u·Serve

A versatile smart mobile hospitality robot offering large HD screen and 4 trays for plenty of possibilities in terms of use.

- **Open platform** consisting of mobile base, spine, screen and standard interfaces
- Maximum **flexibility** for integrators allowing customized solutions
- **Human Safety** and **Data Privacy** prioritized with highly sensitive sensor technology and certificates
- Open **Software Architecture** with specific access levels for different user groups

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UNITED ROBOTICS GROUP
the CobiotX company

uServe

- **Open APIs** for customized solutions
- **No-Code Software** user interfaces
- **Rapid Deployments** within minutes
- **Call Devices and Follow Devices** for an easy interaction with the robot
- **Multi-Robot Fleet Management** for global and local efficiency optimization
- **Task Management** including multiple tasks planning
- **Online Dashboard** operation visualization
- **Door and Elevator Management** enabling easy control and utilization of existing automated systems
- **Interoperability** with other AMR / AGV
- **Real-time** Operation data monitoring

uServe adapts seamlessly to your individual requirements thanks to its flexible tray configurations, large HD screen and an intuitive yet powerful mission planner. Paired with unchallenged mobility, multiple delivery modes and functions for remote controls, uServe enhances both your operational efficiency and your staff satisfaction at a competitive price point.

Basic Functions / Equipment

- 40 kg payload – 10 kg per tray
- Max. speed of 1.2 m/s
- 4 tray layers
- Embedded touchscreen & 15.6" HD screen
- Safety LiDAR
- Safety spot & buzzer
- Camera
- Speakers
- LED lights
- Wireless charging

Technical Specifications

Dimensions	Length Width Height	490 mm 580 mm 1290 mm
Payload	Rated Load Shelf Configuration Shelf Dimensions Shelf configurations	40 kg total; 10 kg per tray 4 tray layers 430 × 400 × 200 mm Height adjustable trays, but w/o smart features (light & payload sensors)
Work Environment	Operating Temperature Charging Temperature Work Environment Max. Mapping Area	-10°C - +65°C ; UV resistance; Corrosion resistant +5°C - +40°C (indoor) Indoor and outdoor in qualified parks/industry zones No limit; Max. 200,000 m² recommended for a single map
Storage Conditions	Temperature	-20°C - +65°C
Navigation	Max. Speed Min. Space Width Passable Slope Gap Crossing Obstacle Height Elevator and Gate Width Position Accuracy Navigation Modes	1.2 m/s 700 mm 8° Max. 30 mm Max. 17 mm Min. 750 mm ± 5 mm / ± 1° Free / Track / Mixed / Cruise / Follow

Sensors	Ultrasonic sensor	Detect glass and other transparent materials
	RGBD camera	Detect more obstacles with a certain height that cannot be detected by LiDAR
	LiDAR	Detect obstacles with a certain height in 360 degrees
	Fisheye camera	215°FOV, resolution 640*480, capture visual features of the environment
Processing Units	GPU	ARM® Cortex™-dual core Cortex-A72 1.8/2.0GHz; quad-core Cortex-A53 1.4GHz
	Ram	"4GB binary channels LPDDR4"
	Rom	32GB high speed eMMC
	DSP	Rasberrypi CM4
	CPU	ARM® Cortex™-dual core Cortex-A72 1.8/2.0GHz; quad-core Cortex-A53 1.4GHz
	Image processing	ARM® Mail-T860MP4 GPU OpenGL ES 1.1/2.0/3.0,OpenCL1.2,Directx11 Embedded high performance 2D acceleration hardware "H.264/H.265/VP9 up to4Kx2K@60fps H.264/H.265 decoder supports 10bit decoding" 1080P multi-format video decoding, support H.264, VP8 and MVC
Wireless Charging System	Dimensions	375 × 160 ×355 mm
	Weight	4.35 kg
	Input Voltage	100 – 240 V
	Input Frequency	50 – 60 Hz
	Output Voltage	29.4 V == 7.0 A
Network Communications	4G	Support FDD B1/B3/B5/B8,TDD B38/39/30/41
	5G	Supported, need to add 5G accessories
	WIFI	Wifi module (AP6256) 2.4G&5GHz, support 802.11a/b/g/n/ac protocol

Weight (empty, incl. battery)	66 kg
Cover Material	ABS plastic
Battery	Type: Lithium ternary Charging voltage: 24 V Battery Capacity: 18 Ah Operation Time: 10 h Charging Time: 4 h Charging Temperature: +5°C - +40°C
Display	10.1”, MIPI, resolution of 1280*720 Additional 15.6" HD info screen
Connectivity	Open software architecture with different access levels
Expandable Peripherals	Calling buttons, follow me wristband, notification lights and speakers, elevator module, automatic door module
Product Safety Compliance	Machine Directive ISO 12100, ISO 13849, ISO 13850, IEC 60204-1 Risk Assessment & Design (ISO 12100) ISO 3691-4
Electromagnetic Compatibility (EMC)	EMC Directive (EN IEC 62196, EN 61851, IEC 61000-6-2 , IEC 61000-6-4)
Restriction of hazardous substances	DIN EN IEC 62321
Radio Certification	Radio Equipment Directive (ETSI EN 489-1, ETSI EN 489-17, ETSI EN 489-52) ESI EN 300 238 ESTI EN 301 908-1, ETSI EN 301 908-13 EN 1175 EN IEC 62311 :2020

IP Rating	Whole body: IP43; Battery: IP66
Charger Safety Compliance	Low Voltage Directive IEC 62368-1
Battery Safety Compliance	UN38.3
Software	APP remote management. Robot management platform Remote monitoring platform Remote deployment management platform Remote scheduling management platform Real-time data visualization
OS	Android 8.1 + Linux (Ubuntu)
Interfaces	Restful APIs Open API/SDK at the chassis level Compatible with WMS, MES, RCS Systems

Product Views