## DC MOTOR IN MICRO SERVO BODY







## **DESCRIPTION**

This tiny **DC Motor in Micro Servo Body** is an interesting motor – it's the same size and shape as our micro servo but it *isn't* a servo. It's more like a DC motor + plastic geartrain in a box. It's not a super powerful motor, it would do well as a little robot wheel. It's also a lot less expensive than a micro servo (continuous or non-continuous) because there is no control board inside. Controlling speed is done by PWM'ing the power leads, controlling direction is done by swapping the power polarity – just like any brushed DC motor.

Runs from 4–6VDC, we've powered it with a Lipoly and 3 alkaline, or 4 NiMH batteries with success. You cannot control this directly from a microcontroller pin! You must have a H-bridge such as a <u>L293D</u>, <u>TB6612</u> or a <u>Motor shield</u>, <u>Motor HAT</u> or <u>DC Motor + Stepper FeatherWing</u>.

Motor comes with 2x screws and 2x nuts for mounting to a chassis. **No flanges or horns included** – <u>it's intended to mate with our little wheels, there's a screw to attach once they're plugged together</u>. Build a robot vehicle of your own with these little motors driving it!

## TECHNICAL DETAILS

Dimensions: 32.3mm x 12.3mm x 29.9mm / 1.3" x 0.49" x 1.2"

Spline Count: 21Weight: 8.4g

No load speed: 110RPM (4.8v) / 130RPM (6v)

Running Current (at no load): 100mA (4.8v) / 120mA (6v)

Peak Stall Torque (4.8v): 1.3 kg/cm / 18.09 oz/in

Peak Stall Torque (6v): 1.5 kg/cm / 20.86 oz/in

Stall Current: 550mA (4.8v) / 650mA (6v)