

## Practical No.:02

"NAME:Aher Swami Sandip

ROLL NO.01

COURSE: AI&DS

CLASS: BE

SUB:Computer Laboratory-I (Machine Learning)"

**Title:** Write an Arduino program for interfacing with PIR sensor Experiment.

### #Code:

```
// Define pin numbers  
const int pirPin = 2;      // PIR sensor connected to digital pin 2  
const int ledPin = 13;     // LED connected to digital pin 13
```

```
void setup() {  
  
    // Initialize Serial communication  
    Serial.begin(9600);  
  
    // Set the PIR pin as input  
    pinMode(pirPin, INPUT);  
  
    // Set the LED pin as output  
    pinMode(ledPin, OUTPUT);  
  
    Serial.println("PIR Motion Sensor Test Initialized...");  
}
```

```
void loop() {  
  
    // Read the PIR sensor output  
    int motionDetected = digitalRead(pirPin);  
  
    if(motionDetected == HIGH) {  
        // Turn on the LED  
        digitalWrite(ledPin, HIGH);  
    }
```

```

// Send an alert message to the Serial Monitor
Serial.println("Motion detected! Alert triggered.");

} else {

    // Turn off the LED

    digitalWrite(ledPin, LOW);

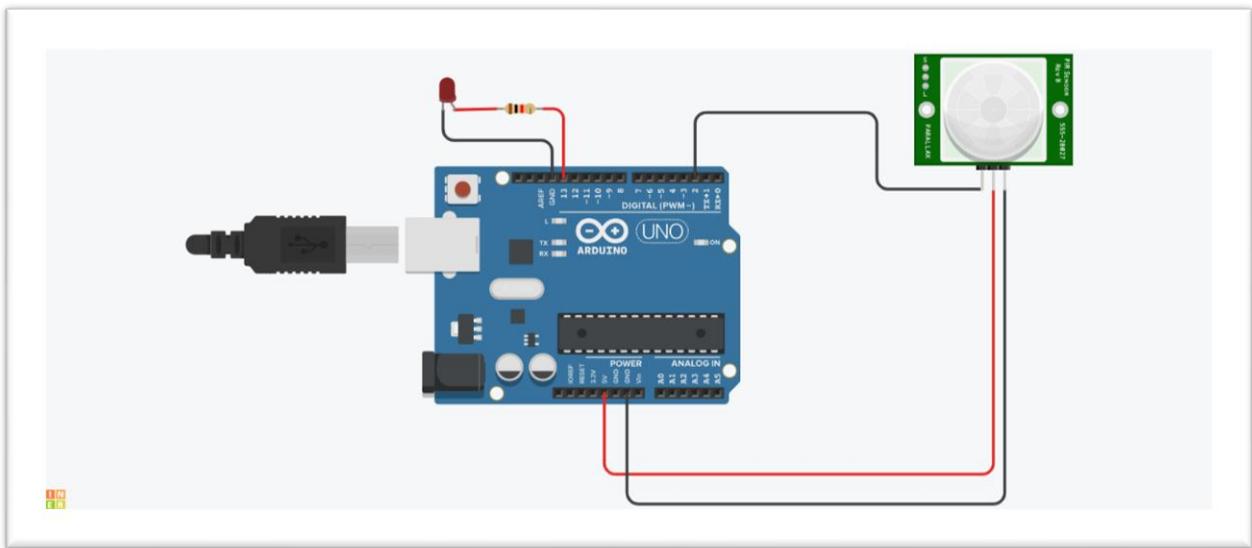
}

// Add a delay to avoid rapid toggling
delay(500);

}

```

### #Circuit Diagram:



### #Output:

PIR Motion Sensor Test Initialized...

Motion detected! Alert triggered.

Motion detected! Alert triggered.

Motion detected! Alert triggered.

Motion detected! Alert triggered.