

"Rosie"

Omni-Directional Mobile Base w/ 6-DoF Arm and Gripper

Rosie is a fully integrated mobile manipulation platform that is great for education and research.



Weight	16.5 kg (with four batteries)	
Linear Speed	0.5 meters per second (with X8-3s)	
Batteries	Grin Technologies, LiGo Battery (Fits up to 4) 36V 2.7Ah, 98Watt*Hrs, 10A Max	
Battery Life (Using 2 Batteries)	1-2 Hours Ability to hot-swap batteries for uninterrupted use	
X-Series Actuators	HEBI Mounting Brackets and Wiring Included	
	3x X5-1 (Wrists)	3x X8-3 (Wheels)
	1x X5-9 (Gripper)	2x X8-9 (Base and Elbow) 1x X8-16 (Shoulder)
Accessories	3x 6" Omni-Wheels 1x HEBI Parallel Gripper Assembly	
Mechanical Interface	T-Slot Extrusion (80/20®) Easy integration of additional components or sensors	
Integrated Electronics	Intel® NUC Computer	Wireless Access Point
	Ethernet Switch	Power Electronics
Bulkhead Connectors	1x HDMI to Computer	3x USB to Computer
	Ethernet Port to Internal Switch	M-Stop Button
	2x RF Antenna for Wireless Access Point	
	Anderson Powerpole Power Connectors for Batteries	
	Power Output for X-Series Actuator	
	Additional Power Outputs for 5V, 12V, and 24V (5A each)	
Software	Computer (White LED) and Actuator (Blue LED) Power Buttons	
	Joystick Control with HEBI Mobile I/O App (iOS and Android) Example code currently available in MATLAB or ROS	

Arm and Gripper Configuration

Arm Max Reach	750 mm	Gripper Max Finger Torque (X5-9)	1.1 Nm
Arm Payload @ Max Reach*	0.6 kg	Gripper Max Finger Force (50mm from Pivot)	23 N
Arm Half Reach	375 mm	Parallel Gripper Stroke Length	82 mm
Arm Payload @ Half Reach*	3.5 kg	Arm and Gripper configuration are customizable upon request	

* Payloads calculated with default 6-DoF Arm configuration and no gas spring*

