

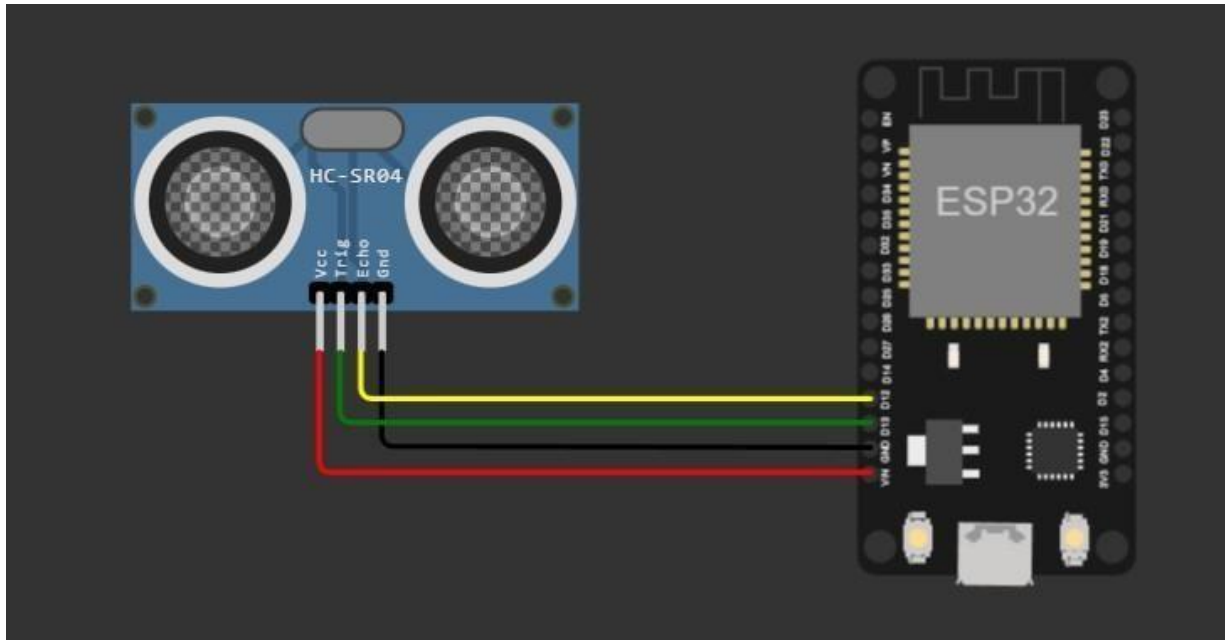
## ASSIGNMENT - 4

### **Objective:**

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.

### **Circuit Diagram:**

**Link:** <https://wokwi.com/projects/346775166279221842>



## OUTPUT:

```

75 String payload = "{\"Distance\": ";
76 payload+=d;
77 payload+=",";
78 payload+=\"MESSAGE\": \"SAFE\"";
79 payload+=\"}\";
80 payload+=\"\\n\";
81 payload+=\"\\n\";
82 payload+=\"\\n\";
83
84 Serial.print(\"Sending payload: \");
85 Serial.println(payload);
86
87
88
89 if (client.publish(publishTopic, (char*) payload.c_str())) {
90     Serial.println(\"Publish ok\"); // If it successfully upload data on the cloud then it will
91 } else {
92     Serial.println(\"Publish failed\");
93 }
94
95 }
96
97
98 void mqttconnect() {
99     if (!client.connected()) {
100         Serial.print(\"Reconnecting client to \");
101         Serial.println(server);
102         while (!client.connect(clientId, authMethod, token)) {
103             Serial.print(\".\");
104             delay(500);
105         }
106     }
107     initHumandDevice();

```

Simulation

00:16.186 94%

Editing Ultrasonic Distance Sensor

Distance: 134.96 135cm

Publish ok

Sending payload: {\"Distance\":134.96,\"MESSAGE\":\"SAFE\"}

Publish ok

Sending payload: {\"Distance\":134.96,\"MESSAGE\":\"SAFE\"}

Publish ok

Sending payload: {\"Distance\":134.98,\"MESSAGE\":\"SAFE\"}

Publish ok

