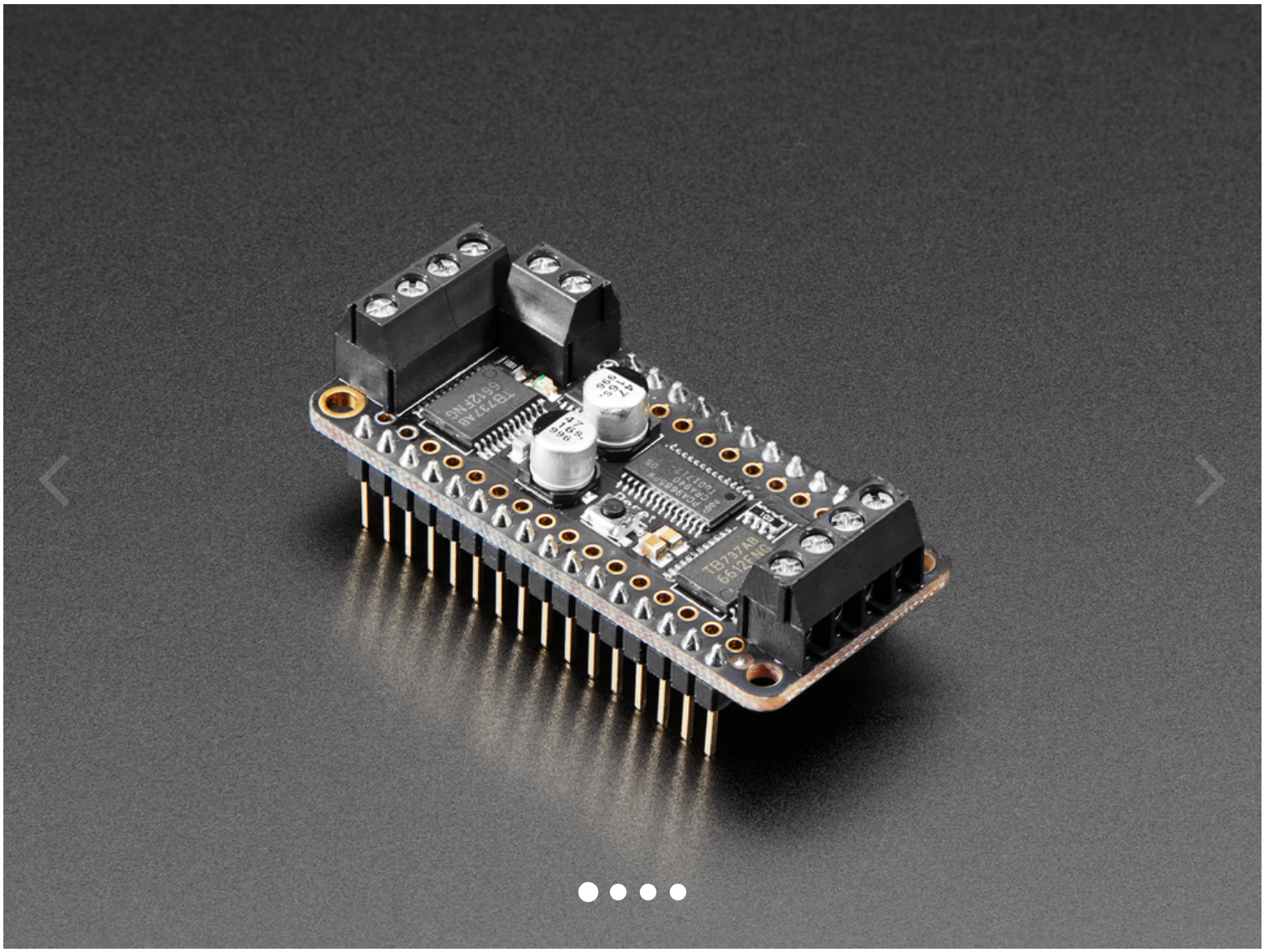
Feather / Wings

# Assembled DC Motor + Stepper FeatherWing Add-on

Product ID: 3243

**$21.50**



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# Description

A Feather board without ambition is a Feather board without FeatherWings! This is the **Fully assembled (with headers) DC Motor + Stepper FeatherWing** which will let you use 2 x bi-polar stepper motors or 4 x brushed DC motors (or 1 stepper and 2 DC motors). Using our Feather Stacking Headers or Feather Female Headers you can connect a FeatherWing on top or bottom of your Feather board and let the board take flight!

The original Adafruit Motorshield Kit is one of our most beloved kits, which is why we decided to squish it all together on a FeatherWing to make something even smaller, lighter, and more portable! Instead of using a latch and the Arduino's PWM pins, we have a **fully-dedicated PWM driver chip** onboard. This chip handles all the motor and speed controls over I2C.

Since the FeatherWing only uses the I2C (SDA & SCL pins), it works with any and all Feathers. You can stack it with any other FeatherWing or with itself (just make sure you have each wing with a unique I2C address) Check out our range of Feather boards here.

**Motor FeatherWing Specs**:

- 4 full H-Bridges: the TB6612 chipset provides **1.2A per bridge** with thermal shutdown protection, internal kickback protection diodes. Can run motors on 4.5VDC to 13.5VDC.
- **Up to 4 bi-directional DC** motors with individual 12-bit speed selection (so, about 0.02% resolution)
- **Up to 2 stepper motors** (unipolar or bipolar) with single coil, double coil, interleaved or micro-stepping.
- Motors automatically disabled on power-up
- Big 3.5mm terminal block connectors to easily hook up wires (18-26AWG) and
- Polarity protected 2-pin terminal block and jumper to connect external power,

logic/motor supplies
- Completely stackable design: 5 address-select jumper pads means up to 32 stackable wings: that's 64 steppers or 128 DC motors! What on earth could you do with that many steppers? I have no idea but if you come up with something send us a photo because that would be a pretty glorious project.
- Download the easy-to-use Arduino software library, check out the examples and you're ready to go!

Comes as an assembled & tested FeatherWing with terminal blocks & plain header. **Feather and motors are not included** but we have lots of motors in the shop. You can use any DC or stepper motors that run from 4.5-13.5VDC and draw under 1.2A per coil. You'll likely also need to provide some external power supply for your motors, since its not suggested you run motors from the Feather's lipoly battery.

We have a great tutorial in the Adafruit Learning System for the bigger but similar Motor Shield with a lot of documentation and example code, so please check it out - Please note that unlike the full sized shield, there are no servo connections (they wouldn't fit!) So if you need a bunch of servos, check out our 8-channel Servo Featherwing


# Technical Details

- Datasheets, CAD files, and Fritzing objects available in tutorial
- Dimensions: 51.2mm x 23 x 18.8mm
- Weight: 10.8

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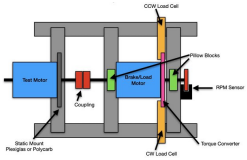
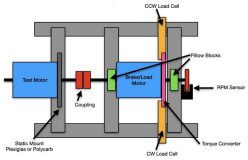
- **Note:** The terminal blocks included with your product may be blue or black.

# Learn



[Improve the Low Speed of Brushed DC Motors]

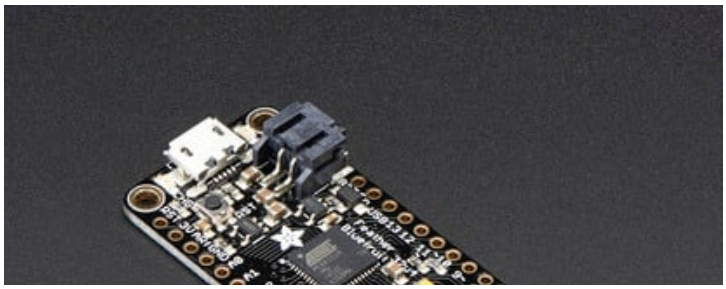
Sometimes the lowest speed of your robot just isn't slow enough.



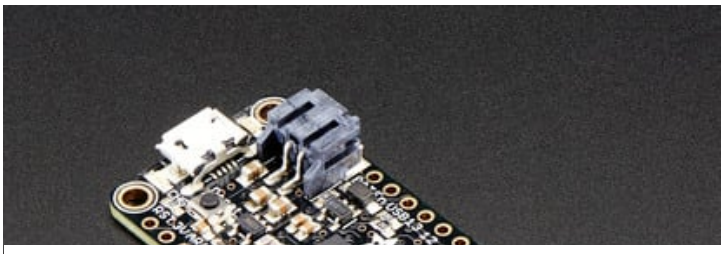
[Improve Brushed DC Motor Performance]

Sometimes the lowest speed of your robot just isn't slow enough.

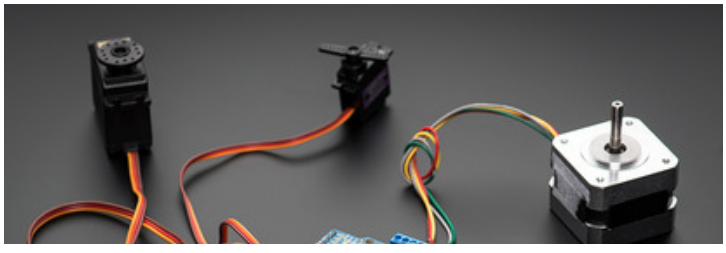
# May We Also Suggest...



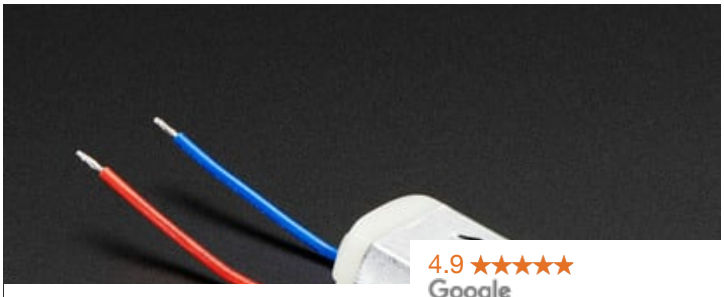
Adafruit Feather 32u4 Bluefruit LE



Adafruit Feather M0 Basic Proto - ATSAMD21 Cortex M0



Adafruit Motor/Stepper/Servo Shield for Arduino v2 Kit



DC Toy / Hobby Motor - 130 Si

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