



**WE EMPOWER
HUMANITY WITH
TECHNOLOGY**

WHY uSERVE? STRESSFUL AND UNPLEASANT WORK CONDITION RAISES STAFF HEALTH ISSUE, DEPARTURES AND EMPLOYEE TURNOVER COST.

3rd

most reported work injury at Foodservice - Muscle strains and sprains from either slips and falls, repetitive motions, standing in the same place for long periods of time or lifting heavy objects⁵.

74%

vs. 46%
Staff turnover rate in the restaurant industry vs. all other private sectors in the US¹.

44%

Staff turnover rate in the restaurant industry in Europe⁴.

\$1,886

annually training cost per employee turnover is estimated in the US².

25,000

Slip and fall accidents occur every day in the US³.

39%

of work accidents in FSRs links to manual handling in France⁵.

\$3,500

average turnover cost is estimated based on a \$8/hour employee².

€600_{mn}

Cost of employee turnover: recruitment & selection, training & education, productivity loss and exit costs⁴.

€48,500

Cost of employee turnover per restaurant each year in Europe⁴.

Cost of employee turnover is equal to the number of departures, times the average cost of those departures.

¹Upserve ²Restaurant technology guys ³ESRMagazine ⁴Cashdesk ⁵Ameli

WHERE PROFESSIONAL SERVING ROBOTS CAN BE USED? TAILORED FOR DIVERSE SETTINGS, SERVING ROBOTS OPERATE ACROSS VARIOUS ENVIRONMENTS, INCLUDING RESTAURANTS, HOTELS, OFFICES AND FACTORY, FOR OPTIMAL SERVICE AND EFFICIENCY.



Restaurant



Hotel



Conference



Office Building



Factory

WITH **NO PROGRAMMING REQUIRED**, uSERVE SUPPORTS A VARIETY OF TASKS INCLUDING DELIVERING FOOD AND DRINKS AND BUSSING AND DRESSING TABLES, TO CREATE **BETTER WORKING CONDITIONS** THAT ALLOW STAFF TO **FOCUS ON GUESTS**.

Taking commands from staff and executing missions

Helping staff to carry on drinks or food to customers

Bussing the dishes & disposals

Delivering drinks while staff serving other tables

Running as a banquet for self-services

Carrying set-ups for dressing tables

Adapting the shape of trays and its apparency





IT HELPS TO ADDRESS **OPERATIONAL CHALLENGES**, CREATE BETTER **WORK CONDITIONS** & DELIVER GREATER **CUSTOMER EXPERIENCE**.

Operational Challenges

Finding and retaining quality staff

Increasing business profitability and services efficiency

Controlling operational costs

Rising fierce direct and indirect competitions

Demanding customers with more and more alternatives

Benefits with uServe

Attract and retain workforce: for staff → arm pain relief, less running around and reduce tedious tasks, focus on qualitative services and improve the quality of work

Improve profitability: higher table turn-over rate

Reduce cost: decrease serving and bussing OPEX, new staff training

Improve customer experience: higher service quality since crew members team up with uServe

Better comply with regulations and requirements: reduce risks such as hygiene concerns, workload, and compliance, etc.

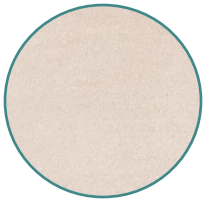
uServe

Smart Serving Robot

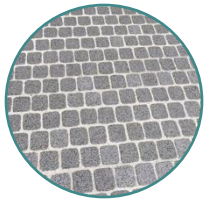
Applicable environments

- Restaurant
- Hotel
- Conference
- Office Building
- Factory

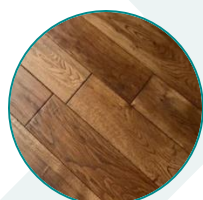
Applicable flooring types:



Carpet



Cement



Hardwood



Marble

Efficient and collaborative serving robot:

- Large HD screen; delivery, promotion and hospitality all-in-one
- Independent suspension, stable movement
- 4 large trays, independent and high efficiency
- 3D obstacle avoidance, no blind area, ultimate passibility
- 5 delivery modes, suit your scenario
- IoT smart connection, remote calling, dynamic table locator



u·Serve

Specifications

- **Size** : 58*49*129 (cm)
- **Tray size** : 43*40 (cm)
- **Max payload** : 40 kg
- **Velocity** : 0.3~1.2m/s
- **Min passing space** : 65 cm
- **Slope** : $\leq 10^\circ$
- **Obstacle** : 20mm
- **Gap** : 65mm
- **Network** : 4G/wifi
- **Battery** : 15Ah
- **Screen size and dpi** :
 - Operational screen: 10.1 inch, 1280*720
 - Display screen: 15.6 inch, 1920*1080
- **Operation time** : Continuous working >10h
- **Charging hours** : 3h

uServe : Smart Restaurant Robot

Advantages



Industry Leading 3D Smart Obstacle Avoidance

- 2 excellent 3D perception RGB-D cameras;
- 180° large detection angle, no blind spot;
- AX-Chaos multi-sensor fusion obstacle avoidance algorithm;
- Suspension/low/irregular shape obstacles can all be avoided ;
- Support foot detection, chair leg detection and avoidance;
- Self-developed AX-Memory obstacle avoidance memory algorithm

Large HD screen; delivery, promotion and hospitality all-in-one

- Multi-Functional Large Screen,
- Eye-Catching Marketing 15.6 inch;
- HD dpi 1920*1080;
- Picture/video/GIF/Music, various format support;
- Fixed-time/festival/birthday, flexible time setting;
- Robot/phone/PC end resource management

Flexible and Swift Passing Capability

Swift Reaction in Crowded Place

- Strong passing capability in narrow path
- H-shape body is both flexible and stable
- Easy to pass through complex environment and crowded place

Smart Tray, Higher Automatic Efficiency

Delivery Pickup Perception System

- Infrared sensor tray (optional)
- Modular detachable structure
- Smart light belt, multiple lighting indication modes

Adjustable Independent Suspension, Smooth Delivery

Precise Speed Control -Fast and Steady Movement

- Vehicle-grade suspension
- Adjustable damper based on payload
- Smart damping, stable speed control
- Thick carpet, wooden floor, marble splicing, up and down slopes can all be passed
- Precise speed control, smooth start and brake
- Fast, stable, multi-mode switch based on scenes

Stable and Never Lose Positioning Compatible with All Scenes

- No need for QR code marker; More stable self-developed SLAM solution;
- Senseless incremental mapping;
- Dynamic perception of environmental changes;
- Multi-sensor fusion algorithm.
- Support extreme environments: bright light/foggy/open large area/outdoor...

Various Operation Modes Simple and Convenient

Pad/phone and more interaction modes, user friendly operation

AI voice assistant, support scene-based dialogue

10+ light indications

Facial expression design, perceptual robotics service

TECH SPECIFICATION

New Upgraded Technology, New Smart Delivery Experience

u·Serve

3D Obstacle Avoidance

Up and down RGBD cameras
No blind spot, 360° flexible obstacle avoidance

Large HD Screen

Large size, max resolution, ultra-high definition
Display your marketing AD

Water-proof & Dust-proof

Whole body IP43, battery IP66

Powerful LiDAR

360° detection
Ultra far range, ultra-high precision

Authoritative Certifications

- ISO9001
- CE
- FCC
- UN38.3 report
- Elevator module certification



Smart IoT System

Automatic take lift, pass through auto gate and auto door
Robot calling system
Smart table locator system

Smart Tray

Smart payload sensor, improve delivery efficiency
AI light belt reminder
Flexible and adjustable trays
4 trays design, more tasks handled simultaneously
Multi-point delivery and more powerful functions
1 layer load : 10 kg
1 layer volume : 12 L

Battery

Duration: 10h
7*24h service can be achieved with the charging pile.

Independent Suspension

Car-grade independent suspension of chassis
Flexible adjustment, effective damping

SMART IOT SYSTEM CONNECTS TO SMART RESTAURANT

Remote Call Smart Locator
Cross-Area Delivery

- Plate collection, remote calling
- Wireless waiter calling system (optional)
- Smart table tracker and calling system (optional)
- Cross-floor and cross-area delivery

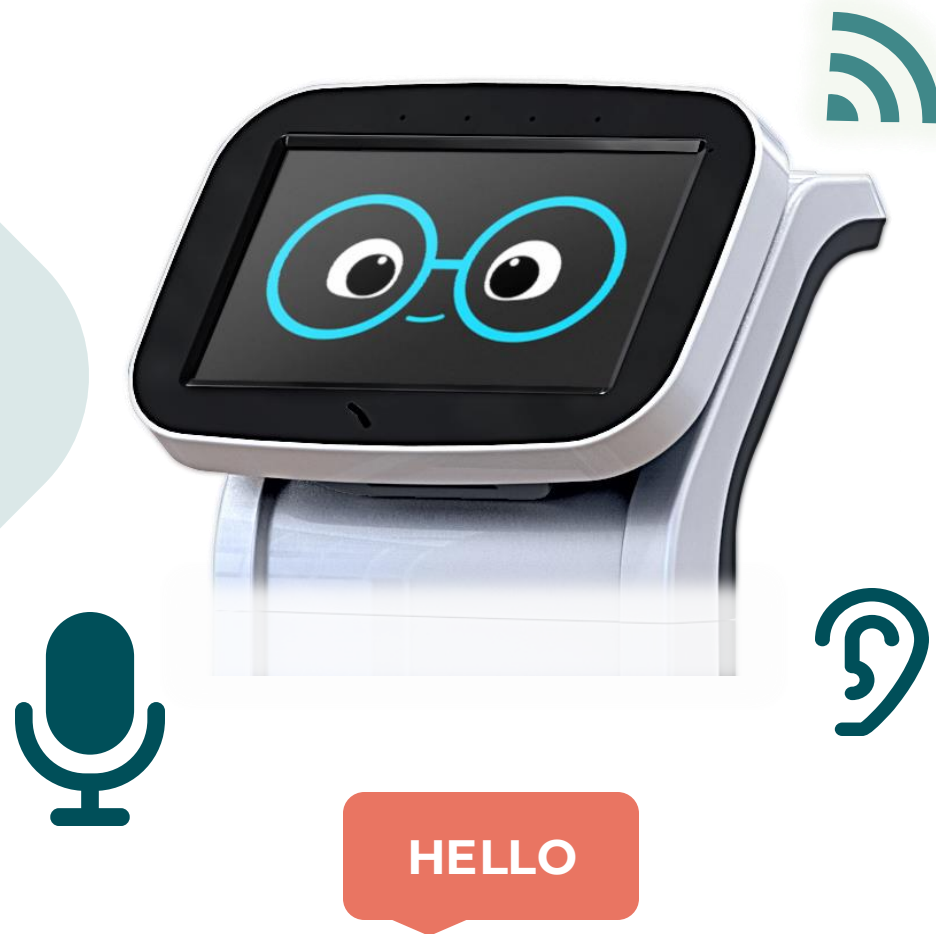


Remote Calling



Table Tracker

SMOOTH AI VOICE INTERACTION EXPERIENCE



Smart Voice recognition technology

- Big data emotion speech synthesis technology
- Supports user-defined scene-based dialogue
- More convenient and interesting interaction

AI Speech Chip

- Smart speech synthesis technology
- 99%+ wake-up rate
- 5m far-field speech recognition rate
- 96%+ NLP accuracy

Mic Array

- All-round sound reception
- 360° near and far field full coverage
- 100 million times wake-up practices

THE 1ST IN THE INDUSTRY REMOTE RAPID MAPPING DEPLOYMENT

Whole-process remotely deployed

No on-site standby, no contact

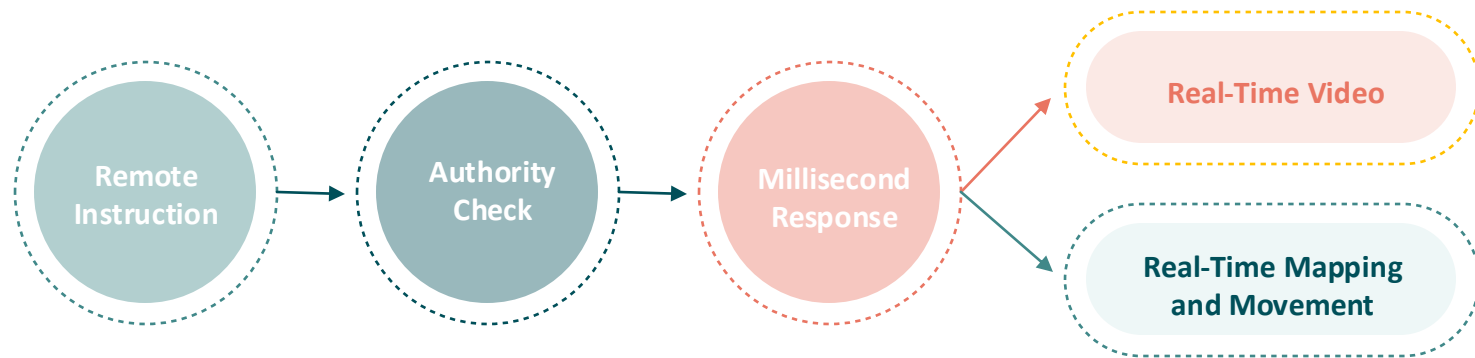
Ready-to-use in 10 min

Remote VR map building

Pad, mobile phone, PC

Lidar + RGBD + IMU
Dual-mode mapping

Simple operation





UNITED
ROBOTICS
GROUP
the **CobiotX** company

Thank
you

