

ASSIGNMENT 1

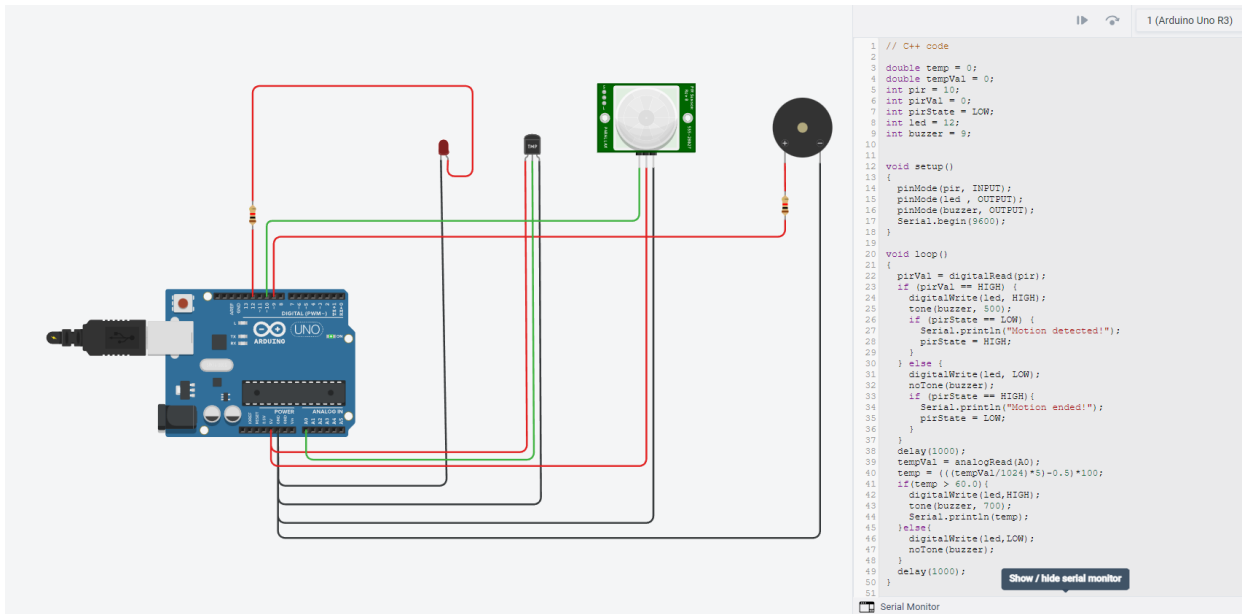
Team ID: PNT2022TMID52302

Project Name: Gas Leakage monitoring & Alerting system for Industries

Submitted by **Padmanabhan P (963519106025)**

QUESTION: *Build a smart home in Tinkercad with 2 sensors, an LED, buzzer and submit it.*

Solution:



Sensors used: PIR sensor, Temperature sensor

Code:

// C++ code

```
double temp = 0;
double tempVal = 0;
int pir = 10;
int pirVal = 0;
int pirState = LOW;
int led = 12;
int buzzer = 9;
```

```
void setup()
{
```

```

pinMode(pir, INPUT);
pinMode(led , OUTPUT);
pinMode(buzzer, OUTPUT);
Serial.begin(9600);
}

void loop()
{
  pirVal = digitalRead(pir);
  if (pirVal == HIGH) {
    digitalWrite(led, HIGH);
    tone(buzzer, 500);
    if (pirState == LOW) {
      Serial.println("Motion detected!");
      pirState = HIGH;
    }
  } else {
    digitalWrite(led, LOW);
    noTone(buzzer);
    if (pirState == HIGH){
      Serial.println("Motion ended!");
      pirState = LOW;
    }
  }
  delay(1000);
  tempVal = analogRead(A0);
  temp = (((tempVal/1024)*5)-0.5)*100;
  if(temp > 60.0){
    digitalWrite(led,HIGH);
    tone(buzzer, 700);
    Serial.println(temp);
  }else{
    digitalWrite(led,LOW);
    noTone(buzzer);
  }
  delay(1000);
}

```