RoboServer

Snail sweeper cleaning robot

RoboServer's Snail sweeper cleaning robots, reduces laborious menial tasks, allows easier ground cleaning, improves efficiency and quality, at both small and large complex large venues.

www.roboserver.com.au

1.1 Product description

Snail sweeper cleaning robot automatically perform mopping tasks through unmanned driving technology, relying on mature SLAM robot autonomous positioning and navigation technology, lidar + 3D camera + ultrasonic + optocoupler anti-collision design, etc., precise navigation and positioning, providing smarter and more environmentally friendly The cleaning service supports the setting of timed cleaning tasks, replacing labor with robots, improving cleaning efficiency and quality. The large laser area of 40,000 square meters can easily handle various complex large scenes. It has obvious advantages such as simple operation, comfortable use, high efficiency and fast speed. , Becoming the new favorite of large-scale commercial establishments, hospitals, hotels, high-speed railway stations and other fields.

1

Mopping
Vacuuming
Sweeping the floor

Built-in mopping module, absorb dust, lock water and wet mopping, Mop and dry without leaving water stains

2

UVC lamp disinfects the ground

16 watt UVC light irradiates the mopping module to directly disinfect the ground

3

Energy saving

The water circulation system can reuse water,No need to add water frequently

1.2 Product Features

Timed tasks

Set cleaning time and location in advance
Automate cleaning tasks

40,000 ㎡ super large laser mapping

Laser SLAM mapping technology,
Optimized navigation algorithm,
Can be used in large scenes

Automatic return to charging

If the battery is below the minimum value, it will automatically return to the charging station for charging

Water disinfection filtration system

Automatic filtration and disinfection, energy saving, environmental protection, time saving and high efficiency

Remote navigation deployment

Build navigation maps remotely, saving time and efficiency, convenient and fast

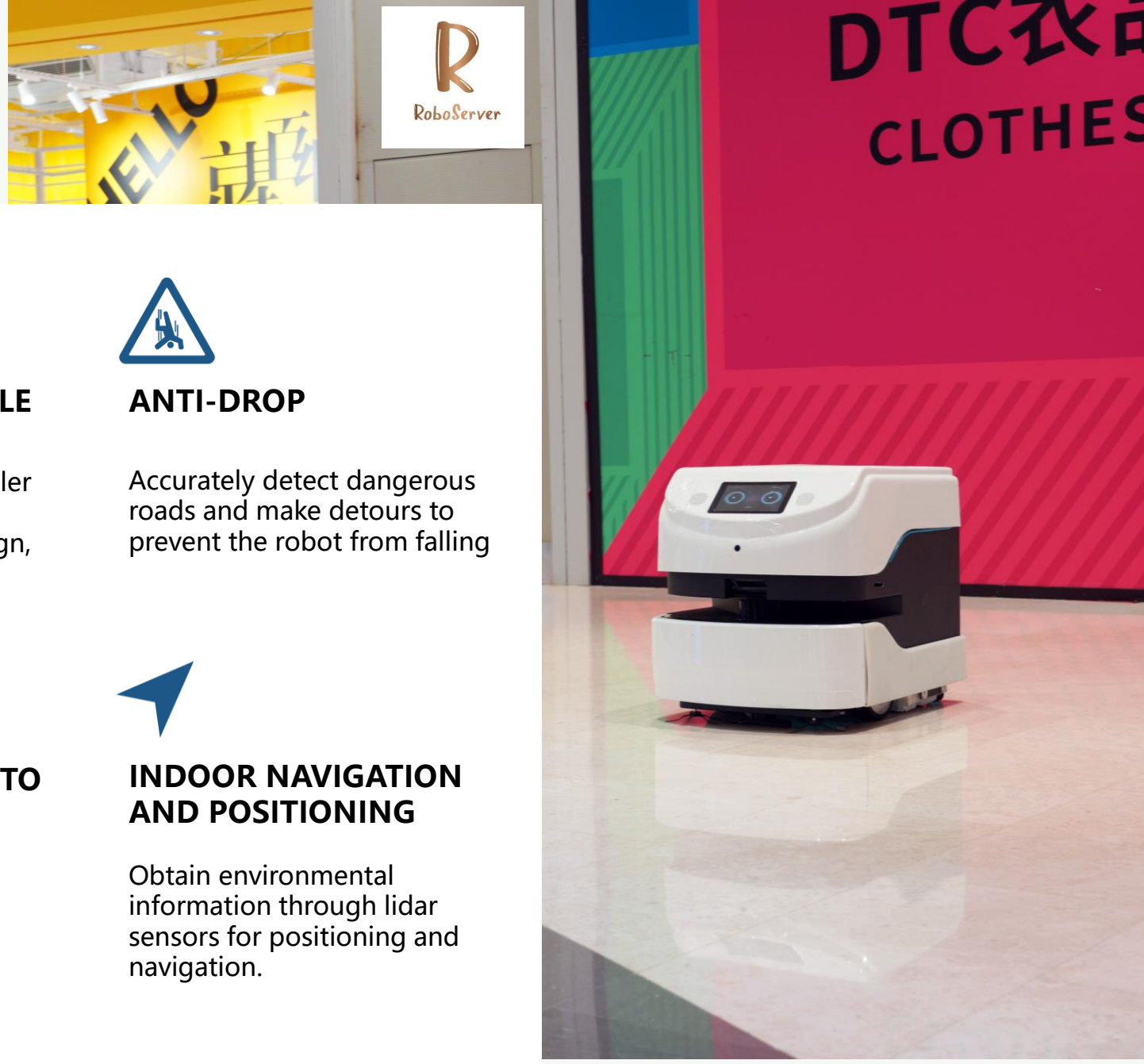
Autonomous obstacle avoidance

Multi-sensor collision avoidance and obstacle avoidance system (3D camera, laser, optocoupler anti-collision system)

1.3 Product features

- The bow shape is clean along the wall, no repetition, full coverage
- Original cloud service management platform, remote navigation deployment, time-saving and efficient
- Support multi-task cross-area cleaning, (same map, same floor)
- Unique water disinfection filtration system, automatic filtration, saving water resources
- Timed appointment function, automatic cleaning, no time limit
- Laser SLAM high-precision navigation and positioning
- Lidar + 3D camera + optocoupler anti-collision design, safer operation
- Cleaning speed 0.1~0.5m/s (speed adjustable)
- Convenient pull-out mopping module design simplifies work and is convenient for cleaning and maintenance
- 40,000 ㎡ of super large laser mapping to meet the use of large scenes
- 25Ah/38.4V lithium iron phosphate battery, 9 hours of long-lasting battery life
- Low battery will automatically return to charging, no one will operate
- Intelligent reminder function for equipment maintenance, failure, and replacement of consumables

1.4 Working principle



“弓” WALKING PATH

Use optimized algorithms to achieve clean and full coverage

INTELLIGENT OBSTACLE AVOIDANCE

3D camera, lidar, optocoupler anti-collision system, multiple anti-collision design, stable and safe operation

ANTI-DROP

Accurately detect dangerous roads and make detours to prevent the robot from falling

REMOTE INTELLIGENT CONTROL

Unique cloud service platform, remote assistance to build navigation maps, remote viewing of machine operating data

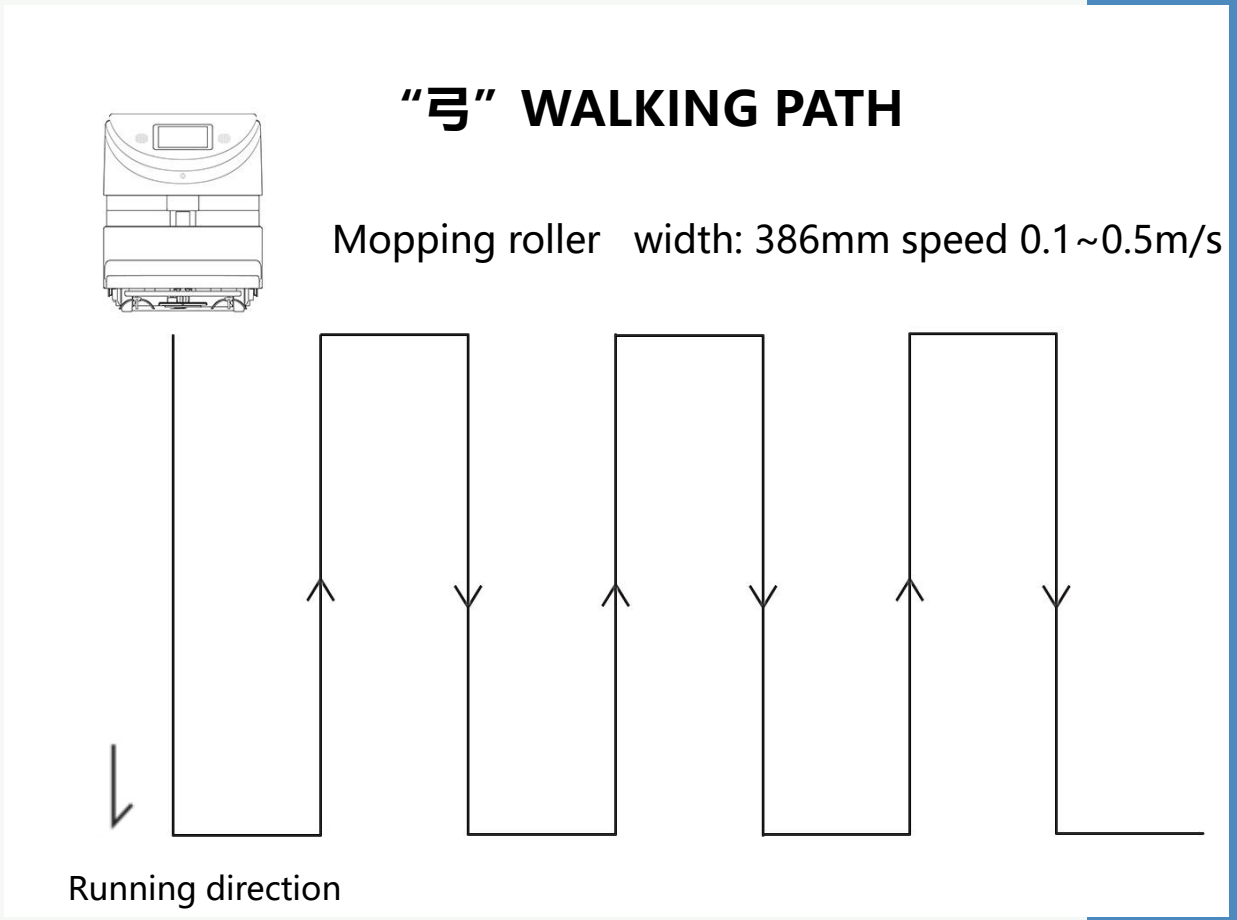
AUTOMATIC RETURN TO CHARGING

Low battery automatically returns to the charging pile for charging without human intervention

INDOOR NAVIGATION AND POSITIONING

Obtain environmental information through lidar sensors for positioning and navigation.

1.5 Principle of cleaning



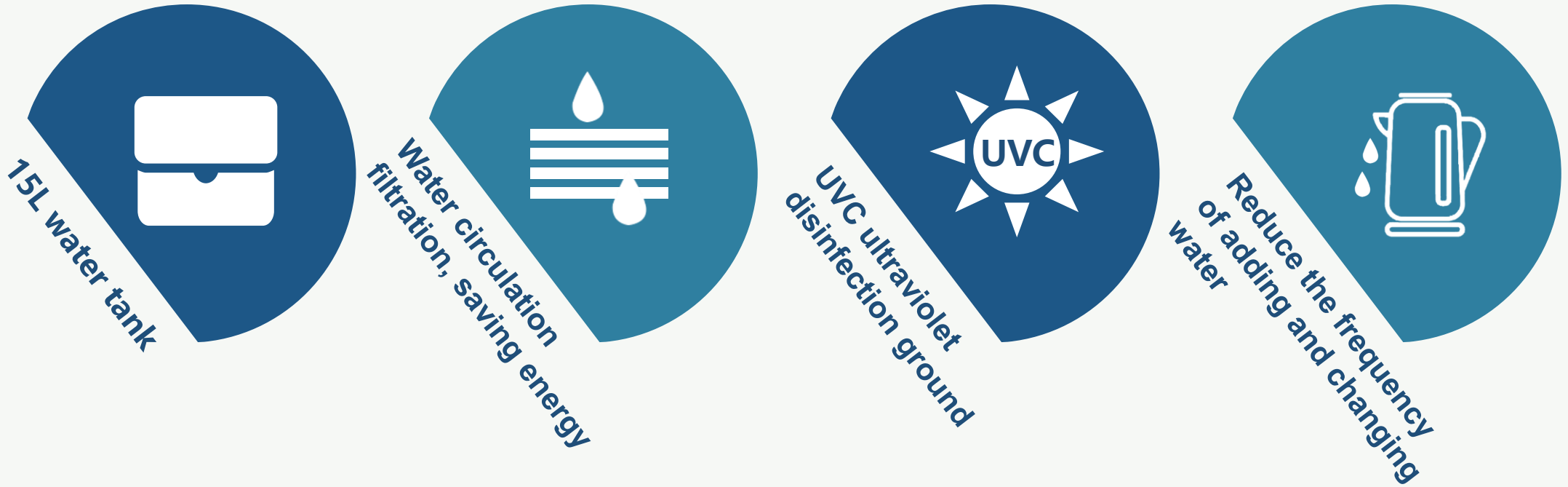
The three-in-one design of mopping, vacuuming, and sweeping, independently planning the cleaning path, mopping along the wall in a bow shape, has a more complete coverage, and solves the cleaning problems of ground water stains, stains, dust, and paper scraps.

The 386mm wide absorbent sponge roller is made of a special polymer absorbent material, which will not damage the ground when mopping the floor, and it will dry when mopping, meeting the requirements of floor cleaning in many industries.

The built-in 16-watt UVC ultraviolet lamp can disinfect the mopping module and the ground, making it more hygienic for aseptic mopping. (Open the lid and automatically turn off the lights to avoid injury)

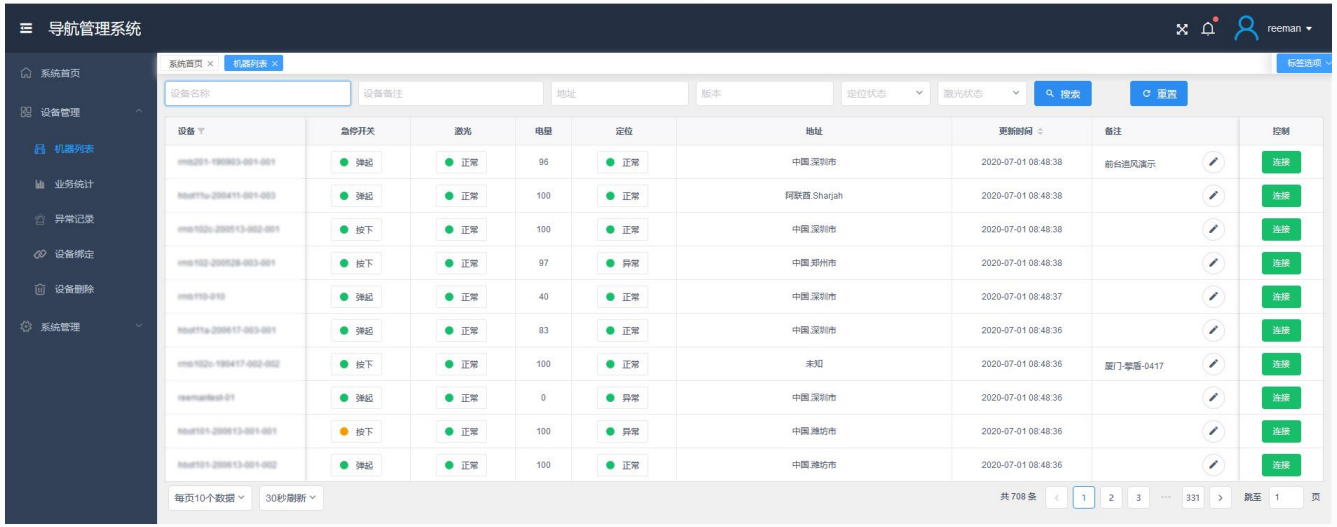
Working principle: The roller brush effectively rolls up the ground garbage (such as paper scraps, melon seed shells) through physical transmission, and automatically sucks into the vacuum box inside the robot. It has a built-in water circulation filter system. The water-absorbing sponge roller moppes the ground. The robot background is real-time. Display data such as positioning, power and mileage.

2.1 Water circulation filtration, UVC ultraviolet + ground disinfection

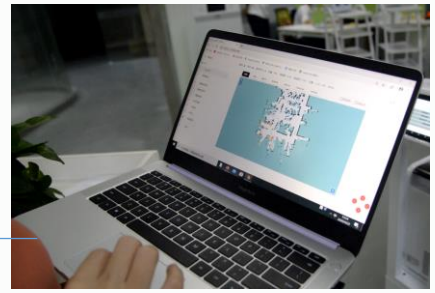


Snail sweeper cleaning robot adopts a large 15L water tank, an original water circulation automatic filtration system, purifies sewage, reduces the frequency of water exchange, and saves water resources. The floor disinfection with 16-watt ultraviolet lamp tube, mopping and floor disinfection are carried out at the same time. Supports 40,000 square meters of large-area map construction, meeting the cleaning needs of various occasions, and can replace manual ground cleaning tasks in high-risk environments.

2.2 Remote navigation deployment



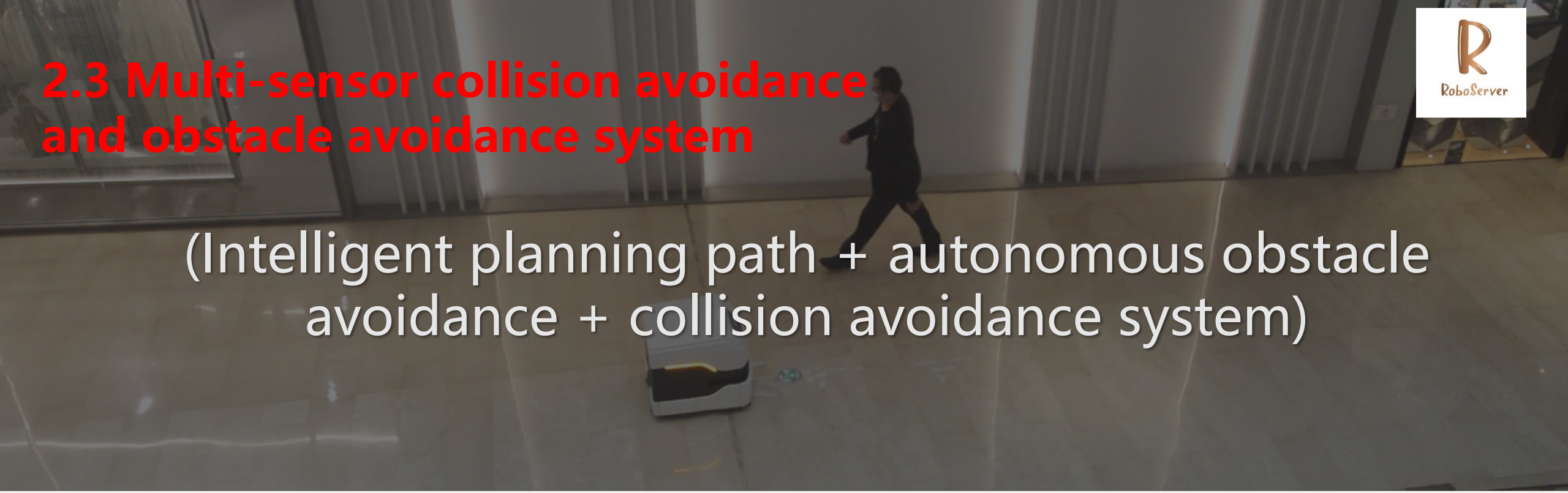
Navigation map



Edit map

Through the cloud service platform, the robot is connected and controlled remotely, and the navigation map is constructed visually throughout the process, reducing the response time of operation and maintenance services, allowing the robot to be put into use in a shorter time, saving time and cost.

2.3 Multi-sensor collision avoidance and obstacle avoidance system



(Intelligent planning path + autonomous obstacle avoidance + collision avoidance system)

3D CAMERA

3D camera anti-collision design, accurate identification of the surrounding environment, autonomous obstacle avoidance, stable operation and safer

LIDAR

Lidar sensor, 25 meters range
High precision distance detection

OPTOCOUPLER ANTI-COLLISION SYSTEM

Adopt optocoupler anti-collision system (tap to go back immediately)
Avoid unnecessary losses

2.4 Convenient maintenance method

Pull-out type mopping module design

1. Open the lid and automatically turn off the UV lamp, and the recovery tank can be quickly taken out
2. Quick disassembly and assembly of the dust box structure makes garbage disposal easier
3. Pull-out mopping module design makes maintenance and cleaning easier

2.5 Convenient maintenance method

Remote intelligent control

The cloud service platform is deployed remotely, and the map is constructed by entering the IP address of the robot to view the operating data

Intelligent reminder

After the robot runs for a period of time, it will automatically remind to clean up the robot′ s rollers, sewage tank, and dust box

Ground-friendly mopping

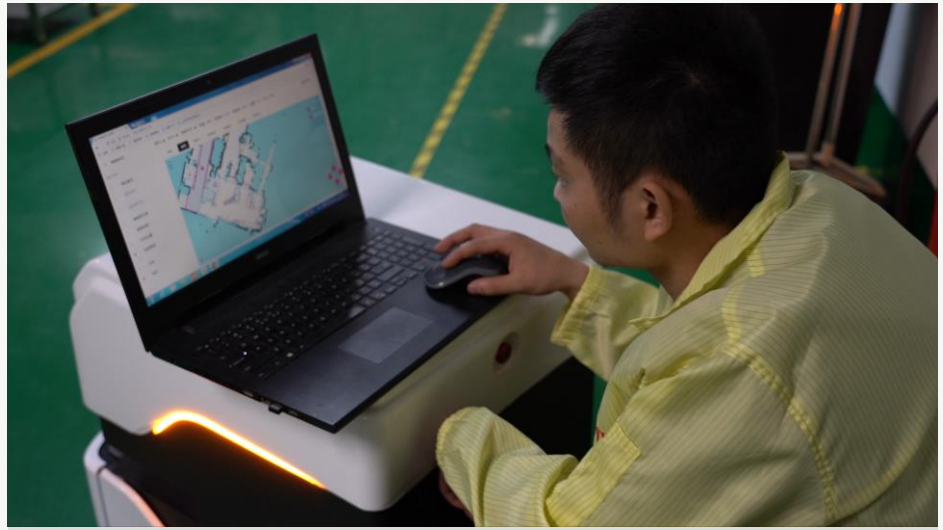
Using special polymer materials, mopping and vacuuming will not damage the ground

40,000㎡ large area navigation map

Supports 40,000-square-meter large scene mapping to meet the needs of a variety of complex scenes

2.6 Operation steps

1. Connect to the network, make the cleaning robot and the computer in the same local area network, enter the IP address, and log in to the background of the robot operation
2. Turn on the mapping mode, remotely control the robot to walk, recognize the surrounding environment, and build a navigation map
3. Lidar accurately measures the distance, observes the positioning status of the robot in real time, and checks whether the positioning coordinates are accurate
4. Edit maps, build virtual walls, customize cleaning areas, and robots automatically perform mopping tasks
5. When performing cross-region mopping tasks, the robots must be on the same map and on the same floor
6. Log in to the background address of the robot, you can view the robot running data, power, mileage, location and other information, easy to operate



Build a navigation map

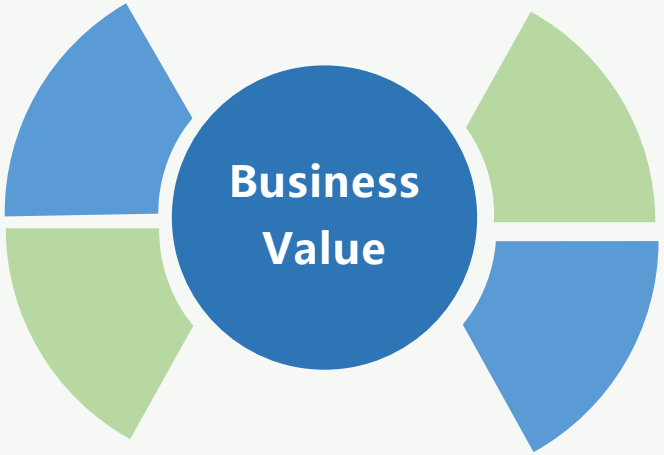
2.7 Product commercial value

Value

Reduce labor costs, save expenses, increase benefit ratio, and increase added value

Brand

Use cleaning robots to free your hands, enhance brand image, and increase the sense of science and technology



Effectiveness

Using robots instead of manual cleaning, high efficiency, high standards, and more thorough cleaning

Convenient

Regular cleaning, automatic charging, quick-release mopping module, more worry-free cleaning

2.8 Product specifications

Snail sweeper cleaning robot

◎ Custom cleaning area

◎ Remote navigation and mapping

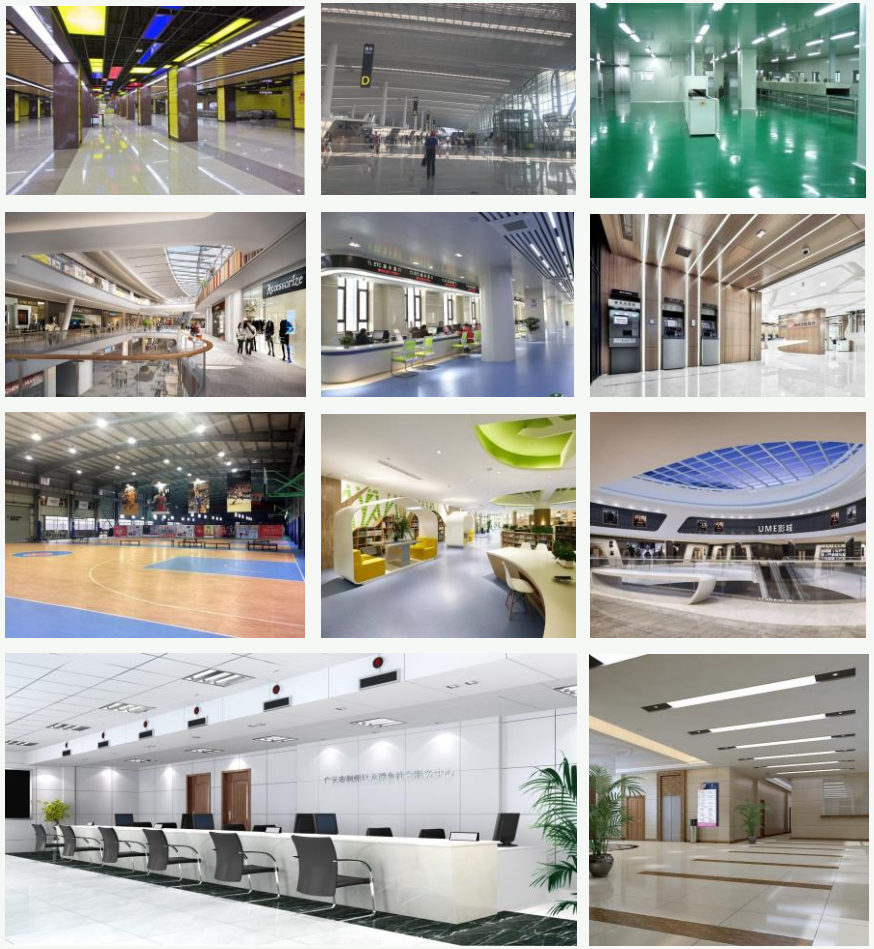
◎ Regular cleaning tasks

◎ Automatically generate cleaning route

◎ Automatic return to charging

Product name	Snail sweeper cleaning robot
Product number	SS-15
Water tank volume	15L
Cleaning route	“弓” Walking path
Cleaning speed	0.1~0.5m/s
Type of battery	Lithium iron phosphate, 25Ah/38.4V
Minimum pass width	900mm
Charging time	6h
Battery life	9h
Standby time	30h
Suction power	2.3Kpa
Cleaning mode	standard
Way of working	Regular cleaning, manual cleaning
Display size	7-inch IPS screen (16:9) resolution 1024X600
Rated power of whole machine	120W
UV lamp power	16W
Product weight	100.8KG (Including adapter, charging pile, wooden box packaging)
Product size (L*W*H)	684mm*500mm*600mm

3.2 Applications



Suitable for cleaning large and medium-sized indoor public places

- Subway stations, high-speed rail stations, airports, customs ports
- Supermarkets, hotels, restaurants, commercial centers
- Government affairs hall, factory workshop, bank, office building
- Schools, gymnasiums, libraries, museums, science and technology museums
- Convention and Exhibition Center, Smart Exhibition Hall, Auto City, Furniture City
- Cinemas, hospitals, nursing homes, welfare homes

Floor material requirements: marble, PVC, wood floor, polyurethane, granite, terrazzo, cement floor, epoxy resin, ceramic tile and other hard floors

Thank you

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