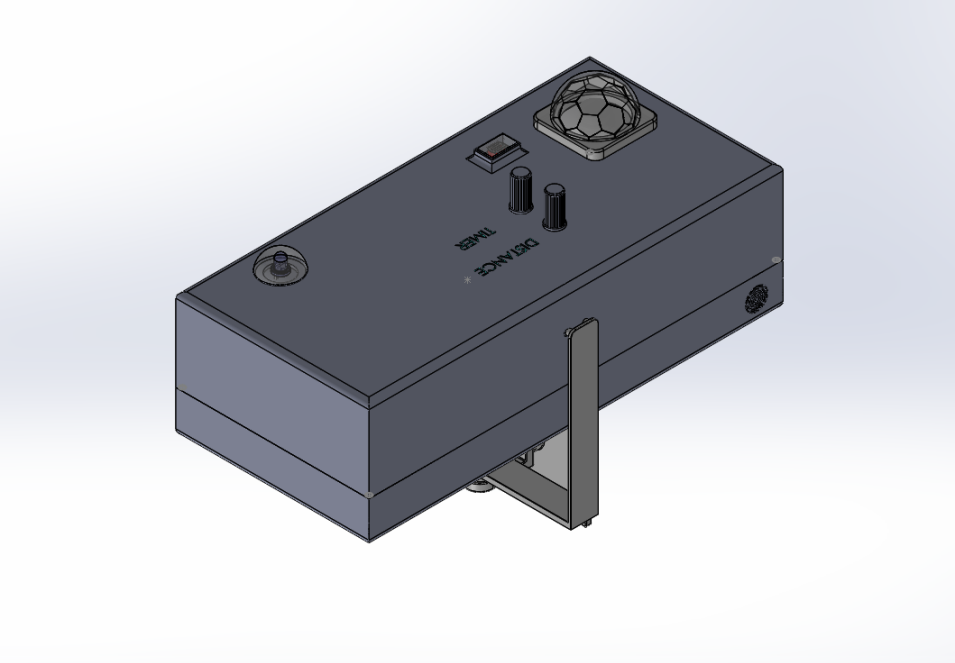
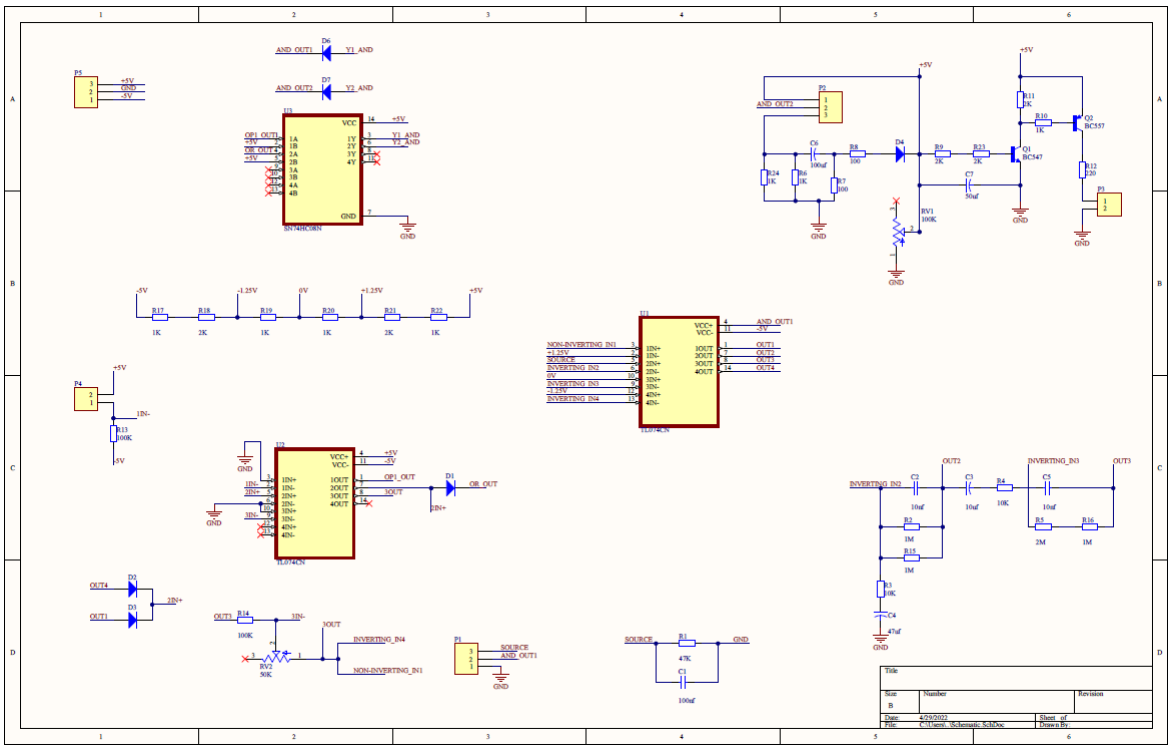
DATASHEET

PIR Sensor Module





The PIR sensor detects motion in its sensing range and gives a voltage signal as the output. In this project the PIR sensor was used to build a module which gives digital output in different modes, and it can be indicated using an LED or a buzzer as per user wish. Also, the sensitivity can be manually changed to change the sensing range of the sensor module. The module also detects the light intensity of the environment and designed to work only in the dark light conditions.

1. WORKING MODES

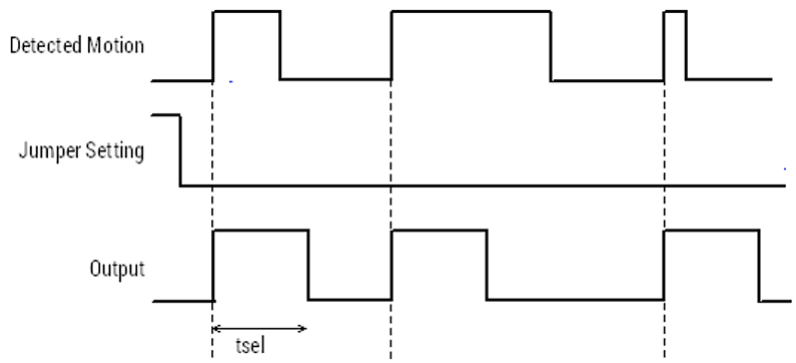
The module can work under two modes:

- Single Trigger mode
- Repeat Trigger mode

These modes can be changed using a switch.

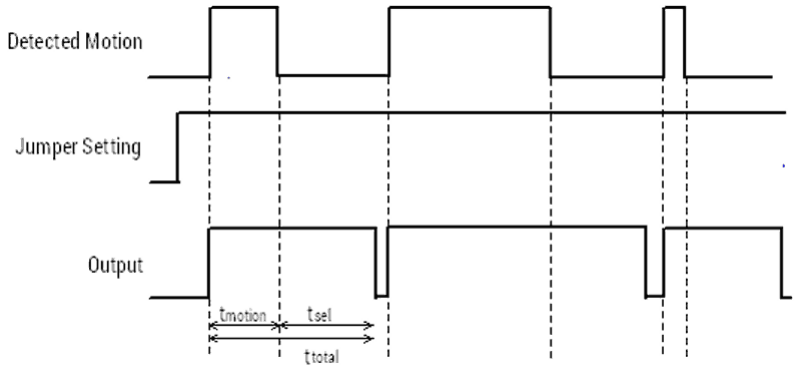
1.1 Single Trigger mode

In this mode the LED lights up when motion is detected. After a specific delay the LED goes off even if the object is in motion. The specific delay can be changed using a potentiometer.



1.2 Repeat Trigger mode

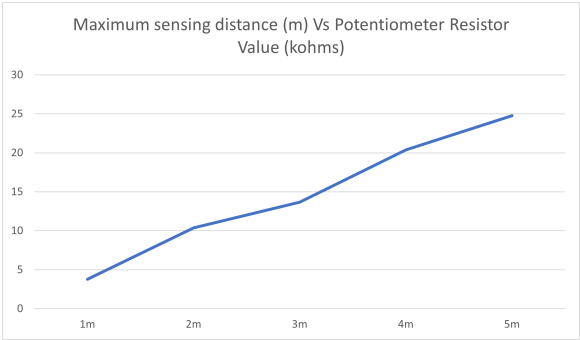
In this mode, the LED lights up when motion is detected. The LED is ON until the object is in motion. When an object stops motion, or disappears from the sensor area, the LED stays ON to some specific delay. The specific delay can be changed using a potentiometer.



2. SENSITIVITY CONTROL

The maximum sensing distance can be changed using a potentiometer. The recommended sensing distance is from 1 metre to 5 metres. Because as the distance increases the intensity of the receiving signal decreases resulting the accuracy of the module decreases. Anyhow the sensing angle cannot be changed. It is a fixed angle of 1350. The potentiometer resistance values corresponding to the maximum sensing distance is shown in the below table.

Maximum sensing distance (in metres)	Potentiometer resistance value (in kohms) (±0.7 k)
1	3.78
2	10.33
3	13.6
4	20.3
5	24.7



3. PRECAUTIONS

- Do not use in a high temperature area
- Keep the sensor and LDR facing the environment the module wants to detect
- Do not keep any bright lights in the sensing environment of the module. (The module might not work in bright lights)