

Digilent PmodHB2™ 1A H-Bridge Board

Revision: 12/01/04

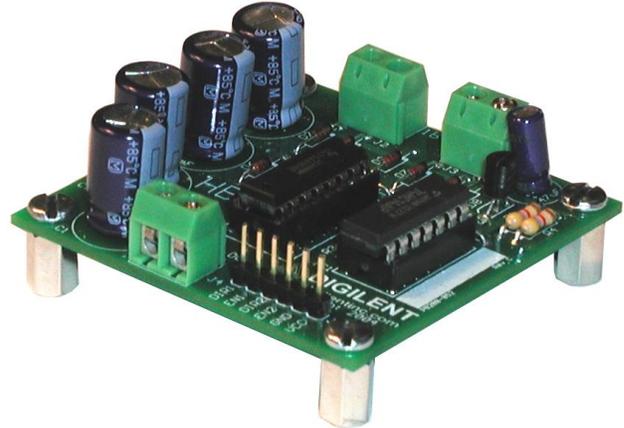


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Features

- dual 1A H-bridges
- 4.5V to 12V supply voltage
- screw terminals for power supply and motor connections
- logic level inputs
- industry standard TI SN754410 motor driver chips
- a 6-pin header



Functional Description

The Digilent PmodHB2 1A H-Bridge Board (the HB2™) transfers signals between Digilent system boards and motors.

The HB2 drives two motors independently with 1A or less of current and voltage from 4.5V to 12V.

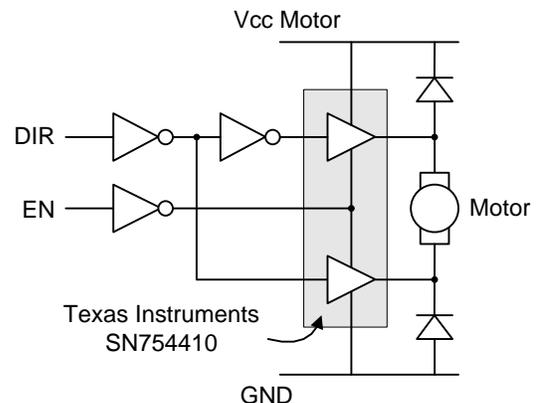
The HB2 is based on the Texas Instruments SN754410, a dual H-bridge driver with bi-directional drive currents.

Screw terminals provide easy connections to motor leads and power supplies.

The HB2 has ample capacitance to minimize voltage drop when motor phases are switched on.

All control input signals are compatible with TTL and CMOS logic levels, so the HB2 can be driven from any system board.

The HB2 has a 6-pin header for easy connection to a Digilent system board. For example, the Digilent Pegasus board has a 6-pin header that can connect to the HB2 with a 6-pin cable. To connect the HB2 to other Digilent system boards, a Digilent Modular Interface Board (MIB) and a 6-pin cable are needed. The MIB plugs into the system board, and the cable connects the MIB to the HB2.



HB2 Circuit Diagram

Digilent also produces an H-bridge board that handles higher current and voltage, the Digilent PmodHB1™ 5A H-Bridge Board.

For more information, see www.digilentinc.com.

For more information about the TI SN754410 motor chip, see the corresponding Texas Instruments data sheet at www.ti.com.