

# ASSIGNMENT 4

WEB LINK: <https://wokwi.com/projects/346030672123527763>

PROJECT :

The screenshot displays the Wokwi online IDE interface. On the left, the 'sketch.ino' file is open, showing the following code:

```
1 #define PIN_TRIG 3
2 #define PIN_ECHO 2
3 #define PIN_2 8
4
5 void setup() {
6   Serial.begin(115200);
7   pinMode(PIN_TRIG, OUTPUT);
8   pinMode(PIN_ECHO, INPUT);
9   pinMode(PIN_2, OUTPUT);
10 }
11
12 void loop() {
13   // Start a new measurement:
14   digitalWrite(PIN_TRIG, HIGH);
15   delayMicroseconds(10);
16   digitalWrite(PIN_TRIG, LOW);
17
18   // Read the result:
19   int duration = pulseIn(PIN_ECHO, HIGH);
20   Serial.print("Distance in CM: ");
21   Serial.println(duration / 58);
22   if((duration/58)<100)
23     tone(8,262,250);
24   Serial.print("Distance in inches: ");
25   Serial.println(duration / 148);
26
27   delay(1000);
28 }
```

On the right, the 'Simulation' window shows a virtual circuit. An Arduino Uno is connected to an HC-SR04 ultrasonic sensor. The sensor's VCC pin is connected to the 5V pin on the Arduino, and its GND pin is connected to a GND pin. The TRIG pin is connected to digital pin 3, and the ECHO pin is connected to digital pin 2. A speaker icon indicates that a tone is being played. Below the simulation, a text area displays the following output:

```
Distance in inches: 37
Distance in CM: 94
Distance in inches: 37
Distance in CM: 94
Distance in inches: 37
Distance in CM: 94
Distance in inches: 37
```