ASSIGNMENT-4

SUBMITTED BY

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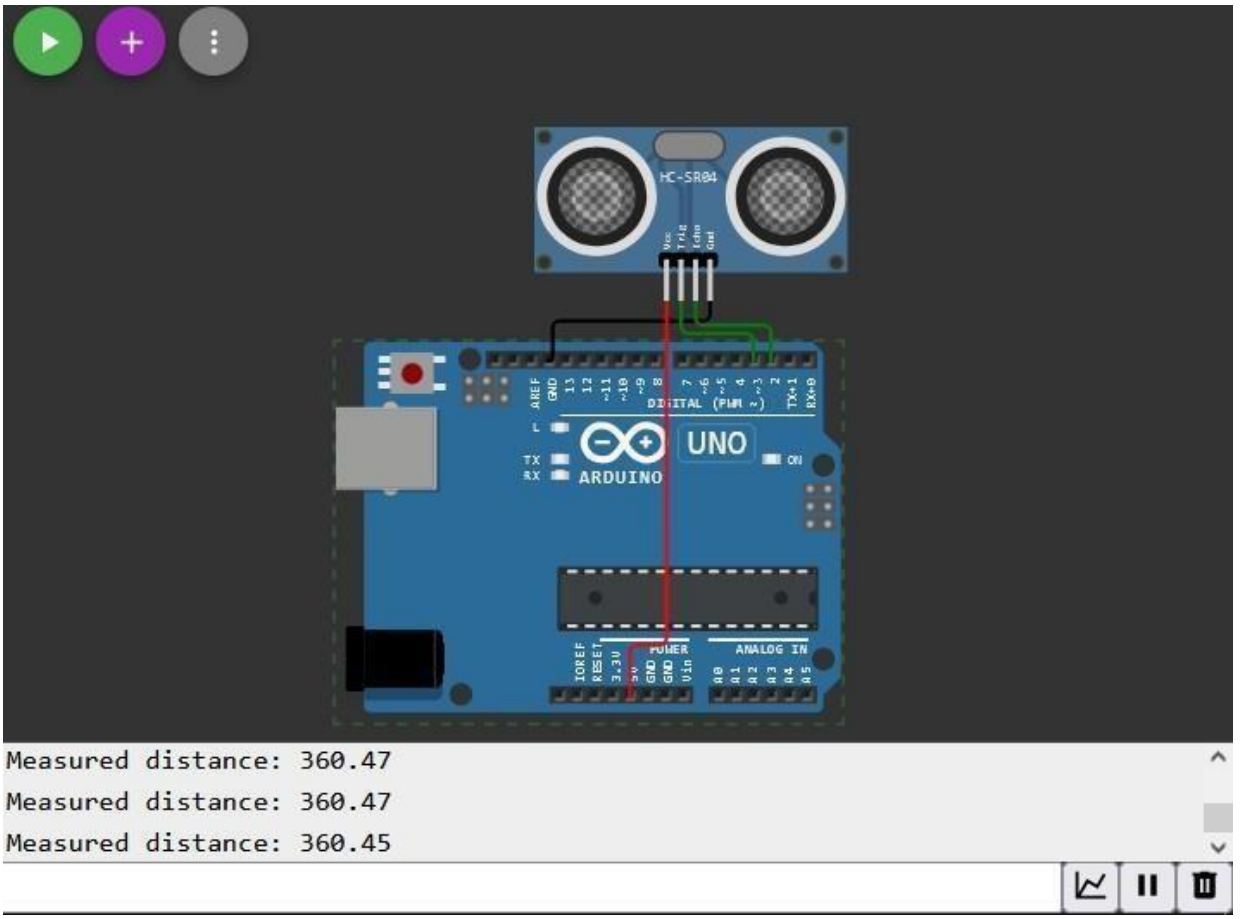
Assignment Date	**26 October 2022**
Team ID	**PNT2022TMID04760**
Project Name	**Industry-specific intelligent fire management system**
Maximum Marks	**2 Marks**

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);
}
```



IBM Cloud

Device Recent Events