# Interfacing of LDR sensor

# Light Dependent Resistor

An **LDR** is a component that has a (variable) resistance that changes with the light intensity that falls upon it. This allows them to be used in light **sensing** circuits. A Light Dependent **Resistor** (**LDR**) or a photo **resistor** is a device whose resistivity is a **function** of the incident electromagnetic radiation. Hence, they are light sensitive devices. They are also called as photo conductors, photo conductive cells or simply photocells.

# Working of LDR sensor

Reading a photo sensor with the Arduino Mega:

- We will use a LDR and a resistor together in series. An LDR is simply a device that changes resistance based on ambient light. The brighter the light, the lower the resistance, the dimmer the light, the higher the resistance.
- When there is no light , LDR will offer high resistance and less current flows through the resistor and voltage across resistor will be less near to GND.
- When light falls on LDR, its resistance decreases and current flow through it increases. Then voltage across the resistor increases and pin 22 gets a HIGH signal.

# Components required

- Arduino mega
- LDR sensor
- LED
- Resistor (10k)
- Breadboard
- Jumper wires

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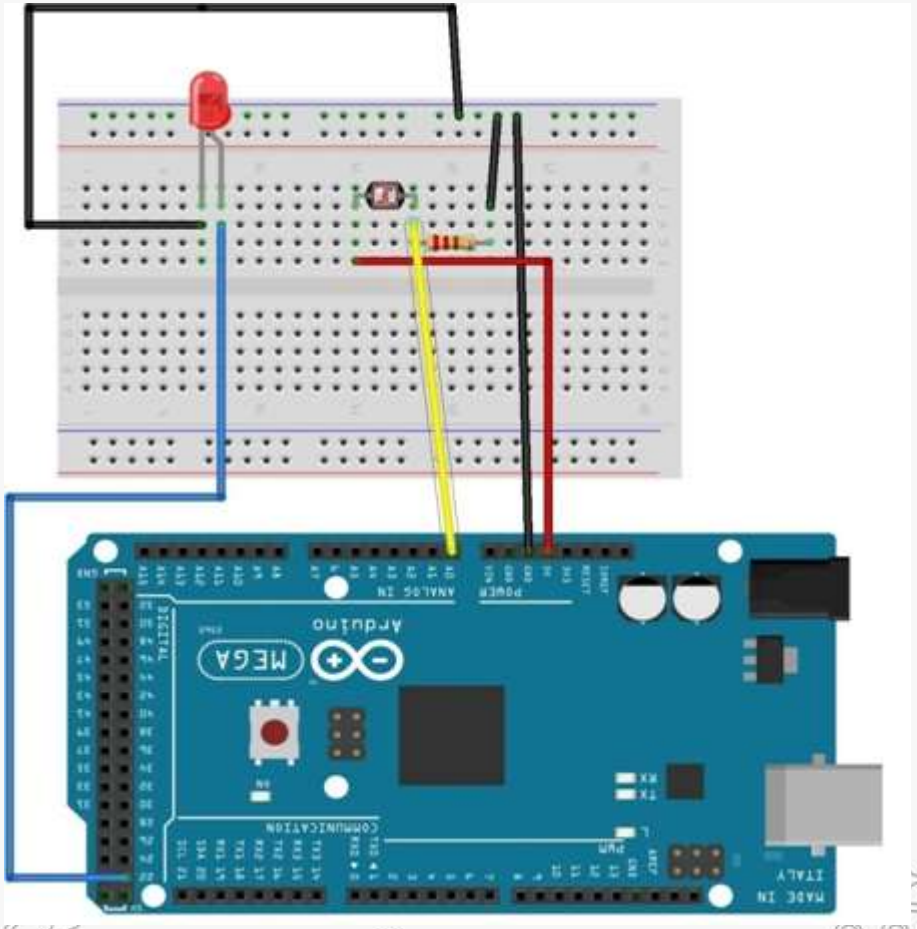
# Connection Diagram



# Connections

1. Connect 1st pin of LDR sensor with Ao pin of Arduino.
2. Connect resistor(10k) with 1st pin of LDR sensor.
3. Then connect resistor's another end with GND pin of Arduino
4. Connect 2nd pin of LDR sensor with (+5V) of Arduino.
5. Connect LED's positive to 22 pin of Arduino and LED's negative with GND of Arduino.

**Project Link :** https://youtu.be/Cc8CTB25uyU