

ASSIGNMENT -4

Assignment Date	26 October 2022
Team ID	PNT2022TMID18137
Project Name	IOT Based Safety Gadget forChild SafetyMonitoring & Notification
Maximum Marks	2 Marks

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 = "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);
}

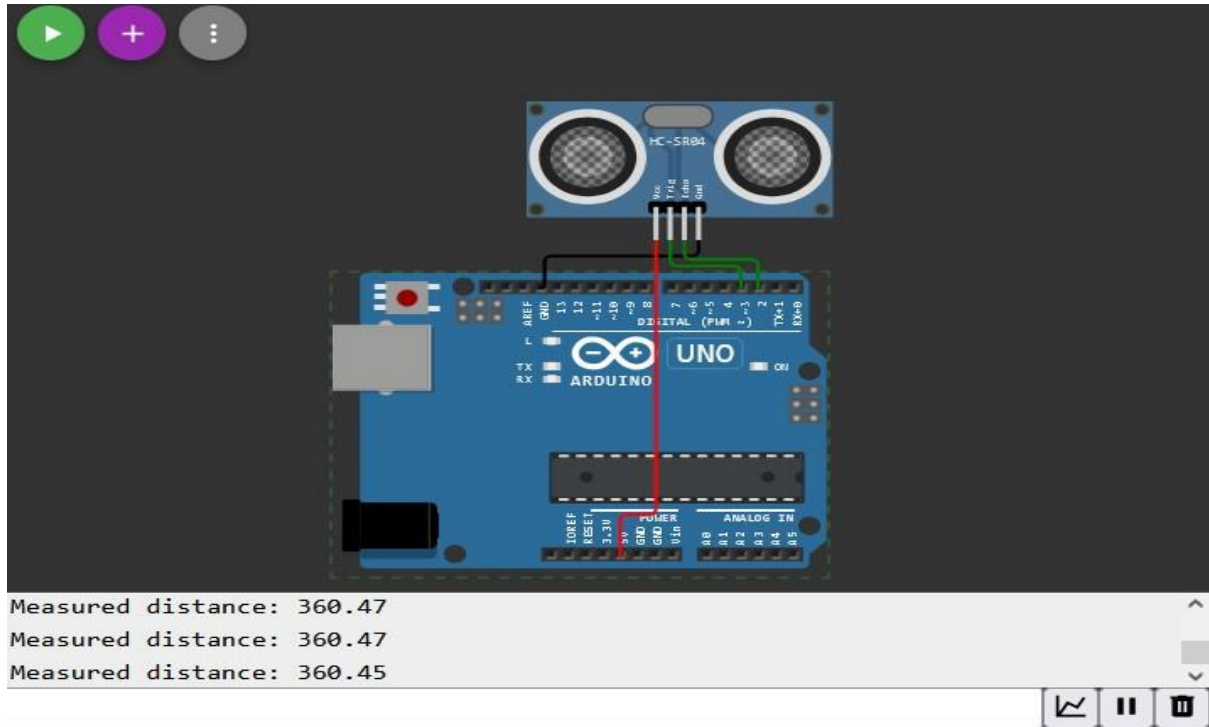
float readDistanceCM() {
  digitalWrite(TRIG_PIN, LOW);
  delayMicroseconds(2);
  digitalWrite(TRIG_PIN, HIGH);
  delayMicroseconds(10);
  digitalWrite(TRIG_PIN, LOW);
  int duration = pulseIn(ECHO_PIN, HIGH);
  return duration * 0.034 / 2;
}

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/346593406770741842>

IBM Cloud

Device Recent Events

Identity	Device Information	Recent Events	State	Logs
event_1	["status": "Person Detected"]	json	a few seconds ago	
event_1	["status": "Person Detected"]	json	a few seconds ago	
event_1	["status": "Person Detected"]	json	a few seconds ago	
event_1	["status": "Person Detected"]	json	a few seconds ago	

1 Simulation running