

2x DC Motor Phidget



The DCC1003 gives you complete control of two DC motors of up to 4 amps each from one of the ports on your VINT hub. You can control motor velocity, acceleration and braking strength using commands from your software. The compact and enclosed form factor of the DCC1003 makes it easy for this Phidget to fit in smaller projects while still controlling motors with current ratings of up to 4 amps. See the Connection & Compatibility tab for a list of devices with VINT ports that can connect to this Phidget.

Reliability and Protection

A built in heatsink on this controller prevents it from overheating during operation.

The VINT port on this device is isolated from the rest of the board, greatly improving reliability and eliminating ground loops. Your VINT Hub and computer will also be safe in the event of a current spike coming back from the motor.

The power terminals on this device are polarity protected: if you happen to hook up the power supply backwards, the device simply won't power up and won't be damaged. There is also a fuse included on-board to protect the controller in an over-current event.

Product Specifications

Board Properties

Controlled By	VINT
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Controller Properties

Motor Type	DC Motor
Number of Motor Ports	2
Acceleration Min	0.1 % Duty Cycle/s
Acceleration Max	100 % Duty Cycle/s
PWM Frequency	25 kHz
Sampling Interval Min	100 ms/sample

Sampling Interval Max	60 s/sample
Acceleration Resolution	0.1 Duty Cycle/s
Velocity Resolution	0.001 Duty Cycle
Current Limit Resolution	5.6 mA
Acceleration Time Min	20 ms
Acceleration Time Max	20 s

Electrical Properties

Continuous Motor Current Max	(per motor) 4 A
Supply Voltage Min	8 V DC
Supply Voltage Max	30 V DC
Current Consumption (Unconfigured) (VINT Port)	500 μ A
Current Consumption Max (VINT Port)	750 μ A

Physical Properties

Recommended Wire Size	16 – 26 AWG
Operating Temperature Min	-40 °C
Operating Temperature Max	85 °C

For power consumption specifications, see the technical section of the User Guide.