

# Dual Ultrasonic Sensor Module

## 1. Instructions

The TA0037 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

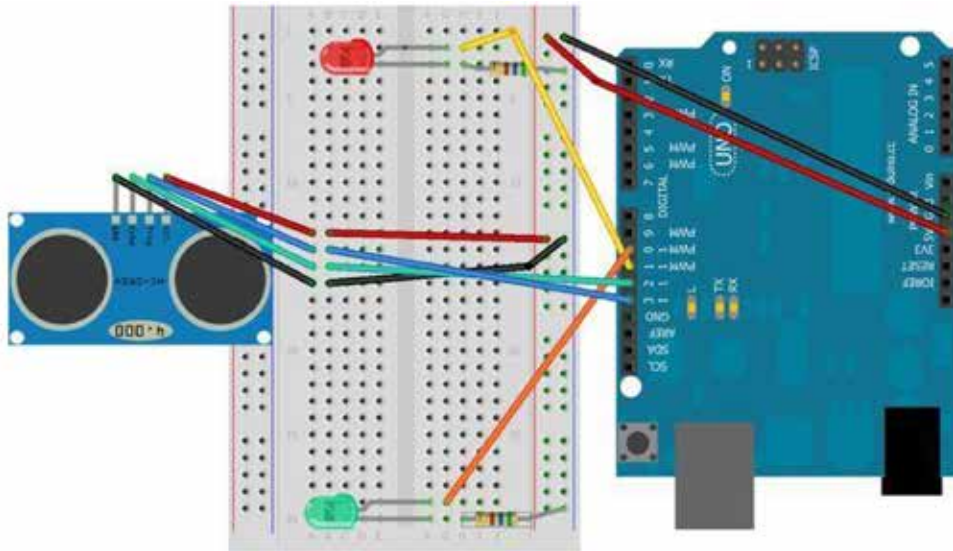
## 3. Example

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\*\*\*\*\*