

Roll No _____ Date _____

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To become familiar with

- **LIGHT TRANSDUCERS (LDR)**

APPARATUS:

- Optoelectronic Trainer
- Constructor deck
- Power Supply
- Connecting Leads

THEORY:

Light dependant Resistor or photoconductive cells are transducers whose resistance varies with incident of light. The two most commonly used materials are cadmium sulphide (CDS) and cadmium selenide. The photoconductive cells use a special type of construction which minimizes the resistance while providing maximum surface. In dark the resistance of this device increases.

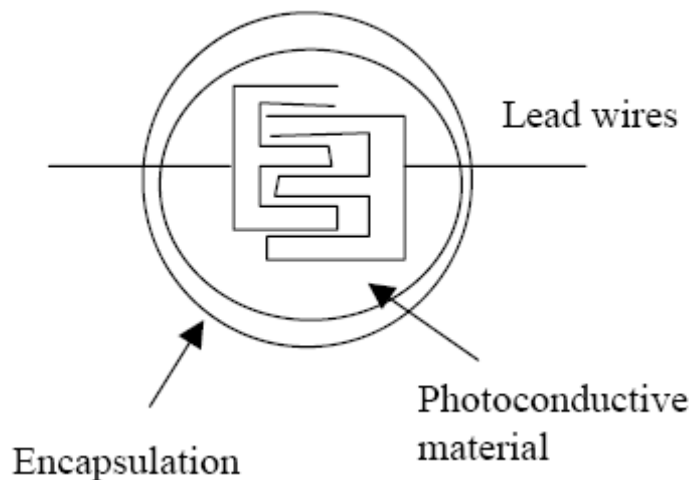


Fig1. Light dependant Resistor



Schematic symbol

PROCEDURE:

- Take a constructor deck and connect the LDR(ORP12) and connect it to the ohm meter as shown in fig 2.
- Check the resistance in light by closing the bulb to the LDR

- Check the reading in dark.
- Now connect the components as shown in following fig 3 and describe the purpose of the circuit in your own words.

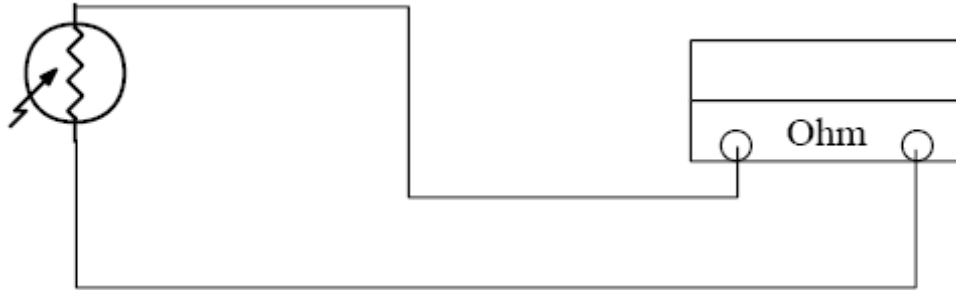


Fig2. LDR connected with ohmmeter

REVIEW QUESTION

Q # 01. Write the names of Light transducers

Q # 02. What is the reading in ohmmeter when light strikes to the surface of LDR

Q # 03. What is the reading in ohmmeter in dark

Q # 04. Design the following project on the bread board

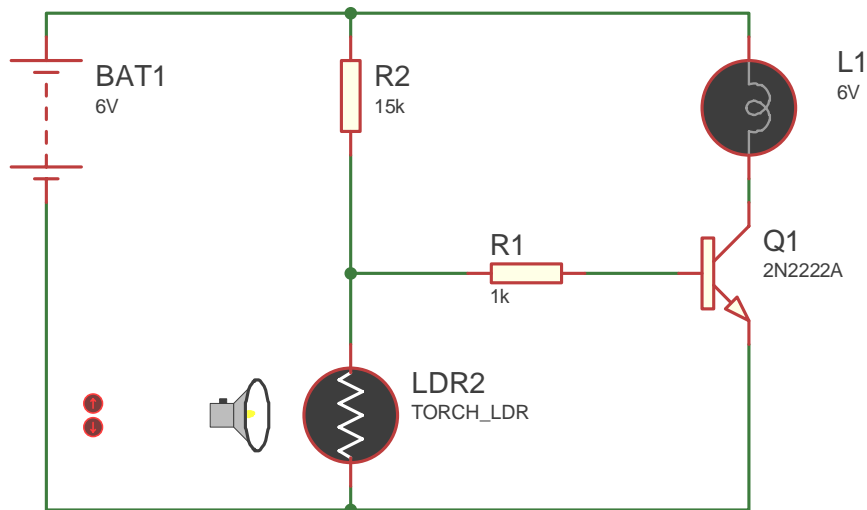


Fig.2 Dark activated switch