TT Motor Bi-Metal Gearbox - 1:90 Gear Ratio

PRODUCT ID: 3801

9 IN STOCK

1 ADD TO CART

- ☐ **Also include 1 x Adafruit DRV8833 DC/Stepper Motor Driver Breakout Board ()**
- ☐ **Also include 1 x Adafruit TB6612 1.2A DC/Stepper Motor Driver Breakout Board ()**
- ☐ **Also include 1 x Orange and Clear TT Motor Wheel for TT DC Gearbox Motor ()**
- ☐ **Also include 1 x Skinny Wheel for TT DC Gearbox Motors ()**

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DESCRIPTION

These durable (but affordable!) gearbox motors (also known as 'TT' motors) are an easy, low-cost way to get your projects moving. This is a **TT DC Bi-Metal Gearbox Motor** with a gear ratio. That gives them higher torque but slower

rotational speed. Since they're slower they're good for robots where strength is more important than speed.

They look a lot like our yellow all-plastic-gearbox motors but these have the output-half of the motor gears machined from steel, so they won't strip as easily, and they're twice as slow (and twice as powerful) given their lower gearbox ratio. The metal gears also mean they're louder when running.

You can power these motors with 3VDC up to 6VDC, they'll of course go a little faster at the higher voltages. We grabbed one motor and found these stats when running it from a bench-top supply

- At **3VDC** we measured 80mA @ 60 RPM no-load, and 0.5 Amps when stalled
- At **4.5VDC** we measured 90mA @ 90 RPM no-load, and 0.8 Amps when stalled
- At **6VDC** we measured 100mA @ 120 RPM no-load, and 1.0 Amps when stalled

Note that these are very basic motors, and have no built-in encoders, speed control or positional feedback. Voltage goes in, rotation goes out! There will be variation from motor to motor, so a separate feedback system is required if you need precision movement.

Comes 1 x per order, with just the motor. These motors *do not* come with wires attached, so you'll need to solder wires on yourself.

You *cannot* drive these directly from a microcontroller, **a high-current motor driver is required**! We recommend our DRV8833 motor driver for these motors, as it works well down to 3V and can be set up with current limiting since the stall current on these can get high. The TB6612 can also be used, it's on our shields and wings, but you'll need to supply at least 4.5V - which is what you'll likely want to run these motors at anyhow!

We have a range of wheels, add-ons and accessories for these motors so you can bling out your bot just the way you like.

TECHNICAL DETAILS

Dimensions (excluding shaft): 70 x 22 x 22mm

Product Weight: 34.6g / 1.2oz

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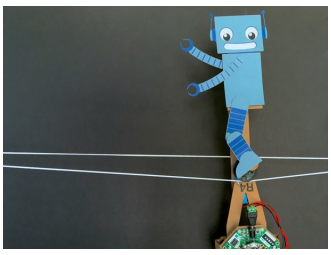
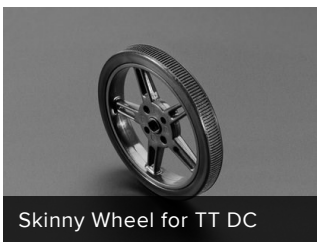


Tightrope Unicycle Bot
Step right up and build a robot that rides a unicycle on a tightrope!

MAY WE ALSO SUGGEST...

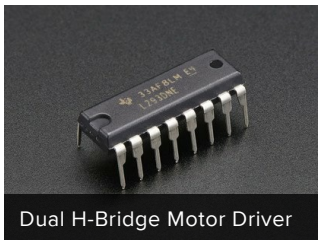


Skinny Wheel for TT DC

Anodized Aluminum Metal

Supporting Swivel Caster

Snap-on Hub for TT Motor

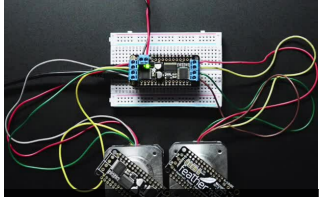


Dual H-Bridge Motor Driver

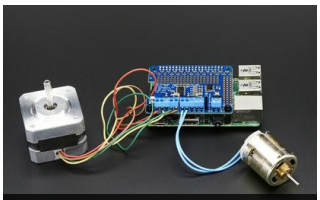
DC Gearbox Motor - "TT

Orange and Clear TT Motor

TT Motor Pulley - 36mm

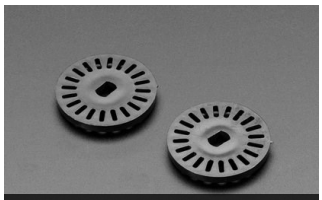


DC Motor + Stepper



Adafruit DC & Stepper

Thin White Wheel for TT DC



TT Motor Encoder (Pack of

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"In considering any new subject, there is frequently a tendency, first, to overrate what we find to be already interesting or remarkable; and, secondly, by a sort of natural reaction, to undervalue the true state of the case, when we do discover that our notions have surpassed those that were really tenable" - Ada Lovelace