



## AUTONOMOUS DRIVING SWEEPER S120 PRO



"Commercial Intelligent Cleaning Robot Series Products"



Main lidar

Visual camera

Blind spot radar

Turn signal light

Anti-tangle side brush guard



Remote driving camera

Ultrasonic sensor

tires



E-stop button

Remote driving camera

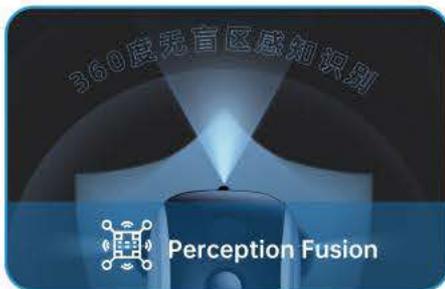
Monocular camera

Trash can

Autonomous driving sweeper S120 Pro is designed for large, flat outdoor surfaces, such as commercial parks, municipal plazas, and parks, as well as for repetitive cleaning applications. It efficiently clean dust, grit, gravel, paper scraps, leaves, plastic bottles, and other waste. Equipped with precise environmental perception, automatic path planning, autonomous obstacle avoidance, automatic charging, and automatic adding water, it supports high-precision positioning and mapping for indoor and outdoor campuses, covering areas up to 100,000 square meters. The cleaning efficiency is up to 4,000 square meters per hour and a continuous operating time of approximately six hours under rated conditions. The maximum speed is 8 km/h and is suitable for a variety of surface finishes, including municipal concrete, flagstones, ceramic tiles, marble, terrazzo, and park tiles.



## Product Advantages



- LiDAR and ultrasonic multi-sensor fusion
- 360-degree perception makes operations safer



- High-precision mapping and automatic cleaning path generation
- Dynamic cleaning memory
- Autonomous obstacle avoidance
- Automatic charging and parking recognition and alarm
- Cloud management and driving records



- Accurate positioning in areas with no GNSS or weak GNSS coverage
- Millimeter-level positioning accuracy
- Edge cleaning



Ten-thousand-square-meters  
Outdoor Cleaning Expert



Highly efficient and versatile

- Ultra-long battery life, 24-hour operation
- Suitable for scenes exceeding 10,000 square meters
- Reduced costs
- Technological design
- Multiple skin colors available



Working Station collaboration

- Sweeper parking protection to prevent equipment damage
- Automatically pack garbage into 30-liter garbage bags and seal them for discharge
- Automatic Charging and water adding function, supporting unmanned endurance
- Auxiliary limit calibration to ensure cleaning accuracy



Cloud Platform Management

- Intelligent Operation Monitoring
- Cleaning Task Online Report and Operation Performance Evaluation
- Efficient Operations

# Sweeper S120 Pro Working Station

The working station is the core supporting equipment of the Sweeper S120 Pro, providing key guarantees for the entire cleaning process.

**Parking protection function** provides a standardized daily parking space for the sweeper, effectively isolating the sensor from harsh environments such as rain and dust, significantly reducing the probability of accidental damage to the sweeper;

**Garbage disposal function** Automatic garbage dumping and collect garbage into 30L sealed garbage bags and automatically pack and discharge them, greatly improving cleaning efficiency while effectively avoiding manual intervention and secondary pollution caused by garbage transfer.

**Automatic charging and water adding functions** Automatic charging and automatic water adding dual modules ensure the sweeper's continuous operation capability;

**Assisted Precision Positioning** The robot is equipped with an assisted limiter mechanism to assist in high-precision position calibration, ensuring accurate cleaning paths and further improving cleaning quality.



Daily protection



Automatic garbage packaging



Automatic charging and adding water



Auxiliary position limit



## Function Introduction

Supporting Function	Function Introduction
 Cleaning in super large area scenes	Supports the cleaning of scenes less than 100,000 square meters.
 Automatic cleaning of the whole area	Through autonomous navigation, autonomous path planning and other technologies to achieve full-area coverage cleaning.
 Automatically clean the designated area	Supports for custom job areas.
 Timing automatic cleaning operation function	The regular cleaning time can be set, and the sweeper can complete the cleaning task independently at the scheduled time.
 Built-in audio and LED screen	The sweeper has its own audio and LED screen, and it realizes broadcasting through cloud platform operation.
 Autonomous driving monitoring and patrolling	Through automatic cruise technology and cloud platform management, real-time monitoring and security early warning can be realized in the cleaning operation area.
 Built-in camera	Through the built-in 4 cameras, the cleaning operation area can be monitored in all directions.
 Sweep along the edge	Supports the cleaning of different road surface edge areas.
 Auto-avoidance	Supports obstacle recognition and automatic obstacle avoidance in the cleaning area.
 Battery management and automatic charging system	The sweeper can set the warning value of low power and automatically charge.
 Energy saving technology	Through energy-saving technology and large battery capacity, the sweeper can last up to 6 hours.
 AI warning technology	The sweeper can provide real-time early warning of the operation area through the AI recognition algorithm.
 Clean data report	The data statistics of the sweeper cleaning report can be queried through the cloud platform.
 Notification	In case of sweeper failure, task completion, etc., relevant information will be automatically pushed.
 API interface	Access the user's original smart park platform or property management platform through the API interface.
 Multiple security guarantees	Through a variety of sensor fusion technologies, the safety of sweeper operation is guaranteed.
 Side brush automatic lift	When the sweeper is cleaning, it will automatically adjust the height of the brush to ensure that the operation is carried out normally.
 OTA remote update	Supports OTA remote firmware upgrade to ensure continuous improvement of device functions.

## Product Parameters

Structural parameters		Electrical parameters		Other parameters	
Size	163 * 120 * 122cm	Battery Type	Lithium iron phosphate battery	Sweeping width	1200 mm
Weight	320kg	Average battery life	6-8 hours	Cleaning efficiency	Max 4000 m <sup>2</sup> /h
Battery weight	38kg	Maximum power	2000W	speed	0-8 km/h
Dustbin volume	100L	Rated voltage	48V	Operating temperature	-20°C~+50°C
Remarks* The weight of the sweeper refers to the weight of the sweeper under no load, and the weight includes the weight of the battery.		Rated drive motor power	800 W	Running noise	55-70 dB (a)
		Rated brush motor power	2 x 90 W	Running slope	≈15
		Rated main brush power	800 W	Security system	Lidar, Vision Systems, Ultrasonic Sensors

## Working station parameters

Structural parameters	
Rated output voltage:	48V
Rated input voltage:	220V
Operating noise:	60db
Operating temperature:	-20 to +50°C
Humidity:	Relative humidity not exceeding 80%
IP Grade:	IP43
Dimensions:	360cm (L) x 100cm (W) x 150cm (H) (CM)

## | Application Scenario



## | Applicable ground



Square brick



Cement floor



Plastic runway



Asphalt floor



Cobblestone floor



Epoxy floor



Granite floor



Rubble floor



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