Assignment 1

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CODE:

```
int sensorValue = 0;
int greenled = 6;
int redled = 8;
int buzzer_pin = 11;
int sen1Value = 0;
int A;

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);
}
void setup()
{
   Serial.begin (9600);
  pinMode(11, OUTPUT);
  pinMode(6, OUTPUT);
  pinMode(8, OUTPUT);
```

```
  pinMode(4, INPUT);
  pinMode(12, OUTPUT);
  pinMode(13, OUTPUT);
  pinMode(A1, INPUT);
}

void loop()
{
  //-----Gas Sensor-----//
//-----------------------------------
  int sensorValue = analogRead(A0);
  Serial.println(sensorValue);

  if(sensorValue > 100)
  {
    digitalWrite (buzzer_pin, HIGH);
    digitalWrite (redled, HIGH);
  }
  else
  {
    digitalWrite (buzzer_pin, LOW);
    digitalWrite (redled, LOW);
  }
  delay(1000);

//-------------------------------------------   //---------UltrasonicDistance----------//
//-----------------------------------------
  sen1Value = 0.01723*readUltrasonicDistance(3,2);

  if(sen1Value<10)
  {
```

```
   Serial.print(" ||Door Open! ; Distance = ");
   Serial.print(sen1Value);
   digitalWrite (buzzer_pin, HIGH);
   digitalWrite (greenled, HIGH);
  }
  else
  {
   Serial.print(" ||Door Closed! ; Distance = ");
   Serial.print(sen1Value);
   digitalWrite (buzzer_pin, LOW);
   digitalWrite (greenled, LOW);
  }
  delay(1000);

//--------------------------------------------------
  //-------------PIR sensor-----------------// //--------------------------------------------------
  if (digitalRead(4)==1)
  {
   digitalWrite(12,HIGH);
   delay(1000);
  }
  else
  {
   digitalWrite(12,LOW);
   delay(100);
  }
}
```