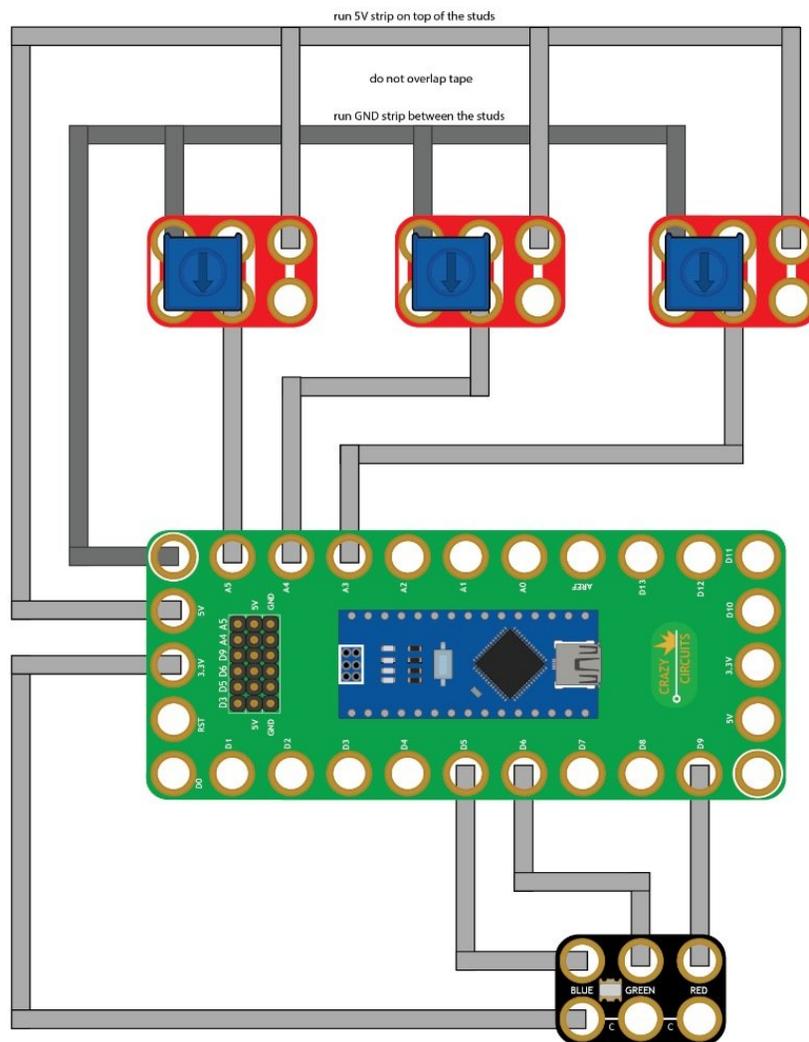




# 12 - 3 Potentiometers with RGB LED

Use our Programming 101 kit to control and RGB LED with three potentiometers.

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## INTRODUCTION

Use our Robotics Board to control and RGB LED with three potentiometers.



### TOOLS:

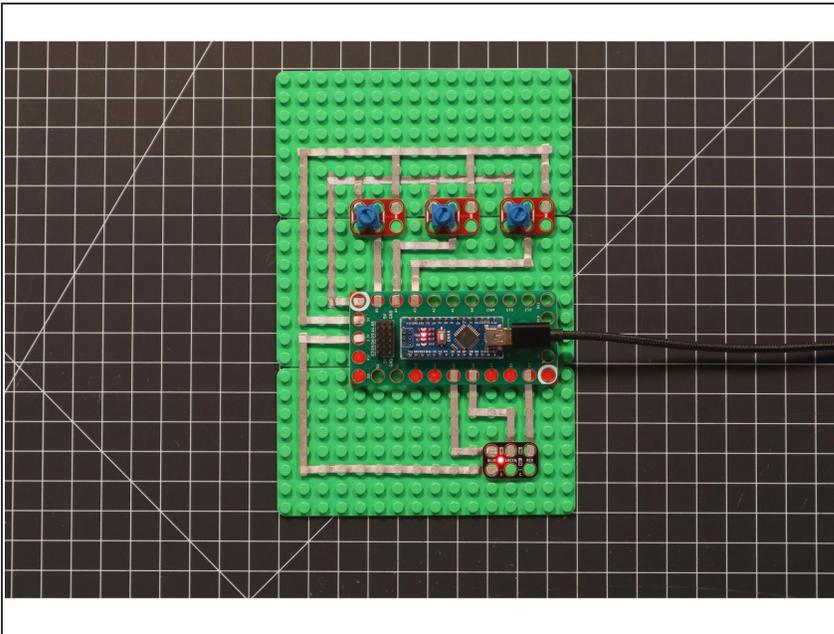
- [Scissors](#) (1)
- [Computer](#) (1)



### PARTS:

- [Crazy Circuits Robotics Board](#) (1)
- [Crazy Circuits Potentiometer Chip](#) (3)
- [Mini RGB LED Chip](#) (1)
- [Maker Tape](#) (1)  
1/8" Wide

## Step 1 — Build the Circuit



- Build the circuit as shown in the diagram using the components specified.
- ⓘ When connecting the potentiometers, do not cross the tape coming from 5V and GND. (This would create a short circuit.)
- ⓘ You can run the GND tape between the LEGO studs (in the gutter) and the 5V tape on top of the LEGO studs so they do not overlap.

## Step 2 — Upload the Code

```

3_Potentiometers_with_RGB_LED | Arduino 1.8.13
1 /*
2  * 3_Potentiometers_with_RGB_LED.ino
3  *
4  * https://www.browndoggadgets.com/
5  *
6  */
7
8
9
10 // set variable names for the analog input pins
11 int PotRedPin = A5;
12 int PotGreenPin = A4;
13 int PotBluePin = A3;
14
15 // set variable names to hold the analog input values
16 int PotRedValue;
17 int PotGreenValue;
18 int PotBlueValue;
19
20 // set variable names to hold the adjusted values
21 int PotRedValueMapped;
22 int PotGreenValueMapped;
23 int PotBlueValueMapped;
24
25 // set variable name for a digital output pin with Pulse Width Modulation
26 // pins 3, 5, 6, 9, 10, 11 support PWM
27 int LEDRedPin = 3;
28 int LEDGreenPin = 5;
29 int LEDBluePin = 6;
30
31
32 // the setup runs once at the beginning of the sketch
33 void setup() {
34
35   // by default the analog pins are set as input
36   // so we don't need to specify that in setup
37
38   // analog pins are set to input by default but
39   // we still need to set the 3 LED pins for output
40   pinMode(LEDRedPin, OUTPUT);
41   pinMode(LEDGreenPin, OUTPUT);
42   pinMode(LEDBluePin, OUTPUT);
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...>