

# ASSIGNMENT

## Assignment - 1

BATCH	B12-6A2E
TEAM ID	PNT2022TMID01722
TEAM MEMBERS	GOWTHAMRAJ - 7376191EC148 (Team Lead) KARTHICK RAJ BHARATHI - 7376191EC181 KARUNRAJ - 7376191EC184 KAVI RAAJ - 7376191EC185
PROJECT	Gas Leakage Monitoring & Alerting System for Industries

*Submitted By*

GOWTHAMRAJ D R P - 7376191EC148

## Code:

```
int led = 8;
int trig = 2;
int echo = 5;
int buzzer = 4;

void setup()
{
    Serial.begin(9600);
    pinMode(led,OUTPUT);
    pinMode(trig,OUTPUT);
    pinMode(echo,INPUT);
    pinMode(buzzer,OUTPUT);
    pinMode(7,INPUT);
}

void loop()
{
    double a = analogRead(A2);
    double v = a / 1024;
    double tvolt = v * 5;
    double o = tvolt - 0.5;
    double t = o * 100;
    Serial.print("Temperature in degree");
    Serial.println(t);
    if(t >= 50)
    {
        digitalWrite(led,HIGH);
    }
    else
    {
        digitalWrite(led,LOW);
    }
    delayMicroseconds(10);
    digitalWrite(trig,LOW);
    digitalWrite(trig,HIGH);
    float dur = pulseIn(echo,HIGH);
    float dist = (dur * 0.343)/2;
    Serial.print("Distance");
    Serial.println(dist);
    if(dist >= 17)
    {
        digitalWrite(buzzer,HIGH);
    }
    else
    {
        digitalWrite(buzzer,LOW);
    }
    int m=digitalRead(7);
    Serial.print("motion detected");
    Serial.println(m);
    if (m==1) {
        Serial.println("yes");
    }
    else {
        Serial.println("no");
    }
}
```

**Circuit:**

