

# Arduino Bootcamp : Learning Through Projects

Ultrasonic Sensor Alarm

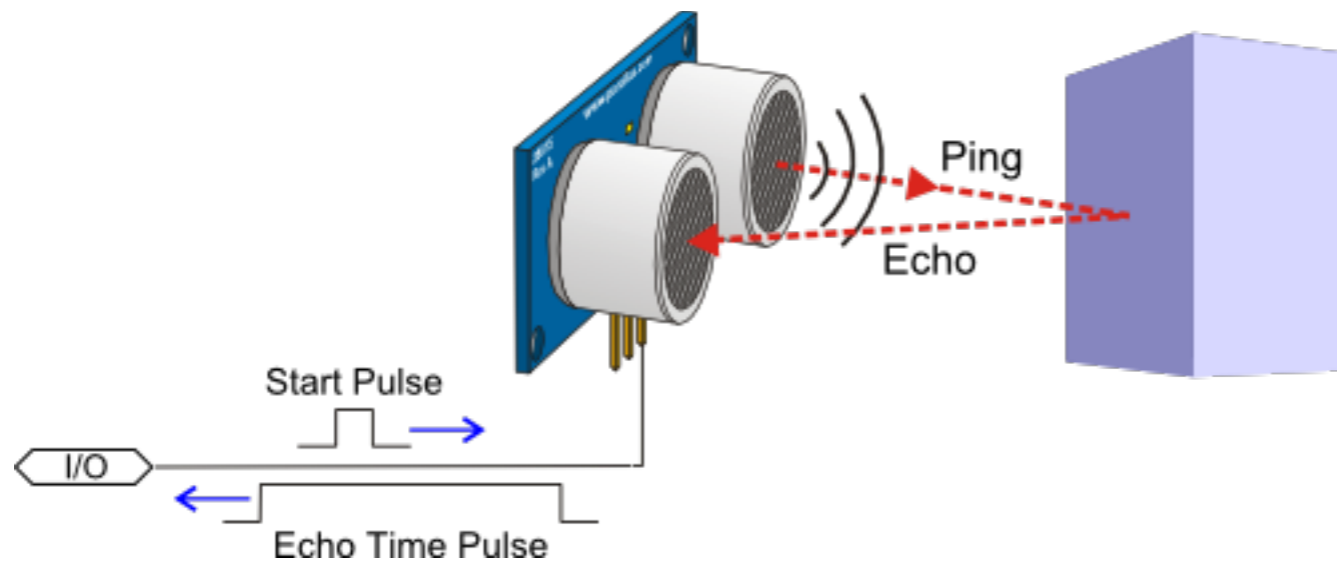
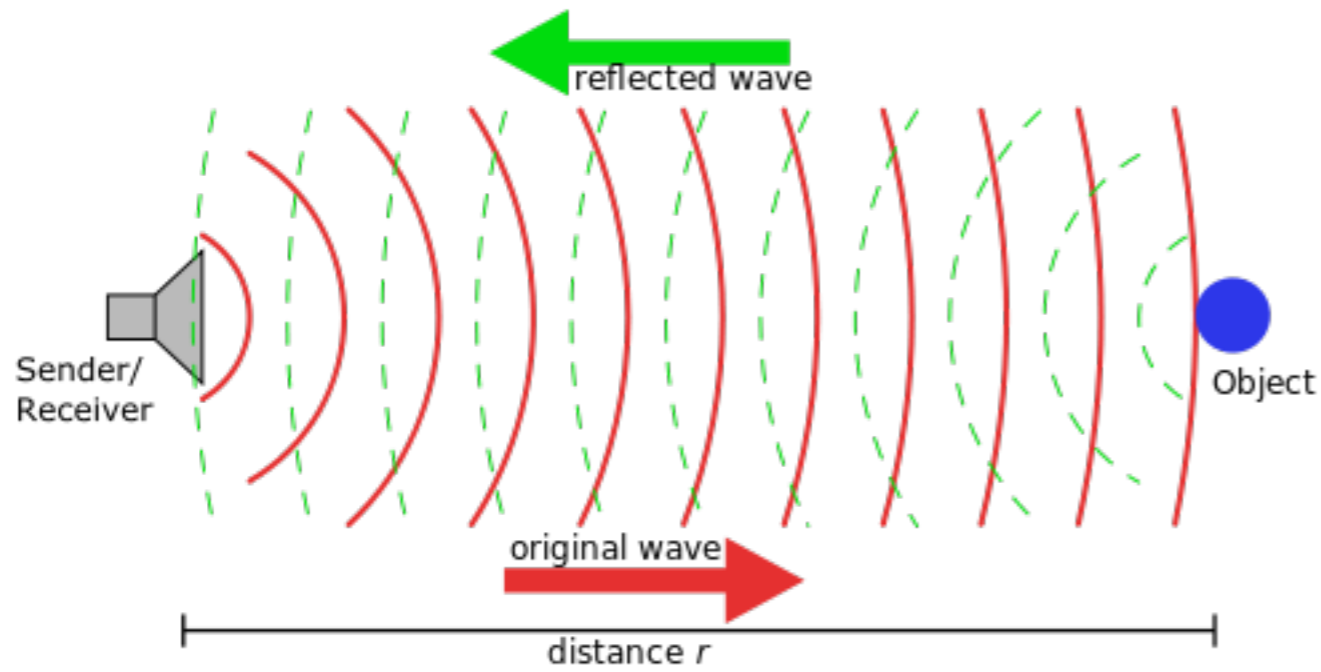
# Project Objectives

- In this project you will learn:
  - How an ultrasonic sensor (HC-SR04) works
  - The pinouts and how to connect an ultrasonic sensor in a circuit
  - How the `pulseIn()` function works

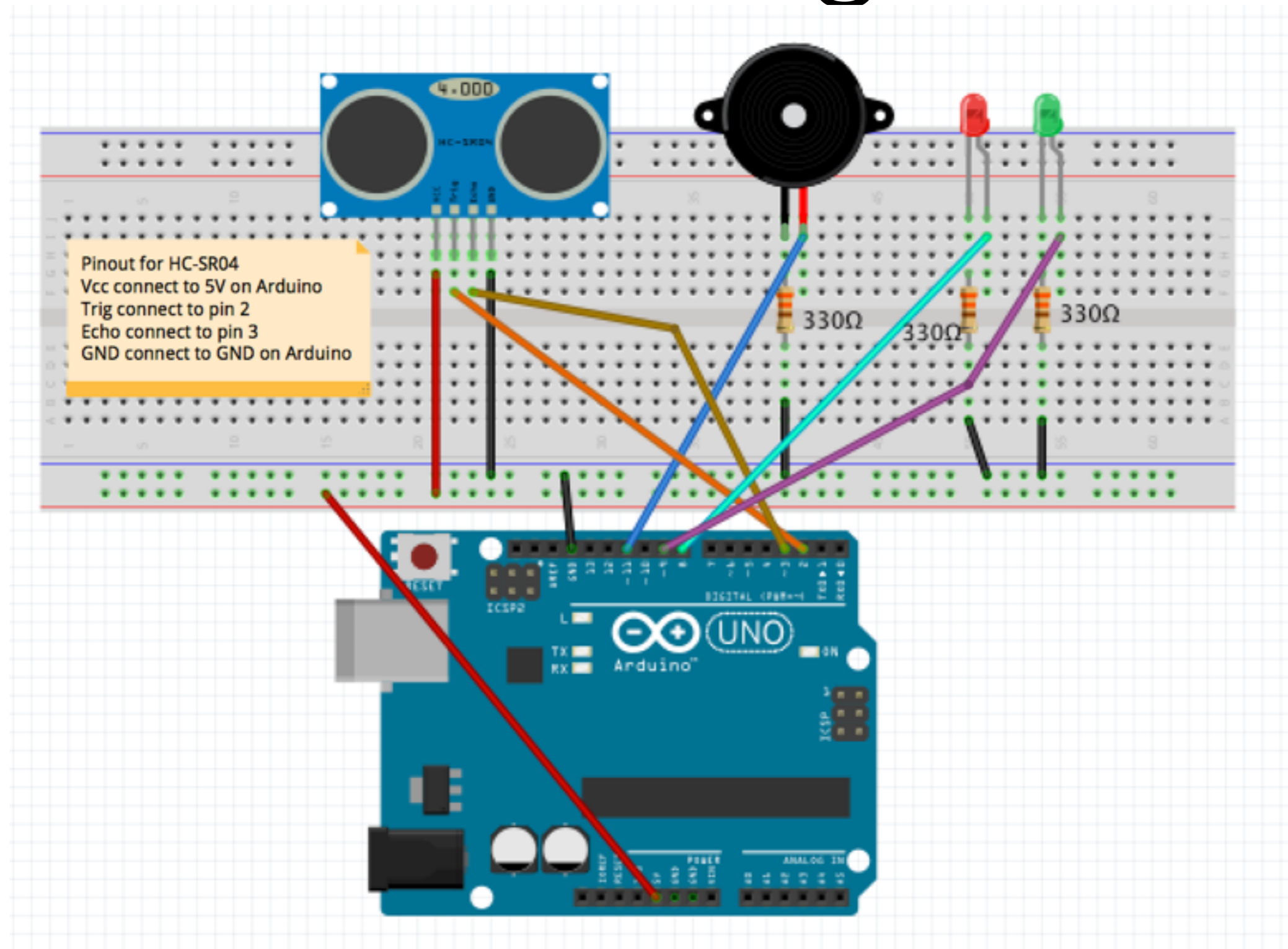
# Parts

- Arduino Uno
- USB A-B cable
- Breadboard
- 3 × 330  $\Omega$  resistors
- HC-SR04 ultrasonic sensor
- Red LED and green LED
- Piezo Buzzer
- Connecting wires

# Ultrasonic Sensor Operation



# Circuit Diagram



# Summary

- In this project you learnt:
  - What an ultrasonic sensor is and the details of an HC-SR04 and how to connect it in a circuit
  - How the `pulseIn()` function can be used
  - Incorporating alarms in your projects