## **ASSIGNMENT - 4**

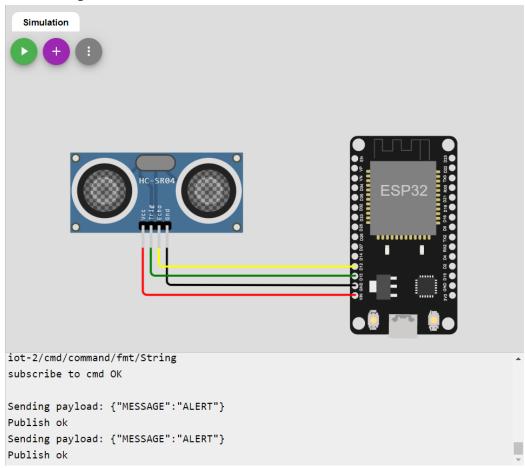
Date	28 OCTOBER 2022	
Student Name	MD KHALID SAIFULLAH	
Student Roll Number	917719D027	
Maximum Marks	2 marks	

## Question:

Write code and connections in wokwi for the ultrasonic sensor. Whenever the distance is less than 100 cms send an "alert" to the IBM cloud and display in the device recent events.

**Link:** <u>https://wokwi.com/projects/346782026684170836</u>

## **Circuit Diagram:**



```
₩OKWÎ 🕞 SAVE 🗸 🥕 SHARE
                                                                                                                                                                                    Docs
 sketch.ino • diagram.json
                              libraries.txt
                                          Library Manager 🔻
                                                                                                      Simulation
           digitalWrite(TrigPIN, HIGH);
                                                                                                     + (1)
          delayMicroseconds(10);
digitalWrite(TrigPIN, LOW);
          pulse_Width = pulseIn(EchoPIN,HIGH);
   58
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           distance= pulse_Width *0.034 / 2;
           if(distance<100)</pre>
            PublishData();
          delay(1000);
if (!client.loop()) {
            mqttconnect();
         /*.....retrieving to Cloud......
                                                                                                  iot-2/cmd/command/fmt/String
                                                                                                   subscribe to cmd OK
        void PublishData() {
   mqttconnect();//function call for connecting to ibm
                                                                                                   Sending payload: {"MESSAGE":"ALERT"}
   79
80
81
           | creating the String in in form JSon to update the data to ibm cloud
                                                                                                   Publish ok
                                                                                                   Sending payload: {"MESSAGE":"ALERT"}
   82
          String payload = "{\"MESSAGE\":\"ALERT\"}";
                                                                                                   Publish ok
                                                                                                                                                                                        <u>⊬</u> II 🗖
          Serial.nrint("Sending navload: "):
   85
```

## **OUTPUT**:

