

ASSIGNMENT-1

SMART HOME USING THINKERCARD

Date	02 OCTOBER 2022
Team ID	PNT2022TMID47521
Project Name	IOT based smart crop protection system for agriculture
Student name	S.Muthunanthini
Roll number	910419104012

CODING:

```
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);  
    }  
}  
}
```

Output:

