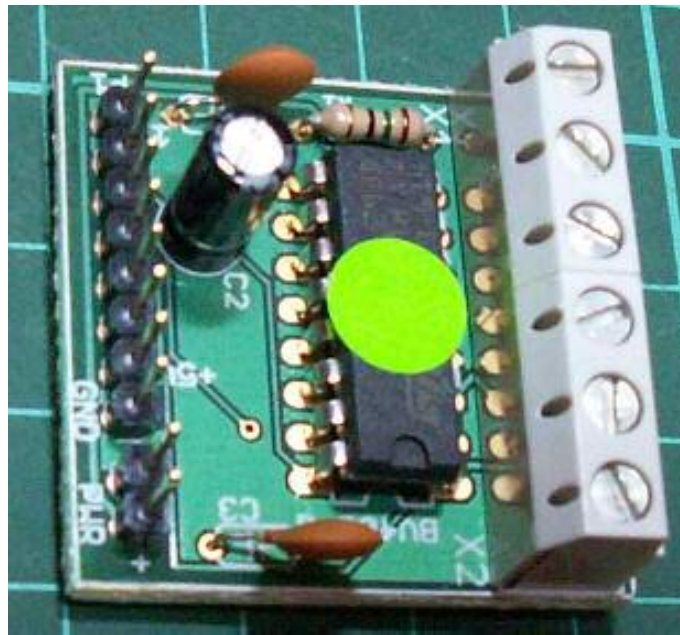

DC Motor Controller Board

BV405



BV405 **DC Motor Controller Board**

Product specification and build instructions

Jan 2008 v-b

DC Motor Controller Board

BV405

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1. Introduction

The BV405 is a neat way to use the L293 chip, described as a push-pull four channel driver with diodes. It's ideal application is for driving small DC motors and as there are two channels it can drive two motors both forward and reverse.

The board has two input connectors, K1 supplies power to the motor and K2 supplies the logic, both supplies incorporate smoothing to reduce the spikes transmitted back to the microcontroller.

2. Features

- Can drive 2 DC motors forward and reverse
- Can drive 1 stepper motor
- 600mA drive capability (1.2A peak) per channel
- Over temperature protection
- Up to 36V motor supply voltage

3. How It Works

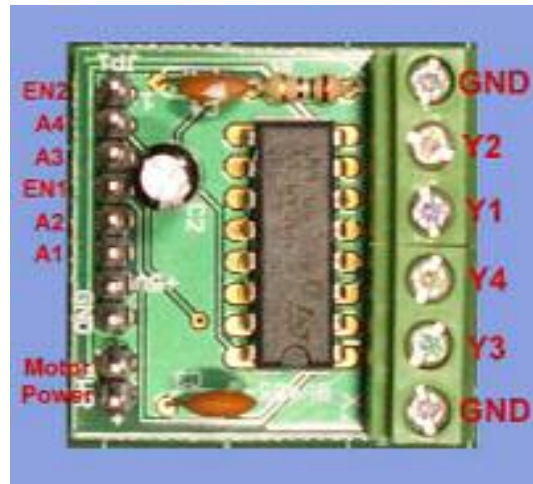
The main description for operation of the L293 can be found in the data sheet for that part, however something should be said about the power supply arrangements.

The L293 requires two supplies, a logic supply or 5V and a power supply for driving the output. It has been found by experimentation that some motors are particularly noisy and this can be fed back to the microcontroller effecting its

operation. R1, C3 and C4 reduce the chances of this happening.

A suitable supply should be connected to K1 to provide the output power, some smoothing has been provided by way of C1 and C2, just in case. The supply chosen for this will depend on the application.

4. Connections



The datasheet for the L293 can be obtained from www.pin1.org in the downloads section.

For some hints and tips on driving stepper motors see the previous datasheet for the BV405 found at the above site.

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