![Jtibot logo]

AUTONOMOUS DRIVING
SWEEPER S180

Ten Thousand Square Meters Level
Outdoor Cleaning Expert

 Efficient & Excellent | Safety First | Convenient Management

Autonomous driving sweeper S180 is an industry-leading intelligent cleaning robot for 10,000 square meters level outdoor cleaning and aiming to start a new era of outdoor cleaning industry.

Top cleaning ability in the industry: The newly designed cleaning unit is adopted, which greatly improves many key indicators such as garbage types, disposal capacity per unit time, cleaning rate and close to roadside cleaning performance.

Excellent all-weather autonomous operation capability: A newly developed main control unit is equipped and manual intervention is not required during the whole process from regular departure, intelligent obstacle avoidance/extrication, adaptive adjustment of operating parameters, trash volume detection, automatic loading/unloading of trash cans, automatic charging/water filling and autonomous return in rainy days.

Outstanding scene adaptability and convenient operation and maintenance: Reliable autonomous navigation technology, 4G/5G wireless communication and remote takeover units(optional) are integrated, coupled with exclusive App and cloud platform to realize individual/group management, and it also supports intelligent self-inspection and self-diagnosis.

Top Cleaning Capability

- Maximum cleaning efficiency **10000** m²/h
- Cleaning width **1.0~1.8** m
- Cleaning rate **≥99** %
- Large garbage disposal capacity **60L**/min

👍 **A wide range of garbage can be dealt with freely to maximize the cleaning tool function.**

JTclean-V2 cleaning technology can easily deal with different kinds of garbage such as sand, dust, leaves, pop cans, peels, water bottles, milk tea cups, plastic bags, cigarette butts/packets, paper scraps, etc.

🔘 **Extreme zero distance close to roadside cleaning to ensure cleaning effect**

High-precision sensory control system and adaptive dual-sided brush to actively or passively change roadside cleaning distance and with great narrow space accessibility.

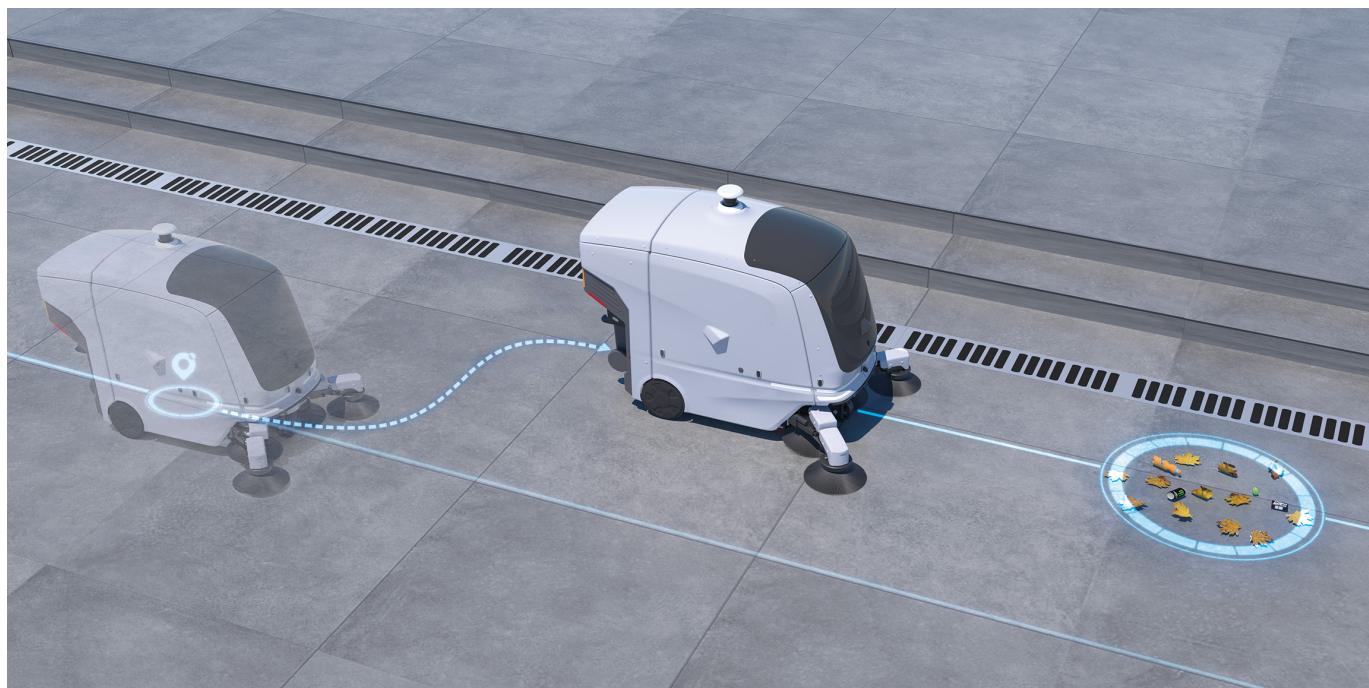❄️ **Superior dust control to avoid secondary contamination**

Equipped with dust suppression spray device and dust-vibrating system to suppress dust during the cleaning tasks.

Excellent All-weather Autonomous Operation Capability

✱ Automatic loading/unloading of 120L trash can

With a deep understanding of business needs, the municipal sanitation standard trash cans are automatically loaded and unloaded, and cleaning, emptying and transportation are seamlessly connected, saving time, labor and money.

Patrol cleaning wherever needed

Automatically identify garbage and regulate cleaning movements in real time to achieve refined operations in large scenes. Adapting to the cleaning needs of different scenarios, the efficiency is greatly improved.

Resume cleaning from break-point, intelligent and efficient

Provide water/power or change trash can when the cleaning program is paused and the sweeper resumes cleaning from break-point to avoid repeated work or omission.
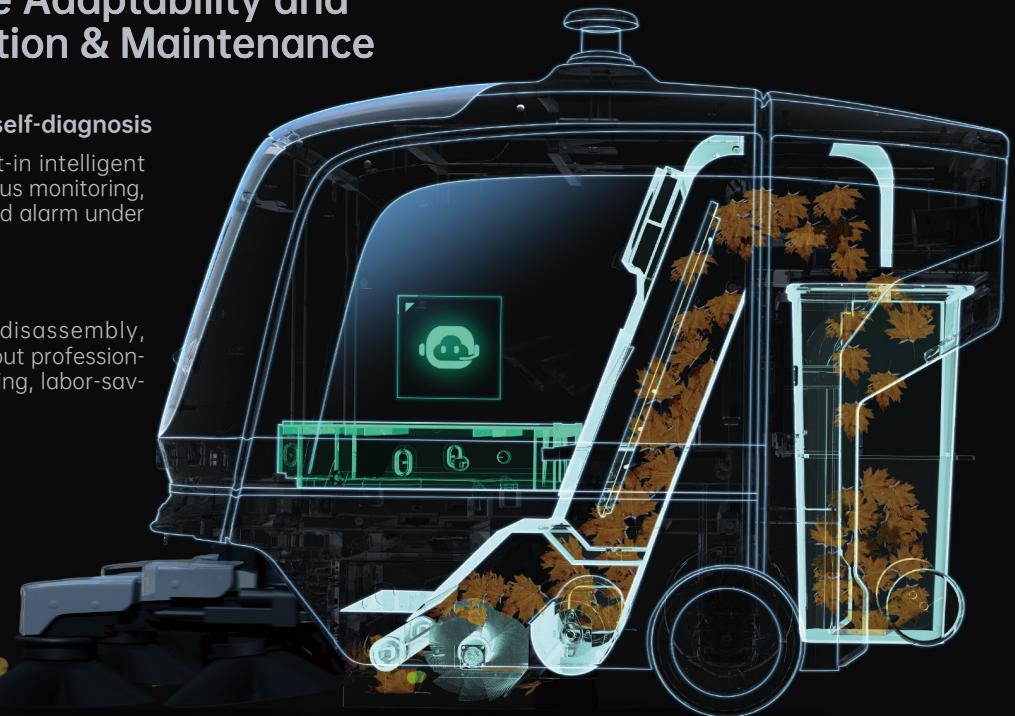
Outstanding Scene Adaptability and Convenient Operation & Maintenance

Intelligent self-inspection and self-diagnosis

Multi-source data fusion and built-in intelligent diagnostic algorithm to realize status monitoring, wear prediction, fault diagnosis and alarm under complex working environment.
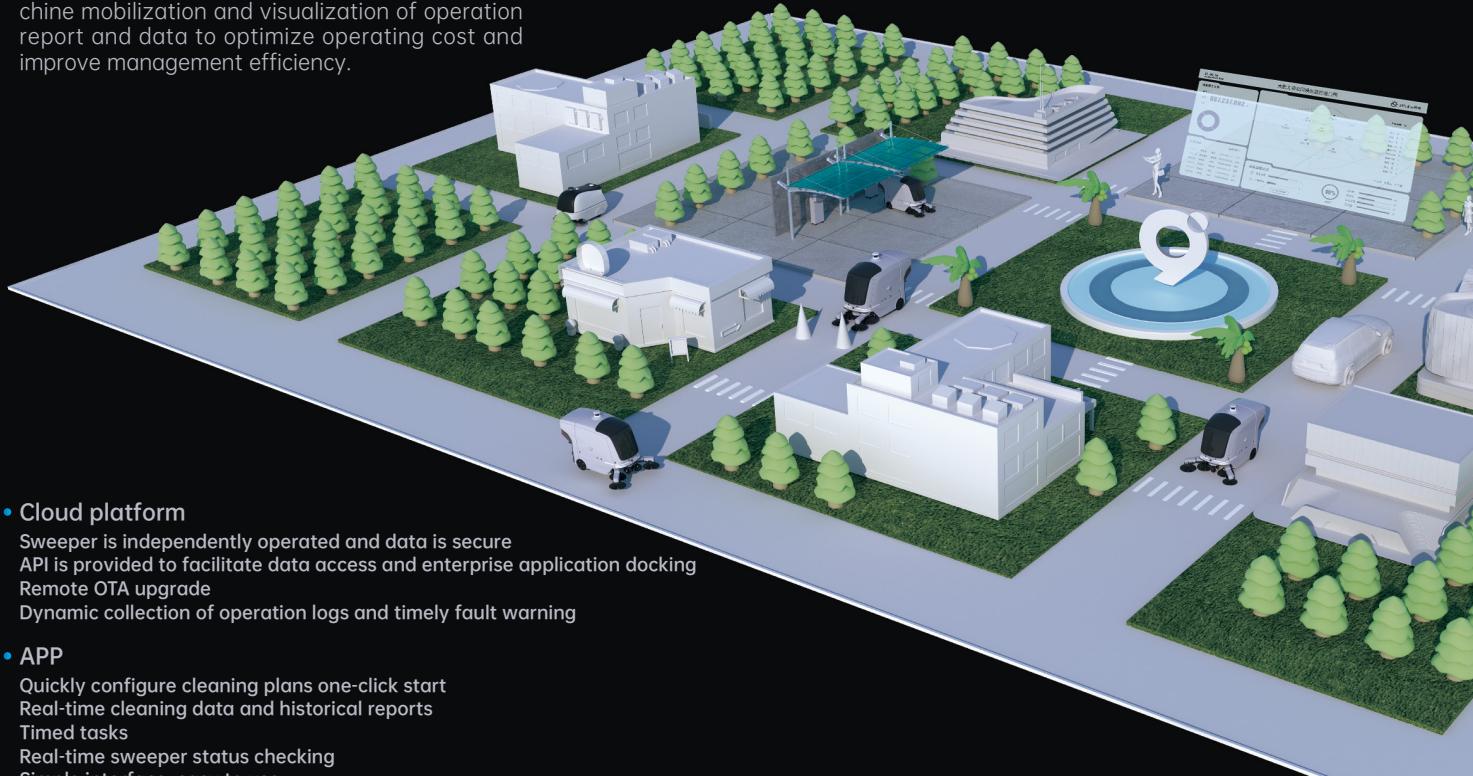
Vehicle-grade modular design

Modular design for convenient disassembly, installation and maintenance without professional personnel or tools. It is time-saving, labor-saving and money-saving.

Smart Cloud Control to Improve Management Efficiency

APP, cloud platform and sweeper are linked together to realize remote monitoring, multi-machine mobilization and visualization of operation report and data to optimize operating cost and improve management efficiency.

- **Cloud platform**
  Sweeper is independently operated and data is secure
  API is provided to facilitate data access and enterprise application docking
  Remote OTA upgrade
  Dynamic collection of operation logs and timely fault warning

- **APP**
  Quickly configure cleaning plans one-click start
  Real-time cleaning data and historical reports
  Timed tasks
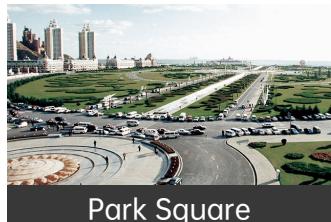 Real-time sweeper status checking
  Simple interface, easy to use

Remote takeover function(optional)

Standard 4G/5G wireless communication and remote driving unit, which support remote access, diagnosis, takeover send extrication at anytime and anywhere to ensure uninterrupted cleaning for 7×24h.(This function is a paid optional function).

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.
Clamp-type Automatic Trash Can Changing	Automatic loading and unloading of trash cans, compatible with designated 120L municipal standard sanitation trash cans.
Braking Capability	Includes emergency braking, service braking, parking braking, and power-off braking for comprehensive safety control.
Fall Prevention Capability	Equipped with drop detection to ensure emergency stopping during operation, the detection distance is ≤2m.
The Weather of Operating	Capable of autonomous recall in rainy weather, ensuring the safety of parking.
Fault Diagnosis	Self-testing of key sensors and vehicle motor testing.
Voice Input	Supports voice input.
Brush Adjustment	Automatic adjustment of the brushes.

Application Scenarios And Applicable Road Surfaces

Park Square

Municipal roads

Large Warehouse

Technical Park

Transportation Hub

Tourist Attractions

Campus

Industrial Park

Square brick

Cement floor

Plastic runway

Asphalt floor

Cobblestone floor

Epoxy floor

Granite floor

Rubble floor

Product Parameters

Structural Parameters		Running Performance	
Dimensions (L*W*H)	2450mm×1110mm×1740mm	Running slope	≈15°
Full load weight	487kg	Ditch crossing ability	0~70mm
Cleaning Parameters		Bump crossing ability	0~50mm
Trash can capacity	120L	Operating noise	≤70dB
Cleaning width	1000~1800mm	Turning radius	≥1800mm
Maximum cleaning efficiency	Up to 10000㎡/h	Wading ability	0~100mm
Cleaning speed	0~5km/h	Control mode	Autonomous driving/Remote control/Remote takeover
Trash dumping	Automatic loading/unloading of trash can	Max. running speed	2.2m/s
Dust Control Parameters		**Electrical Parameters**	
Water tank volume	50L	Battery type/capacity	Lithium iron phosphate battery (48V, 150AH)
Duration of continuous spraying	90min	Charging mode/time	Manual/Auto (2~3h)
Water filling method	Manual/Auto	Battery life	6~8h
Dust filtering system	Auto dust vibration	Communication mode	4G/5G
Maintenance Parameters			
Program upgrade method	OTA upgrade		
Protection function	IPX5, multi-level safety sensing, anti-fall detection and emergency stop control.		
Operating environment	Temperature: -10°C ~ +60°C Humidity: 20%~75% RH (No condensing)		
Storage environment	Temperature: - 25°C ~ + 60°C Humidity: 20% ~ 93%RH		

* The data in the table are theoretical values, which are obtained by the internal laboratory of Jtibot in a specific test environment and may be slightly different in actual applications due to individual differences, operating conditions and environment. Please refer to the actual application situation.

* Jtibot Co., Ltd. reserves the right for final interpretation.

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