



Light Following Arduino Robot using Photo resistors

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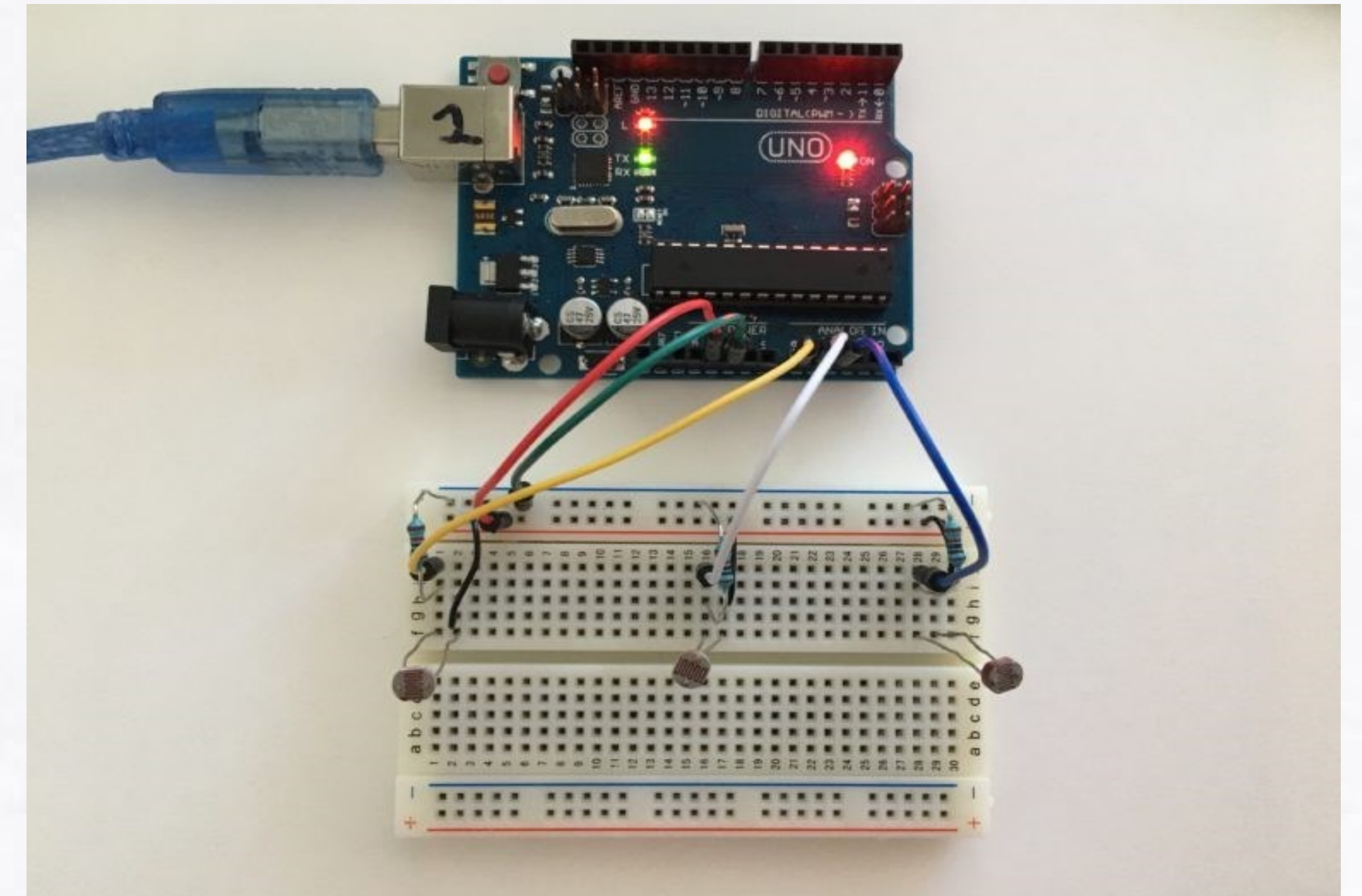
Ryadh Abbas et al.

ABSTRACT :

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- Step 4 Try it out & Make Adjustments!

In this article, I will show you a quick and easy way to attach a light sensor to your robot to follow or avoid light. But first, how will we detect light?



Create the Circuit using a Wiring Diagram:

The easiest way to use the photoresistor is to connect it to another fixed value resistor in a voltage-divider arrangement. The Voltage Output will drive the Analog Input signal on the Arduino.

We can then compare values printed to the serial monitor to determine if it's bright or dark. In this configuration, high values yield a brighter signal, and low values yield a darker signal.

If that's a little confusing for you to understand, no worries, I've outlined each step of the project below. For those of you who are more advanced, and familiar with Arduino, resistors, and I/O, then feel free to wire up your circuit and to skip to Step #2 – Write the Software.

This tutorial assumes you have a fundamental understanding of Arduino programming, Bread boarding, and have built an Arduino or GPIO-compatible mobile robot. You'll also need to have the code written to command your robot to move. If not, please check out my articles on Simple Arduino Programming and Breadboard wiring before starting this tutorial. Now, let's grab the list of materials, and get started!

Materials to build the Light Sensor Array

- 1 Arduino Mobile Robot (I used this one)
- 2 3X Photoresistors
- 3 3X 10K Ohm resistors
- 4 Breadboard
- 5 Jumper Cables

