

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 = “fkxdqs”

#define deviceType = “Arduino”

#define deviceId = “1200”

#define authMethod = “use-token-auth”

#define authToken = “00000000”

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{
```

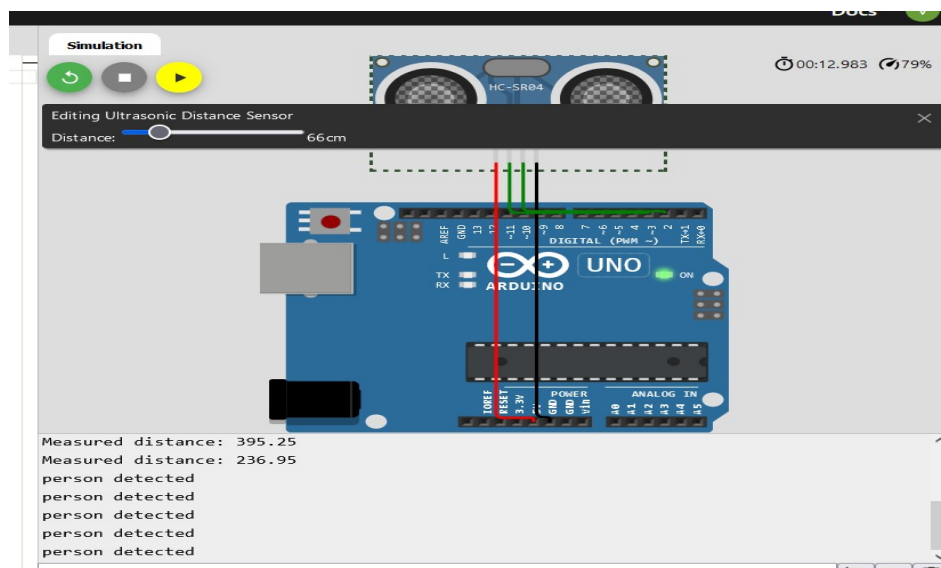
```
        Serial.print("Measured distance: ");
```

```
        Serial.println(readDistanceCM());
```

```
    }
```

```
    delay(1000);
```

```
}
```





IBM Cloud



Device Recent Events

[Browse](#) [Action](#) [Device Types](#) [Interfaces](#)

Add Device

Context: To get started, you can add devices by using the Add Device button, or by using APIs.

Search by Device ID Device Simulator ☐  

<input type="checkbox"/>	Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By	
<input checked="" type="checkbox"/>	1200	 Disconnected	Arduino	Device	Oct 26, 2022 1:10 PM		820419205065@smartinternz.com	 ...
<div>Identity Device Information Recent Events State Logs ✕</div> <div> <div>Device ID</div> <div>Device Type</div> <div>Date Added</div> <div>Added By</div> <div>Connection Status</div> <div>1200</div> <div>Arduino</div> <div>Oct 26, 2022 1:10 PM</div> <div>820419205065@smartinternz.com</div> <div>Disconnected</div> </div>								

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Device Simulator

Search by Device ID

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By
1200	Disconnected	Arduino	Device	Oct 26, 2022 1:10 PM		820419205065@smartinternz.com

Identity | **Device Information** | **Recent Events** | **State** | **Logs**

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
event_1	"PersonDetected"	json	a few seconds ago
event_1	"PersonDetected"	json	a few seconds ago
event_1	"PersonDetected"	json	a few seconds ago
event_1	"PersonDetected"	json	a few seconds ago
event_1	"PersonDetected"	json	a few seconds ago

1 Simulation running