

ASSIGNMENT -4

QUESTION:

WRITE A CODE AND CONNECTIONS IN WOKWI FOR ULTRASONIC SENSOR.WHENEVER DISTANCE IS LESS THAN 100 CMS SEND ALERT TO IBM CLOUD AND DISPLAY IN DEVICE EVENTS.

ANSWER :

WOKWI :

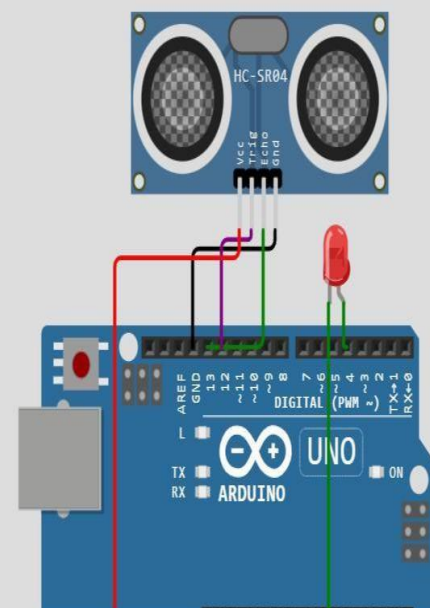
WOKWI

SAVE SHARE

hc-sr04-Ultrasonic-Simulation.ino diagram.json Ultrasonic.h Ultrasonic.cpp Library Manager

```
1 #include "Ultrasonic.h"
2 Ultrasonic ultrasonic(12, 13);
3 int distance;
4
5 void setup() {
6   Serial.begin(9600);
7   pinMode(6, OUTPUT);
8 }
9
10 void loop() {
11   distance = ultrasonic.read(CM);
12   Serial.print("Distance in CM: ");
13   Serial.println(distance);
14   if(distance<=100)
15   {
16     Serial.println("alert!!!!");
17     digitalWrite(4, HIGH);
18   }
19
20
21   delay(1000);
22 }
```

Simulation



Distance in CM: 50
alert!!!!
Distance in CM: 50
alert!!!!
Distance in CM: 50
alert!!!!

IBM CLOUD

Browse

Action

Device Types

Interfaces

Add Device

Device ID

Status

Device Type

Class ID

Date Added

Descriptive Location

>

123

Disconnected

hp1501

Device

Oct 11, 2022 10:32 PM

▼

1234

Disconnected

assign4hp

Device

Oct 26, 2022 8:12 PM

→ ...

Identity

Device Information

Recent Events

State

Logs

The recent events listed show the live stream of data that is coming and going from this device.

| Event | Value | Format | Last Received |
|-----------|-----------------|--------|-------------------|
| event_1hp | {"distance":30} | json | a few seconds ago |
| event_1hp | {"distance":28} | json | a few seconds ago |
| event_1hp | {"distance":48} | json | a few seconds ago |
| event_1hp | {"distance":76} | json | a few seconds ago |
| event_1hp | {"distance":59} | json | a few seconds ago |

1 Simulation running

ultrasonic

❤

+ Add New Card

📄 Paste Card

⚙ Settings

Line chart

| Time | Distance |
|----------|----------|
| 21:42:30 | 45 |
| 21:43:00 | 60 |
| 21:43:30 | 45 |
| 21:44:00 | 50 |
| 21:44:30 | 85 |
| 21:45:00 | 35 |
| 21:45:30 | 70 |
| 21:46:00 | 40 |

5 minutes

now

● distance

1 Simulation running