Assignment – 4

Wokwi for the ultrasonic sensor

Assignment Date	05 November 2022
Student Name	Pushpalatha s
Student Reg Number	211519104121
Maximum Marks	2 Marks

Question-1:

Write code and connection in wokwi for the ultrasonic sensor.
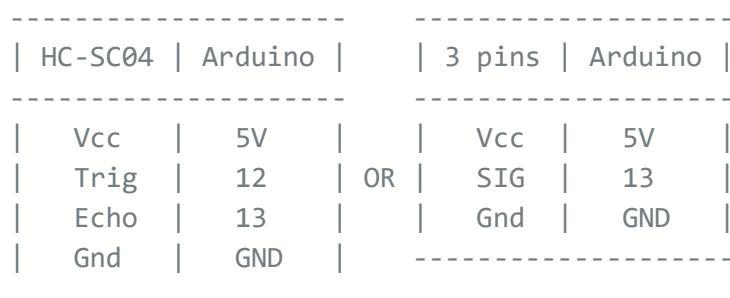
PROGRAM

```
Ultrasonic Simple
  Prints the distance read by an ultrasonic sensor in
  centimeters. They are supported to four pins ultrasound
  sensors (liek HC-SC04) and three pins (like PING)))
  and Seeed Studio sensors).

  The circuit:
* * Module HR-SC04 (four pins) or PING))) (and other with
    three pins), attached to digital pins as follows:
  --------------------    --------------------
  | HC-SC04 | Arduino |    | 3 pins | Arduino |
  --------------------    --------------------
  |   Vcc   |    5V   |    |   Vcc  |    5V   |
  |   Trig  |    12   | OR |   SIG  |    13   |
  |   Echo  |    13   |    |   Gnd  |   GND   |
  |   Gnd   |   GND   |    --------------------
  --------------------
  Note: You do not obligatorily need to use the pins defined above

  By default, the distance returned by the read()
  method is in centimeters. To get the distance in inches,
  pass INC as a parameter.
  Example: ultrasonic.read(INC)
```

```
   created 3 Apr 2014
   by Erick Simões (github: @ErickSimoes | twitter: @AloErickSimoes)
   modified 23 Jan 2017
   by Erick Simões (github: @ErickSimoes | twitter: @AloErickSimoes)
   modified 03 Mar 2017
   by Erick Simões (github: @ErickSimoes | twitter: @AloErickSimoes)
   modified 11 Jun 2018
   by Erick Simões (github: @ErickSimoes | twitter: @AloErickSimoes)

   This example code is released into the MIT License.
*/

#include "Ultrasonic.h"

/*
   Pass as a parameter the trigger and echo pin, respectively,
   or only the signal pin (for sensors 3 pins), like:
   Ultrasonic ultrasonic(13);
*/
Ultrasonic ultrasonic(12, 13);
int distance;

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

void loop() {
  // Pass INC as a parameter to get the distance in inches

  distance = ultrasonic.read(CM);

  Serial.print("Distance in CM: ");
  Serial.println(distance);

  distance = ultrasonic.read(INC);

  Serial.print("Distance in Inches: ");
  Serial.println(distance);

  delay(1000);
}
```
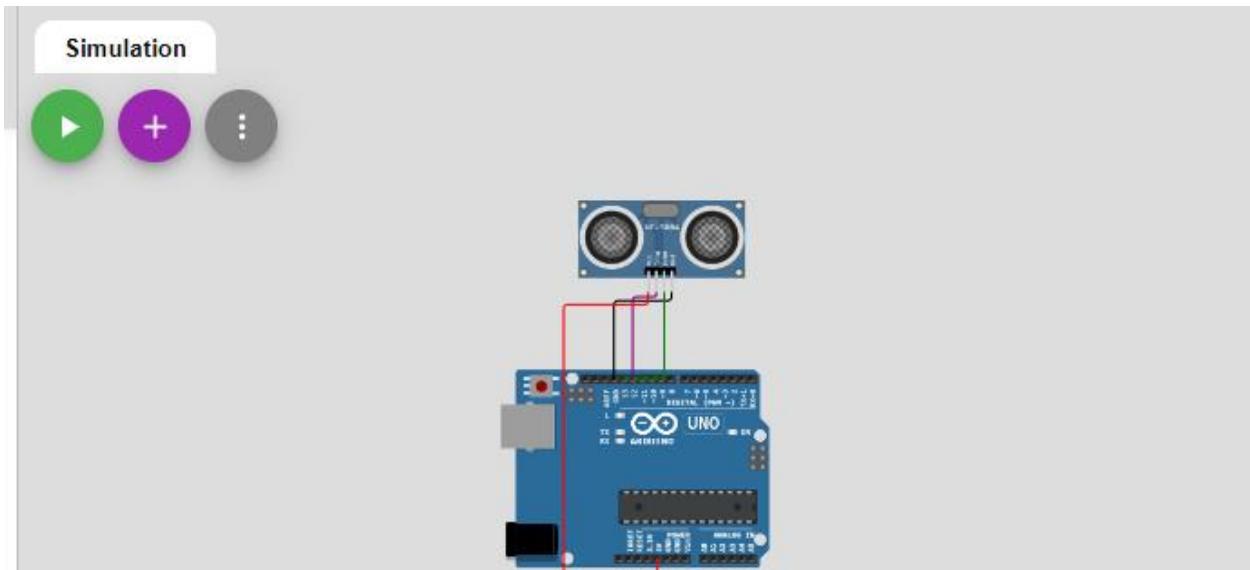
OUTPUT

Ibm cloud output