

Assignment -4

Question-1:

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

Solution:

```
#define ECHO_PIN 2

#define TRIG_PIN 3

#define organization ="e03g10"

#define deviceType=" Arduino"

#define deviceId ="2502"

#define authMethod ="use-token-auth"

#define authToken ="12345678"

Void setup() {
Serial.begin(9600);

pinMode(TRIG_PIN,OUTPUT);

pinMode(ECHO_PIN, INPUT);
}

float      readDistanceCM()      {
    digitalWrite(TRIG_PIN,LOW);
    delayMicroseconds(2);
    digitalWrite(TRIG_PIN,HIGH);
    delayMicroseconds(10);
    digitalWrite(TRIG_PIN,LOW);

    int duration = pulseIn(ECHO_PIN, HIGH);

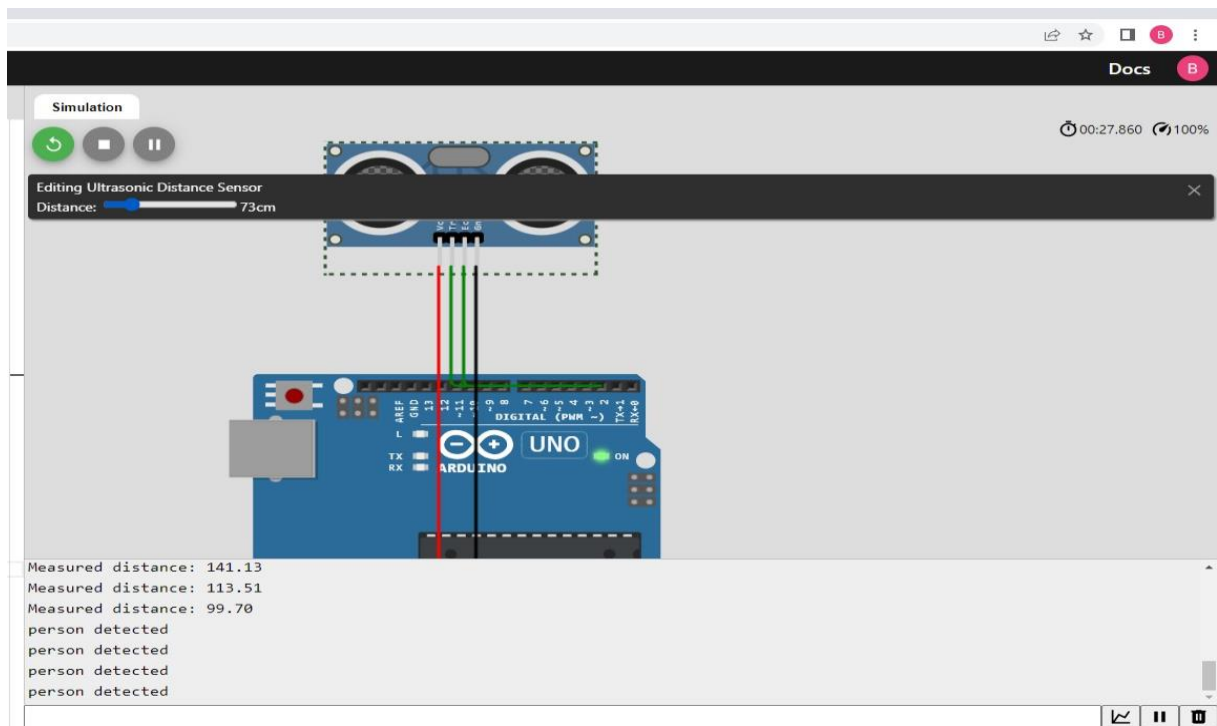
    return duration * 0.034 / 2;
}

void loop() {
```

```

float distance = readDistanceCM();
if(distance<=100)
{
    Serial.println("person detected ");
}
else{
    Serial.print("Measured distance: ");
    Serial.println(readDistanceCM());
}
delay(1000);
}

```



REFERRED FROM OUR PRACTICAL MANUAL..(SIT)

