

# ASSIGNMENT -1

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SMART HOME :

Created a circuit with 2-Piezo alarm, 2-Ultrasonic sensor, and LED light.

PROGRAM :

```
int ledPin1 = 3;
int ledPin2 = 4;
int trigPin1 = 6;
int echoPin1 = 7;
int trigPin2 = 8;
int echoPin2 = 9;

void setup() {
  Serial.begin (9600);
  pinMode(trigPin1, OUTPUT);
  pinMode(echoPin1, INPUT);
  pinMode(trigPin2, OUTPUT);
  pinMode(echoPin2, INPUT);
  pinMode(ledPin1, OUTPUT);
  pinMode(ledPin2, OUTPUT);
}

void firstsensor(){
  int duration1, distance1;
  digitalWrite (trigPin1, HIGH);
  delayMicroseconds (10);
  digitalWrite (trigPin1, LOW);
  duration1 = pulseIn (echoPin1, HIGH);
```

```
distance1 = (duration1/2) / 29.1;
Serial.print("1st Sensor: ");
Serial.print(distance1);
    Serial.print("cm ");
if (distance1 < 60)
{
digitalWrite (ledPin1, HIGH);
}
    else
    {
digitalWrite (ledPin1, LOW);
}
}

void secondsensor()
{
int duration2, distance2;
digitalWrite (trigPin2, HIGH);
delayMicroseconds (10);
digitalWrite (trigPin2, LOW);
duration2 = pulseIn (echoPin2, HIGH);
distance2 = (duration2/2) / 29.1;
Serial.print("2nd Sensor: ");
Serial.print(distance2);
Serial.print("cm ");
if (distance2 < 20)
{
digitalWrite (ledPin2, HIGH);
}
    else
```

```

{
digitalWrite (ledPin2, LOW);
}
}

void loop() {
Serial.println("\n");
  firstsensor();
  secondsensor();
  delay(100);
}

```

CIRCUIT DIAGRAM :

