

Title - Develop a smart light system

Problem statement - Develop a smart light system using open source hardware platform like arduino & some sensors.

Theory -

→ ~~Arduino~~ Arduino:-

- It is an open source electronic platform based on easy to use hardware & software.
- Arduino boards are able to read inputs. light on sensors, a finger on button, etc.

→ Components:-

1) LDR:-

- Light Dependent resistor
- It is a device whose resistivity is a function of the incident electromagnetic radiation.
- Hence, they are light sensitive device.

2) Arduino:-

- It is used to on/off the bulb/light.

3) 4.7k resistor.

4) Bread Board.

5) Connecting Wires

6) Bulb / LED

→ Connections:-

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- 1] Arduino 3rd Pin connected to LED/bulb
- 2] Arduino GND connected to LED -ve th^{4.7k}.
- 3] Arduino A0 pin is connected to LDR other end
- 4] Arduino GND is connected to LDR other end with 4.7k.

→ Advantages of Arduino

- 1] Ready to use
- 2] Effortless function
- 3] Large community
- 4] Examples of codes

→ Disadvantage of Arduino

- 1] structure is complex.
- 2] Cost is more.

→ Conclusion:-

In this way, I have implemented "smart Light System" using Arduino.