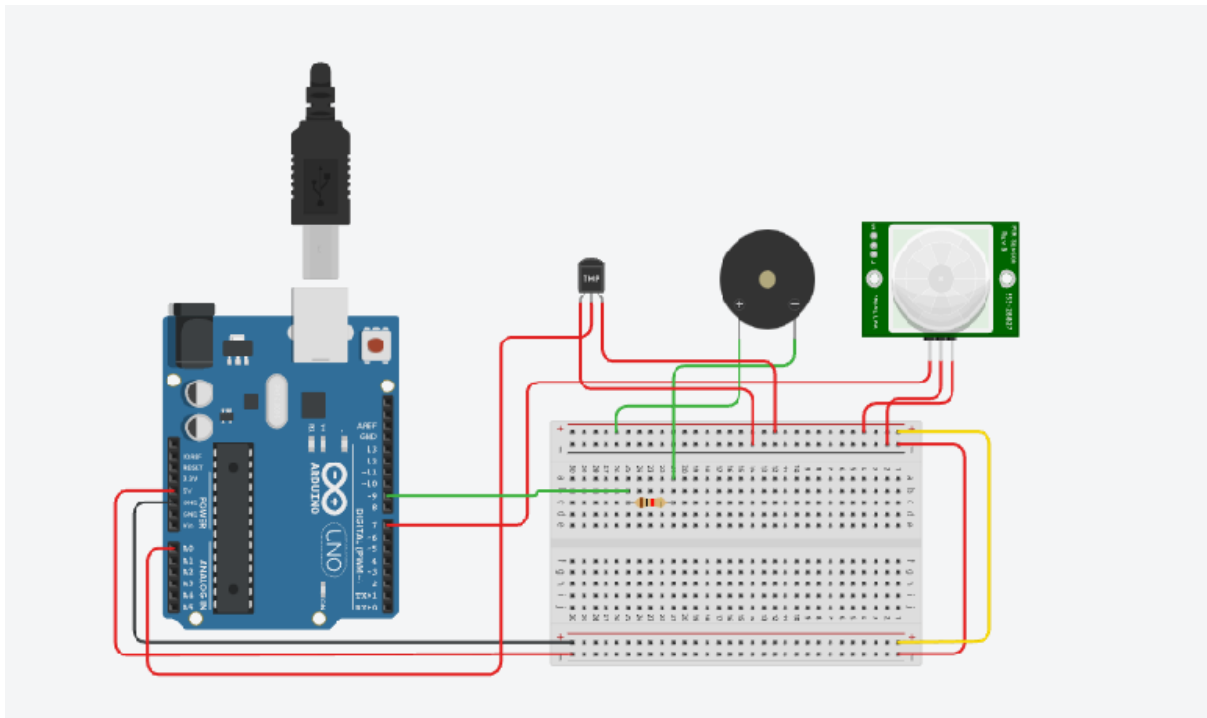


GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

ASSIGNMENT 1

Circuit Diagram:



Code:

```
const int buzzer = 9; //buzzer to arduino pin 9
int sensePin = A0; //This is the Arduino Pin that will read the sensor output
int sensorInput; //The variable we will use to store the sensor input
double temp; //The variable we will use to store temperature in degrees.
#define pirPin 7
int calibrationTime = 30;
long unsigned int lowIn;
long unsigned int pause = 5000;
boolean lockLow = true;
boolean takeLowTime;
```

```

int PIRValue = 0;

void setup(){
  Serial.begin(9600); //Start the Serial Port at 9600 baud (default)
  pinMode(pirPin, INPUT);
  pinMode(buzzer, OUTPUT); // Set buzzer - pin 9 as an output
}

void loop(){
  sensorInput = analogRead(A0); //read the analog sensor and store it
  temp = (double)sensorInput / 1024; //find percentage of input reading
  temp = temp * 5; //multiply by 5V to get voltage
  temp = temp-0.5 ; //Subtract the offset
  temp = temp * 100; //Convert to degrees
  if(temp > 60){
    tone(buzzer, 1000); // Send 1KHz sound signal...
    delay(1000); // ...for 1 sec
    noTone(buzzer); // Stop sound...
    delay(1000);} // ...for 1sec
  Serial.print("Current Temperature: ");
  Serial.println(temp);
  PIRSensor();
}

void PIRSensor() {
  if(digitalRead(pirPin) == HIGH) {
    Serial.print("Motion Detected");
    tone(buzzer, 2000); // Send 1KHz sound signal...
    delay(1000); // ...for 1 sec
    noTone(buzzer); // Stop sound...
    delay(1000);} // ...for 1sec
  }
}

```

Output:

