

Assignment -1

Assignment Date	22 September 2022
Student Name	Mr.Jenith Ebinesh
Student Roll Number	711119106014
Maximum Marks	2 Marks

Question-1:

Make a Smarthome in TinkerCad,using 2+ Sensors,LED,Buzzer in Single Code and Circuit.

ASSIGNMENT-1

```
// C++ code
```

```
//
```

```
int t=2;
```

```
int e=3;
```

```
void setup()
```

```
{
```

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

```
  pinMode(t,OUTPUT);
```

```
  pinMode(e,INPUT);
```

```
  pinMode(12,OUTPUT);
```

```
}
```

```
void loop()
```

```
{
```

```
  //Ultrasonic sensor
```

```
  digitalWrite(t,LOW);
```

```
  digitalWrite(t,HIGH);
```

```
  delayMicroseconds(10);
```

```
  digitalWrite(t,LOW);
```

```
  float dur=pulseIn(e,HIGH);
```

```
float dis=(dur*0.0343)/2;
Serial.print("Distance is: ");
Serial.println(dis);
```

```
//LED ON
if(dis>=100)
{
    digitalWrite(8,HIGH);
    digitalWrite(7,HIGH);
}
```

```
//Buzzer For ultrasonic Sensor
if(dis>=100)
{
    for(int i=0; i<=30000; i=i+10)
    {
        tone(12,i);
        delay(1000);
        noTone(12);
        delay(1000);
    }
}
```

```
//Temperate Sensor
double a= analogRead(A0);
double t=((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(t);
delay(1000);
//LED ON
if(t>=100)
{
```

```
digitalWrite(8,HIGH);  
digitalWrite(7,HIGH);  
}  
  
//Buzzer for Temperature Sensor  
if(t>=100)  
{  
for(int i=0; i<=30000; i=i+10)  
{  
tone(12,i);  
delay(1000);  
noTone(12);  
delay(1000);  
}  
}  
//LED OFF  
if(t<100)  
{  
digitalWrite(8,LOW);  
digitalWrite(7,LOW);  
}  
}
```

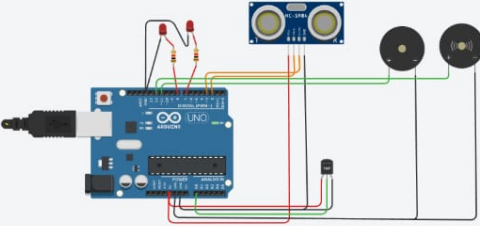
Amazing Jaagub

All changes saved

Simulator time: 00:00:06

Code Stop Simulation Send To

1 (Arduino Uno R3)



```
1 // C++ code
2 //
3 int t=2;
4 int e=3;
5
6 void setup()
7 {
8   Serial.begin(9600);
9   pinMode(t,OUTPUT);
10  pinMode(e,INPUT);
11  pinMode(12,OUTPUT);
12 }
13
14 void loop()
15 {
16   //Ultrasonic sensor
17   digitalWrite(t,LOW);
18   digitalWrite(t,HIGH);
19   delayMicroseconds(10);
20   digitalWrite(t,LOW);
21   float dur=pulseIn(e,HIGH);
22   float dis=(dur*0.0343)/2;
23   Serial.print("Distance is: ");
24   Serial.println(dis);
25
26   //LED ON
27   if(dis>=100)
28   {
29     digitalWrite(8,HIGH);
30     digitalWrite(7,HIGH);
31   }
32
33   //Buzzer For ultrasonic Sensor
34   if(dis>=100)
35   {
36     for(int i=0; i<=30000; i=i+10)
37     {
38       tone(12,i);
39     }
40   }
```

Serial Monitor