

SVAVO

One mobile phone management

SMART
RESTROOM

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(Subsidiaries)

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Shenzhen ZEBANG Technology Co., Ltd.
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SVAVO retains the patent for product appearance design modifications. The printing color of the product may slightly differ from the actual product; the actual product shall be the standard.

Counterfeiting of patented products will be prosecuted.



SMART HYGIENE · HEALTH · SUSTAINABILITY

PREFACE

SVAVO Smart Restroom
Minimal Deployment · Maximum Efficiency ·
Exceptional Reliability
Intelligent cleaning solution designed for the
entire commercial operation chain.

01

SIMPLER INSTALLATION NO "MUSCLES AND BONES"

- All devices are ready to use with instant installation via IoT gateway + Wi-Fi wireless connection.
- The devices use low-voltage power or built-in batteries, requiring no digging or wall modifications.
- Plug-and-play, compatible with both new and renovated sites, allowing more flexible deployment.

02

EASIER TO OPERATE AND MORE EFFICIENT TO MANAGE

- Dedicated App allows real-time management of device status, consumable levels, and alert notifications via mobile phone.
- Automatically dispatches cleaning tasks and supply reminders, truly achieving data-driven management.
- Cleaning is evidence-based and more focused, saving up to 95% of inspection rounds.

03

THE SYSTEM IS MORE RELIABLE, AND THE SOFTWARE AND HARDWARE ARE SELF-DEVELOPED

- Full-stack hardware and software developed in-house, with all devices and platforms independently researched, developed, and maintained by SVAVO.
- Fewer failures, better compatibility, and faster upgrades, an integrated architecture ensures more stable system performance.
- Prompt maintenance response and clear accountability, with no third-party shirking of responsibility.

04

LANDING, ACCOMPANYING AND PROVIDING ALL-ROUND SUPPORT THROUGHOUT THE PROCESS

- Customized solutions based on on-site conditions.
- Professional team provides comprehensive assistance with installation, commissioning, and training.
- Continuous technical support to ensure the system is easy to install, affordable to use, and manageable.

SVAVO, starting from the foundational architecture, independently develops hardware and software systems, truly achieving:

01

No cabling & switches required

02

Weak current/
battery powered

03

Manage via
mobile phone

04

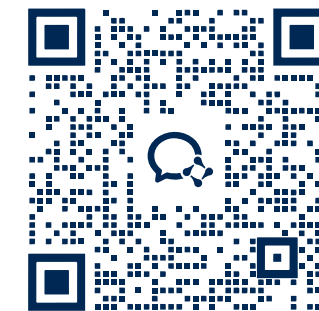
The system
automatically
drives operations

05

Full-stack
self-research

06

Full landing
support



Scan the QR code to contact us
and book a free on-site evaluation immediately.

Smart Restroom — ESG 3D Value Overview

Through intelligent management and data-driven monitoring, we optimize resource allocation and reduce waste in terms of Environment (E); on the Social(S) level, we safeguard user health and safety while enhancing the public space experience; and under the foundation of Governance (G), we leverage real-time operational data and predictive maintenance to improve workforce efficiency and facility reliability - providing solid support for sustainablebusiness development.

E

01 PART

Environmental



REDUCE WASTE

- Optimize resource usage and reduce waste of consumables such as tissue paper and hand soap.
- Supports the goal of "zero waste" or "minimal waste."

CONSUMABLES TRACKING MANAGEMENT

- 100% consumable traceability with real-time usage monitoring.
- Prevent hidden waste and improve recycling efficiency.

SUSTAINABILITY PROGRESS MONITORING

- System data reports support the tracking and disclosure of key sustainability indicators, such as consumable usage and carbon footprint.
- Enhance transparency and accountability.

S

02 PART

Social



ENHANCE CUSTOMER EXPERIENCE

- Consistent cleanliness - demand-driven cleaning that moves beyond scheduled check-ins.
- Reduce waiting time, ensure adequate supply, and enhance user satisfaction.

HEALTH AND WELL-BEING

- High hygiene standards to suppress the spread of germs, creating a safer environment for customers.

EMERGENCY ACCIDENT ALERT

- AI monitors falls and fainting events in real time, ensuring response within the "golden 15 minutes."
- Ensure the safety and health of users.

APPLICABLE TO MULTIPLE INDUSTRIES

- Covers scenarios including offices, supermarkets, factories, restaurants, healthcare facilities, transportation hubs, and schools.
- Helps various industries improve public hygiene standards.

GUEST SATISFACTION (RAVE REVIEWS)

- 88% of survey respondents say "no" to unclean environments - quality maintenance helps boost brand reputation.

G

01 PART

Governance



HUMAN EFFICIENCY IMPROVEMENT

- The mobile app guides cleaning only when truly needed, reducing inspection frequency by 95%.
- Reduce labor costs and improve operational efficiency.

OPERATIONAL EFFICIENCY

- Real-time monitoring: precise scheduling to save time and labor.
- Inventory management: prevents overstocking or shortages, ensuring continuous operation.
- Predictive maintenance: identifies needs in advance to reduce downtime risks.

SYSTEM UPTIME

- The dispenser operates at full capacity 99.5% of the time, enhancing facility reliability.
- Reduces failure rates, lowering supervision and emergency adjustment costs.

TRANSPARENCY AND ACCOUNTABILITY

- Comprehensive data collection and reporting: supports internal audits and external disclosures.
- Facilitates compliance management, risk identification, and continuous improvement.

CONTENTS

Feel the moment

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SVAVO

Founded in 2003, SVAVO is dedicated to the research, development, design, and manufacturing of intelligent sanitary equipment, senior-friendly solutions, and micro-health medical auxiliary products. Driven by innovation, SVAVO has established a diversified product line that encompasses a wide range of smart restroom applications and age-friendly health assistance products to meet the needs of various sectors. As an innovative enterprise leveraging the Internet of Things to promote environmental sustainability, social welfare, and exemplary management practices, SVAVO delivers high-value smart products and customized solutions that address customers' demands for health and safety, competitiveness, service quality, and operational cost efficiency. SVAVO integrates environmental responsibility into its operations, maintaining a steadfast focus on intelligent hygiene, health, and sustainable development while driving progress toward carbon neutrality. SVAVO industrial Park-its in-house R&D and manufacturing base operating as a green factory-continuously produces high-quality products and provides customers with enduring, reliable service.



INTEGRATED R&D AND MANUFACTURING

Offer tailored customization services, from design to manufacturing, to meet the unique needs of global customers.

01Industrial Design

02Software Design

03PCBA Design

04Structural Design

05Mold Development

06Testing and Validation

07Injection Molding Production

08Assembly Production

09OEM/ODM/JDM/CMT

10Cross-border E-commerce Supply Chain Service Provider

CORPORATE HONORS



SMART RESTROOM

Based on IoT and intelligent sensing technologies, the system integrates tissue and hygiene consumable management, restroom occupancy guidance, environmental monitoring, information dissemination, and safety emergency response functions, comprehensively enhancing restroom operational efficiency and user experience.

By networking devices and coordinating with the platform, it enables consumable visibility, demand-driven cleaning, and controllable anomalies, helping managers reduce costs and complaints while establishing a new standard for green, safe, and hygienic public spaces.



Data-driven



Real-time Sensing



Efficient Cleaning



Safe and Controllable



Office Buildings



Shopping Malls



Transportation Hubs



Schools



Hotels



Tourist Attractions



Hospitals



Industrial Parks



Government Institutions

SYSTEM ARCHITECTURE

SPATIAL PERCEPTION

Indicator Light

Environmental Sensor

Emergency Button

Door Lock

CONSUMABLES MANAGEMENT

Sensor-Activated Tissue Dispenser

Automatic Soap Dispenser

Jumbo Roll Paper Dispenser

Aroma Diffuser

OTHER SMART DEVICES

Hand Dryer

Small Flush Valve

Large Flush Valve

Faucet

MQTT Protocol & JSON Format

System Integration Applications

Property Management Platform

Smart IoT platform

APPLICATION SOFTWARE

Smart toilet guidance screen

SVAVO智慧洗手间可视化数据大屏

Nearby restrooms

Feel the moment

SIMPLIFIED APPLICATION SUPPORT

With an easy-to-use app, cleaning teams and managers can efficiently and quickly complete tasks.

Mobile App: SVAVO App



- 

Manage all cleaning equipment with just one phone.
- 

One-click access to consumable data reports, usage frequency, and historical data.
- 

Real-time alerts for missing consumables, low battery, equipment malfunctions, environmental cleanliness and emergency situations.



User Permission Management

Manage Multiple Projects

Add Device

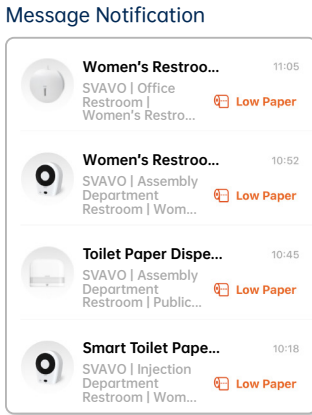
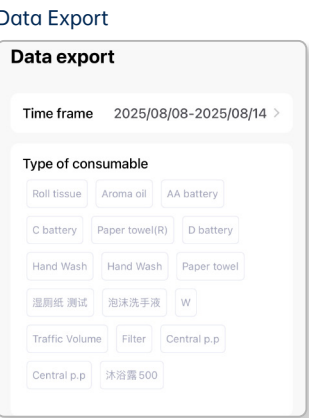
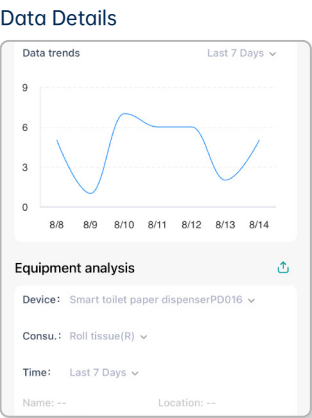
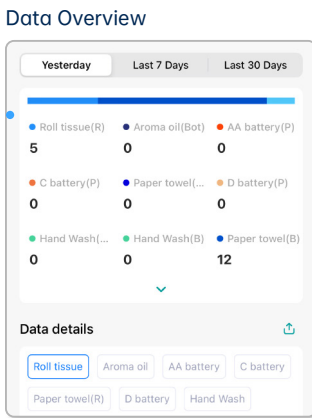
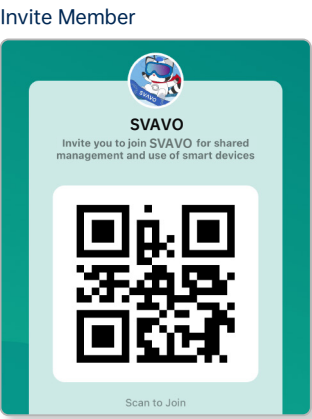
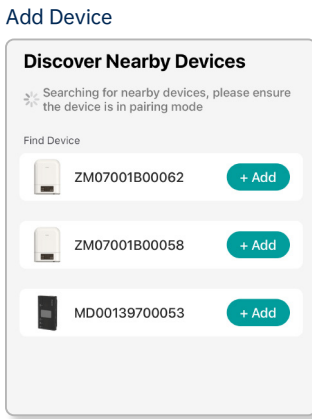
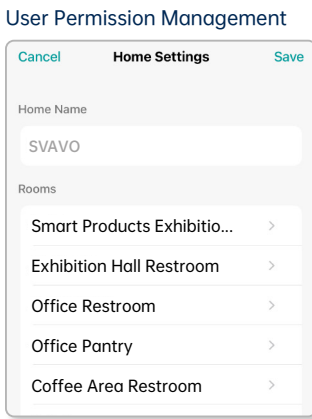
Invite Member

Data Overview

Data Details

Data Export

Message Notification



RESTROOM AVAILABILITY DISPLAY

Real-time display of floor restroom status, with available stalls visible at a glance.



**Multimedia Gateway
MG-002**

Restroom sub-device data gateway: one multimedia gateway supports registration of up to 96 devices.

Product Material: Plastic + Aluminum
Communication: Wi-Fi, BLE, FSK
Power Supply: DC 12V / 2A
Dimensions: L143*D24.5*H83mm

TOILET GUIDE

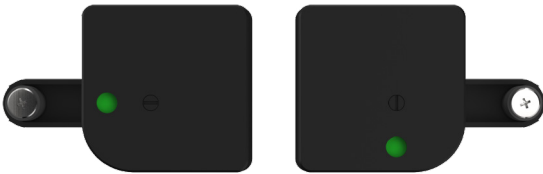
Integrated smart linkage of stall indicator lights, door locks, and display screens, with dual-channel deployment via cloud and local systems.
Automatic pairing, flexible multi-version installation, and second-level synchronization between door locks and indicator lights for real-time occupancy display.



Information Display
Displays information including restroom floor layout, environmental quality, visitor count, information notices, media advertisements, and on-duty personnel.



Toilet Stall Navigation
Stall occupancy display guides users to other restrooms.



**Self-Powered Door Lock
LK-001**

Self-powered and maintenance-free, with up to 1 million operations.

Product Material: Plastic + Iron
Communication: FSK
Power Supply: Self-powered
Dimensions: L101*D76*W65mm



**Toilet Guide Display Screen
(32-inch) (Optional)**

Product Resolution: 1080*1920
Communication: Wi-Fi
Power Supply: AC Constant Power Supply
Dimensions: L434*D55*H739mm



**Toilet Indicator Light
TL-003**

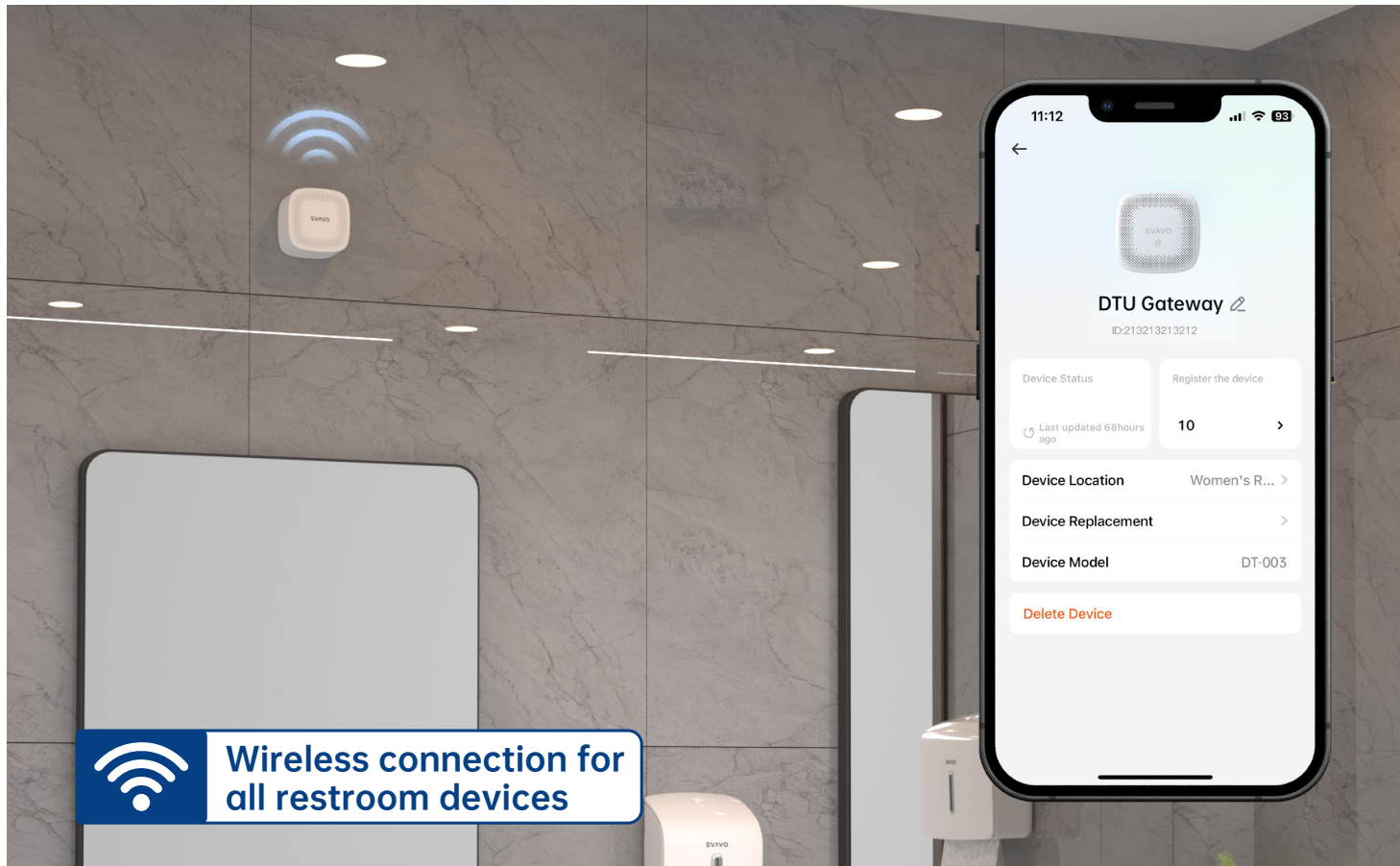
Instantly displays stall status [Occupied/Available]

Product Material: ABS
Communication: FSK / Wi-Fi
Power Specification: DC constant 12V power supply
Dimensions: L53*W73*H26mm

* Door locks and indicator lights support appearance customization to match different decoration styles.

GATEWAY

Restroom Data Information Center enables digital management of restrooms.



Toilet Guidance Screen - Control Box
MG-003

Product Material: Plastic + Iron
Communication: Wi-Fi
Power Supply: Standard 12V power adapter included
Dimensions: L83*D24.5*H143mm



DTU Gateway
DT-003

Restroom Data Information Center enables digital management of restrooms.
Product Material: ABS
Power Supply: Type-C port 5V
Communication: Wi-Fi / BLE / FSK
Dimensions: L82*D82H70mm

EMERGENCY ALARM

Self-powered wireless SOS button: when triggered by users, alerts are instantly pushed to the management app and guide display screen, enabling zero-delay multi-platform notifications to ensure immediate response to emergencies.

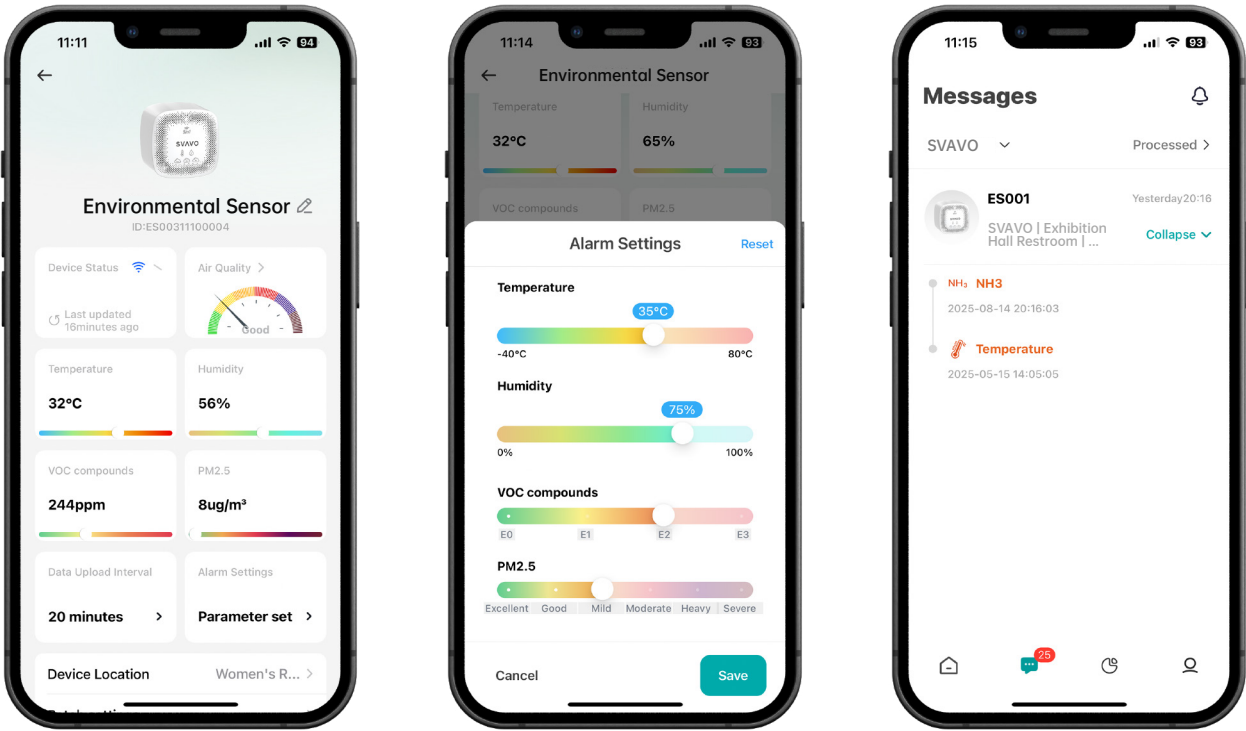


Self-Powered Emergency Button (SOS)
SS-001

Safety isn't a matter of probability, but 100% second-level protection.
Product Material: ABS
Communication: FSK
Power Supply: Self-powered
Dimensions: L46*D23*H83mm

ENVIRONMENTAL ODOR MANAGEMENT

Real-time monitoring of environmental air quality, including temperature, humidity, PM2.5, and VOC compound index detection.

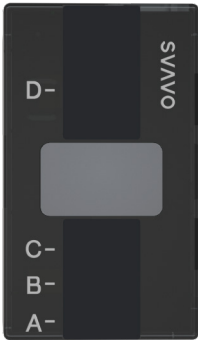


Environmental Sensor ES-003
Real-time monitoring of environmental air quality, including temperature, humidity, PM2.5, and VOC compound index detection.

Product Material: ABS
Power Specification: Type-C port 5V
Dimensions: L82*D82*H70mm
Detection Items: Temperature, Humidity, PM2.5, and VOC Compound Index Detection
Communication Protocols: Wi-Fi, Bluetooth

CONSUMABLES MANAGEMENT AND CONTROL - INTELLIGENT TISSUE MANAGEMENT TECHNOLOGY

Full lifecycle management of restroom consumables with real-time equipment status monitoring, enabling tissue level alerts, maintenance reminders, and usage data statistics.



Smart Tissue Monitoring Module MD-001

Real-time precise monitoring to eliminate the embarrassment of “no paper.”

Dimensions: L41*D10.1*H69.8mm

Net Weight: 34g

Casing Material: ABS

Protection Rating: IP20

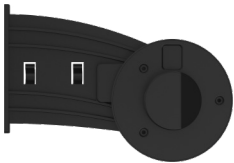
Application: Universal IoT component for tissue boxes

Power Supply: Built-in rechargeable battery (polymer lithium battery 3.7V/850mAh)

Communication Protocols: Wi-Fi, Bluetooth

Compatible Devices

ZM-065	PL-151069	ZM-066	ZM-066B	ZM-066D	ZM-066S	JY-566B	JY-566S	ZM-060
Jumbo Roll Toilet Paper Dispenser	Double Jumbo Roll Paper Dispenser	Center-Pull Toilet Paper Dispenser	Center-Pull Toilet Paper Dispenser	Dual Center-Pull Toilet Paper Dispenser	Mini Center-Pull Toilet Paper Dispenser	Center-Pull Toilet Paper Dispenser	Mini Center-Pull Toilet Paper Dispenser	Paper Towel Dispenser



Smart Tissue Monitoring Module MD-002

Real-time precise monitoring to eliminate the embarrassment of “no paper.”

Dimensions: H146*W100*D44.5mm

Net Weight: 87g

Casing Material: ABS

Remaining Quantity Detection: Infrared Reflection Detection

Application: IoT module specially designed for SVAVO roll-type hand towel dispensers.

Power Supply: Built-in rechargeable battery (polymer lithium battery 3.7V/850mAh)

Communication Protocols: Wi-Fi, Bluetooth

Compatible Devices

ZM-S64	ZM-063	ZM-062	PL-151063	PL-151064
Smart Sensor Dispenser	Automatic Paper Towel Dispenser	Paper Towel Dispenser	Automatic Paper Towel Dispenser	Auto Cut Paper Towel Dispenser

SMART TISSUE DISPENSER

Touch-free sensor paper dispensing with fixed-quantity supply; when the device is out of paper, requires maintenance, or needs cleaning, the app sends instant notifications, and paper usage data is recorded in real time.



Smart Toilet Paper Dispenser PD-016

Touch-free sensor paper dispensing provides users with a safer and more hygienic experience.

- Product Material: ABS
- Product Weight: 2052g
- Dimensions: W260* D152*H325mm
- Sensing Method: Human body charge sensing
- Maximum Sensing Distance: 2cm ± 1cm
- Paper Dispensing Methods: Sensor / Bluetooth App control
- Product Capacity: Diameter 22.5 ± 5 cm, width 9.5 cm*length 230 m
- Paper Length: 30cm ± 10%, 40cm ± 10%, 50cm ± 10%, or 15-99cm custom setting
- Power Supply: 12V/2600mA lithium battery & DC constant power supply
- Charging Time: 2.5-3 hours (fully charged supports approx. 8,000 uses)



Smart Toilet Paper Dispenser ZM-016

With data and evidence, every sheet of paper is under control, with the whole picture in hand.

- Dimensions: W262*D134*H345mm
- Net Weight: 1.82 kg
- Casing Material: ABS
- Sensing Method: Human body charge sensing
- Maximum Sensing Distance: 2cm ± 1cm
- Communication Protocols: Wi-Fi, Bluetooth
- Paper Dispensing Methods: Sensor / Automatic / Bluetooth App control
- Single Paper Length: 15-99 cm customizable setting
- Power Supply: 8 × AA alkaline batteries & 2600mA lithium battery (fully charged supports up to 13,000 dispenses) & DC constant power supply
- Paper Specifications: Roll core diameter Ø77-87 mm, roll outer diameter Ø90-250 mm, roll width 95 mm



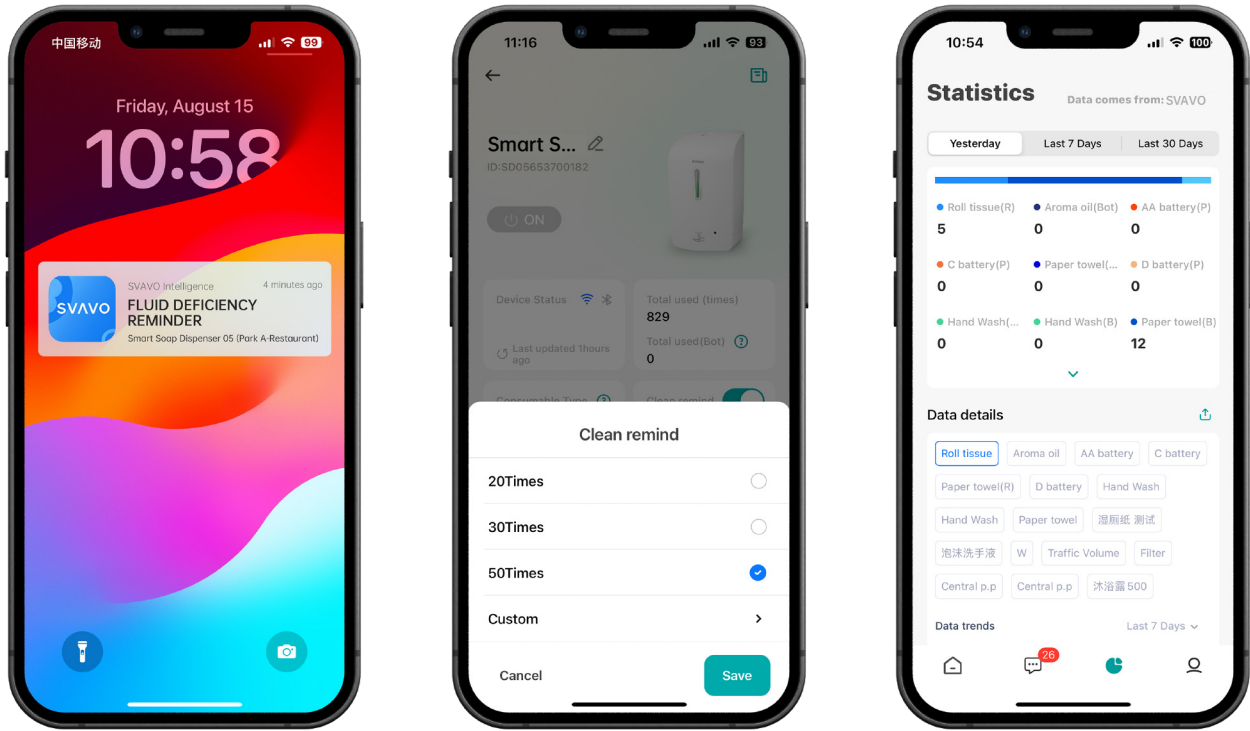
Smart Paper Towel Dispenser ZM-063

Data-driven cleaning services enable precise and timely maintenance, steadily improving management efficiency and customer satisfaction.

- Product Material: ABS
- Dimensions: W314*D220*H332mm
- Net Weight: 2.55 kg
- Power Supply: DC constant power supply or Size D batteries
- Operating Voltage: 4.8V-6V
- Sensing Method: Human body charge sensing
- Maximum Sensing Distance: 2cm ± 1cm
- Paper Specifications: Width 200 mm, core diameter 40-50 mm, outer diameter 50-200 mm
- Communication Protocols: Wi-Fi, Bluetooth

SMART SOAP DISPENSER

Sensor-controlled liquid dispensing with low-liquid alerts; supports cleaning scheduling by automatically sending cleaning notifications based on preset dispensing counts.

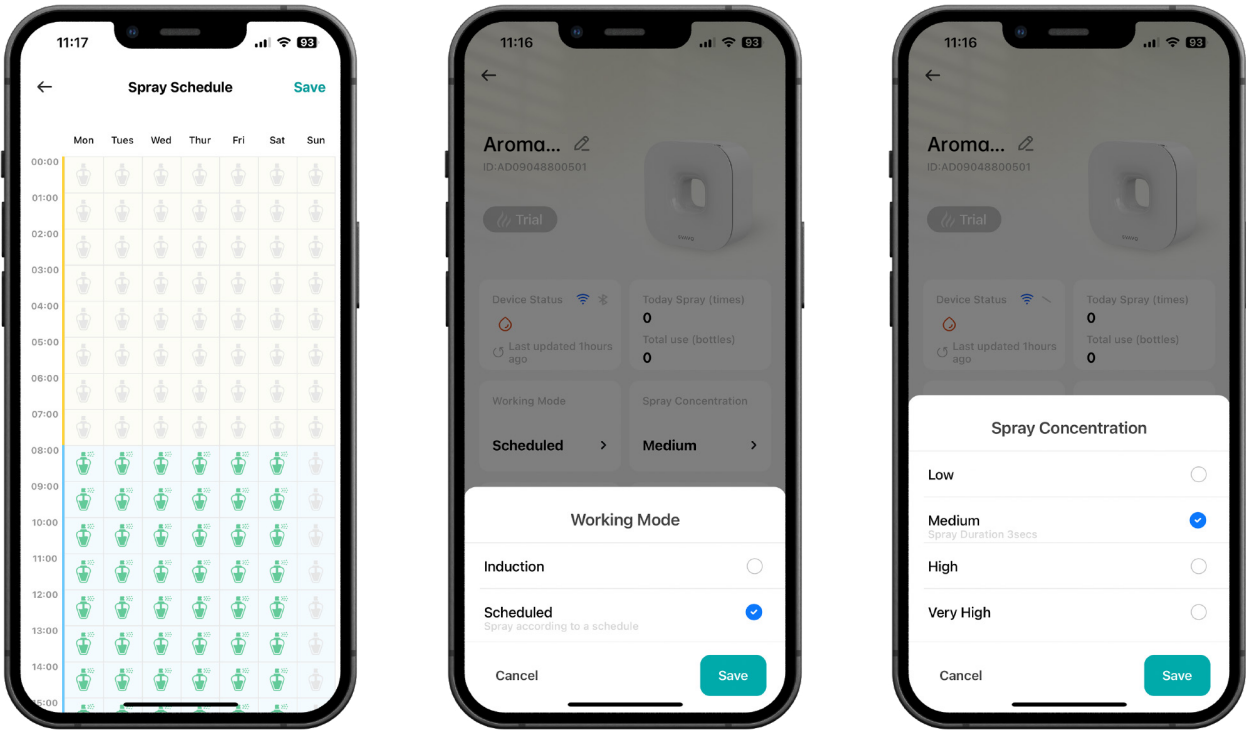


Smart Soap Dispenser SD-056
Real-time monitoring and timely maintenance ensure basic hygiene needs are met, enhancing user experience.

Dispensing Methods: Foam, Drop, Spray
Sensing Distance: 0-10 cm
Liquid Bottle Capacity: 1000 ml (1200 ml for spray type)
Product Weight: 1100 g
Dimensions: W161*D117*H285mm
Power Supply: 4 × Size C alkaline batteries / DC power supply
Rated Input Voltage: DC 6V
Operating Current: 500 mA
Communication Protocols: Wi-Fi, Bluetooth

SMART AROMATHERAPY DISPENSING

Two modes are available: timed spraying and sensor-triggered spraying (sprays fragrance upon detecting presence). Fragrance schedules can be visually configured to enable precise control of indoor scent.



Smart Aroma Diffuser AD-090
Scent as a brand signature, creating exclusive brand memory points.

Product Material: PP
Dimensions: L168*D65*H168mm
Net Weight: 460g
Power Supply: Type-C continuous power or 4 AA alkaline batteries.
Sensing Method: Microwave radar
Sensing Distance: 3m-6m
Communication Protocols: Wi-Fi, Bluetooth

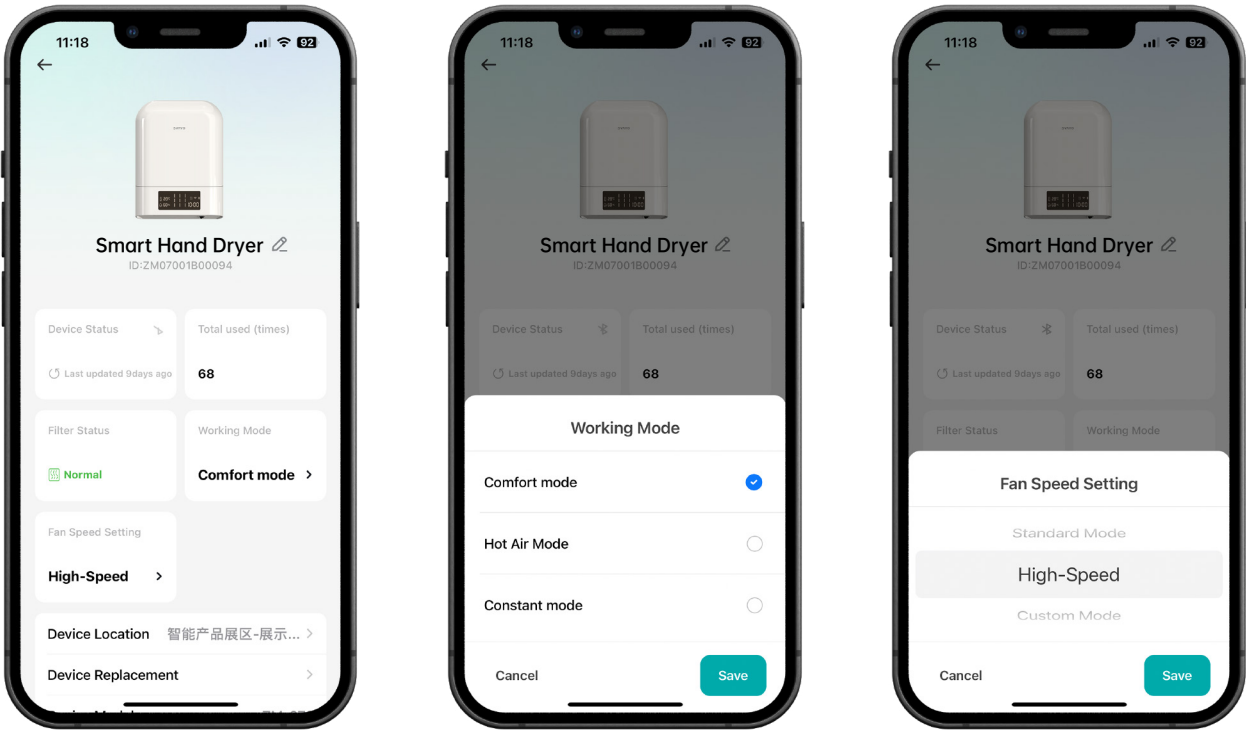


Aroma Diffuser ZM-090
Scent as a brand signature, creating exclusive brand memory points.

Power Supply: 4 AA batteries / Type-C
Coverage Area: 80 m³
Dimensions: L262*W134*H345mm
Capacity: 100 ml*2

SMART HAND DRYERS

Built-in HEPA high-efficiency filter filters 99.95% of particles as small as 0.1 μ m, ensuring clean airflow;
App intelligent management: adjustable settings for airflow mode, fan speed, and lighting.



Smart Hand Dryer HD-185
Efficient, energy-saving, and comfortable hand drying - the new choice for quality public restrooms.
*Built-in HEPA high-efficiency filter captures 99.95% of particles as small as 0.1 microns, ensuring hygienic and clean airflow.

Operating Voltage: 220V~50Hz
Rated Power: 1300W / 900W
Air Speed: 10-15 m/s, adjustable
Dimensions: W309*D192*H547mm

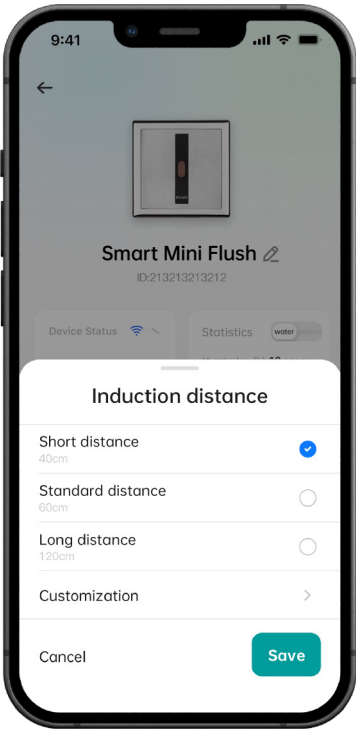
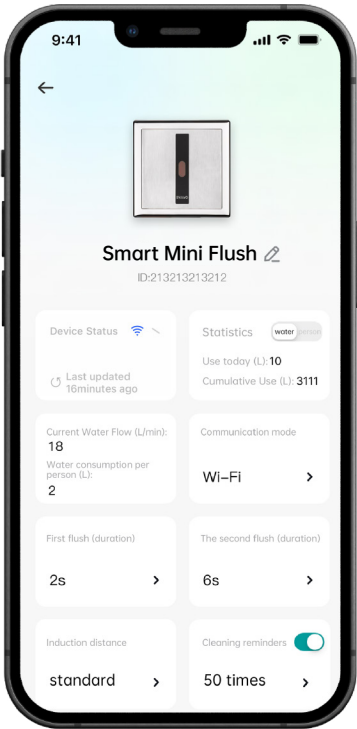


Smart Hand Dryer ZM-070
Redefining hand-drying experience with intelligent IoT to enhance user satisfaction.

Product Material: ABS15E1
Dimensions: W235*D135*H326mm
Product Weight: 3.15 kg
Rated Power: 1450W (hot air) / 650W (ambient air)
Power Supply: AC constant power supply
Operating Voltage: 220V 50Hz
Sensing Method: Infrared reflection
Sensing Distance: 12 ± 2 cm
Communication Protocol: Bluetooth

SMART FLUSH VALVE / TAP

Supports stall occupancy sensing and intelligent linkage with stall indicator lights;
App smart management: real-time water usage statistics, parameter settings, and maintenance reminders.



Faucet WF-511

Material: Zinc Alloy + ABS
Voltage: DC 6V
Water Pressure: 0.1 MPa-0.8 MPa
Dimensions: L45*W129*H160mm



Flush Valve FS-002

Product Material: ABS + Stainless Steel
Sensing Distance: 30 cm-70 cm
Operating Voltage: DC 6V
Water Pressure: 0.1 MPa-0.8 MPa
Dimensions: L129*W77*H158mm



Flush Valve FS-001 (Large)

Product Material: ABS + Stainless Steel
Sensing Distance: 70 cm-120 cm
Operating Voltage: DC 6V
Water Pressure: 0.1 MPa-0.8 MPa
Dimensions: L165*W109*H190mm

API INTERFACE SUPPORT & SYSTEM INTEGRATION DEVELOPMENT

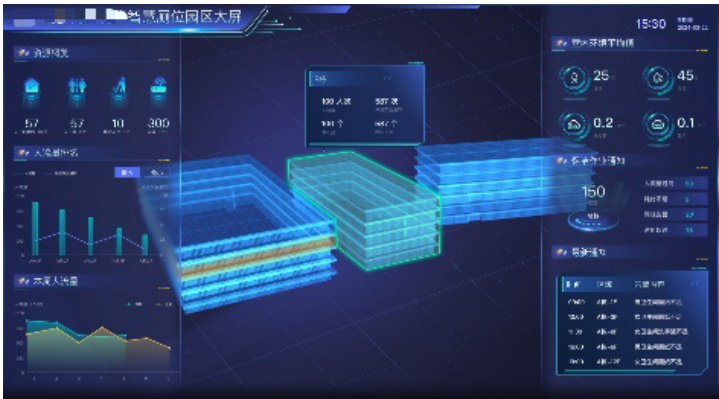
Providing system integration solutions for clients across various industries.

MQTT protocol & JSON format

```
1 {
2   "success": true, //Request status
3   "data": { //Data object
4     "latestData": { //Latest data
5       "createTime": "string", //Creation time
6       "dtuNo": "string", //Gateway number (independent device does not include gateway)
7       "useLength": 0, //Amount of paper used cm
8       "useCount": 0, //Number of times used
9       "useRoll": 0, //Number of rolls used
10      "rolllength": 0, //Length of roll
11      "hwProtocol": 0, //Hardware protocol (can be sent)
12      "shellStatus": 0, //Shell status 0 Closed 1 Open
13      "lockStatus": 1, //Lock status 0 Closed 1 Unlocked
14      "useMode": 0, //Usage mode 0 Induction 1 Automatic (can be sent)
15      "paperTest": 0, //Usage mode 0 Induction 1 Automatic (can be sent)
16      "gearLength": 0, //Gear length 25cm 35cm 45cm (can be sent)
17      "remain": 0, //Remaining amount 0 No paper 1 Low paper 2 Paper
18      "alarmSound": 0, //Alarm sound 0 off 1 on (parameters sent)
19      "workStatus": 0, //Working status 0 Disable 1 Run (can be sent)
```

Provides standard API request methods to facilitate data collection and system integration expansion, maximizing system efficiency.

System integration applications



Property Management Platform



Smart IoT Platform

SMART RESTROOM

Featuring multiple advantages, the Smart Restroom project delivers both operational efficiency and an enhanced user experience.



SMART RESTROOM

Professional team provides comprehensive support-from network setup to device debugging, from training assistance to ongoing maintenance. One-stop service ensures your project launches quickly and operates stably.



BASIC CONDITIONS

The site must have stable 2.4 GHz Wi-Fi coverage or routers capable of connecting to a 2.4 GHz network; additionally, a 220V AC power outlet must be reserved, as some devices require wired power.



REQUIREMENTS ACKNOWLEDGEMENT

In-depth communication regarding restroom layout, number of stalls, daily traffic, cleaning frequency, and special requirements. Determine the number of dispensers, sensor placement, and monitoring dimensions (such as consumable replenishment, cleaning reminders, and emergency alerts).



SCHEME DESIGN

Provide a system floor plan highlighting device models, installation locations, network, and wiring. Deliver software interface demonstrations, including real-time status, report templates, and alarm linkage processes.



CONTRACT SIGNING AND DELIVERY

Confirm technical and commercial proposals, sign project contracts and equipment lists. Develop a project plan with clearly defined milestones (equipment delivery, on-site installation, training, and acceptance).

ON-SITE INSTALLATION AND COMMISSIONING

01

DEPLOY EXTREMELY QUICKLY

Go live in 1 day, ensuring "easy to install and affordable to use."
On-site network and power confirmation → device mounting → App scan to connect to the network.

02

VALIDATION TRAINING

Ensure "proficient use and management" through full-process testing of consumable issuance, cleaning reminders, and alarm notifications.
Training on App operation, routine inspections, and troubleshooting.

03

ONGOING SUPPORT

Provides remote support within a 12-month limited warranty; additional functional modules or third-party system integration can be added as needed.