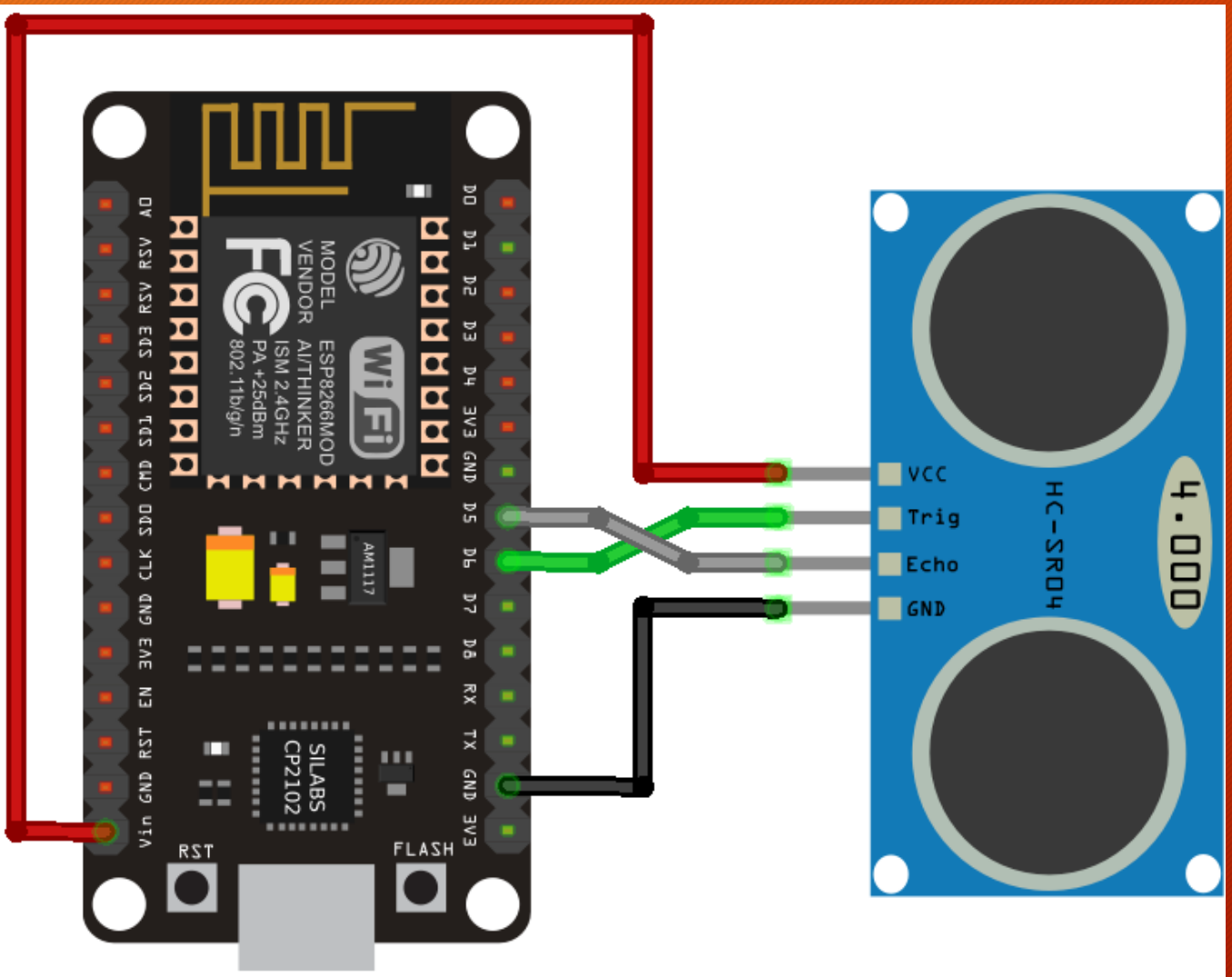


# Distance Measurement using HC-SR04 Ultrasonic Sensor using Nodemcu display on OLED

Dinesh Kumar  
ISRO Satellite Center  
Bangalore



```
#include <HCSR04.h>
#include <SPI.h>
#include <Wire.h>
#include <Adafruit_GFX.h>
#include <Adafruit_SSD1306.h>
#define SCREEN_WIDTH 128
#define SCREEN_HEIGHT 64
#define OLED_RESET -1 // Reset pin
#define SCREEN_ADDRESS 0x3C
Adafruit_SSD1306 display(SCREEN_WIDTH, SCREEN_HEIGHT, &Wire,
OLED_RESET);
UltraSonicDistanceSensor distanceSensor(12, 14); // Initialize sensor that
uses digital pins 13 and 12.
void setup () {
Serial.begin(9600); // We initialize serial connection so that we could print
values from sensor.
if(!display.begin(SSD1306_SWITCHCAPVCC, SCREEN_ADDRESS)) {
Serial.println(F("SSD1306 allocation failed"));
for(;;); }
display.clearDisplay();
display.setTextSize(2);
display.setTextColor(WHITE);
display.setCursor(0,0);
display.println("Distance");
display.println("Measurment");
display.display();
delay(2000);
}
```

```
void loop () {
// Serial.println(distanceSensor.measureDistanceCm());
display.clearDisplay();
display.setTextSize(2);
display.setTextColor(WHITE);
display.setCursor(0,0);
display.setTextSize(2);
display.setTextColor(WHITE);
display.println("Distance =");
float x = distanceSensor.measureDistanceCm();
float y = x / 2.54;
int z = y / 12;
int m = y + z;
int n = m / 12;
int q = n * 12;
int p = int(m) - q;
display.print(x);
display.println(" cm");
display.print(m);
display.println("");
display.print(n);
display.print(" ");
display.print(p);
display.println("");
display.display();
delay(500);
}
```