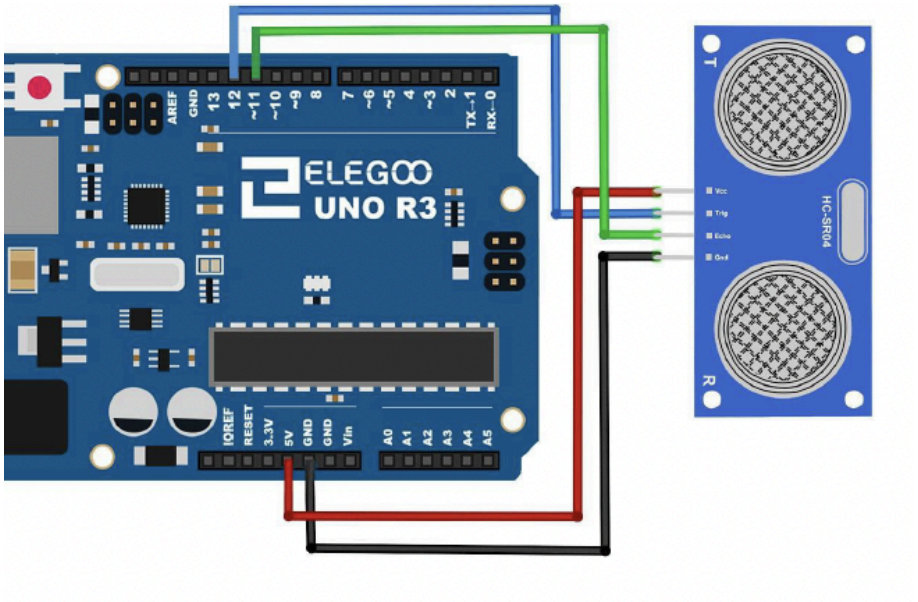
Wiring Documentation for HC-SR04 Sensor

The HC-SR04 sensor has four pins: **VCC**, **GND**, **TRIG**, and **ECHO**. Here's how to connect them to your Arduino:

HC-SR04 Pin	Arduino Pin	Description
VCC	**5V**	Power supply to the sensor. Connect to the 5V pin of the Arduino.
GND	**GND**	Ground. Connect to the ground pin on the Arduino.
TRIG	**12**	Trigger pin. Sends a short burst of ultrasonic sound. Connect to digital pin 12 on Arduino.
ECHO	**11**	Echo pin. Receives the reflected ultrasonic sound. Connect to digital pin 11 on Arduino.

Wiring Steps

1. Connect the **VCC** pin of the HC-SR04 sensor to the **5V** pin on your Arduino.
2. Connect the **GND** pin of the HC-SR04 sensor to a **GND** pin on your Arduino.
3. Connect the **TRIG** pin of the HC-SR04 sensor to **digital pin 12** on the Arduino.
4. Connect the **ECHO** pin of the HC-SR04 sensor to **digital pin 11** on the Arduino.



Servo Motor Wiring

Components Needed

- Servo motor (e.g., SG90 or MG996R)
- Arduino board (UNO, Mega, etc.)
- Power supply (if required for larger servo motors)
- Jumper wires

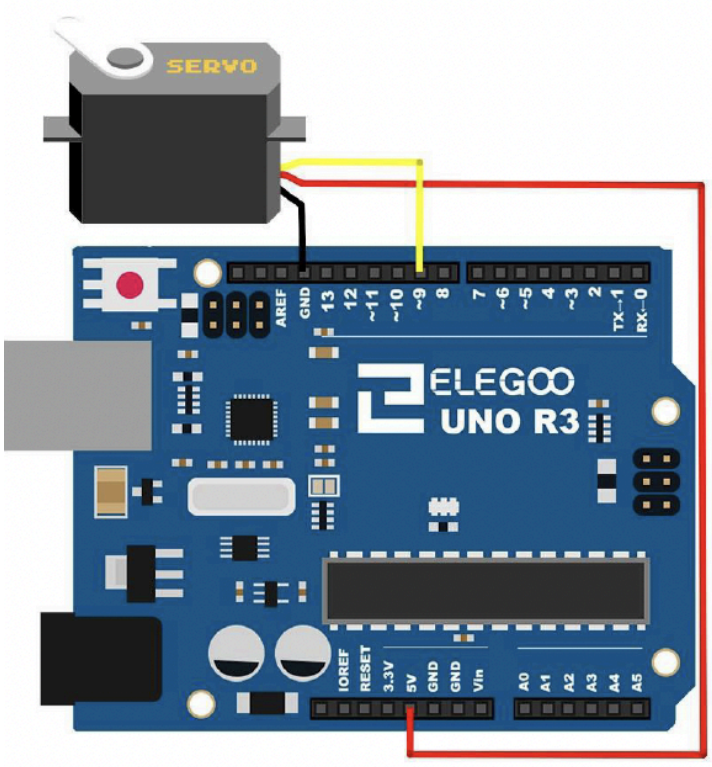
Servo Motor Pins

Most servo motors have three pins:

Servo Pin	Arduino Connection	Description
GND	**GND**	Connect the GND pin of the servo motor to the Arduino GND pin.
VCC	**5V (or external)**	Connect the power pin of the servo motor to the Arduino 5V pin (or external 5V source if needed).
Signal (PWM)	**Digital Pin (e.g., 9)**	Connect the signal pin of the servo motor to an Arduino digital PWM pin (e.g., pin 9).

Wiring Steps

1. **GND (Ground)**: Connect the servo motor's GND pin to the **GND** pin on the Arduino.
2. **VCC (Power)**: Connect the servo motor's VCC pin to the **5V** pin on the Arduino.
    - For high-torque servos, use an **external power supply** to avoid overloading the Arduino.
3. **Signal (Control)**: Connect the signal pin of the servo motor to **digital pin 9** (or any other PWM-enabled pin) on the Arduino.


SERVO
AREF
GND
13
12
~11
~10
~9
8
7
~6
~5
4
~3
2
TX→1
RX←0
ELEGOO
UNO R3
IOREF
RESET
3.3V
5V
GND
GND
Vin
A0
A1
A2
A3
A4
A5