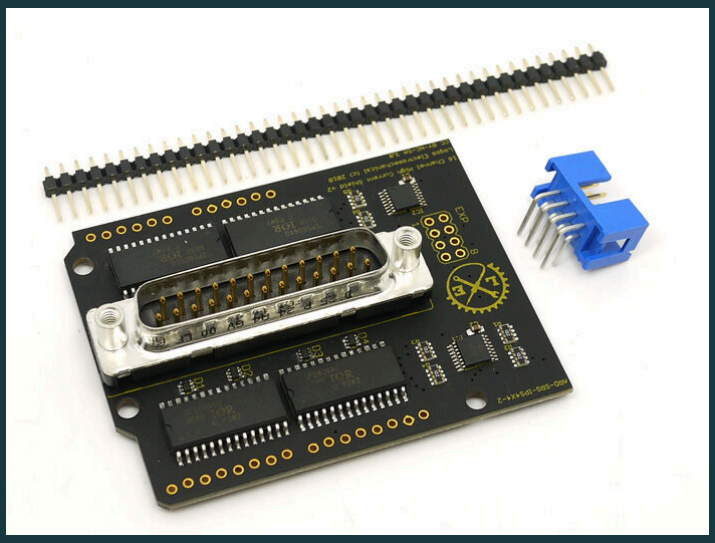
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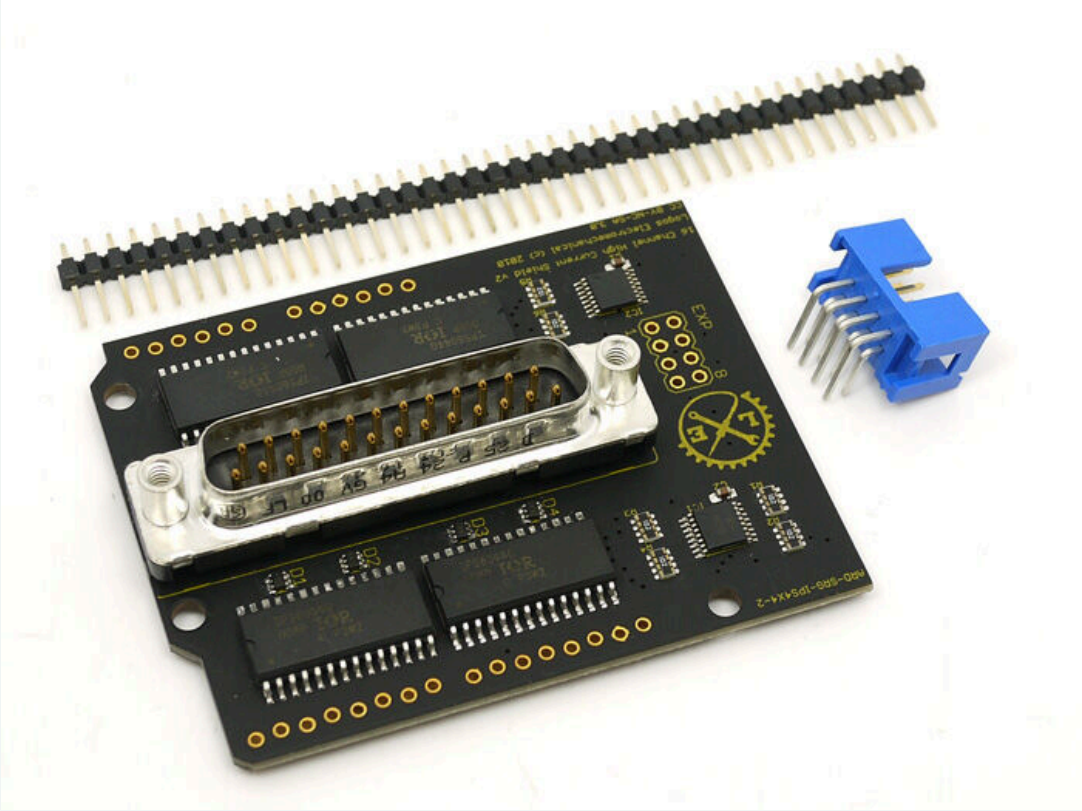
16 - Ch High Current Driver Shield Kit v2

16-channel high-current Arduino shield for switching DC loads up to 5A/30V with daisy-chaining and full protection.

SKU	UPDATED	PRICE
MOT31265M	2024-08-09 02:12:56	$46.99(Excl. VAT)



Overview



The Logos Electromechanical ARD-SRG-IPS4X4 16-Ch High Current Driver Shield Kit v2 is an Arduino shield that enables switching of DC loads up to 5A at up to 30V using fully-protected high-side MOSFET switches. It features shift register control for daisy-chaining up to 25 boards, supports four unipolar stepper motors, and includes over-temperature, over-current, and under-voltage protection on each channel.

Key Features

The Logos Electromechanical ARD-SRG-IPS4X4 16 channel high current Arduino shield is designed to enable users to switch DC loads up to 5A at up to 30V with no heat-sinking. It is ideal for such applications as driving solenoids, relays, and small DC motors. It uses in the International Rectifier IPS6044 quad channel fully-protected high side MOSFET switches, which includes over-temp, over-current, and under-voltage protection on each switch. The high-side topology is safer in many applications than the more common low-side topology because a short to ground cannot energize the circuit while the switch is turned off, as it can with a low-side switch. This shield can also be used to drive four unipolar stepper motors.

The board is built with generous traces to handle the current with minimal voltage loss and heating on the board. A pair of 74AHCT595 8-bit shift registers allow the control of sixteen high current channels from only four Arduino pins using the shiftOut() function, and make it possible to daisy-chain as many as 25 boards off a single host, for a total of 400 high current channels. In addition, it can be daisy-chained with all other Logos output boards with a shift register input, i.e. those with a part number of the form *-SRG-*.

Since this board ships with loose connectors, it is easy to use it with non-Arduino hosts.

Key Features

- Arduino shield form factor compatible with all shield compatible Arduino variants and clones.
- Sixteen five amp high side driver channels
- Shift register control allows daisy chaining of up to twenty-five boards for a total of four hundred channels
- Uses only digital pins 7, 8, 12, and 13, leaving all serial, PWM, and analog input lines free.
- Compatible with other shift register controlled boards such as the **1X3-SRG-IPS6**.
- Inexpensive and robust **DB-25 male connector** carries power and outputs
- Four separate power supply circuits allow maximum application flexibility.
- Ships with loose connectors for end user flexibility, including use with non-Arduino hosts.

Libraries

- The shiftStepper library provides support for four-phase unipolar stepper motors. Download the latest library **tarball** here or get it from **GitHub**.

Sample Applications

- Driving banks of DC solenoids, such as for an irrigation system, a fountain, or a **pipe organ**
- Anode switching for an LED matrix
- Driving a bank of DC brush motors
- Driving up to four unipolar stepper motors
- Other process control type applications, such as driving heaters, motors, relays, and solenoid valves.

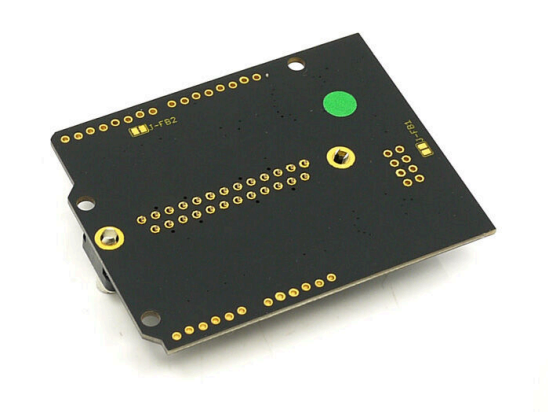
Documentation

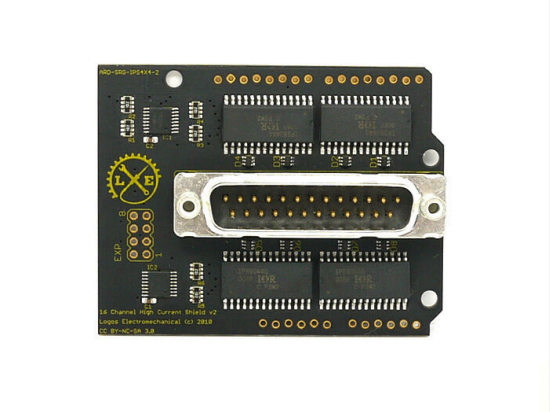
- **Manual (PDF)**
- **Schematic (PDF)**
- **Schematic (Eagle)**
- **Layout (Eagle)**

Accessories

- **Daisy chain cable kit**
- **Power connector**

Product Gallery





Resource Links

- https://www.seeedstudio.com/16-Ch-High-Current-Driver-Shield-Kit-v2-p-793.html

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