VERSION 1.0

LDR SENSOR

LDR SENSOR

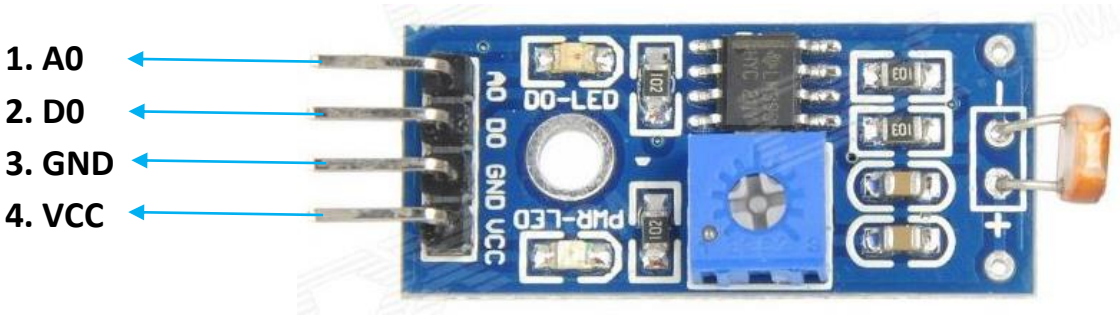
INTRODUCTION

Photoresistor or light-dependent resistor (LDR) or photocell is a light-controlled variable resistor. The resistance of a photoresistor decreases with increasing incident light intensity; in other words, it exhibits photoconductivity. A photoresistor can be applied in light-sensitive detector circuits, and light- and dark-activated switching circuits. A photoresistor is made of a high resistance semiconductor. In the dark, a photoresistor can have a resistance as high as several (MΩ), while in the light, a photoresistor can have a resistance as low as a few hundred ohms. If incident light on a photoresistor exceeds a certain frequency, photons absorbed by the semiconductor give bound electrons enough energy to jump into the conduction band.

The resulting free electrons conduct electricity, thereby lowering resistance. The resistance range and sensitivity of a photoresistor can substantially differ among dissimilar devices. Moreover, unique photoresistors may react substantially differently to photons within certain wavelength bands.

PIN CONFIGURATION

1. A0 : Analog OUT
2. D0 : Digital OUT.
3. GND : Ground.
4. VCC : Input voltage (2.5 – 5V).



FEATURES

- Sensitive Photo Resistor Sensor
- Comparator output provides clear signal, good wave form and great drive ability, over 15mA
- With adjustable potentiometer for adjusting brightness of testing light
- Working voltage: 3.3~5V
- Digital output (0 / 1) and analog output
- With fixed screw hole for easy installation
- Using wide voltage LM393 comparator

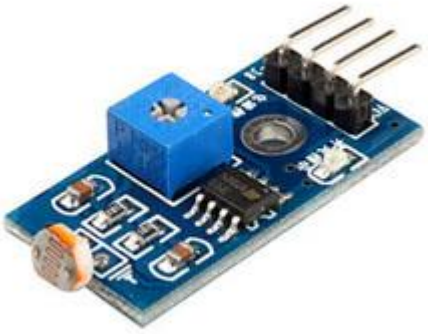
ADVANTAGES

- Since the output is of digital and analog pattern it's easy to use
- Small easy to interface
- Low cost

APPLICATIONS

- camera light meters
- street lights
- clock radios
- alarm devices
- night lights
- outdoor clocks
- solar street lamps

DEVICE IMAGE:



LDR SENSOR