

Circuit #3 RGB LED

1.

How is this circuit, or a circuit like it, used in everyday life? Provide at least three examples.

Does the RGB LED work?

Great. Upload the Circ12Expansion Code to your Arduino, add a trimpot, a temperature sensor and a photoresistor to the circuit. Connect the trimpot to analog pin 1, the temperature sensor to analog pin 2, and the photoresistor to analog pin 0. Use some of the previous circuit schematics if you get stumped. You may also switch out the temperature sensor for the flex sensor or soft potentiometer so you have more control of the RGB LED if you like, but you will also need to change the code a little.

2.

Connect a multimeter to each line that is connected to a RedBoard pin. Notice how the voltage changes while you use the sensor or interface coupled with each pin.

3.

What should the voltage values for each pin be to make the RGB LED as red as it will get?

$V = \underline{\hspace{1cm}} \text{ v}$ $I = \underline{\hspace{1cm}} \text{ mA}$ $R = \underline{\hspace{1cm}} \Omega$

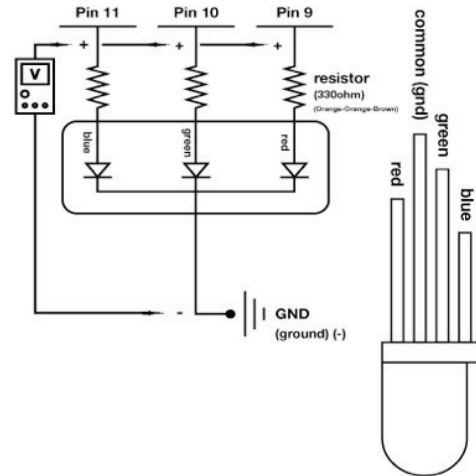
4.

What does "RGB LED" stand for?

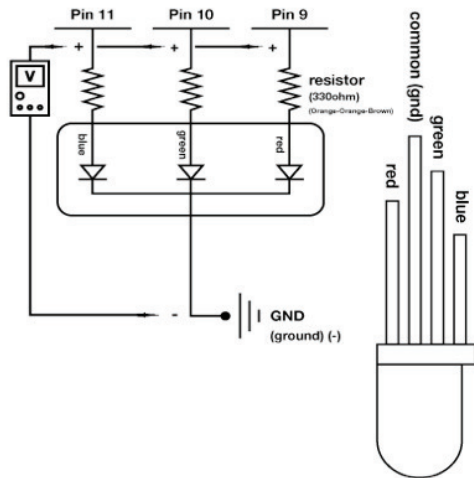
5.

Add an On/Off switch to your schematic.

Circuit:



1. *Journal of Management Studies*, 1997, 34, 1, 1-14.



Other than making projects pretty, what are some possible uses for a RGB LED? List at least three.

Figure 1

[illegible]

give it a title.

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