

ASSIGNMENT 4

Date	2 Nov 22
Team ID	PNT2022TMID23556
Project Name	Smart waste management system for metropolitan cities

Write code and connections in wokwi for ultrasonic sensor.

Whenever distance is less than 100 cms send "alert" to ibm cloud and display in device recent events.

Upload document with wokwi share link and images of ibm cloud **CODE:**

```
#include <WiFi.h>
#include <PubSubClient.h> i iCliert

#define      "nhpwjc"
#define      "NodeMCU"
#define      :vl      "USE YOUR ID"
#define      HE      "USE YOUR TOKEN"
#define      >cf-, 0.034
char      verLI

".messaging.internetofthings.ibmcloud.com"      char 1bLLsh op.c.[
"iot-2/evt/Data/fmt/json"      char      "iot-
2/cmd/home/fmt/String"      char      ,rod ]      "use-tokenauth"
char
char Lie.n.Id ]      "d:      :VICE: r      :;
      c.lit      vt=,., 1883, wi iClit      void Jb •• c,h;:)dtd(,;

const int rispin 5;
const int 'lapin 18;
String
String 1+
long

float ic;t.

void
setup

Serial begin 115200
pinMode      OUTPUT
```

```

pinMode    hopir    INPUT    wifi..C on nee t, , ,
    );
void loop    ◀    publisrDat    (),

delay 500J;

if    !cl iN    loop    ) { mqtt tConnec.t(, , •

void
    Serial print "Connecting to"    Serial print    "Wifi"
        begin "Wokwi-GUEST"    6    while    ) !
            delay 500,,
        Serial print"."
    Serial print "WiFi connected, IP address: "    Serial println    WiFi.localIP());

void    t tC.unnu t',    if

        Serial print "Reconnecting MQTT client to"    Serial println
            Serial print    while
            delay 500,,
        } rn..tMdndged'leviu,(    Serial println
    } }

void    itManagPdDt'Vice' 1    if

    //    Serial. println(client. subscribe(topic));    Serial println "subscribe    to    cmd
    OK"
    else
        Serial println "subscribe to cmd FAILED"    }    void

digitalWrite    'ig,>i    LOW    digitalWrite    'igp    HIGH

```

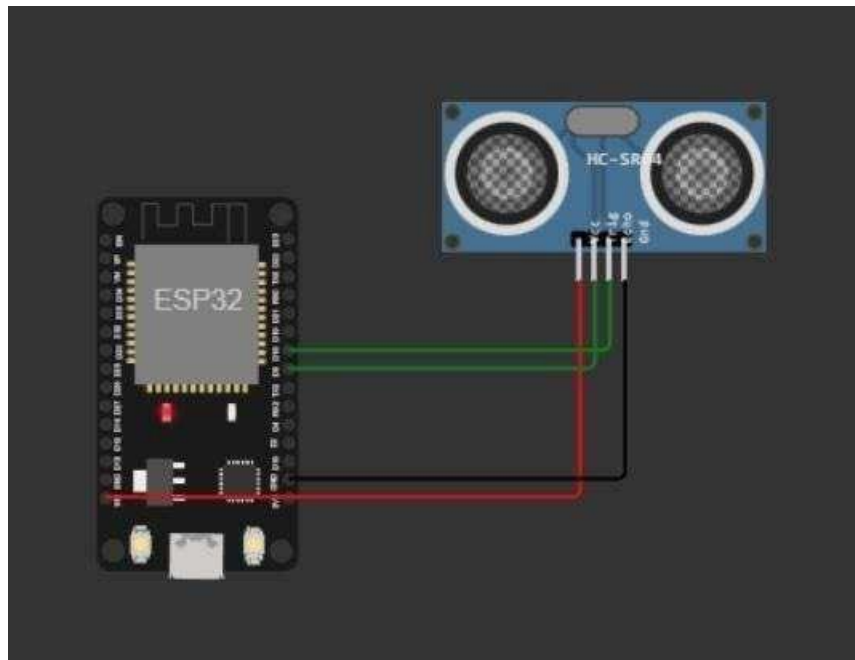
```

delayMicroseconds 10
digitalWrite      LOW
    pulsein      HIGH
        2 if      100
String ylot.c..{"Alert distance\":"
        ||}||

Serial print "\n"
Serial print "Sending payload: "  Serial println 1yl >dd
if char - r
    Serial println "Publish OK"
else
    Serial println "Publish FAILED"

```

CONNECTIONS:



OUTPUT:

