

### Assignment - 1

```
int sensor=4, trig=2, echo=2, light=8, buzz=12;
```

```
int dist = 0;
```

```
long objectDistance(int a, int b)
```

```
{
```

```
    pinMode(a, OUTPUT); // Clear the trigger
```

```
    digitalWrite(a, LOW);
```

```
    delayMicroseconds(2);
```

```
    digitalWrite(a, HIGH);
```

```
    delayMicroseconds(10);
```

```
    digitalWrite(a, LOW);
```

```
    pinMode(b, INPUT);
```

```
    return pulseIn(b, HIGH);
```

```
}
```

```
void setup()
```

```
{
```

```
    Serial.begin(9600);
```

```
    pinMode(sensor, INPUT);
```

```
    pinMode(light, OUTPUT);
```

```
    pinMode(buzz, OUTPUT);
```

```
    digitalWrite(light, LOW);
```

```
}
```

```
void loop()
```

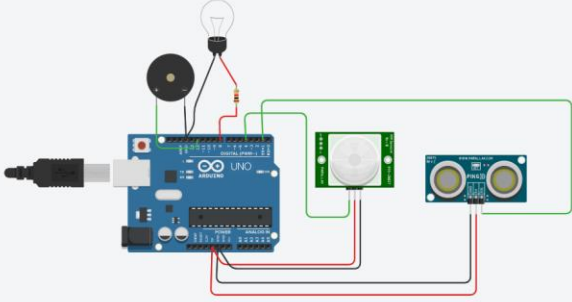
```
{
```

```
    //readUltrasonicDistance(7, 7)
```

```
    dist = 0.01723 * objectDistance(trig, echo);
```

```
Serial.print("Distance is ");  
Serial.print(dist);  
Serial.println("cm");  
if(dist>50 && dist<100)  
{  
    tone(buzz, 50);  
    delay(2000);  
    noTone(buzz);  
    //delay(1000);  
    if(digitalRead(sensor))  
    {  
        digitalWrite(light, HIGH);  
        delay(2000);  
    }  
}  
}
```

Surprising Hango-Snicket



```
14 return pulseIn(b, HIGH);
15 }
16
17
18 void setup()
19 {
20   Serial.begin(9600);
21   pinMode(sensor, INPUT);
22   pinMode(light, OUTPUT);
23   pinMode(buzz, OUTPUT);
24   digitalWrite(light, LOW);
25 }
26
27 void loop()
28 {
29   //readUltrasonicDistance(7, 7)
30   dist = 0.01723 * objectDistance(trig, echo);
31   Serial.print("Distance is ");
32   Serial.print(dist);
33   Serial.println("cm");
34   if(dist>50 && dist<100)
35   {
36     tone(buzz, 50);
37     delay(2000);
38     noTone(buzz);
39     //delay(1000);
40     if(digitalRead(sensor))
41     {
42       digitalWrite(light, HIGH);
43       delay(2000);
44     }
45   }
46 }
47
```

Serial Monitor

35°C Mostly sunny 12:00 19-09-2022