ASSIGNMENT 1

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PROJECT TITLE: Gas leakage monitoring and alarting system

SOURCE CODE :

```
//LDR sensor.....

int sensorReading = 0;

//LDR sensor.....

//Ultrasonic sensor..... int inches = 0;
int cm = 0;
int triggerPin =
13;int echoPin =
12; int defult = 0;
long readUltrasonicDistance(int triggerPin,int echoPin)
{
   pinMode(triggerPin, OUTPUT);
```

```
   digitalWrite(triggerPin, LOW);
   delayMicroseconds(2);
   digitalWrite(triggerPin, HIGH);
   delayMicroseconds(10);
   digitalWrite(triggerPin, LOW);
   pinMode(echoPin, INPUT);
   return pulseIn(echoPin,
   HIGH);
}
//Ultrasonic sensor

//Gas sensor int adcPin = 0;
int adcValue =
0;float v;
float rs,ppm;



int buttonState =
0;void setup() {

   //LDR sensor pinMode(8,  OUTPUT); pinMode(A0, INPUT);

         Serial.begin(9600);
   //LDR sensor

   //Ultrasonic sensor pinMode(2, OUTPUT);
      cm = 0.01723*readUltrasonicDistance(triggerPin, echoPin);

      defult = cm;
         Serial.print(defult)
         ;
```

```
   //Ultrasonic sensor----------
   //PIR sensor---------- pinMode(3, INPUT);
            pinMode(9, OUTPUT);
   //PIR sensor----------


   //Motor----------


            pinMode(5,
            OUTPUT);pinMode(4,
            INPUT);


   //Motor---------- pinMode(7, OUTPUT); pinMode(A1, INPUT);
}

void loop() {//##############################################################################
  //LDR sensor---------- sensorReading = analogRead(A0);

       if(sensorReading <
          900){digitalWrite(8,
          HIGH);
       }else{
          digitalWrite(8, LOW);
       }
   //LDR sensor----------


   //Ultrasonic sensor----------

       cm = 0.01723*readUltrasonicDistance(triggerPin, echoPin)


       ;if(cm < defult){
```

```
          digitalWrite(2,HIGH);
          delay(50);
        digitalWrite(2,LOW);
   }else{
         digitalWrite(2,LOW);

   }
//Ultrasonic sensor----------

//PIR sensor---------- int value = digitalRead(3);
        if (value == 1)
        {
        tone(9, 440, 1000);
   }
//PIR sensor----------

//Motor---------- buttonState = digitalRead(4);
   if(buttonState ==
        1){
        digitalWrite(5,0)
        ;
   }
   else{
      digitalWrite(5,HIGH);
   }
//Motor----------

//Gas sensor----------
  int sensor_gas = analogRead(A1);
```

```
    if(sensor_gas >= 400){
            digitalWrite(7,HIGH);
    }
    else{
       digitalWrite(7,LOW);
    }


    //-----------------------------------------------


    delay(1000);
}
```