

NOVA CARTER

Autonomous Robotics Development Platform, Powered by NVIDIA

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Overview

Nova Carter, powered by Nova Orin™ reference architecture, is a complete robotics development platform that accelerates the development and deployment of next-generation Autonomous Mobile Robots (AMRs). Nova Carter integrates the Segway RMP Lite 220 differential drive system, the NVIDIA Jetson AGX Orin, and a comprehensive sensor suite into a fully functional robot, ready to use out of the box. Thanks to Segway's years of expertise in robot design and engineering, Nova Carter is packed with design features that are not only ideal for prototyping, but also ensure reliable large-scale deployment.

Nova Carter is engineered to seamlessly integrate with the best-in-class NVIDIA Isaac™ AMR autonomy platform, which enables Nova Carter to proficiently execute tasks such as surround perception, 3D mapping, and autonomous navigation. By harnessing the full range of software offerings in the NVIDIA Isaac™ platform, training and deploying entire fleets of AMRs becomes streamlined.



Scan the QR code for additional technical specifications on Nova Carter.



Technical Specifications

Item	Parameter
Model	Nova Carter P1
Computing Platform	NVIDIA Jetson AGX Orin™ 64GB module (with 2TB SSD and 10 GbE PCIe card)
Vehicle Size	722*500*556mm
Vehicle Weight	49.6kg
Maximum Payload	50kg
Top Speed	≥12km/h Unloaded
Tire Size	Front wheel 11 inches (280mm)
Operating Temperature	0~35 °C
Obstacle Clearance	25mm
Operation Hours	≥8h
Battery Capacity	1033Wh
Battery Replacement	Supported
Battery IP Rating	IPX7
Charging Time	5h
Charger	Input 100~240V 50~60Hz 2.5A and output 42V 5.0A
Additional External Connections	Ethernet (10GbE), Displayport, USB-C 3.2 Gen 2 (for flashing NVIDIA Jetson AGX Orin™ and general purpose use)
Connectivity	Wi-Fi 5 with 2x2 MIMO; Bluetooth 5.0/BLE; Optimized Fast Roaming support - 802.11 k,v & r.
Certifications	UL2271, MSDS, UN38.3/EMC, GOST-R, RoHS, EU Battery Directive

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Co-developed by Segway and NVIDIA, Nova Carter expedites the transition from manual forklift and guided vehicles to full autonomy. With its rich sensor portfolio, powerful AI compute capabilities, and customization, Nova Carter can operate safely among humans in highly dynamic, unstructured environments. This revolutionary robot significantly enhances productivity, reduces costs, accelerates large-scale deployment, while ensuring operational safety in warehouse management, logistics handling, and more.

Powerful Chassis

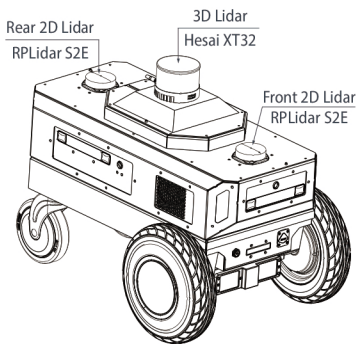
Diverse Sensor Suite

Production Ready

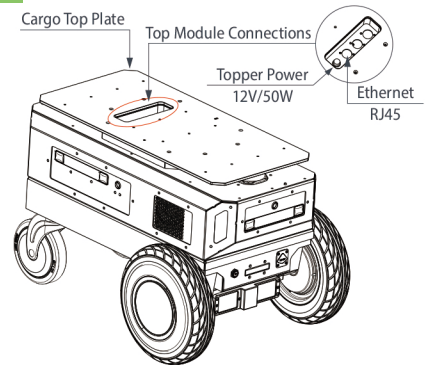
Advanced AI Computing Platform

Custom Services for Enterprises

Nova Carter Configurations

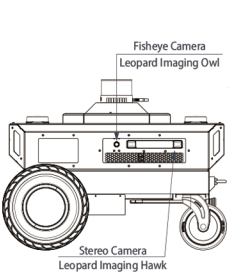


3D Mapping Configuration

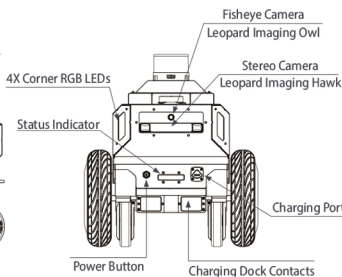


Basic Cargo Top Configuration

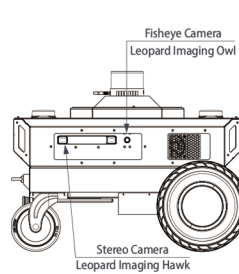
Components Description



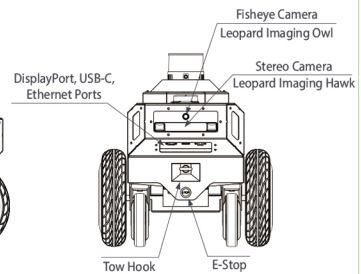
Left View



Front View

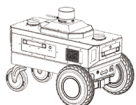


Right View



Back View

Packing Contents



Nova Carter Robot *1



AC Cable *1



Charger *1



Controller *1



Tow Hook *1



Hex Wrench *1



Key to Battery Lock *1



USB-C to USB-A Dongle *1



Basic Cargo Top Module *1