# **Ultrasonic Distance-Measuring Module**





# **Description**

The ultrasonic wave is applied to the distance measurement due to its high directivity, low energy consumption and long-distance transmission. The measurement of ultrasonic wave is quick, convenient and easy to operate. As for this ultrasonic sensor, it can detect the non-contact distance of 2cm to 450cm, and its accuracy reaches to 3mm. This module consists of ultrasonic emitter, receiver and the correspondent control circuit.

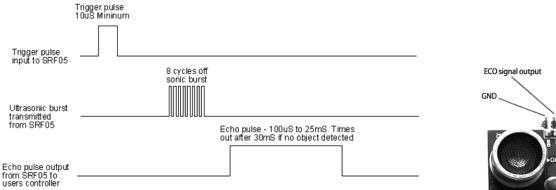
### **Specifications**

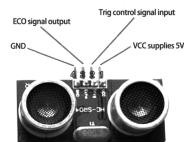
Input Trigger Pulse : 10US TTL level

Output Reclaimed Signal : Output TTL level signal (height), proportional to the range

Power Supply :+5V DC
Quiescent Current : <2mA
Working Current : 15mA
Detection Angle : 15 Deg.
Ranging Distance : 2cm to 450cm

# **Working Principle**





- 1. Setting the delay time of Trig pin of SR04 to 10µs at least, which can trigger it to detect distance.
- 2. After triggering, the module will automatically send eight 40KHz ultrasonic pulses and detect whether there is a signal return. This step will be completed automatically by the module.
- 3. If the signal returns, the Echo pin will output a high level, and the duration of the high level is the time from the transmission of the ultrasonic wave to the return. The distance measured by ultrasonic wave = (speed \* time)/2

#### **Part Number Table**

Description	Part Number
Ultrasonic Distance-Measuring Module	83-17989

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