

ASSIGNMENT-3

NAME	L.BOOVANANTHAN
ASSIGNMENT NAME	Build wowki product, use ultrasonic sensor and detect the distance from the object. Whenever distance is less than 100cms

LINK: <https://wokwi.com/projects/364357587341072385>

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sketch.ino diagram.json Library Manager

```
1 int t_p=5;
2 int e_p=18;
3 float ss=0.034;
4 long durn;
5 float dist_cm;
6
7 void setup() {
8
9     Serial.begin(115200);
10    pinMode(t_p, OUTPUT);
11    pinMode(e_p, INPUT);
12
13 }
14
15 void loop()
16 {
17     digitalWrite(t_p,LOW);
18     delayMicroseconds(2);
19     digitalWrite(t_p,HIGH);
20     delayMicroseconds(10);
21     digitalWrite(t_p,LOW);
22     durn=pulseIn(e_p,HIGH);
23     dist_cm=durn*ss/2;
24     Serial.print("distance= ");
25     Serial.println(dist_cm);
26     delay(1000);
27 }
```

Simulation

ESP32

HC-SR04

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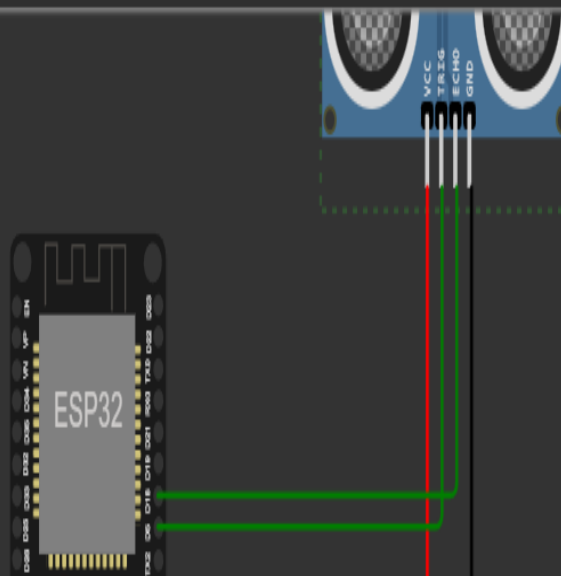
Simulation

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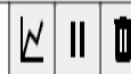
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Editing Ultrasonic Distance Sensor

Distance:  88cm

```
distance= 87.98
distance= 87.98
distance= 87.98
distance= 87.98
distance= 87.98
distance= 87.98
distance= 87.98
distance= 87.98
```



PROGRAM:

```
int t_p=5; int
```

```
e_p=18; float
```

```
ss=0.034; long
```

```
durn; float
```

```
dist_cm;
```

```
void setup() {
```

```
    Serial.begin(115200);
```

```
    pinMode(t_p, OUTPUT);
```

```
    pinMode(e_p, INPUT);
```

```
}
```

```
void loop()
```

```
{
```

```
    digitalWrite(t_p,LOW);
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    delayMicroseconds(2);
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```
durn=pulseIn(e_p,HIGH);
```

```
dist_cm=durn*ss/2;
```

```
Serial.print("distance= ");
```

```
Serial.println(dist_cm);
```

```
delay(1000);
```

```
}
```

```
;
```