

#### ASSIGNMENT-4

Assignment Date	26 October 2022
Student Name	Sajina S
Student Roll no	19BEC045
Maximum Marks	
Team ID	PNT2022TMID14876

#### Wokwi code:

```
//Define pins for ultrasonic sensor
#define trig 7
#define echo 6
void setup() {
    // put your setup code here, to run once:
    Serial.begin(9600); //set the baud rate of serial communication to 9600
    pinMode(trig, OUTPUT); //trig will have output pulses
    pinMode(echo, INPUT); //echo will input pulses
}
void loop() {
    // Duration will be the input pulse and distance will be
    // the distance to the obstacle in centimetres
    int duration, distance;
    digitalWrite(trig, HIGH);
    delay(1); //Output pulse with 1ms width on trig
    digitalWrite(trig, LOW);
    //Measure the pulse input in echo pin
    duration=pulseIn(echo, HIGH); //blocks the program to await
    // for the echo to go HIGH
    //Distance is half the duration multiplied by 0.342 cm/us
    distance=(duration*0.0343/2);
    //waiting 60 ms
    delay (60);
    Serial.print("Distance :");
    Serial.print (distance);
```

```
Serial.println("cm");
```

```
}
```

## CODE IMAGES:

WOKWI

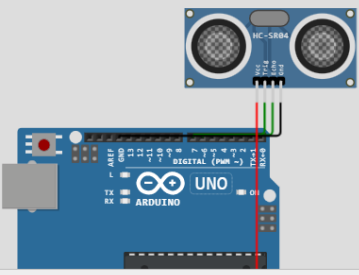
SAVE SHARE

Docs

wokwiultrasonic.ino diagram.json Library Manager

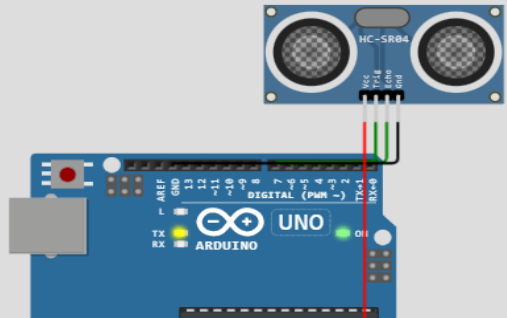
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10 void loop() {
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12     // the distance to the obstacle in centimetres
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21     distance=(duration*0.0343/2);
22     //waiting 60 ms
23     delay(60);
24     Serial.print("Distance :");
25     Serial.print (distance);
26     Serial.println("cm");
27 }
28 }
```

Simulation



Distance :399cm  
Distance :399cm  
Distance :399cm  
Distance :399cm  
Distance :399cm  
Distance :399cm  
Distance :399cm

Simulation



Distance :15cm  
Distance :15cm  
Distance :15cm  
Distance :15cm  
Distance :15cm  
Distance :15cm  
Distance :15cm

LINK:

<https://wokwi.com/projects/347054264215929428>

