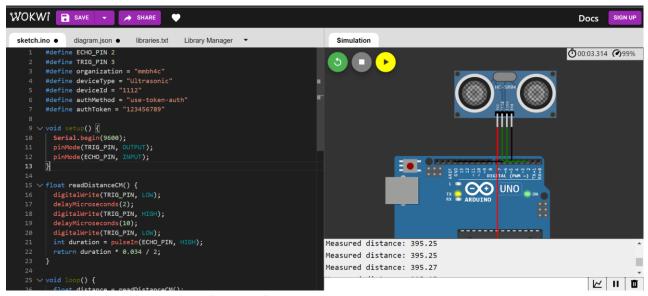
## **Assignment -4**

Student's Name	S.Aruna
Assignment Date	01 November 2022
Team ID	PNT2022TMID18159
Project Name	Project – SMART SOLUTIONS FOR RAILWAYS
Maximum Marks	2 Marks

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 = "mmbh4c"
#define deviceType = "Ultrasonic"
#define deviceId = "1112"
#define authMethod = "use-token-auth"
#define authToken = "123456789"
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(100);
```



Wokwi Link: https://wokwi.com/projects/345395196387656275

### **OUTPUT:**

```
Measured distance: 395.25
Measured distance: 395.35
Measured distance: 395.25
Measured distance: 395.27
Measured distance: 395.25
Measured distance: 395.25
Measured distance: 395.25
* easured distance: 395.27
Measured distance: 395.25
Measured distance: 395.25
Measured distance: 395.25
Measured distance: 395.27
Measured distance: 395.25
Measured distance: 395.27
Measured distance: 395.25
Measured distance: 395.
```

# **IBM Cloud**

# **Device Recent Events**

