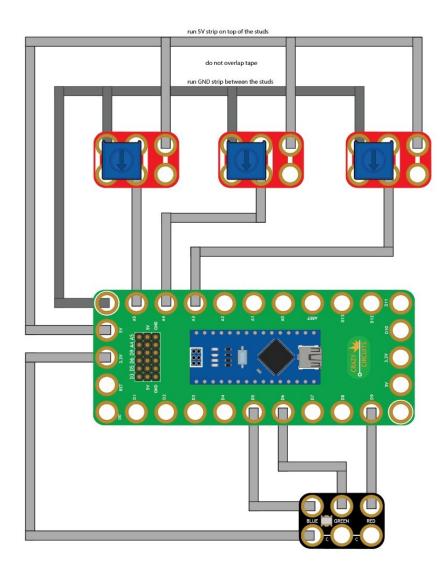


12 - 3 Potentiometers with RGB LED

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

Written By: Pete Prodoehl



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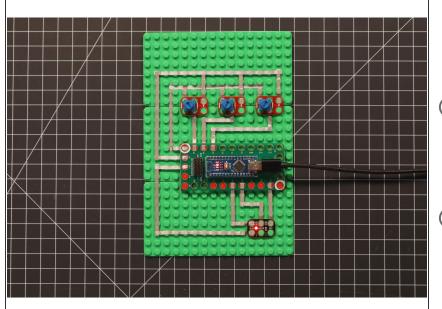
INTRODUCTION

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

TOOLS:	DARTS:
 Scissors (1) 	 Crazy Circuits Robotics Board (1)
 Computer (1) 	 Crazy Circuits Potentiometer Chip (3) Mini RGB LED Chip (1)
	 Maker Tape 1/8th inch (1)

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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
3_Potentiometers_with_RGB_LED	
1/*	
2 * 3_Potentiometers_with_RGB_LED.ino 3 *	
4 * https://www.browndoggadgets.com/	
5 *	
6 */	
7	
8	
10 // set variable names for the analog input pins	
11 int PotRedPin = A5;	
12 int PotGreenPin = A4;	
<pre>13 int PotBluePin = A3;</pre>	
14 15 // set variable names to hold the analog input values	
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 M	Modulation
26 // pins 3, 5, 6, 9, 10, 11 support PWM	
27 int LEDRedPin = 9; 28 int LEDGreenPin = 6;	
29 int LEDBluePin = 5;	
30	
31	
32 // the setup runs once at the beginning of the sketch	
33 void setupO { 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);	
<pre>42 pinMode(LEDBluePin, OUTPUT);</pre>	
43	
44 } 45	
45	
47 // the loop runs forever after the setup is complete	
alarma r	4
	Arduino Nano, ATmega 328P (Old Bootkoader) on /dev/cu usbeerial-1415

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

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