

ASSIGNMENT -4

Team ID	PNT2022TMID19466
Marks	4
Project Title	Smart Farmer - IoT Enabled Smart Farming Application

Code:

```
#include "Ultrasonic.h" Ultrasonic
ultrasonic(12, 13); int distance;

void setup() {
    Serial.begin(9600);
}

void loop() {
    distance = ultrasonic.read(CM);
    Serial.print("Distance in CM: ");
    Serial.println(distance);
    if (distance < 100)
        Serial.print("alert");
    Serial.println();
    delay(1000);
}
```

Output:

The image shows the Wokwi IDE interface with a C++ sketch for an ultrasonic sensor simulation. The sketch is as follows:

```
1 #include "Ultrasonic.h"
2 Ultrasonic ultrasonic(12, 13);
3 int distance;
4
5 void setup() {
6   Serial.begin(9600);
7 }
8
9 void loop() {
10   // Pass INC as a parameter to get the distance in inches
11
12   distance = ultrasonic.read(CM);
13
14   Serial.print("Distance in CM: ");
15   Serial.println(distance);
16   if (distance < 100)
17     Serial.print("alert");
18   Serial.println();
19   delay(1000);
20 }
21
```

The simulation window shows a virtual Arduino Uno board with an ultrasonic sensor module connected. The serial monitor displays the following output:

```
Distance in CM: 30
alert
Distance in CM: 113
Distance in CM: 113
Distance in CM: 113
```