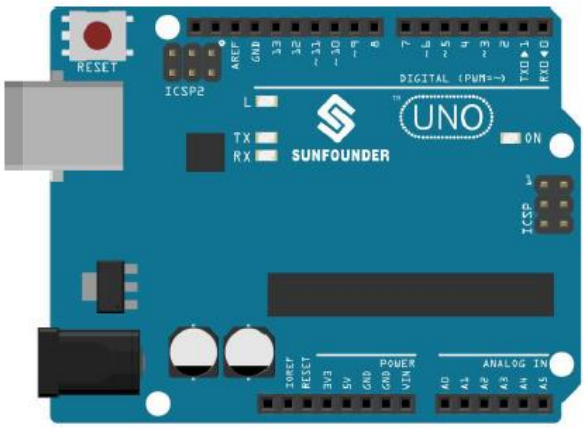
Building a Light Sensor

Today we will build a circuit that senses light using a photoresistor. The brighter the room is, the more LEDs will light up. We can change the input to our sensor by shining a cell phone flashlight on the sensor or covering it with our hands. Our goal is to build a working circuit, and it is ok if we do not understand exactly how each part works. And as always, do not be afraid to ask questions—that is how we learn!

STEP 1: Parts Needed

Open your lab kit and find the following parts.

1 * UNO Board

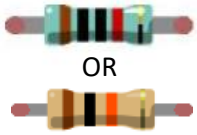


8 * Resistor (220Ω)

OR

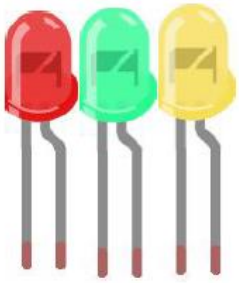
Or 330Ω

1 * Resistor (10KΩ)



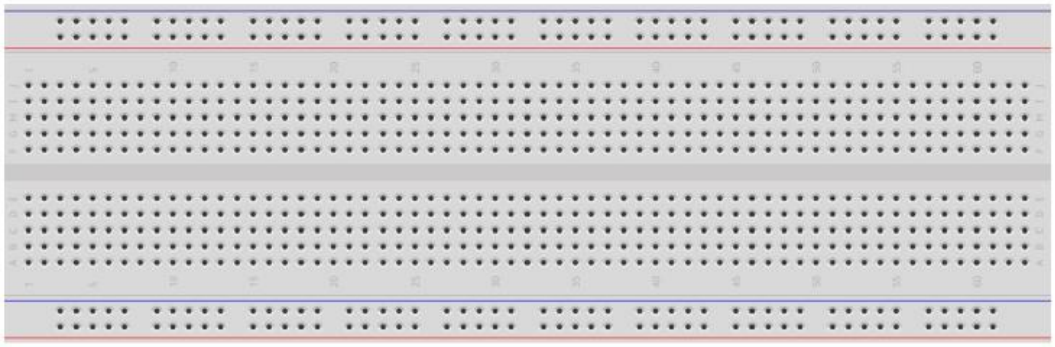
OR

8 * LED

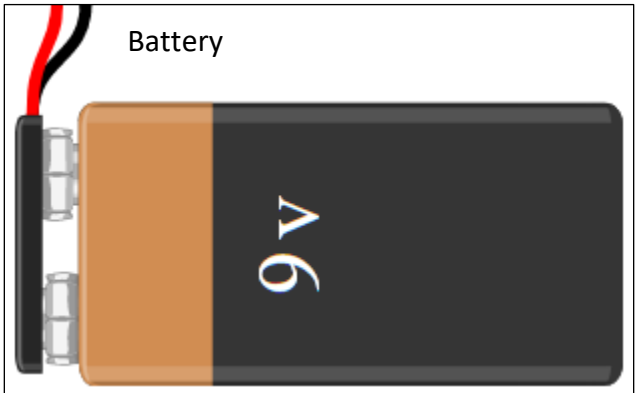


1 * Photo Resistor

1 * Breadboard



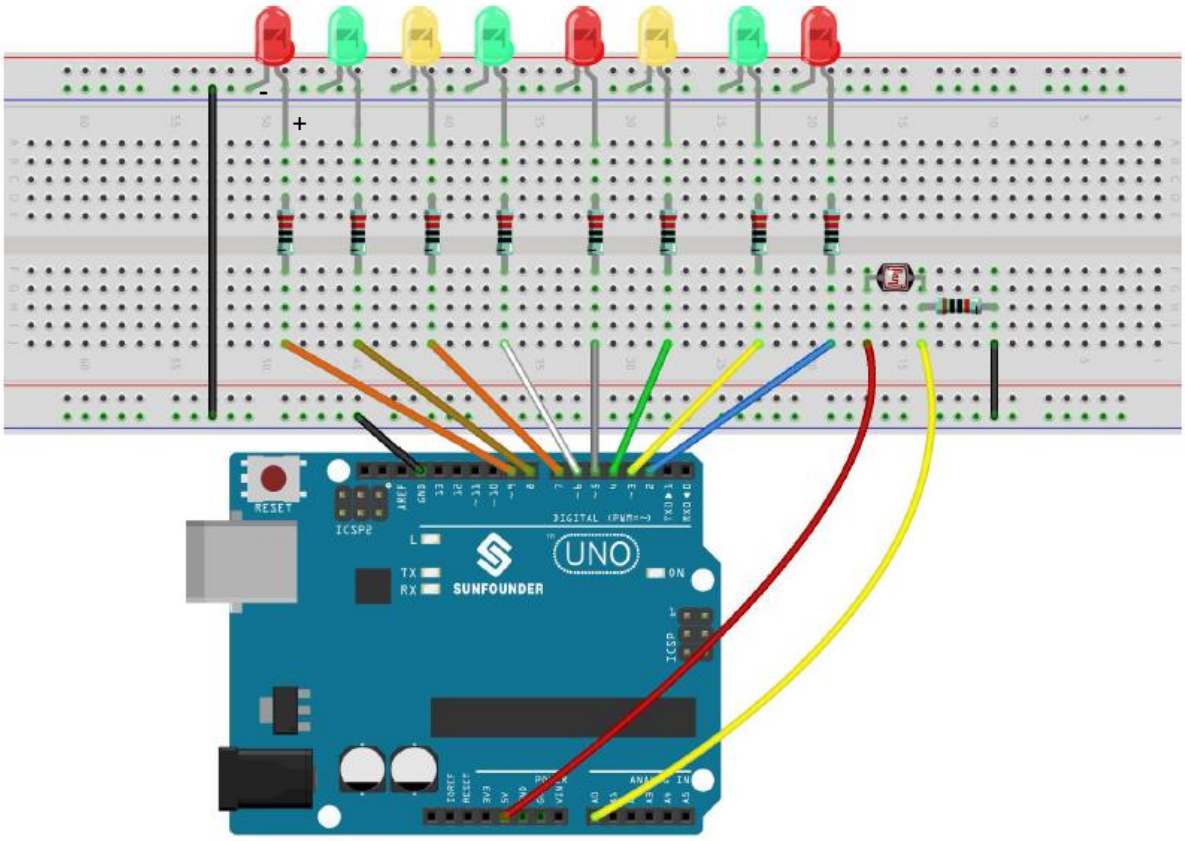
Battery



Battery Connector

Several Jumper Wires

STEP 2: Build the Circuit



STEP 3: Power the Circuit

Connect the battery to the microcontroller (UNO board).
(The code to run the circuit is already preinstalled.)

STEP 4: Play with the Circuit

Can you make every LED light? Can you block enough light to make no LEDs light?

Did you enjoy the activity today?

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