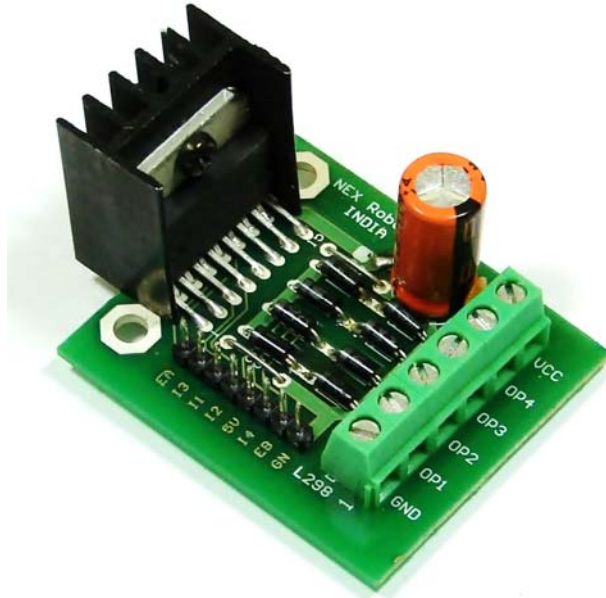


L298 46V, 2A Stepper Motor / Dual DC Motor Driver



Introduction

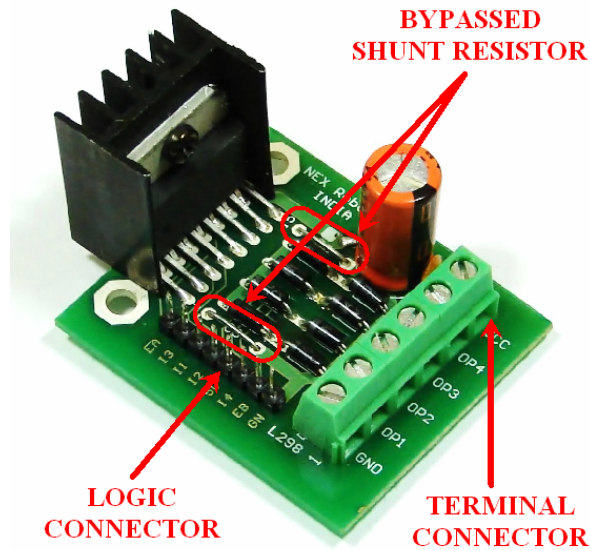
L298 46V, 2A Stepper Motor / Dual DC Motor Driver module from NEX Robotics can drive bipolar stepper motor or Two DC motors at the same time. Each L298 has two H-Bridges. Each H-Bridge can supply 2Amp. current. L298 has heat sink for better heat dissipation and flyback diodes for protection from back EMF. For higher current rating these H-Bridges can be connected in parallel. Board has terminal block for high power connections and open pads for logic interfacing. Board is made of double sided PTH PCB for giving better strength to the connectors. For easier mounting board have four mounting holes.

Specifications

- Operating voltage: 8V to 46V
- Output current: 2Amp per H-Bridge
- Can drive one bipolar stepper motor or two DC motors.
- Heatsink for better heat dissipation
- Over temperature protection
- Onboard 5V low drop voltage regulator for logic supply
- Fly back diodes for protection form back EMF
- Double sided PTH PCB for better giving better strength to the connectors
- Two LEDs per H-Bridge for easier debugging

Applications:

- Stepper motor / DC motor drives
- Factory automation robots
- Numerically controlled machinery
- Computer printers and plotters



| Terminal Block Pins | Functionality |
|---------------------|---|
| VCC | Input supply should be between 8V to 18V DC |
| GND | Power Ground |
| OP1 | Output of the H-Bridge 1 of L298-1 |
| OP2 | Output of the H-Bridge 1 of L298-1 |
| OP3 | Output of the H-Bridge 2 of L298-1 |
| OP4 | Output of the H-Bridge 2 of L298-1 |

Table 1: Pin Functionality of the terminal block power connector

| Logic Connector 1 Pins | Functionality |
|------------------------|--|
| 5V | 5V logic supply input |
| GN | Logic Ground (connected to the Power Ground) |
| I1 | Logic input for H-Bridge corresponding to OP1 and OP2 |
| I2 | Logic input for H-Bridge corresponding to OP1 and OP2 |
| I3 | Logic input for H-Bridge corresponding to OP3 and OP4 |
| I4 | Logic input for H-Bridge corresponding to OP3 and OP4 |
| EA | Enable input for H-Bridge corresponding to OP1 and OP2 |
| EB | Enable input for H-Bridge corresponding to OP3 and OP4 |

Table 2: Pin Functionality for the logic input connection pads

Note:

- For velocity control of the DC motor, PWM pulses can be applied at Enable pins
- For Current sensing, replace shunt shown in the above photo with appropriate current sensing resistor
- For Stepper Motor control with chopping action use L297 with L298. For more details refer to the L297 datasheet
- For more information on L298 you can download the L298 datasheet from the product page on the NEX Robotics web site.

Notice

The contents of this manual are subject to change without notice. All efforts have been made to ensure the accuracy of contents in this manual. However, should any errors be detected, NEX Robotics welcomes your corrections. You can send us your queries / suggestions at info@nex-robotics.com



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- ⚠ **Product's electronics is static sensitive. Use the product in static free environment.**
- ⚠ **Read the user manuals completely before start using this product**



Recycling:

Almost all the part of this product are recyclable. Please send this product to the recycling plant after its operational life. By recycling we can contribute to cleaner and healthier environment for the future generations.