

ASSIGNMENT-4

```
const int trigpin =5;
const int echopin=18;
#define sound_speed 0.034
long duration;
float distance;
void setup() {
    Serial.begin(115200);
    pinMode(trigpin,OUTPUT);
    pinMode (echopin,INPUT);
}
void loop() {
    digitalWrite(trigpin,LOW);
    digitalWrite(trigpin,HIGH);
    delayMicroseconds(10);
    digitalWrite(trigpin,LOW);
    duration =pulseIn(echopin,HIGH);
    distance= duration*sound_speed/2;
    Serial.println("distance"+String (distance) +"cm");
    if(distance<100)
    {
        Serial.println("alert");
    }
    else
        Serial.println("no object near");
}
```

W sketch.ino - Wokwi Arduino and x (no subject) - nivedaj04@gmail.c x +

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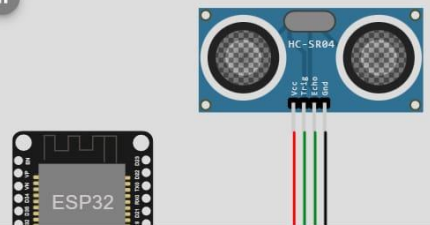
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sketch.ino diagram.json Library Manager

```
1 const int trigpin =5;
2 const int echopin=18;
3
4 #define sound_speed 0.034 // cm/us
5
6 long duration;
7 float distance;
8
9 void setup() {
10 // put your setup code here, to run once:
11 Serial.begin(115200);
12 pinMode(trigpin,OUTPUT);
13 pinMode (echopin,INPUT);
14 }
15
16 void loop() {
17
18 digitalWrite(trigpin,LOW);
19 //delayMicroseconds(10);
20 digitalWrite(trigpin,HIGH);
21 delayMicroseconds(10);
22 digitalWrite(trigpin,LOW);
23
24 duration =pulseIn(echopin,HIGH);
25 distance= duration*sound_speed/2;
26 Serial.println("distance"+String (distance) +"cm");
```

Simulation

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ESP32

HC-SR04

alert
distance82.98cm
alert
distance82.98cm
alert
distance82.98cm
alert

sketch.zip Show all x

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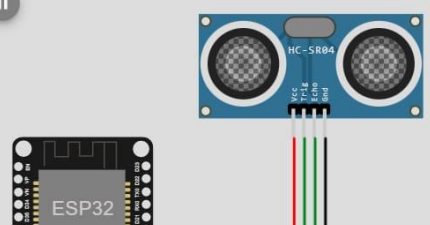
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23
24 duration =pulseIn(echopin,HIGH);
25 distance= duration*sound_speed/2;
26 Serial.println("distance"+String (distance) +"cm");
```

Simulation

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ESP32

HC-SR04

no object near
distance139.99cm
no object near
distance139.94cm
no object near
distance139.82cm
no object near

sketch.zip Show all x