RB-Rop-03

Wasp 10A, 6.5V to 28V Single R/C DC Motor Driver



The Robot Power Wasp is a small low-cost high-performance single channel Hbridge speed controller for DC motors, and other electrical loads. The Wasp is designed for small combat robots, sumo robots, and other small robots such as firefighting robots, maze solvers and carpet rovers. The Wasp may also be used to drive pneumatic valves, solenoids, relays, thermoelectric coolers, and magnetic torque devices that require bi-directional control.

By making use of advanced autmototive grade components the Wasp is able to pack robust high power handling capability in the smallest package.

Features

- Size: .65" x 1.85" x .44"
- Weight: 9.0 grams with servo lead installed
- Standard R/C pulse format
- Calibrate function to match unit to radio signal range. Settings retained in EEPROM non-volatile storage.
- 6.5V to 28V battery voltage (>20V requires an external 5V supply)
- Fully reversible H-bridge design. Equal power handling in both directions
- 10A continuous, 30A peak current
- Full current limiting and over temp limiting. This thing is nearly blow proof!

- Limit switch inputs to stop motion in one direction when closed. Motion is allowed in the other direction.
- Indicator LED for speed and direction of motor
- Status LED status information and mode indications
- Receiver battery eliminator circuit (BEC) standard may be disabled. This can provide up to 100 mA of current at 5V to the RC receiver and other attached electronic circuits. (*Must be de-rated for input voltage above 16V*)
- Failsafe shuts off motor if R/C signal is lost
- FLASH-based microcontroller with upgradeable software via in-circuit programming header
- Ceramic oscillator (crystal) for stable operation at all temperatures
- Optional 4 position screw terminal may be user soldered to top or bottom of PCB for easy removal of battery and motor wires
- Capable of supporting I2C or serial command streams. Not supported by stock R/C software but user may replace the stock code if desired. Contact us if you would like to discuss custom software for your application.