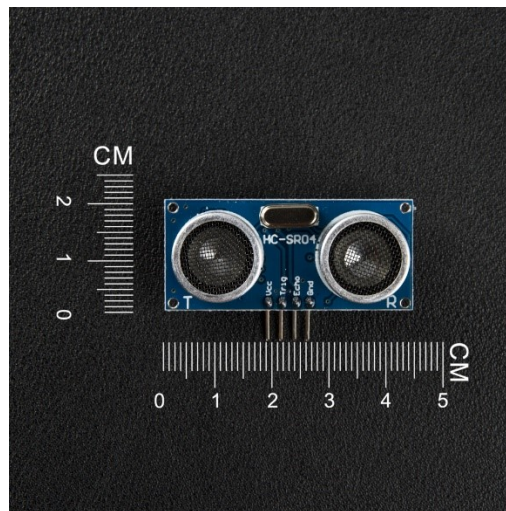


Dual Ultrasonic Sensor Module(ST1099/ME140)



1. Instructions

The HC-SR04 is an inexpensive ultrasonic sensor that can sense not only if an object presents itself, like a PIR sensor, but can also sense and relay the distance to that object.

Features:

- Power Supply :+5V DC
- Quiescent Current : <2mA
- Working Currnt: 15mA
- Effectual Angle: <15°
- Ranging Distance : 2cm – 400 cm/1" - 13ft
- Resolution : 0.3 cm
- Measuring Angle: 30 degree
- Trigger Input Pulse width: 10uS

2. Pin Instruction

Pin Name	Description
"Vcc"	Power (5V DC)
"Trig"	Trigger the transmit signal
"Echo"	Echo the received echo signal
"Gnd"	Gnd

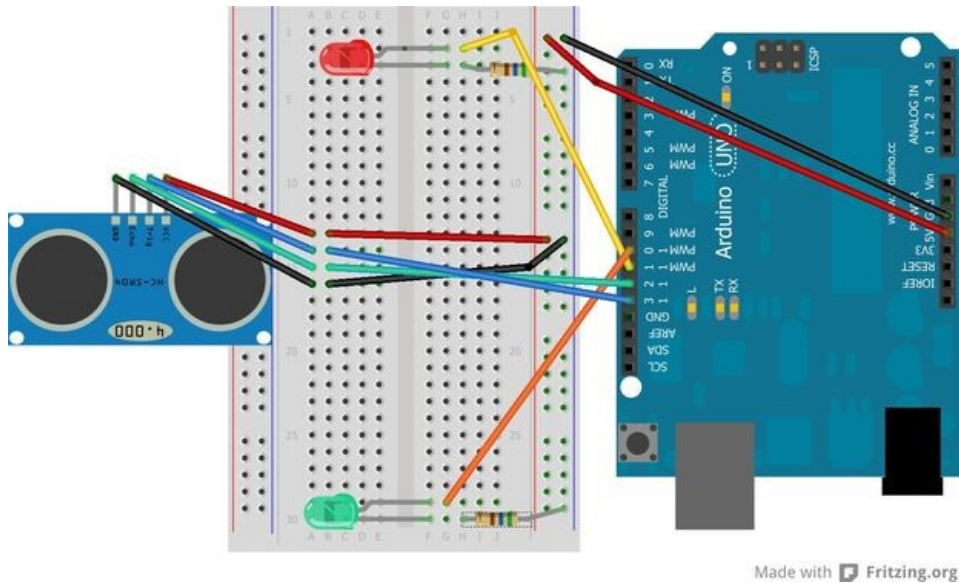
3. Example

This example allows you display the defect distance on your ARDUIN's Serial window.

Pin connection:

```
Vcc===== Power(5V DC)
Trig===== 12
Echo===== 13
Gnd=====Gnd
```

Picture connection as below:



Example code:

```
*****Code begin*****  
  
#define trigPin 13  
#define echoPin 12  
#define led 11  
#define led2 10  
  
void setup() {  
  Serial.begin (9600);  
  pinMode(trigPin, OUTPUT);  
  pinMode(echoPin, INPUT);  
  pinMode(led, OUTPUT);  
  pinMode(led2, OUTPUT);  
}  
  
void loop() {  
  long duration, distance;  
  digitalWrite(trigPin, LOW); // Added this line  
  delayMicroseconds(2); // Added this line  
  digitalWrite(trigPin, HIGH);  
  // delayMicroseconds(1000); - Removed this line  
  delayMicroseconds(10); // Added this line  
  digitalWrite(trigPin, LOW);  
  duration = pulseIn(echoPin, HIGH);  
  distance = (duration/2) / 29.1;  
  if (distance < 4) { // This is where the LED On/Off happens  
    digitalWrite(led,HIGH); // When the Red condition is met, the Green  
    LED should turn off
```

```
digitalWrite(led2,LOW);
}
else {
  digitalWrite(led,LOW);
  digitalWrite(led2,HIGH);
}
if (distance >= 200 || distance <= 0){
  Serial.println("Out of range");
}
else {
  Serial.print(distance);
  Serial.println(" cm");
}
delay(500);
}
```

*****Code end*****