
PRINCIPLES OF MEASUREMENTS AND SENSORS

Sensors project report

Intruder alert system using passive infrared sensor(PIR).

Abstract:

Intruder alarm is basically an electronic device that sounds an alarm when it detects an intruder in the home.

Here I made an intruder alarm using Arduino and PIR sensor. When the PIR sensor will detect an intruder, it will send a signal to Arduino and the Arduino will sound an alarm.

A passive infrared sensor is an electronic sensor that measures infrared light radiating from objects in its field of view. They are most often used in PIR-based motion detectors. PIR sensors are commonly used in security alarms and automatic lighting applications.

Compounds required:

(Hardware)

1. PIR.
2. Buzzer
3. 10k-ohm resistor
4. Breadboard
5. Connecting wires
6. Arduino
7. Power supply(optional)
8. LED
9. Arduino IDE (Software)

Working of Circuit:

At first, the state of the PIR sensor is set to LOW. it means that no motion is detected. When a motion will be detected by the PIR sensor, it will send a signal to the microcontroller. The microcontroller will then switch the buzzer and LED on. If no motion is detected, the LED and buzzer will remain in the off state.

Circuit Model:

