

## LDR (Light Dependent Resistor)

An LDR or photoresistor is a light-sensitive component whose resistance decreases with increasing light intensity.

### **Working Principle:**

Made from semiconductors, the LDR's resistance changes as light photons hit it, altering the current flowing in a circuit.

### **Types:**

- Cadmium Sulfide (CdS) LDRs
- Lead Sulfide (PbS) LDRs

### **Applications:**

- Light meters
- Automatic street lights
- Alarm systems
- Solar trackers

### **Advantages:**

- Simple and inexpensive
- Passive component (no power needed to operate)

### **Disadvantages:**

- Slow response time
- Affected by temperature

