

**Assignment - 01**  
**PYTHON PROGRAMMING**  
**MAHENDRA INSTITUTE OF TECHNOLOGY**

Team ID	PNT2022TMID17351
Project Name	IoT Base Smart Crop Protection System For Agriculture
Maximum Marks	2 Marks

**PROGRAM**

```
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);
    }
  }
}
```

