp/THS637  
7 *  
8 */  
9  
10  
11  
12 #include <Arduino.h>  
13 #include <TM6370Display.h>  
14  
15 // set variable name for an analog input pin  
16 int PotentiometerPin = A0;  
17  
18 // set variable name to hold the input value  
19 int PotentiometerValue;  
20  
21 // set variable name to hold the adjusted value  
22 int PotentiometerValueMapped;  
23  
24 // set two variables for the 7 segment display  
25 #define CLK 5 // connect CLK to pin 5 on the Robotics Board  
26 #define DIO 6 // connect DIO to pin 6 on the Robotics Board  
27  
28 // set a variable to hold the count  
29 int count = 0;  
30  
31 // set a variable to check if the button is up and not pressed  
32 boolean buttonUp = false;  
33  
34 // set up a display object  
35 TM6370Display display(CLK, DIO);  
36  
37  
38 // the setup runs once at the beginning of the sketch  
39 void setup() {  
40  
41 // set the display brightness  
42 display.setBrightness(BRIGHT);  
43  
44 }  
45  
46  
47 // the loop runs forever after the setup is complete
```

- Upload the Arduino sketch to the Robotics Board.
- You can find the code here:
<https://github.com/BrownDogGadgets/Progr...>