

Light Dark Switch

This circuit is used to switch a LED on and off as the surrounding light decreases and increases.

In this circuit a LDR is used to determine the light intensity and then to switch a LED on or off. The 555 is set up as a Schmitt Trigger. The output of the 555 has two states (on and off) while the input is an analogue signal.

Happy building if you have any questions please contact us ☺

Tools required

1. Electronic Workstation
2. Flat screwdriver 2mm
3. Side cutter 125mm
4. Sharp nose pliers 130mm

Component identification

The following instructions will help you build a Light Dark Switch on to your Electronic Workstation. But you will only be able to follow these instructions if you can identify the electronic components used in these instructions.

I have created a electronic component document dedicated to the identification of electronic components. You can download this document from the foot section of our web site (www.electronics123.co.za)

Component preparation

Variable resistor: When viewed from the bottom the terminal's will look like this (I) now bend it all three terminals like this (/) bending the terminals at 45° will insure the terminal enter deep into the breadboard sockets.

Resistors: Cut the paper strip of the resistor this will ensure that no glue is left on the terminal the glue can cause the terminal not to conduct electricity!

LED: Cut the terminals of the LED to equal lengths you will still be able to find the cathode (-) by the flat side on the body of the led.

IC: The terminal of the IC is at a slight angel bend them to a 90° angel.

Components required

4cm Black connecting wire x2

4cm Blue connecting wire	x1
4cm Red connecting wire	x2
7cm Black connecting wire	x1
7cm Blue connecting wire	x1
15cm Red connecting wire	x1
15cm Black connecting wire	x1
1kΩ Resistor 1/4 Watt 5% (brown, black, red, gold)	DB056 x 2



