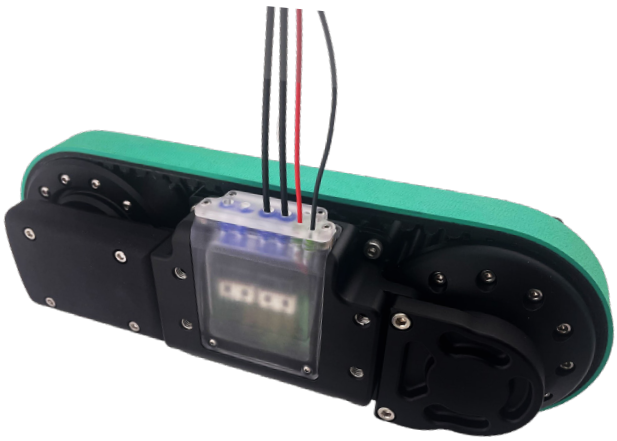
TRACK ACTUATOR



This robotic actuator is specifically designed to be used for robots that perform in robust mobile manipulation applications. HEBI Track Actuators are sealed to IP54 and are compatible with the HEBI Robotics Platform for robot development. Example HEBI solutions that employ the new track actuator include an in-pipe crawler and a magnetic crawler.

Each actuator integrates a brushless motor, gear reduction, and control electronics into a compact package that runs on anything from 24V-48V DC and communicates using standard 100Mbps Ethernet. This configuration keeps the overall robotic system lightweight, low-power, simple, and safe.

The Track Actuator is a full-featured robotic component as opposed to a simple servo motor. The output rotates continuously, requires no calibration or homing on boot-up, and wiring can be easily daisy-chained. This configuration enables the actuators to be a versatile tool for mobile robotics platforms.

HEBI Robotics provides cross-platform software tools that make configuring and controlling the Track Actuator a breeze, with features such as live plotting, control from mobile devices like phones and tablets, and APIs for MATLAB, ROS, C/C++, and Python.

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TRACK ACTUATOR — TECHNICAL SPECIFICATIONS

Peak Torque **Cont. Torque** **Max Speed**	28 N-m 12 N-m 12 m/min [39.4 ft/min]
Mass	2.25 kg
Dimensions	255mm x 90mm x 90mm
Power	24-48V DC Cont. Current: 1A @ 36V Peak Current: 3A @ 36V
Environment	-10°C to 50°C Ambient Designed for IP54
Communication	2x 100 Mbps Ethernet Plastic Optical Fiber (OptoLock®)
Angular Resolution	0.1° / 0.1 mm
Safety	M-Stop line input - 5V - 48V DC
Sensing	Angular Position Angular Velocity Motor Torque (Current-Based) 3-axis Accelerometer / Gyro Motor and Electronics Temperature Bus Voltage Bus and Winding Current
API Support	MATLAB (Windows / Linux / OS X) ROS (Linux) Python (Windows / Linux / OS X) C/C++ (Windows / Linux / OS X)

Each individually purchased Track Actuator includes a standard connection kit.
Additional technical documentation at **docs.hebi.us**
Additional drawings and CAD models can be found on our public Github CAD repository (**cad.hebi.us**)

Updated on July 2, 2024. Specifications subject to change without notice.

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