

RIDGEBACK™

OMNIDIRECTIONAL DEVELOPMENT PLATFORM



HEAVY DEVELOPMENT PLATFORM FOR MOBILE MANIPULATION AND CUSTOM PAYLOADS

3 DEGREES OF MOVEMENT

Ridgeback is a midsize indoor robot platform that uses an omni-drive to move manipulators and heavy payloads with ease. The omnidirectional base provides precision positioning in dynamic environments and comes fully integrated with an onboard computer, front and optional rear laser scanners and an IMU.

ROS READY

Programming complex applications is simple with the open-source Robot Operating System (ROS). Ridgeback is supported in Gazebo Physics Simulator, RViz and MoveIT! Motion planner.

EASY INTEGRATION

As with all Clearpath robots, Ridgeback is plug-and-play compatible with our extensive list of robot accessories. Payloads are easily added with flexible mounting, accessible on-board power and reconfigurable I/O. Prototyping an industrial or commercial mobile robot has never been easier.

A FEW OF THE INNOVATIVE FIRMS WHO USE OUR ROBOTS



Contact us today for pricing and a free 30 minute technical assessment: 1-800-301-3863

TECHNICAL SPECIFICATIONS



DIMENSIONS L x W x H	960 x 793 x 296 mm (37.7 x 31.1 x 11.6 in)	DRIVE POWER	2000 W peak 800 W continuous	FEEDBACK	Encoders Onboard IMU
WEIGHT	135 kg (297 lbs)	BATTERY	24 V 100 Ah AGM Battery	CONTROL MODES	Kinematic Control (Forward, Sideways, Rotation), Individual Wheel Velocities
PAYLOAD	100 kg (220 lbs)	USER POWER	5 V / 12V / 24V FUSED @ 10A each	DRIVERS/ APIs	Packaged with ROS Kinetic, GAZEBO, Navigation Support MOVEIT!
MAXIMUM SPEED	1.1 m/s (3.6 ft/s)	COMMUNICATION	Ethernet, USB 3.0, RS232,		
OBSTACLE CLEARANCE	18mm (0.7 in)	INCLUDED ACCESSORIES	Onboard Computer, Laser, Gyroscope		
OPERATING TIME	5-8 hrs with max payload	ENCODERS	1 per wheel, >250,000 Counts Per Meter		

SAMPLE APPLICATIONS

MOBILE MANIPULATION



Integrate UR-5, Kinova, or other manipulators with Ridgeback. Omnidirectional steering allows precise positioning without having to back away from the work space.

HUMAN-ROBOT INTERACTION



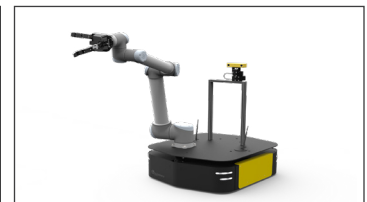
With their modular design, our robots can be outfitted with various manipulators and vision sensors for human-robot interaction and collaboration.

MATERIALS TRANSPORT



Ridgeback is ideally suited to prototype factory applications. Front and rear laser mounts provide 360 degree coverage for safety, while on-board WIFI provides connection with facility infrastructure.

PERCEPTION & NAVIGATION



Improve state estimation with tunable vehicle control parameters, high-resolution wheel odometry and full power system diagnostics.

CONTACT US FOR MORE INFORMATION

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