



# RadioShack®

User's Guide

2760342

## Ultrasonic Range Sensor



*Thank you for purchasing your Ultrasonic Ranger Sensor from **RadioShack**. Please read this user's guide before setting up and using your new sensor.*

**Attention:** *Observe precautions for handling Electrostatic Sensitive Devices (ESD).*

# Package Contents

- Ultrasonic Range Sensor
- User's Guide

## Features

- Compatible with Arduino and other types of microprocessors
- Ideal for autopiloting projects, security applications, and more
- Pulse in/pulse out communication

## Specifications

Detection angle ..... 30°

Supply voltage ..... 5 V

Current..... 15 mA

Detecting range..... 1.2 in – 13 ft (3 cm – 4 m)

Ultrasonic frequency..... 40 kHz

Operating temp. range ..... 32 – 58°F (0 – 70°C)

Specifications are subject to change and improvement without notice. Actual product may vary from the images found in this document.

# Connect to Your Arduino

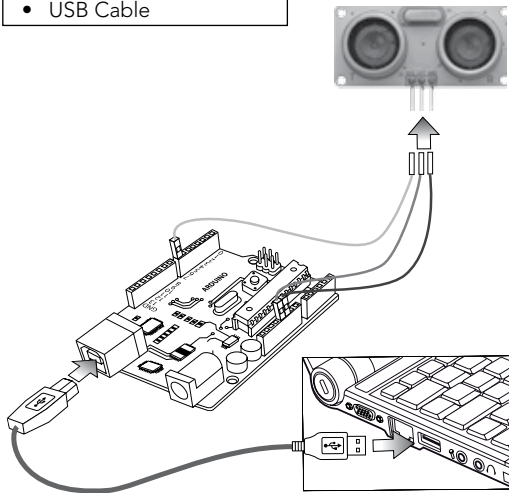
1. Connect the Range Sensor to your Arduino:
  - **SIG** to pin **D7**     • **VCC** to pin **5V**     • **GND** to pin **GND**
2. Use a USB cable (not included) to connect your Arduino to your computer.

## Programming the Sensor

1. Go to [shack.net/sensor0342](http://shack.net/sensor0342). At the end of the blog post, click **RadioShack Ultrasonic Range Sensor Support Files**, and extract the contents of the folder onto your computer.
2. Open **UltrasonicRangeSensor.ino** in the Arduino programming environment. Verify and upload the program.
3. In the Arduino programming environment, open **Serial Monitor** (9600) to observe output. The output reading will change according to the distance between the sensor and an object placed in front of the sensor.

## Required:

- Arduino Board
- Jumper Wires (3)
- USB Cable



# FCC Information

This equipment has been tested and found to comply with the limits for an ISM (industrial, scientific, medical) device limit, pursuant to Part 18 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

If you cannot eliminate the interference, the FCC requires that you stop using your equipment.

**IMPORTANT:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## Limited Warranty

**RadioShack** warrants this product against defects in materials and workmanship under normal use by the original purchaser for **ninety (90) days** after the date of purchase from a **RadioShack**-owned store or an authorized **RadioShack** franchisee or dealer. **RADIOSHACK** MAKES NO OTHER EXPRESS WARRANTIES.

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Should a problem occur that is covered by this warranty, take the product and the **RadioShack** sales receipt as proof of purchase date to any **RadioShack** store in the U.S. **RadioShack** will, at its option, unless otherwise provided by law: (a) repair the product without charge for parts and labor; (b) replace the product with the same or a comparable product; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of **RadioShack**. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

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Fort Worth, TX  
76102

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