

# Hermes

## Universal Robot Platform

### Specification

- Suitable for small and medium sized robot development
- Strong Adaptability
- Widely Modifiable



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## I. Introduction

Hermes is a compact, adaptive, and cost-effective robot platform developed by SLAMTEC, designed to meet the needs of small robot application development. It can be used in various commercial environments such as intelligent inspection robots, container delivery robots, and restaurant serving robots.

It is equipped with SLAMTEC's newly upgraded high-performance SLAMCUBE2 autonomous navigation and localization system, which enables it to work in various commercial settings with different applications.

### **Multi-Floor movement and Simple deployment**

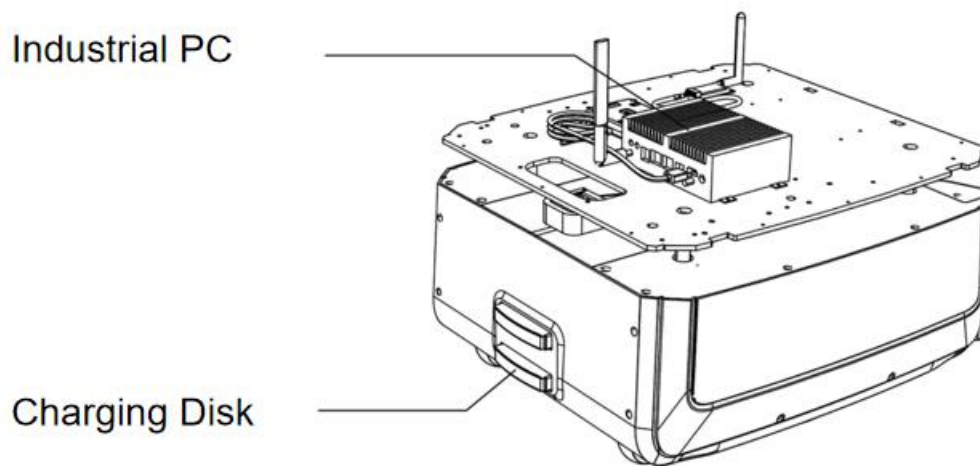
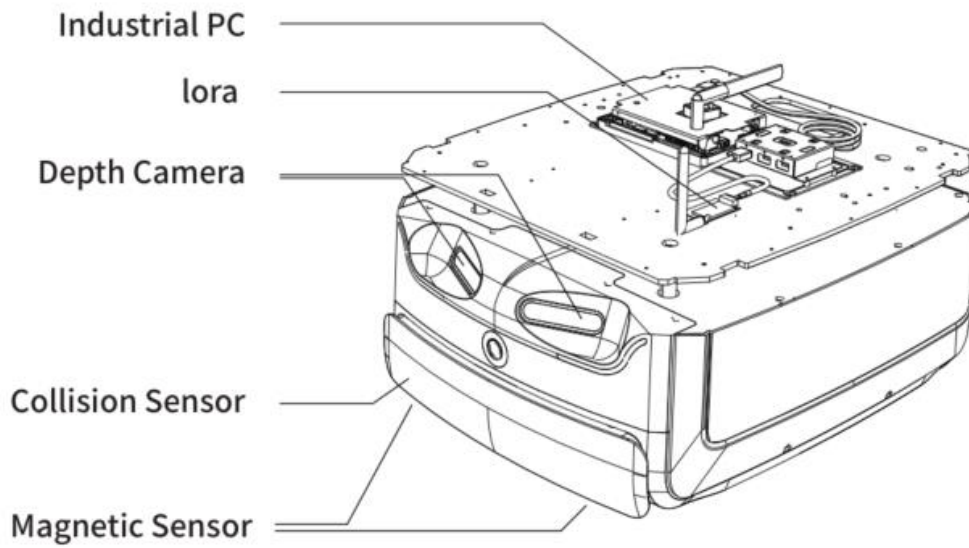
Hermes is equipped with SLAMTEC's newly upgraded Intelligent Elevator Control System 4.0, which adapts to different elevator deployments from various brands, making it more versatile.

Hermes uses the latest upgraded version of SLAMTEC's RoboStudio 2.0 deployment software, which supports one-click merging of maps for multi-floor mapping. It enhances the mapping and deployment efficiency while streamlining the deployment process, resulting in easy and quick deployment.

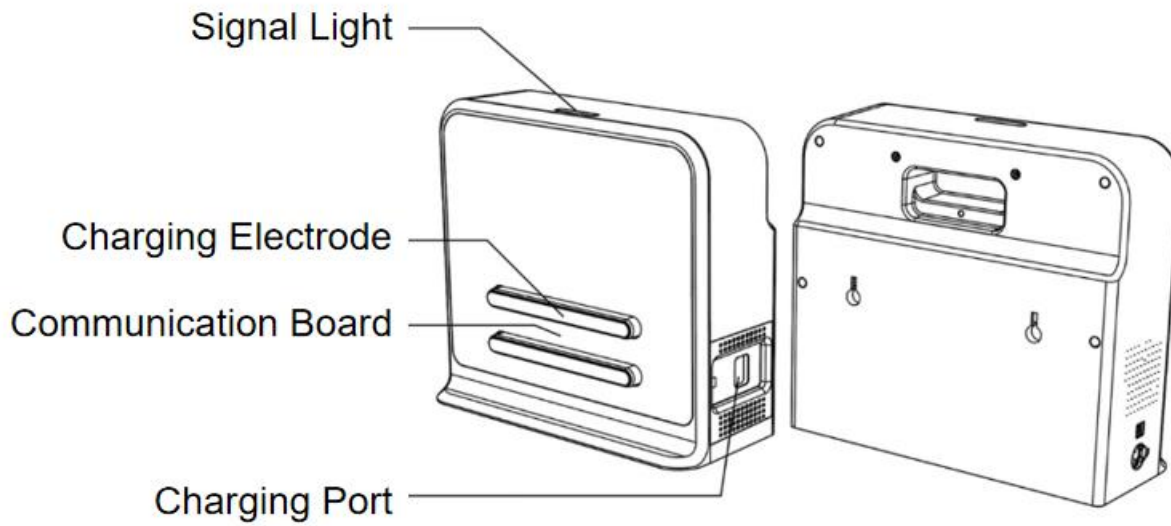
### **Multi-sensor data fusion**

Hermes PRO MAX adopts multi-sensor fusion technology, including LiDAR sensor, magnetic sensor, depth camera, collision sensor, etc. This enables it to adapt freely to the complex and changing commercial environment, and successfully achieve autonomous mapping, localization, and navigation.

## II. Exterior view



### III. Charging Dock



Schematic diagram of charging dock

### IV. List of products

Description	Quantity	Remark
Hermes	1	Hermes chassis body
Charging Dock	1	The environment needs to be selected before deployment

## V. Product parameters

Product Model		Hermes	
Core Function		SLAMWARE™ Localization and Navigation	
Dimension and Weight		Length*Width	545*465mm
		Height	272mm
		Net Weight	40kg
		Max. Weight Capacity	80kg
	LiDAR Sensor	Model	RPLIDAR S2P (Dtof principle)
		Maximum Scanning Radius	0.05-30m (90% reflectivity, white objects) 0.05-10m (12% reflectivity, black objects)
		Ranging Accuracy	±3cm
	Depth Camera Sensor	Quantity	Standard 2(Can be equipped with an additional)
		Detection Range	0.3m - 2m (varies with lighting conditions)
		Field of View (FOV)	H:146.6±3°; V:117±3°
	Magnetic Sensors	Quantity	2
		Maximum Detection Range	3.5cm
	Collision Sensors	Quantity	2
		Trigger Method	physical collision
		Trigger Distance	0.3~0.5cm

		Trigger Force	8N
Mapping Performance		Map resolution	15mm
		Maximum Mapping Area (Single Build)	500m x 500m (50mm map resolution)
		Maximum Operating Area	250,000 m <sup>2</sup>
Movement Parameters		Maximum Travel Speed	1.2m/s (1.5m/s can be customized)
		Default Travel Speed	0.7m/s
		Maximum Travel Speed while Mapping	0.6m/s

Movement Parameters	Maximum Slope Angle	10° Ramp The chassis has a maximum slope angle of 10°, and it can safely navigate slopes with a gradient of up to 18%. The overall height of the vehicle's center of gravity is within 180mm to safely handle slopes of up to 10°. (Note: A slope with a gradient of 100% refers to a 45° incline, where a height difference of 100m is covered over a distance of 100m.)
	Traverse Bump Height	20mm
	Minimum Path Width (per wheel)	40mm
	Minimum Path Width (per chassis)	750mm
	Point-to-point Accuracy (AVG)	±50mm
	Point-to-point Accuracy (MAX)	±80mm
	Minimum Point to Angle	±3.0°
	Multi-Robot Obstacle Avoidance	Supports up to 3 robots in the same scene
LORA module (standard)		
Motor	Wheel Set	2 x 6.5-inch hub motors 4 x 2.5" Universal Wheels



User Interface	Hardware Interface	Power Input	DC 24V 10A
		HDMI	1 x HDMI
		Switch	1 x Brake Release, 1 x Emergency Stop (I/O), 1 x Power Switch
		Sound	1 x 3.5mm headset socket
	1 x LINE_MIC audio pin (Co-lay with headset socket)		
	Network Interface	Ethernet	1 x RJ45 Gigabit Ethernet port
		Wi-Fi Band	2.4G
Software Interface	SLAMWARE™	http protocol interface, Can support different development languages and platforms, such as Windows/iOS/Android/Linux	
Network		Wi-Fi	A network environment that does not require authentication
		4G	4G SIM for domestic and foreign carriers (paid customization on request)
Battery Life & Capacity		Capacity	18 AH 18650 Ternary lithium (standard)
		No-load Running Time	>10H
		Full Load Range	8H (40kg, room environment)
		Charging Time	4-5 h
		Battery life	800 charge/discharge cycles down to 60% of initial capacity
Power Consumption		Standby Power Consumption	32W (no load)

	Full Load Power Consumption (Rec. load 40 kg)	62W (moving)
	Maximum Power Consumption with External Loads	240W
Noise	Noise Level	≤60db
Operating Environment	Operating Temperature	0°C ~ 40°C
	Transportation & Storage Conditions	-25-+55°C
	Operating Humidity	20 ~ 90%rh
	Operating Altitude	≤2000m

Charging Dock	
Overall Dimensions	W360mm*D150mm*H320mm
Color	White
Rated Input	100-240V 50/60Hz 3A MAX
Rated output	DC 25.5V 6A