

ASSIGNMENT-IV

```
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");
}
```

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wokwi.com/projects/346668841702523475

New Tab LED Display Board... BRAVO Application... application form IBM Human Assistant R... gadget for child saf... IBM Watson IoT Pla... Node-RED: node-r... wokwi

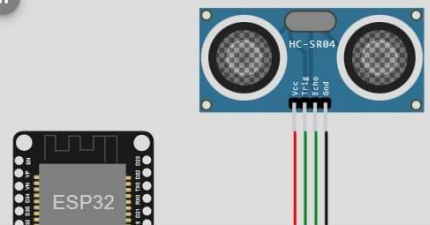
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sketch.ino diagram.json Library Manager

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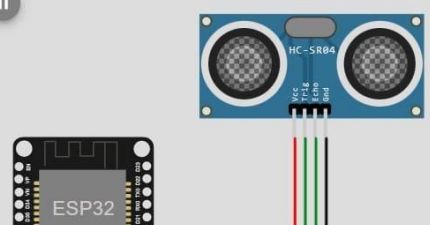
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22 digitalWrite(trigpin,LOW);
23
24 duration =pulseIn(echopin,HIGH);
25 distance= duration*sound_speed/2;
26 Serial.println("distance"+String (distance) +"cm");
```

Simulation

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ESP32

HC-SR04

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

sketch.zip Show all X