INTERFACING HC-SR501 PIR SENSOR WITH ESP32 DEV BOARD

I have interfaced the HC-SR501 PIR (Passive InfraRed) Sensor with the ESP32 DEV microcontroller. PIR Sensor is used for sensing motion in many of the automation applications.

Here are the links to read about PIR Sensor:

[PIR Sensor Working Principle | How PIR Sensor Works | Robu.in](#)

[HC-SR501 PIR Sensor Working, Pinout & Datasheet (components101.com)](#)

The datasheet for the PIR Sensor and the code for interfacing PIR Sensor are attached in the folder.

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

1. The VCC pin of the PIR Sensor is connected to the '3V3' pin (1st pin) of ESP32.
2. The GND pin of the PIR Sensor is connected to the GND pin (38th pin) of ESP32.
3. The O/P pin of the PIR Sensor is connected to the D2 pin (14th pin) of ESP32.
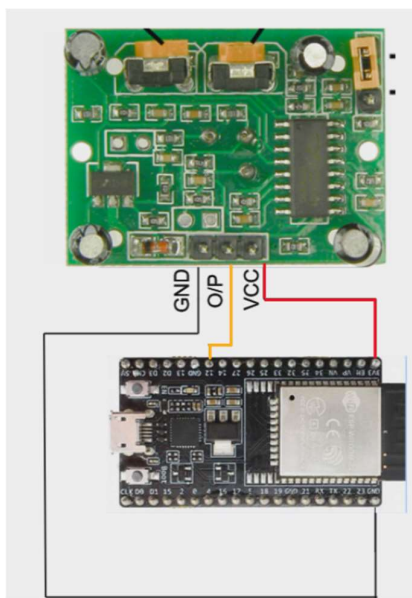

Fig 1: Circuit Diagram

Fig 2: Serial Monitor Output

In some conditions, the output may not be what is desired, in that case, we need to adjust sensitivity and time delay pins.