

IOT Lab - 5th Sem

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Program No : 06

Program Title : PIR Sensor

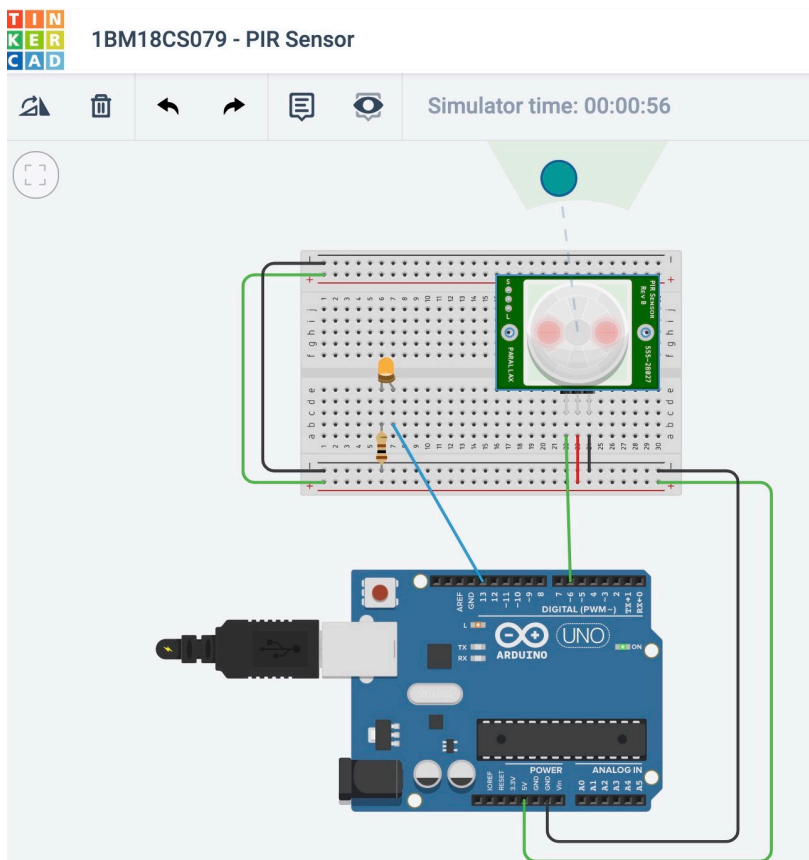
Aim :

To control the switching of an LED bulb upon motion using a PIR Sensor

Hardware Required :

- Arduino Uno Board
- Led Bulb
- Resistors - 100 ohm x2
- LDR Sensor
- Jump wires

Circuit Diagram :



Written Code :

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06 - PIR Sensor - IOT Log :

```
int led = 13;
int sensor = 6;
int state = LOW;
int val = 0;

void setup() {
    pinMode(led, OUTPUT);
    pinMode(sensor, INPUT);
    Serial.begin(9600);
}

void loop() {
    val = digitalRead(sensor);
    if (val == HIGH) {
        digitalWrite(led, HIGH);
        delay(10);
        if (state == LOW) {
            Serial.println("Motion detected!");
            state = HIGH;
        }
    }
    else {
        digitalWrite(led, LOW);
        delay(10);
    }
}
```

(A) → if (state == HIGH) {
Serial.println("Motion stopped");
state = LOW;

Observation / Output :

The LED bulb was switched on when motion was detected in front of PIR Sensor but switched off when the object was moved away from the range.