Name:
Date:

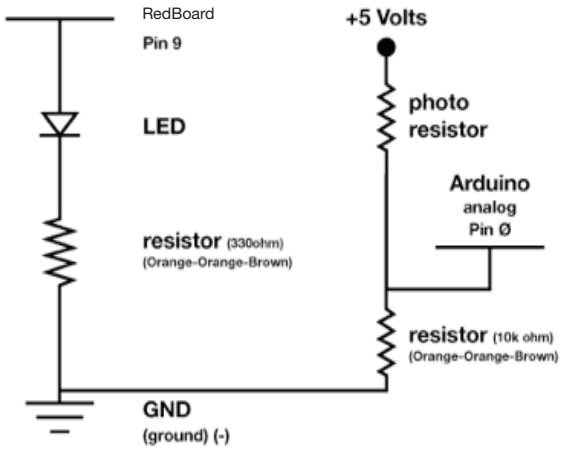
Circuit #6 Photo Resistor

1.

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

Can you turn your LED up and down using the photoresistor? Great.

Circuit:



2.

Add the following to the circuit code and upload:
In Setup: *Serial.begin(9600);*
In Loop after all other code: *Serial.println(lightValue);*
Now open the Serial Communication window.
Replace the LED component (in the space below the schematic on the right) with an element or component from one of the previous circuits, extra credit if you decide to replace it with a motor and do so correctly.

3.

Make sure an aspect of the element or component is controlled by the photoresistor. Example: replace LED with Piezo and control pitch with potentiometer. Aspect controlled:

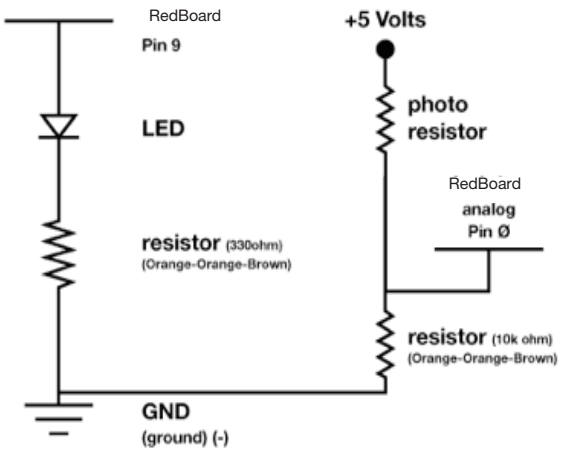
4.

Why does this circuit use an analog pin as an input?

5.

Circle all the resistors.

Circuit:



7.

The output variable lightValue can go all the way up to 900 but your LED input can only go up to 255. What word in the code fixes this and how would you describe this action in a mathematical sense?

6.

Draw a logic flow chart of the circuit here:

8.

Draw one example of how this circuit could be used in everyday life. Label all components and give it a title.