

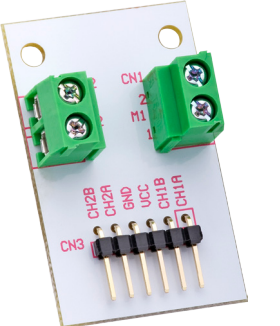
2730851

User's Guide

R

radioshack

Dual Channel Motor Driver



We hope you enjoy your Dual Channel Motor Driver from RadioShack. Please read this user's guide before using your new board.

Package Contents

- Dual Channel Motor Driver
- User's Guide

Features


- Control direction and speed of two separate motors with pulse width modulation (PWM).
- Drive two DC motors or a 4-wire, 2-phase stepper motor

Required Accessories (Not Included)

- 2 Pin Cable (3)
- 2 Pin Dual Male Connector (3)

Connect

1. Connect 2-pin dual male connectors to each end of the 2-pin cables.



2. Connect your Arduino board or an external power supply to the dual channel motor driver.

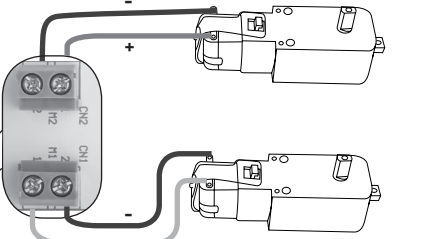
- 5V to VCC
- GND to GND

3. Connect the Arduino board's DIGITAL (PWM~) headers to the motor driver.

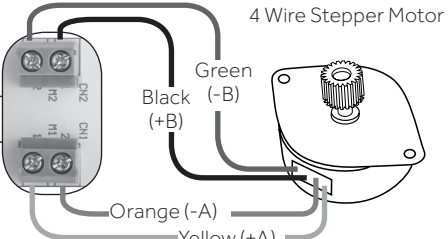
- ~5 to CH1A
- ~6 to CH1B
- ~10 to CH2A
- ~11 to CH2B

4. Connect motors to the motor driver.

Two DC Motors



4 Wire Stepper Motor



Refer to your stepper motor's datasheet for details.

Download the Support Files

1. For the Arduino program and libraries, go to <http://shack.net/2730851>.

2. At the end of the blog post, click **RadioShack Dual Channel Motor Driver Support Files** and save the folder to your computer.

3. Connect your Arduino Uno R3 to your computer with a USB cable.

4. Open the corresponding .ino file.

- DC Motor:** Open **DC_motor_driver.ino** in the Arduino programming environment.
- Stepper Motor:** Open the Arduino programming environment and browse to the **stepper_oneRevolution** example.

Note: On line 24 of *stepper_oneRevolution*, match the pin definitions the setup of your motor driver and Arduino board. For example, to match the pin definitions on page 4, change the line to myStepper(stepsPerRevolution, 5,6,10,11);

5. Verify and upload the program to your Arduino board.

6. Remove the USB cable from your Arduino board.

DC Motor PWM Signal

M1 Motor	CH1A	CH1B	M2 Motor	CH2A	CH2B
CW	1	0	CW	1	0
Stop	1	1	Stop	1	1
CCW	0	1	CCW	0	1
Stop	0	0	Stop	0	0

Specifications

Motor DriverDual L 9110S

Input Voltage..... 3V ~ 12V

Current 600mA at 12V (per channel)

Dimensions (l × w × h) 1.7 in × 1.06 in × 0.06 in.

.....(43mm × 27mm × 1.6mm)

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

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.

This warranty does not cover: (a) damage or failure caused by or attributable to abuse, misuse, failure to follow instructions, improper installation or maintenance, alteration, accident, Acts of God (such as floods or lightning), or excess voltage or current; (b) improper or incorrectly performed repairs by persons who are not a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) ordinary wear and tear or cosmetic damage; (e) transportation, shipping or insurance costs; (f) costs of product removal, installation, set-up service, adjustment or reinstallation; and (g) claims by persons other than the original purchaser.

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) replace the product with the same or a comparable product or (b) refund the purchase price. All replaced 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.

RADIOSHACK EXPRESSLY DISCLAIMS ALL WARRANTIES AND CONDITIONS NOT STATED IN THIS LIMITED WARRANTY. ANY IMPLIED WARRANTIES THAT MAY BE IMPOSED BY LAW, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND, IF APPLICABLE, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, SHALL EXPIRE ON THE EXPIRATION OF THE STATED WARRANTY PERIOD.

EXCEPT AS DESCRIBED ABOVE, RADIOSHACK SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO THE PURCHASER OF THE PRODUCT OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE

Stepper Motor PWM Signal

Phase	1	2	3	4
+A	1	0	0	1
+B	1	1	0	0
-A	0	1	1	0
-B	0	0	1	1

Control Sequence

Clockwise: (+A, +B), (-A,+B), (-A,-B), (+A,-B)

Counterclockwise: (+A, -B), (-A,-B), (-A,+B), (+A,+B)

CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE AND ANY LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT AND ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RADIOSHACK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. You may contact RadioShack at:

RadioShack Customer Relations
300 RadioShack Circle, Fort Worth, TX 76102
02/14

www.RadioShack.com

©2014 RadioShack Corporation.
All rights reserved. RadioShack is a registered trademark used by RadioShack Corporation.

Printed in Taiwan 03A14 2770174

2

3

4

5

6

7

8

9

10