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Hobby Motor and Encoder Kit

ROB-13260 ROHS✓

★★★★☆ 2



\$19.95

1

quantity



1,012 in stock

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1+ units

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25+ units

\$17.96

100+ units

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Description: This is the Hobby Motor and Encoder Kit from DAGU, an inexpensive and reliable set of add-ons for your next robotic project. Inside this kit are three pairs of items: wheels, gearmotors, and wheel encoders (including everything you need to hook them up). The Hobby Motor and Encoder Kit is perfect for providing beginners with a cheap and easy to use setup or if you just need a few extra parts.

The off set gear motors included with this kit require a voltage of 3-6V with a no load current of 200mA and possess a stall current of 3A@6V (1.5A@3V), a gearbox ratio of 48:1, and a wheel speed of 65RPM at 3V unloaded. Each wheel encoder in this kit requires a supply voltage of 3-24V, a supply current of 4mA, consists of two neodymium 8-pole magnets with rubber hubs, and two hall-effect sensors terminated with 150mm cables and 3-pin female servo headers.

Includes:

- 2x DG02S Mini DC Gear Motor

- 2x Wheel - 65mm
- 1x Wheel Encoder Kit (Set of 2)

Features:

- Gear Motor
 - Voltage: 3V – 6V
 - No Load Current: 200mA
 - Stall Current: 3A @ 6V (1.5A @ 3V)
 - Gearbox Ratio: 48:1
 - Wheel Speed: 65rpm @ 3V unloaded (Recommended)
- Wheel Encoder
 - Voltage: 3V – 24V with reverse polarity protection
 - Encoder Type: 8-pole neodymium magnet and hall-effect sensor
 - Encoder Output: Open drain with short circuit protection

Documents:

- Datasheet

Recommended Products

PAGE 1 OF 6



👉 SPARKFUN RECOMMENDED
ComMotion Motor Driver Shield
🕒 ROB-13257
\$44.95



👉 SPARKFUN RECOMMENDED
SparkFun Ardumoto Shield Kit
🕒 KIT-13201
\$29.95



👉 SPARKFUN RECOMMENDED
Wheel Encoder Kit
🕒 ROB-12629
\$12.95
★★★★☆ 2



👉 SPARKFUN RECOMMENDED
Hobby Gearmotor - 140 RPM (Pair)
🕒 ROB-13302
\$3.95

Customer Reviews

★ ★ ★ ★ ☆ 4 out of 5

Based on 2 ratings:

5 star	1
4 star	0
3 star	1
2 star	0
1 star	0

REVIEW THIS PRODUCT

★ ★ ★ ★ ★ Two Wheels with geared motors and encoders.

about 8 months ago by Member #467079 ✓ verified purchaser

I like it so far, I've more to do with this set of parts. Have not tested the encoders yet but do not expect any difficulty. The price is very reasonable.

Was this review helpful? YES NO

★ ★ ★ ☆ ☆ Decent torque but unclear instructions

about 8 months ago by Member #444914 ✓ verified purchaser

The motors get decent torque and the wheels have good grip, that's the good side.

I am completely lost on how to use the encoder kit; the data sheet is completely useless to me and the one site I've found that discusses these is beyond my understanding,

<http://letsmakerobots.com/node/38636>

<http://letsmakerobots.com/node/39098>

It would be very nice to see example code and hardware setup for using these with an Arduino, with and without a motor driver or H-Bridge since not everyone (me!) who buys these will have that motor driver or H-Bridge available. It would be nice if the description mentioned that this may be needed; us newbies don't always know what's needed :)

Without the encoder aspect, without the motor driver parts, and without PWM, I was able to turn these on using a 9v power supply and an 2N3904 transistor. That's as far as I've gotten. I don't even know what the two blue rectangles are for, but they're included in the package.

I would really like to know more about using these to their full capacity, does anyone have examples or links?

Was this review helpful?

👤 Single T replied on March 11, 2015:

Hi, It's a little hidden, but there is actually a good bit of information on the encoders that can be found in the Redbot guide and code. Here's a link to the guide.

<https://learn.sparkfun.com/tutorials/redbot-assembly-guide-rev-02/wheel-encoder> Cheers
