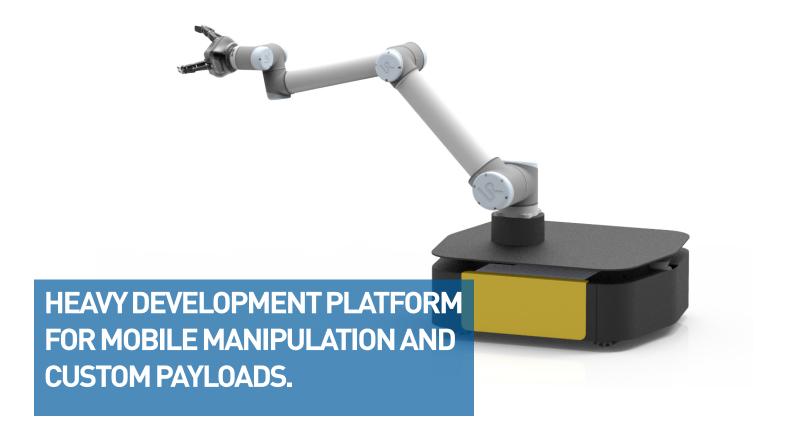
# **RIDGEBACK**<sup>™</sup>



# **Omnidirectional Development Platform**



#### 3 DEGREES OF MOVEMENT.

Ridgeback is built to industrial standards to move manipulators and heavy payloads with ease. Omnidirectional "Swedish" wheels provide control for forward, lateral and twisting movement. Ridgeback enables precision positioning in a constrained environment.

#### **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.**

Ridgeback is designed for rapid integration with the Baxter research platform - plug it in and go! Other sensors and payloads are easily added with flexible mounting, accessible onboard power and reconfigurable I/O. Mobile robot prototyping is fast and easy with Ridgeback.

#### A FEW OF THE INNOVATIVE FIRMS WHO USE OUR ROBOTS















# **TECHNICAL SPECIFICATIONS**





<b>DIMENSIONS</b> L x W x H	932 x 793 x 298 mm (36.7 x 31.1 x 11.7 in)	DRIVE POWER	2000 W peak 800 W continuous	CONTROL MODES	BATTERY +MOTORCURRENT WHEEL VELOCITY GYROSCOPE AND ACCELEROMETER  KINEMATIC CONTROL (FORWARD, SIDEWAYS, ROTATION), INDIVIDUAL WHEEL VELOCITIES
WEIGHT	125 kg (275 Ilbs)	BATTERY	24 V 100 Ah AGM Battery		
PAYLOAD	100 kg (220 lbs)	USER POWER	5 V / 12V / 24V FUSED @ 10A each		
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	4 hrs typ 8 hrs max	ENCODERS	1 per wheel, >250,000 COUNTS PER METER	DRIVERS/ APIs	PACKAGED WITH ROS INDIGO, GAZEBO, NAVIGATION SUPPORT MOVEIT!

# SAMPLE APPLICATIONS

#### **MOBILE BAXTER BASE**

#### **MOBILE MANIPULATION**

#### **MATERIALS TRANSPORT**

#### PERCEPTION & NAVIGATION



Available on-board inverter and mounting kit make it easy to plug in and go. Integrating the Baxter research platform takes just 15 minutes.



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



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.



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

# **CONTACT US FOR MORE INFORMATION**

#### Clearpath Robotics Inc.

1425 Strasburg Road, Kitchener, Ontario N2R 1H2. Canada

TEL: 1-800-301-3863

FAX: 1-888-374-0091

d: info@clearpathrobotics.com web: www.clearpathrobotics.com

#### Don't forget to find us online:







