

Ultrasonic Obstacle Sensor

Used to detect the move of human or object. Suitable for indoor and outdoor burglar proof application, vehicle application, ATM surveillance camera etc.



Features

- High sensitivity, reliability, stability.
- Output level: High, 5v.
- Output level: Low, 0v.

Applications

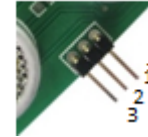
- Automated factories.
- Medicine.

Specifications

Parameter	Value
Operating voltage	+5v DC
current	Max. 2mA
Frequency	40kHz
Distance	2mm-8000mm
Output	High when obstacle is detected

Pin Specification

Pin	Name	Details
1	5v	Power supply
2	out	output
3	GND	ground



Working

The ultrasonic sensor actually consists of two parts: an emitter, which produces a 40kHz sound wave; and a detector, which detects 40kHz sound waves and sends an electrical signal back to the microcontroller. In order to determine the distance to an object, it is necessary to implement a timing loop in your microcontroller code to measure the length of time required for the sound wave generated by the emitter to traverse the distance to the object.

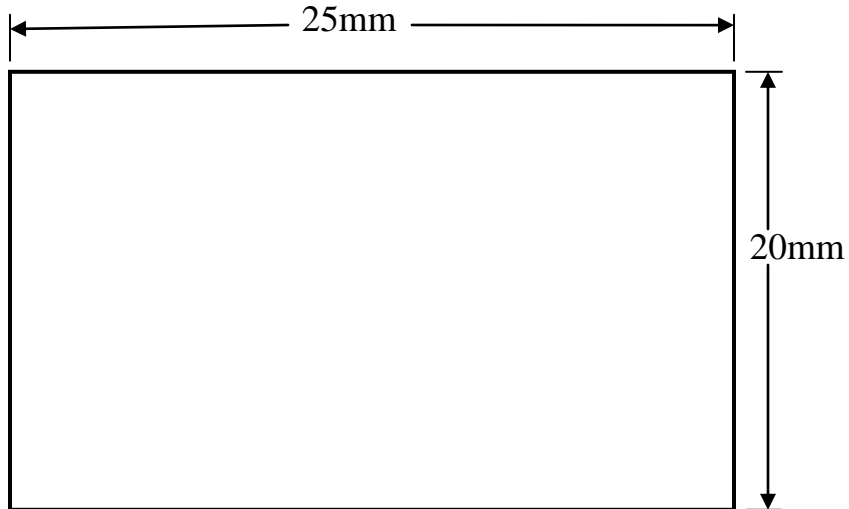
- (1) Adopt IO trigger through supplying at least 10us sequence of high level signal,
 - (2) The module automatically send eight 40khz square wave and automatically detect whether receive the returning pulse signal,
 - (3) If there is signals returning, through outputting high level and the time of high level continuing is the time of that from the ultrasonic transmitting to receiving.
- Test distance = (high level time * sound velocity (340M/S) / 2.

Sample Application

To view sample code and schematic click the below link:

<http://researchdesignlab.com/index.php/modules/ultrasonic-distance-measure.html>

Board Dimensions



To buy this product click the below link:

<http://researchdesignlab.com/index.php/modules/ultrasonic-distance-measure.html>

