

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## ZeroBorg Triple Stack (9V Soldered)

The ZeroBorg is our add on board for controlling motors using the Raspberry Pi Zero. It's small size means it fits neatly below a Raspberry Pi Zero and opens up endless possibilities for tiny robot designs. The ZeroBorg can control up to 4 motors independently and is stackable via I2C, so you can keep adding ZeroBorgs (and our other compatible I2C boards) to control additional motors!

ZeroBorg is fully customisable, so you can match your ZeroBorg to your project you're making! The following optional add-ons are compatible with the ZeroBorg:

- A 5V DC/DC regulator to power the Pi as well as the motors,
- An infrared sensor to control the motors via an infrared remote control,
- A 9V battery clip to power the Pi and the motors.

  This triple stack has three ZeroBorgs pre-programmed with different I2C addresses ready to control up to 12 motors! (9V Battery Clip Pre-Soldered). Includes:
- 3 x ZeroBorg Motor Controllers
- 1 x 5V DC/DC regulator which powers the Raspberry Pi Zero (Pre-soldered)
- 1 x Infrared sensor allowing control from most TV remotes (Pre-soldered)
- 1 x 9V battery clip (PP3) for powering the Raspberry Pi Zero and the ZeroBorg (Presoldered)
- Two female I2C headers to allow communications between the three boards (Presoldered)
- 1 x Secondary I2C header\* for daisy chaining to other boards such as our UltraBorg or ThunderBorg (Not Soldered)
   \*Supplied with the daisy-chain header loose

## **ZeroBorg Specifications**

Each ZeroBorg has:

- 4 full H-Bridges
- Capability of driving 4 motors or 2 stepper motors
- 2A peak or 1.5A RMS per bridge
- An on board fast blow fuse at 5A
- Designed to run off a 9V power source Max range 2.7V to 10.8V (To power the RPi Zero 7V minimum)
- 2 analogue inputs, which are great for sensors
- I2C communication, allowing daisy chaining to other boards
- Fully soldered and ready to use