IOT LAB - 5th Sem

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Program No : 07
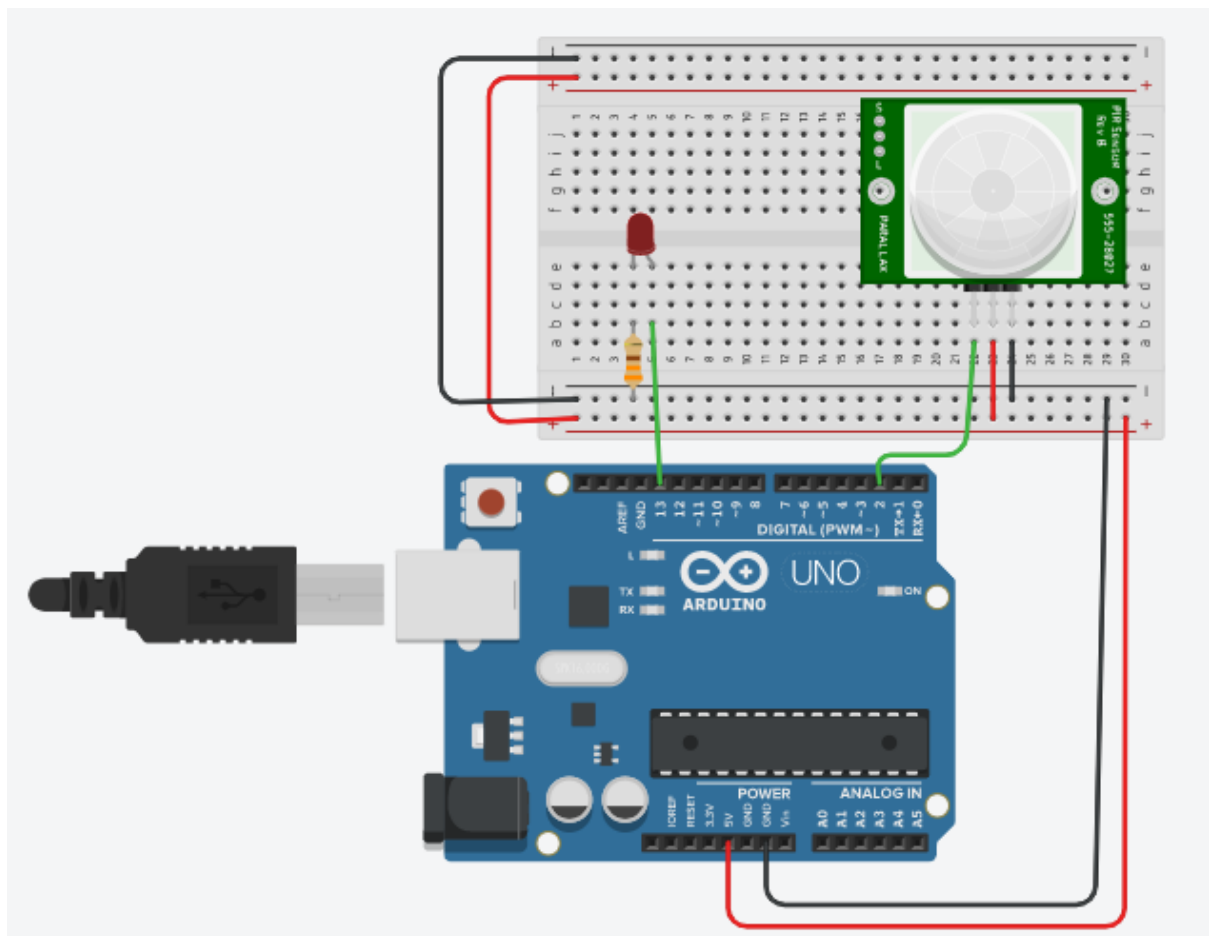
Program Title : Passive Infrared Sensor

Aim :

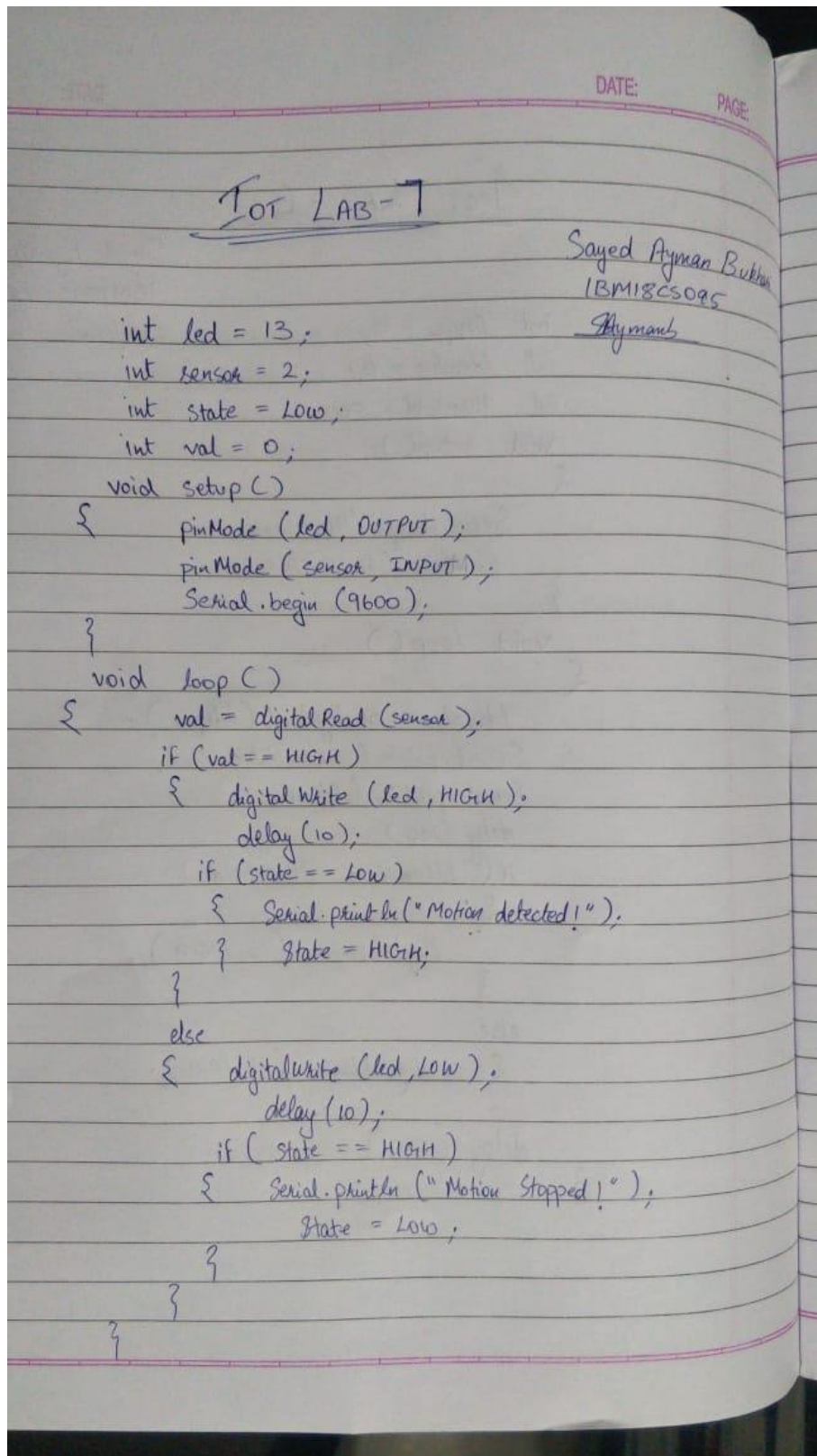To turn on a LED when motion is detected using an Arduino Uno board.

Hardware Required :

- Arduino Uno Board
- LED
- PIR
- 330 Ohm Resistor

Circuit Diagram :

Written Code :

```
IoT LAB-1
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int led = 13;
int sensor = 2;
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);
        if(state == HIGH)
        {   Serial.println("Motion Stopped!");
            state = LOW;
        }
    }
}
```

Observation /Output :

The LED is turned on when motion is detected.