

## INTERFACING HW072 LDR SENSOR WITH ESP32 DEV BOARD

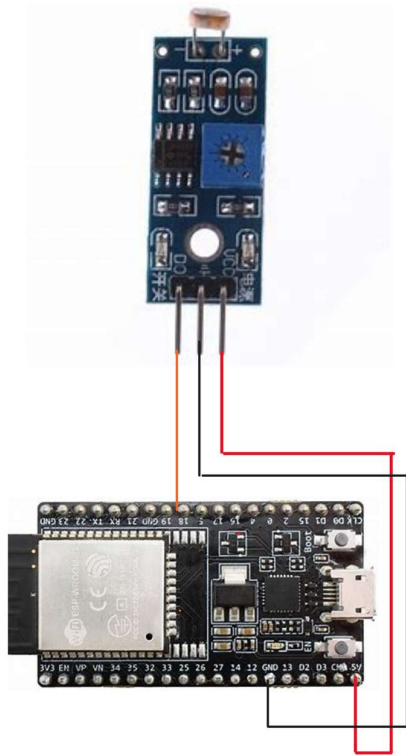
I have interfaced the digital HW-072 LDR Sensor with the ESP32 microcontroller. It detects light and gives output as '0' or '1'. If there is light, it returns 0 and when there is no light, it returns 1. Analog sensor will have range from 0 to 1024.

Read about HW-072 LDR Sensor here: [LDR \(Photoresistor\) Pinout, Working, Applications & Datasheet \(components101.com\)](https://components101.com/ldr-sensor/)

The datasheet and the code for interfacing the LDR is attached in the folder.

Now, coming to the hardware part, 3 pins are connected to the microcontroller:

1. The VCC pin and GND of the LDR is connected to the 5V pin and GND pin of ESP32.
2. The D0 pin of the LDR is connected to the GPIO 18 pin of ESP32.



**Fig 1:** Circuit Diagram

```
LDR Output: 0
Light
LDR Output: 0
Light
LDR Output: 0
Light
LDR Output: 1
Dark
LDR Output: 1
Dark
LDR Output: 1
Dark
LDR Output: 1
Dark
LDR Output: 1
Dark
LDR Output: 0
Light
LDR Output: 1
Dark
LDR Output: 0
Light
LDR Output: 0
Light
LDR Output: 0
Light
```

**Fig 2:** Serial Monitor Output

The programming is done in PlatformIO in VSCode and the output connections can be connected to your choice and operated based on the applications.