

ALLYBOT-C2 Web-based Tool Software User Manual

Applicable for

System version: v2.0.0

Dear user:

Thank you for purchasing the ALLYBOT-C2 commercial cleaning robot (hereinafter referred to as the robot or the product). This product is an independently developed commercial cleaning device by Intelligence. Ally Technology, integrating scrubbing, vacuuming, and mopping functions and capable of continuous 24-hour cleaning operations. Equipped with autonomous operational capabilities and a fully functional station, it supports self-recharging, self-cleaning, and makes sewage discharge and water filling easy. This product can be widely used in places such as hospitals, shopping malls, schools, exhibition halls, office buildings, and waiting halls.

To ensure proper and efficient use of this product, please read this document carefully before using the robot and keep it for future reference.

If you encounter any issues during use, you can call the service hotline at 86-755-86571078, and our professional staff will assist you. The images and diagrams in this manual are for reference only. Due to potential software and hardware version differences, please refer to the actual received version. If you have any questions, please contact us for assistance.

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This manual is solely applicable to the usage, operating conditions, and environmental requirements of this specific product model.

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Intelligence. Ally Technology reserves the final right of interpretation for this manual.

If no written objections to this manual raised, it indicates your acceptance of the above terms.

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1. Robot Operating System

1.1.Connecting to the Robot

With the robot powered on, search for the robot's WLAN on a computer. The initial WLAN name is the robot's SN code (e.g., for a robot with SN 202205Z002D0001, its WLAN name is "202205Z002D0001").

After locating the WLAN, click on it and enter the password (the initial password is "Zhkj2015") to connect to the robot.

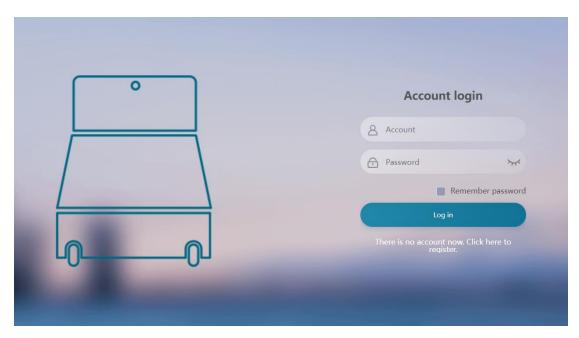
1.2. Accessing the System

Once connected to the robot, enter the IP address in a web browser: 192.168.8.188:32769 to access the intelligent robot operating system.

2. Login and Registration

2.1.User Login

After successfully entering the intelligent robot operating system, you will first be directed to the login and registration page, as shown below. Enter your account and password, then click the [Login] button to access the homepage.

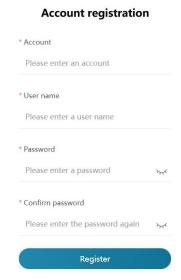


Note: You can choose whether to check the [Remember password] option. If checked, you won't need to enter your account and password the next time you log in.

2.2. New Account Registration

If you do not have an account, click the [Register] button below the [Login] button to create a new account. The interface will automatically redirect to the registration page, where you will need to enter a valid account, username and password. Then, click the [Register] button to complete the registration, as shown below.

⟨ Return to login



After successful registration, the page will redirect back to the login page, where you can enter the newly registered account and password, before you click the [Login] button to log in.

3. Homepage

After entering the homepage, the interface mainly displays the robot's current status, commonly used functions, and entries for more features, as shown below.



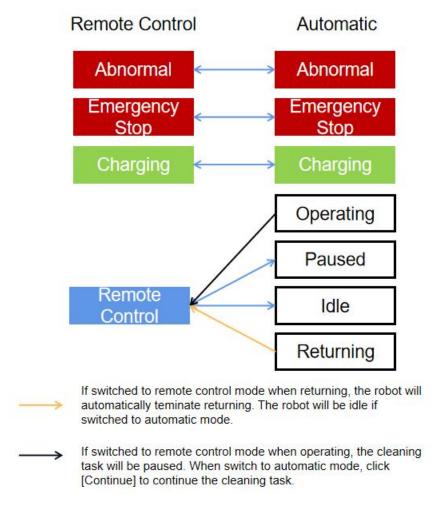
3.1. Robot Status

The top navigation bar on the homepage displays the robot status, including: robot name, online status (e.g., Charging), automatic/remote control mode, cleaning water/ sewage levels, battery level, and current time, as shown below.



3.1.1. Online Status

The robot online status is prioritized and displayed as follows: Abnormal, Emergency Stop > Charging > Remote > Operating, Paused, Idle, Returning. The status switching relationship is illustrated below.



The light belt on the top of the robot will change according to the online status: red light for Abnormal or Emergency Stop; green light for Charging; blue light for Remote Control; white light for Automatic mode when Operating, Paused, Idle, or Returning.

3.1.2. Cleaning water/Sewage Level

is for cleaning water level, and is for sewage level. The levels are displayed in three tiers: High, Medium, and Low, and they change in real time according to the actual water levels.

3.2. Common Functions

The common functions on the homepage include the message management accessible via the button in the top-right corner of the navigation bar, the cleaning task management accessible via the [Tasks] button, the map management accessible via the [Maps] button, and the map tool button in the bottom left corner of the page. For detailed descriptions of these functions, see section 3.4 Message Management, section 4. Map Management, and section 5. Task Management.

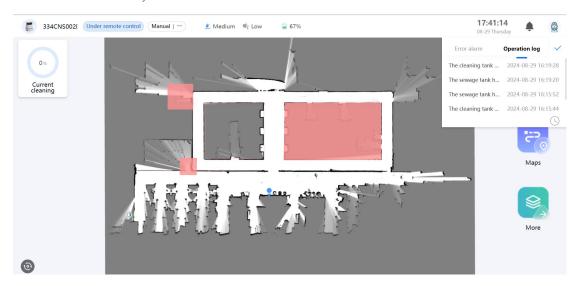
3.3. More Functions

Click the [More] button on the homepage, and a window will pop up displaying more functions. These include: Cleaning mode, Cleaning record, Consumables management, My device, Positioning initialization, and Advanced setting, as shown below.



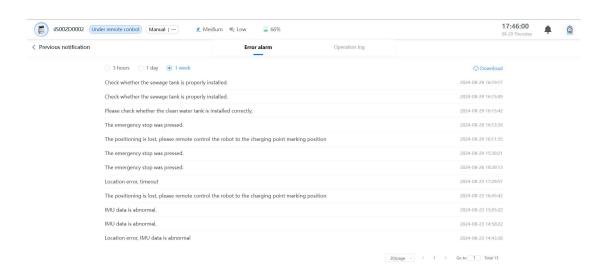
3.4. Notification Management

The notification icon in the top-right corner of the homepage navigation bar indicates whether there are new notifications: indicates new messages, while indicates no new messages. Clicking this icon will bring up the notification window, as shown below.



The notification window defaults to displaying [Error alarm] list, and you can also access [Operation Log] through the tab bar at the top of the window. The top-right corner of each tab button displays the number of new notifications, which will disappear once you click the corresponding tab. Clicking the button on the right side of the tab bar will mark all messages as read.

Additionally, you can click the button in the bottom-right corner of the notification window to enter the Previous Notification page for all notifications, as shown below.



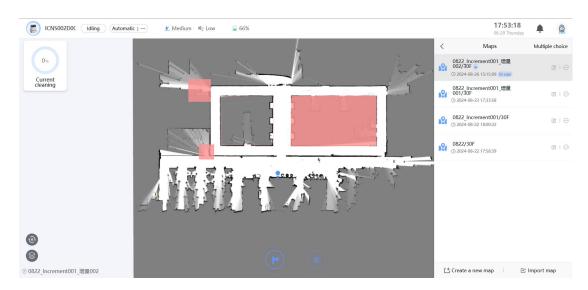
On the Previous Notification page, you can view all notifications for the corresponding type by clicking the [Warning] and [Operation Log] buttons in the top tab bar. The radio buttons below the tab bar allow you to filter notifications by 3 hours, 1 day, or 1 week. Furthermore, as shown below, if there are a large number of notifications, you can navigate through earlier ones by clicking the page numbers or the [<] [>] buttons at the bottom of the page.



4. Map Management

4.1.Map List

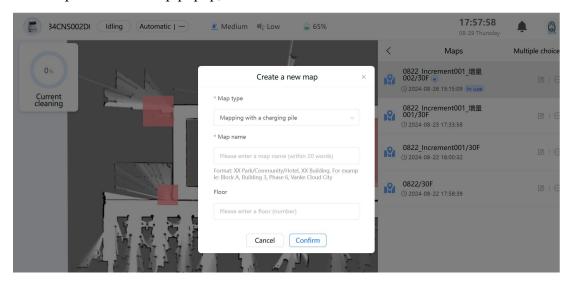
Click the [Maps] button in the commonly used functions on the right side of the homepage to bring up the Map Management window, as shown below. This window lists all maps for the current robot. Click on any map to switch between different maps, which are displayed on the left window in real time. Only one map in the map list can be marked as "In use" (Later section will illustrate how to set a map as "In use"), and this map will be displayed by default in the map visualization area on the left side of the Map Management window.



If you are using the robot for the first time and have not created any maps on the robot interface or with any tool software, the Map Management window will not contain any map items, and the map visualization area on the left will not display any maps. Creating a new map is the first step to enable the robot to clean an area.

4.1.1. Creating New Maps

Click the [Create a new map] button at the bottom left of the Map Management window to open the new map popup, as shown below.



Enter the map name, floor, and select the map type in the popup, then click the [Confirm] button below to proceed to the map recording page and start recording the

map, as shown below. Click the [Cancel] button to return directly to the Map Management page.

The map recording function must be performed in Remote Control mode. The system will check if the remote control mode is enabled after the [Start Recording] button is clicked: 1) If the robot is not in remote control mode, a prompt will appear: "Please power on the remote control first and switch the robot to the remote control status." Switch the robot to remote control mode via remote or the App before you click the [Start Recording] button again.2) If the robot is already in remote control mode, it will begin recording the map.



(1) Map with charging station

For map with charging station, a fixed position of charging station is required. Move the robot to a position directly in front of the charging station before clicking the [Start Recording] button. The robot then automatically starts detecting the station and prompt "I am ready for a new map" after detection succeeded.

If the robot fails to detect the charging station, the interface will remain on the recording page, and the robot will prompt, "Please move me in front of the charging

station". In this case, move the robot in front of the station again and click the [Start Recording] button to reattempt detection.

(2) Map without charging station

For map without charging station, clicking the [Start Recording] button on the recording page will enable map recording immediately.

The operations on the map recording page are as follows:

1. Click the [Start Recording] button to begin recording the map. During recording, use the remote to move the robot, and the robot will continuously scan the surroundings. The scanned point cloud map is displayed on the interface in real time, as shown below.



- 2. During recording, try to ensure that the robot's movement trajectory covers the target application area. The starting and ending points should overlap to form a closed loop for the accuracy of the map recording.
 - 3. To end the map recording, click the [Finish Recording] button . The

interface will then return to the homepage and display the Map Management window, where you can view the newly created map.

4. To cancel the map recording, click the [Cancel Recording] button . The map will not appear in the Map Management window if canceled.

4.1.2. Editing Maps

In the Map Management window, select the target map item and click the [Edit] button on the right side to enter the map editing page. Here, you can modify the map, including Property and Classification. Click the button in the top left corner of the map editing page to exit the map editing function.

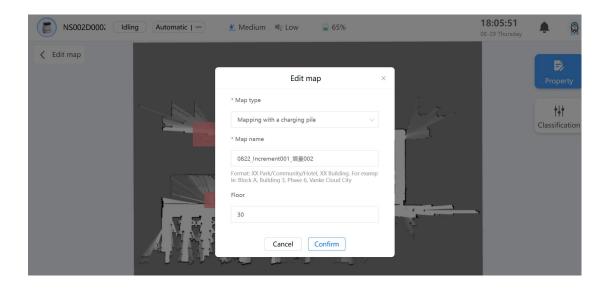
Note:

- 1. If the robot is currently performing a cleaning task on the target map, clicking the [Edit] button in the Map Management window will prompt, "This map is currently in use, you cannot edit it."
- 2. If another user connects the robot and is editing the map via AllyTool, clicking the [Edit] button in the Map Management window will prompt, "This map is currently being used, please try again later."

4.1.2.1. Property and Classification

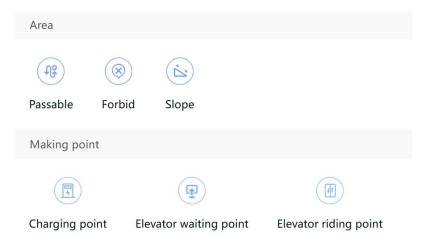
1.Property

Click the [Property] button in the top right corner of the content area on the map editing page to open the map property editing popup. Here, you can modify the map name and floor. Click the [Confirm] button to save the changes, as shown below.



2. Classification

Click the [Classification] button in the top right corner of the content area on the map editing page to open the shape type selection box. Each shape type has different functionalities and indications on the map, as shown below:



- 1. Advanced mapping (Area), including:
- 1) Forbidden Area: Area where the robot is prohibited from entering.
- 2) Slope Area: Area where the robot moves slowly and does not perform cleaning tasks.
- 3) Passable Area: Areas where the robot can enter and perform cleaning tasks. This can be used for filtering temporary obstacles detected by laser.

- 2. Marking points, including:
- 1) Charging point: The point where robot return for charging. The charging point should be set in the direction facing the charging station, within a range of 0.5 m to 1 m in front of the station, and without any obstacles within this range.
 - 2) Elevator waiting point: The point where the robot wait for lift.
 - 3) Elevator riding point: The point where the robot stay inside the lift after boarding.

4.1.2.2. Advanced Mapping(Area Editing)

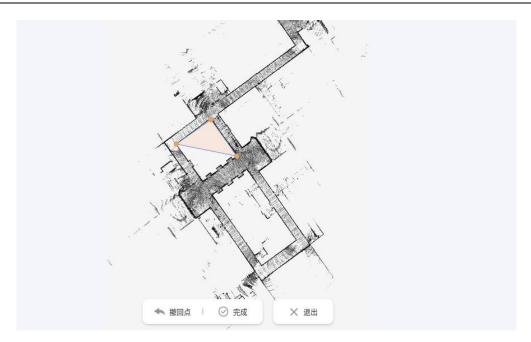
Click any area type in the selection box, and the [Classification] button in the top right corner of the map editing page will change to the selected shape. Editing tools for areas or points will appear on the left and bottom of the page, including Polygon, Rectangle, Circle, and Line.

1. Polygon

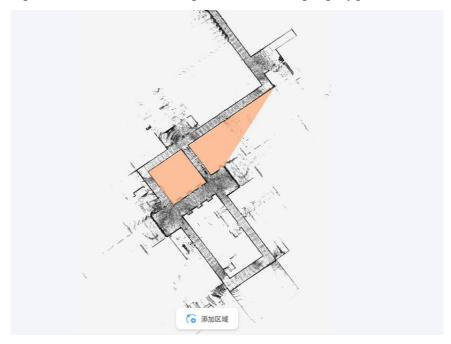
- (1) Adding an Area
- 1) Select the [Polygon] editing tool button on the left side of the page, and the [Add Area] button will appear at the bottom of the page. Click this button, and the toolbar will expand to show [Withdraw Point], [Complete], and [Exit] buttons, as shown below.



- 2) Move the cursor to the desired corner of the polygon, then click to place the first corner.
- 3) Drag or scale the map, and move the cursor to the second corner of the polygon. Click to add it, and you will see a line connecting the first and second corners. Repeat this step to add multiple corners.
 - 4) Click the [Withdraw Point] button to remove the last added point.



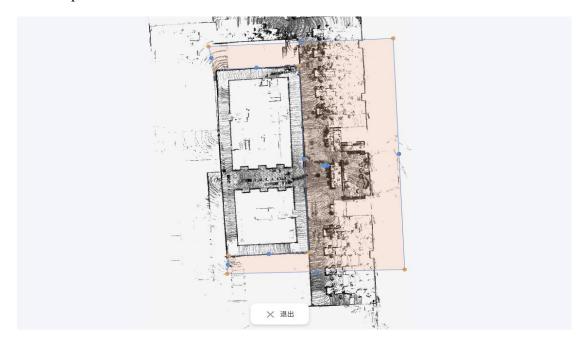
- 5) After placing all corners, click the [Complete] button to finish adding the polygon area.
 - 6) Repeat the second to fifth steps to create multiple polygon areas



- 7) After completing all edits, click the [Exit] button to return to the [Add Area] page _o
 - (2) Editing an Area
- 1) Click on an added polygon, and the toolbar will change to [Edit] and [Delete] buttons. Click the [Delete] button to remove the selected polygon, or click the [Edit]

button to expand the [Exit] button.

2) As shown below, drag the central point to any corner point (orange point), and click the [Confirm Point] button, then drag or scale the map to move the corner along with the central point. Click the [Confirm Point] button again to fix the point in the new position.



- 3) Click and drag the virtual point (blue point) between corner points to add this virtual point as a new corner point.
 - 4) After editing, click the [Exit] button to return to the [Add Area] page

2. Rectangle/Circle

(1) Adding an Area

- 1) Click the [Rectangle] tool on the left side of the page.
- 2) Click [Add Area] to add a square or circular area on the map, with [Rotate] and [Scale] buttons nearby.
 - 3) Drag the rectangle or circle to move it.
- 4) Click and drag the [Rotate] or [Scale] buttons to adjust the direction or size of the area.
 - 5) Click the [Complete] button to save the newly added area. Click the [Log out]

button if you do not want to save the area.

(2) Editing an Area

- 1) Click on an added area, and the toolbar will change to [Edit] and [Delete] buttons.
 - 2) Click [Delete] to remove the selected area.
- 3) Click [Edit], and the bottom of the page will display a [Save] button while the selected area enters editing mode.
- 4) When editing an area, you can drag the area to move it, or use the [Rotate] and [Scale] buttons to adjust the direction and size of the area.
 - 5) Click the [Save] button to save the changes to the area.

3. Line

(1) Adding a Line

- 1) Click the [Line] editing tool on the left side of the page, then [Add area] button at the bottom. The toolbar will change to [Withdraw Point], [Complete] and [Exit] buttons on the toolbar at the bottom
- 2) Move the cursor to the desired corner point on the map where you want to start the line, and click to add the first point.
- 3) Move the cursor to the next point where you want to extend the line. Click and a line will link the first and second points. Repeat this step to add multiple points.
 - 4) Click the [Withdraw point] button to remove the last added point.
- 5) After adding all the points, click the [Complete] button to finish. Or click the [Exit] button to exit editing mode and the current line will not be saved.

(2) Editing a Line

- 1) Click to select an added line, and the the [Edit] and [Delete] buttons will pop up at bottom of the page.
 - 2) Click [Delete] to remove the selected line.
 - 3) Click [Edit] and the selected line will enter editing mode, with the [Save]

button at the bottom of the page.

- 4) When editing a line, click on a corner point (orange point) on the line, then move the cursor to a desired position. Click again to fix the corner point at a new location.
- 5) Click a virtual point (blue point) between corner points, then move the cursor to a desired position. Click again to add a new corner point at that location.
- 6) Move the cursor to any corner point (orange point) and right-click to delete the point.
- 7) After editing the line, click the [Save] button to save the changes and exit editing mode.

4.1.2.3. Marking Point

Click on any point type in the classification selection box, then the [Classification] button will change to the name of the selected point type and the point editing tools will pop up.

1. Charging Point

(1) Adding a Charging Point

Select [Charging Point], and the [Add points to the map] and [Obtain the location] tools will pop up at the bottom of the page, as shown below.



- 1) Click the [Add points to the map] button to add a charging point (you can adjust the point's direction by dragging it).
- 2) If the system is able to get the robot's location, use the remote to move the robot to the desired location. Click the [Obtain the location] button, then a point marker that matches the robot's actual location and direction will appear on the map.

3) Click the [Complete] button to save the new point, while click the [Cancel] button not to save the current point.

(2) Editing a Charging Point

- 1) Click on the existing charging point on the map, and the [Edit] and [Delete point] buttons will appear at the bottom of the page.
- 2) Click the [Edit] button, and the [Save] and [Cancel] buttons will appear on the toolbar at the bottom of the page.
- 3) Drag the selected charging point to a new location on the map, and click the [Save] button to fix it in place. If you click [Cancel], the changes will not be saved, and the charging point will revert to its original location.

2. Elevator Points

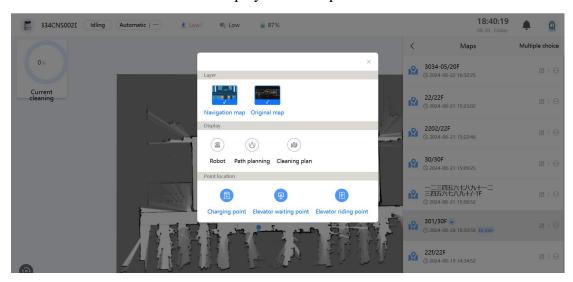
- 1) Click the [Elevator waiting point] or [Elevator riding point], and the [Add points to the map] and [Obtain the location] tools will pop up on the map.
- 2) Add new points on the map via the [Add points to the map] and [Obtain the location] tools.
- 3) After adding a point marker, select the corresponding elevator information, before clicking the [Save] button to save the new point.
- 4) Click on an added point marker on the map, and the [Edit] and [Delete point] buttons will appear.
 - 5) Click the [Delete point] button to remove the selected point marker.
 - 6) Click the [Edit] button to enter point marker editing mode.
- 7) Drag the point marker to adjust its position, and select the triangle to adjust the marker's direction.
 - 8) Click the elevator dropdown to change the elevator associated with the point.
- 9) After editing, click the [Save] button to save the changes. Click the [Cancel] button to discard the changes and exit editing mode.

Note: There can only be one charging point on a map. The location of the charging point can be changed but not deleted.

4.1.3. Map Tools

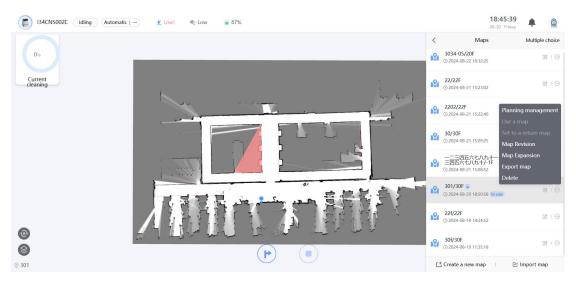
The map tools are on the bottom left corner of the homepage, including:

- 1. [Reset] button Click this button to reset the current map that has been rotated or scaled to its initial state.
- 2. [Layer] button Click this button to bring up the Layer display selection box. Click to select elements to display on the map.



4.1.4. Additional Map Operations

Click the [More] button next to a map in the Map Management window to access additional operations:



1. Set as returning map

Select a map with a charging point set, and click the [Set as returning map] button to set this map as the robot's returning map. (If this map is already the returning map, the [Set as returning map] button will be inactive).

2. Use Map

Select a map and click the [Use map] button to set it as the robot's current active map. (If the map is already in use, the [Use map] button will be inactive.)

3. Delete Map

Select a map and click the [Delete] button to remove it from the robot's local storage. All related plannings and tasks will also be deleted.

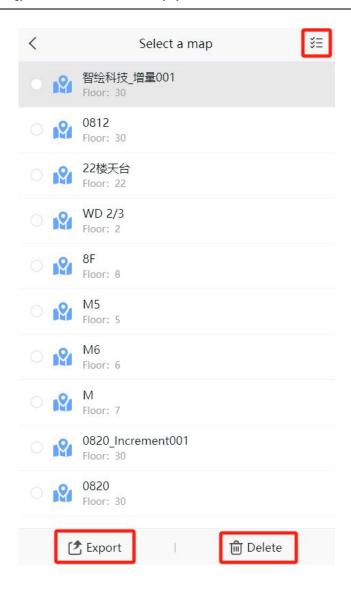
Click the [multi-select] button in the upper right corner of the map list to select multiple or all maps.

4. Import/Export Map

(1) Export Map

Click the [Export map] button from the [More] options for a map to save the selected map as a compressed file on your device.

Use the [multiple choice] button in the upper right corner of the map list to select multiple or all maps, then click [Export] to download and save the selected maps to local storage.



(2) Import Map

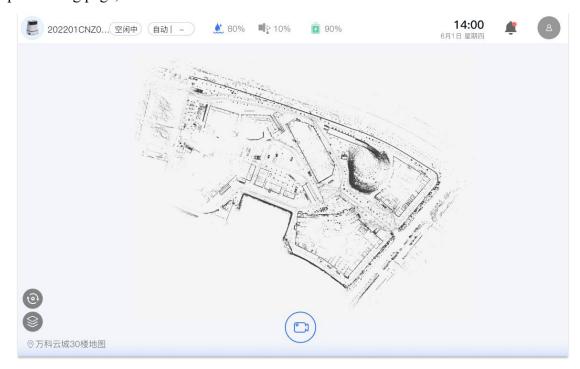
Click the [Import map] button at the bottom of the map list to import a map from the local storage on your device (imported maps are in the same format as exported maps).

5. More Functions

Functions such as planning management, map editing tools, and incremental mapping will be detailed in subsequent sections.

4.2.Incremental Mapping

On the map management page, click the [More] button on the right side of the target map to open a dropdown menu. Select [Map Expansion] to navigate to the map recording page, as shown below.



The recording page will display the original map along with a recording button. Clicking the [Start recording] button will initiate the recording mode, with the [Cancel] and [Complete] buttons at the bottom.



It is recommended to begin incremental mapping from a location already scanned on the original map or to pass through a already scanned area during recording. While recording, move the robot with the remote to scan the surroundings. The system will automatically match the original map and merge it with the newly scanned scenes.

During the merging process, the recording page will display the message "Map merging..." and the map cannot be saved at this time. Once the maps have been successfully merged, a prompt saying "The incremental maps have been merged" will appear, allowing you to continue recording new scenes by controlling the robot. Click the [Complete] button to save the newly created map on the robot's local storage.

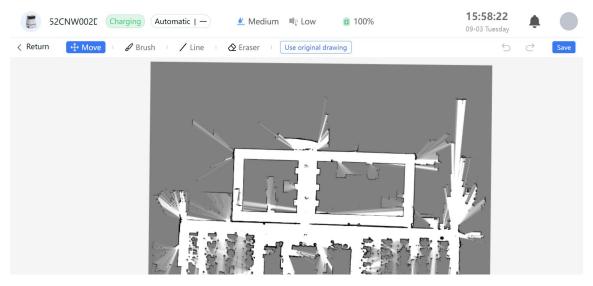


Note:

If the robot fails to match the scanned environment with the original map, the merge will fail, and the incremental map cannot be saved. Therefore, it is advisable to start the recording from a location that has already been scanned on the original map. After the message "The incremental maps have been merged" appears, you can then proceed to record and scan new surroundings.

4.3. Map Editing Tools

On the map management page, click the [More] button on the right side of the target map to open a dropdown menu. Select [Map Revision] to navigate to the map editing page, as shown below.



The editing tools include: Move, Brush, Line, Eraser, and Use original drawing.

1.Move

Click the [Move] button, then use the left mouse button to rotate the map, the right mouse button to drag the map, or the mouse wheel to scale the map.



When using the [Brush], [Line], or [Eraser] tools, you can drag the map with the right mouse button or scale with the mouse wheel, but not rotate the map.

2.Brush

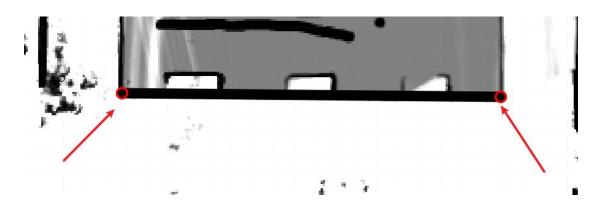
After selecting the [Paintbrush] button, drag the slider to adjust the brush size. You can then click and drag the left mouse button to draw walls on the target location on the map. To edit the walls, click the [withdraw] button in the upper right corner before redrawing. Click the [Save] button to save editing, and the robot will avoid this area during movement or cleaning.



3.Line

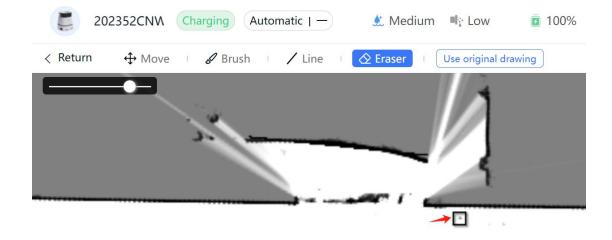
After selecting the [Line] button, drag the slider to adjust its size. You can then click and drag the left mouse button to draw straight walls on the target location on the map. Two red editable points will appear at both ends of the line after drawing. Click the editable points to edit the straight walls and click the [Save] button to save editing. Once saved the robot will avoid this area during movement or cleaning.





4.Eraser

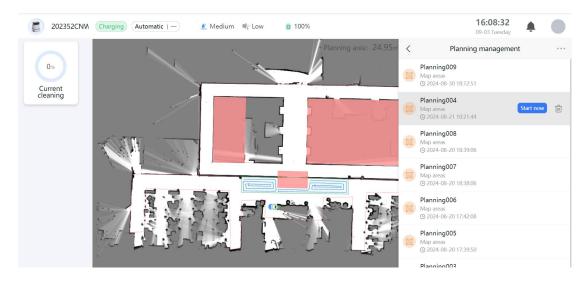
After selecting the [Eraser] button, drag the slider to adjust the its size. Move the eraser to the target location on the map, and click or drag the left mouse button to remove unnecessary noise from the map. Click the [Save] button to save editing, and the robot will avoid this area during movement or cleaning.



4.4.Planning Management

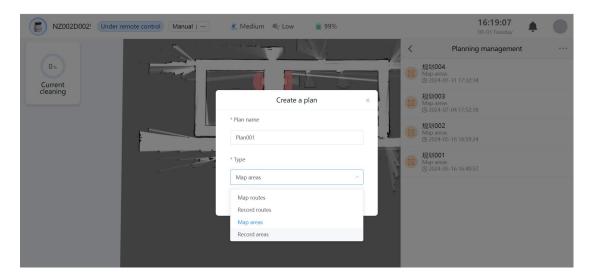
On the map management page, click the [More] button on the right side of the target map to open a dropdown menu. Select [Planning management] to navigate to the planning management page, as shown below. The window lists all the areas or routes divided for cleaning on the map. You can switch between different plannings

by clicking on the planning items, and the map display window on the left will show the corresponding area or route in real-time.



4.4.1. Creating and Editing a Planning

Click the [Create] button at the bottom left of the planning management window to open a "Create a plan" box, as shown below.



Enter the planning name and select the desired plan type from the dropdown menu. You can choose from the following types: Map Routes, Record routes, Map areas, and Record areas. Each plan type corresponds to different editing methods:

1) Map routes: includes drawing waypoint and editing virtual walls;

- 2) Record routes: includes recording waypoint and editing virtual walls;
- 3) Map areas: includes drawing areas and editing virtual walls;
- 4) Record areas: includes recording areas and editing virtual walls.

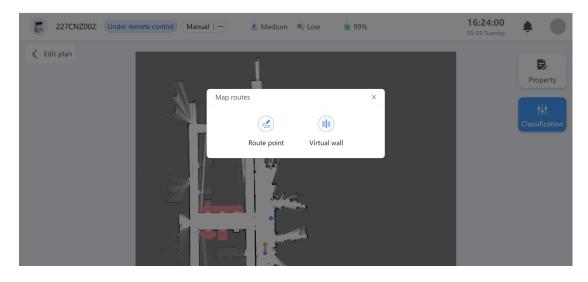
After entering the planning name and selecting the planning type, click the [Confirm] button to enter the respective plan editing page and perform planning editing.

4.4.1.1. Map routes

In the Map routes page, you can edit the properties and classified drawings.

Property Editing: Click the [Property] button in the upper right corner of the page to open the planning property editing box. Here, you can edit the planning name but not the plan type. Click [Confirm] in the box to save the changes.

Classified Drawing Editing: Click the [Classification] button in the upper right corner of the page to open the classified drawing box. You can choose [Route point] or [Virtual wall] for editing. Once selected, the [Classification] button will change to the name of the selected type, and the corresponding editing tools for waypoint or virtual walls will appear below:



1. Editing Route Point

1) Select the [Route point] button, and the [Add points to the map] button will

pop up. Clicking it will expand the toolbar, including [Withdraw] and [Complete] buttons, as shown below. The operation steps for these buttons are the same as those for adding polygonal areas in section 4.1.2.2.Advanced Mapping(Area Editing). Note: Unlike map editing where multiple shapes can be added, only one path can be drawn in each path planning.



2) The newly created path can be selected to [Edit route] or [Delete route]. The steps are the same as those for editing polygonal areas in section 4.1.2.2.Advanced Mapping(Area Editing)



2. Editing Virtual Walls

1) Select the [Virtual wall] button, and the [Add virtual wall] button will pop up. Clicking it will expand the toolbar, including a width input box at the top of the interface, which must be filled out first. Also, the [Withdraw], [Complete] and [Exit] buttons are at the bottom, as shown below. These 3 operation steps for these buttons are the same as those for adding polygonal areas in section 4.1.2.2.Advanced Mapping(Area Editing).



2) The newly created virtual walls can be selected to [Edit] or [Delete]. The

steps are the same as those for editing polygonal areas in section 4.1.2.2.Advanced Mapping(Area Editing).

4.4.1.2. Map Areas

The Map areas function allows you to add and edit [Area] and [Virtual wall] following the same steps as outlined in section *4.4.1.1. Map Routes*.

4.4.1.3. Record Routes

Record routes follows the same steps as Map routes for property editing and adding/editing virtual walls. However, the route point for Record routes needs to be added in remote control mode by recording tracing points. The specific steps are as follows:

- 1. After entering the planning name and selecting [Record routes] in the new planning window, click the [Confirm] button. The system will check if the remote control mode is enabled:
- 1)If the robot is not in remote control mode, a prompt will appear: "Please power on the remote control first and switch the robot to the remote control status."
- 2)If the robot is already in remote control mode, the recording toolbar will pop up, as shown below.

Minimum point spacing enter m Cancel Start Recording

- 2. Enter the minimum point spacing in the toolbar, then click [Start Recording] to begin recording the route. The [Start Recording] button will turn into the [Complete] button.
- 3. While the robot is moving in the remote control mode, the system records the robot's position and direction as a route point at intervals equal to the set minimum

point spacing.

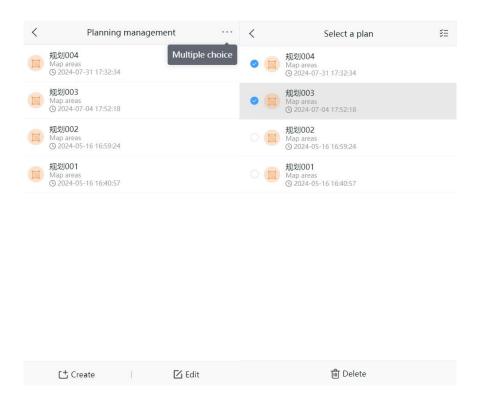
- 4. Click the [Complete] button to finish the recording. The recorded route points and their connecting lines will form the route.
- 5. Like Map routes, only one path can be recorded in each path planning. Clicking the [Start Recording] button again will delete the current route and start a new recording.

4.4.1.4. Record Areas

Area Record follows the same steps as Path Record for adding and editing [Area] and [Virtual wall], as outlined in section *4.4.1.3. Path Record*.

4.4.2. Deleting a Planning

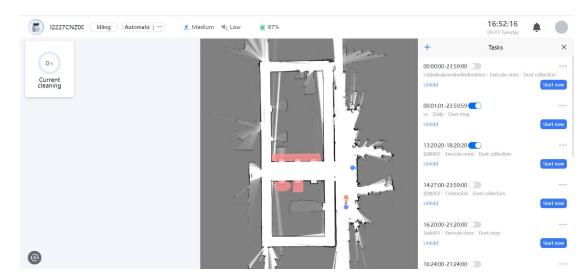
In the planning management window, you can delete a planning by selecting a single plan item and clicking the [Delete] button on the right side. To delete multiple plannings, click the button in the upper right corner, then select the [Multi-select] button to delete in batches.



5. Task Management

5.1.Cleaning Tasks

Click the [Tasks] button on the homepage to open the Task Management window, as shown below.

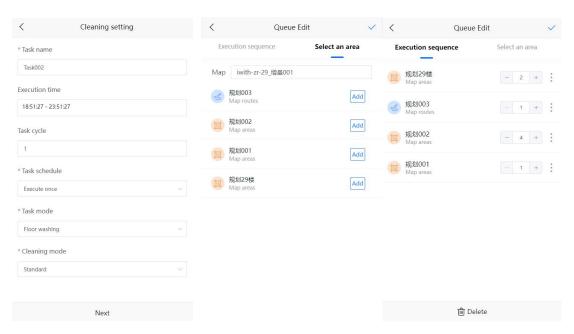


You can scrolling up and down to view all the tasks listed. Each task contains information such as the task name, scheduled start and end times, execution circles, and scheduling status. For each task, you can perform the following actions:

- 1. Unfold/Fold: Click the [Unfold/Fold] button below the task information to unfold or fold the planning sublist for a task. In the unfolded sublist, you can switch between different plannings by clicking on them and view the corresponding task plannings in the map display window on the left.
- 2. On/Off: On the right side of each task, click the [On/Off] button to confirm whether to enable the task as scheduled. If scheduling is enabled, the cleaning task will execute at the set start time and complete within the scheduled end time. Otherwise, the task will not execute as scheduled.
- 3. Additional Task Settings: Click the button in the top right corner of the task item to access a dropdown menu, where you can perform [Cleaning setting], [Queue Edit] and [Delete].
- 4. Start now: Click the [Start now] button to immediately execute the task. For more details, refer to section 5.3 *Start Cleaning*.

5.2. Creating a New Task

Click the + button in the top left corner of the Tasks window to navigate to the Cleaning Settings window for a new task. The specific steps are as follows:



- 1. First, configure the task attributes, including [Task Name], [Execution Time] (start and end times), [Task Cycle], [Task Schedule](Once, Daily, Weekdays, or Custom), [Task Mode](Scrubbing/Mopping/Vacuumin) and [Cleaning intensity] (Standard/Strong).
- 2. After setting the task attributes, click the [Next] button at the bottom of the window to move on to the Queue Edit window.
- 3. In the Queue Edit window, you can switch between [Execution Queue] and [Select an area] using the tabs at the top of the window.
- 4. In the [Select an area] list, click the dropdown menu under [Select Map] to choose the map that the new task will operate on. The list below will display all plannings associated with the selected map. Choose a target planning and click the [Add] button on the right side of the planning to add it to the task.
- 5. Cross-Map Task is supported, allowing you to add plannings from different maps to the task.
- 6. Switch to the [Execution Queue] tab to view the plannings selected in step 4, which have been added to the queue. You can edit the number of times a planning should be repeated during a single task execution by using the [+/-] buttons or input fields on the right side of the added planning.

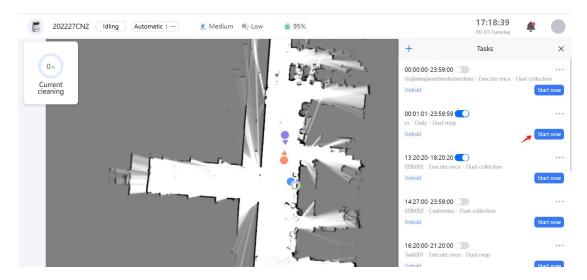
- 7. Long-press and drag a plan within the execution queue up or down to adjust the execution order of the plannings.
- 8. Select a planning in the execution queue, then click the [Delete] button at the bottom to remove it from the queue.
- 9. Once the planning queue is complete, click the [Save] button in the top right corner of the window to complete the new cleaning task creating.
- 10. To change the attributes of the new cleaning task, click the [Back] button in the top left corner of the Queue edit window to return to the previous step and change the attributes. After this, click the [Complete] button in the top right corner to save the changes.

5.3. Starting Cleaning

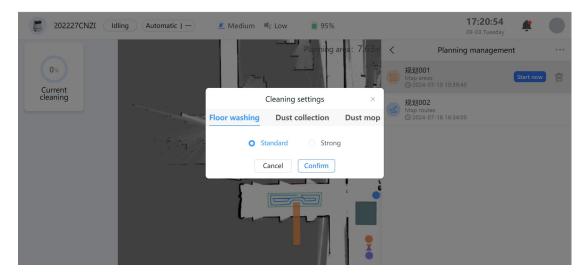
5.3.1. Task Delivery

There are two methods for starting a cleaning task:

- 1. Scheduled Start: If a cleaning task is set to start on a schedule, the robot will automatically execute the task at the scheduled start time and complete it within the scheduled end time.
- 2. Immediate Start: Select a cleaning task from the list and click the [Start] button on the right side to start the task immediately.



Alternatively, on the [Maps - Planning management] page, select a planning and click the [Start now] button, then choose a cleaning mode before the cleaning task starts.



Before delivering an immediate task, a confirmation dialog will pop up, as shown below. It is necessary to confirm whether the robot's actual location matches the task map. If the robot is robot on the task map, click the [Confirm] button, and the robot will switch to the task map to execute the task.

Tips

The current map is "iwith-zr-29_增量002110", please confirm whether it is consistent with the location of the robot

If the robot is currently executing another task, a dialog will appear asking if you want to terminate the current task. The new task cannot be delivered until the current task is terminated.

5.3.2. Task Execution

Once the task is delivered, the robot will clean according to the task sequence. At this point, click the [Current Task] button in the top left corner of the homepage to view key data on the ongoing cleaning task in the expanded task information bar, as shown below.



During the task, you can click the [Pause/Continue] and [Terminate] buttons at the bottom center of the interface to manage the current cleaning task. You can also click the [Auto-returning] button to terminate the current task and start automatic returning for charging.



Note:

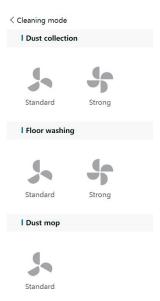
If the battery is too low to complete the task during execution, the robot will

suspend the current task and start returning to the charging station. At this time, the [Pause/Continue] and [Auto returning] buttons will be disabled. Users can only click the [Terminate] button under low battery conditions to terminate the current task.

When the robot is charged to the upper threshold, it will automatically resume the suspended task.

6. Cleaning Mode

Click the [Cleaning Mode] button in the [More] window on the homepage to enter the Cleaning Mode page, as shown below. The cleaning modes include Scrubbing, Vacuuming, and Mopping, with Scrubbing and Vacuuming modes offering two levels of cleaning intensity: Standard and Strong, while mopping offering one level: Standard.



In remote control mode, after selecting a cleaning mode and intensity, the robot will start cleaning according to the selected mode. At this point, you can control the robot via remote to clean the area.

7. Cleaning Record

Cleaning records provide a statistical summary of task completion information. Click [Cleaning record] in the [More] window on the homepage to enter the Cleaning record page, as shown below.



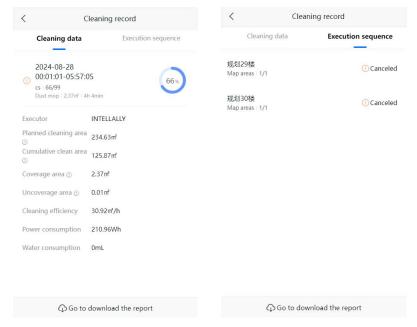
The Cleaning Records page is divided into a map display window on the left and a cleaning record window on the right.

On the cleaning record page, the list of cleaning records is arranged in chronological order, with the most recently completed tasks at the top. Each record shows the task name, cleaning time, task completion progress, cleaning mode, cleaning area, and cleaning duration. Additionally, it indicates the task's completion status: 1) Finished; 2) Canceled; 3) Abnormal.

7.1. Individual Task Records

Each record in the cleaning record list has a [>] button on the right. Clicking it will take you to the detail page of the current cleaning record. On this page, you can switch between the corresponding subpages by clicking the [Cleaning Data] and

Execution sequence] tabs at the top to view detailed statistics or the execution status of the queue, as shown below.



Clicking the [Go to download the report] button at the bottom of the cleaning record window allows you to download the cleaning report in PNG or Excel format to local storage, as shown below.



Task details

Plan name	Туре	Number of executions	lote: Only display the execution of the last task Status
taskJob_1723626828501	Map areas	1	Canceled
taskJob_1723626828503	Map areas	1	Canceled

7.2. Cumulative Cleaning Statistics

In addition to individual cleaning task records, you can click the button at the top of the cleaning record page and select [Statistics] in the dropdown to switch to the 7-day cleaning data page. which displays the robot's overall usage information, including the total cleaning area, cumulative duration, cumulative times, cleaning efficiency, water consumption, and power consumption over the past 7 days, as well as daily statistics for cleaning area, water consumption, and power consumption for the most recent 7 days, as shown below.



You can also download a cumulative cleaning statistics report in PNG format by clicking the [Go to download the report] button at the top right of the page, as shown below.







06/07

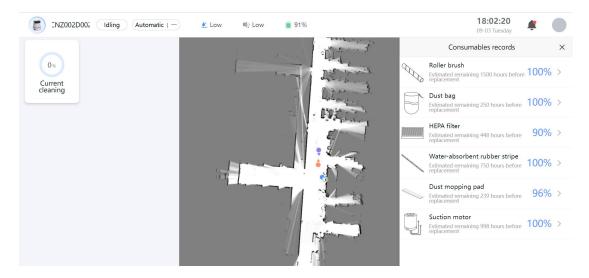
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06/09

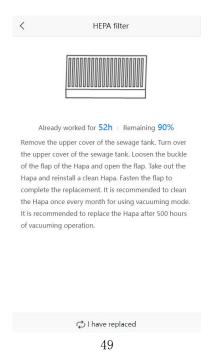


8. Consumable Management

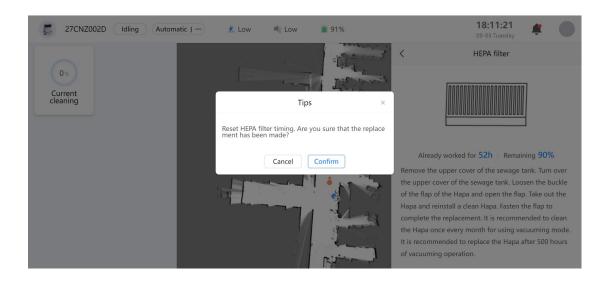
Click the [Consumable management] button in the [More] window on the homepage to enter the consumable management window on the right side, as shown below.



The consumable management window lists the usage status of the roller brush, dust bag, HEPA, squeegee and dust mopping cloth. Clicking the button on the right side will take you to the consumable detail page, where you can view replacement steps, as shown below.



- 1. During regular use, follow the usage recommendations to properly manage consumables, and assess whether replacement is necessary based on the current condition of the consumables.
- 2. If you have replaced a consumable, click the [I have replaced] button in the corresponding consumable window. The system will reset the working time and remaining usage percentage data for the consumable, as shown below.

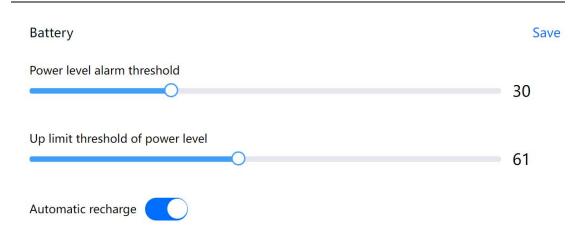


9. Advanced Settings

Clicking the [Advanced Settings] button in the [More] window on the homepage will take you to Advanced Settings page. You can use the tabs on the left side of the page to configure settings for [Battery], [Volume], [Multi-language] and System setting.

1. Battery

Drag the slider to set the Power level alarm threshold and Up limit threshold of power level. If the robot's battery level drops below the alarm threshold during a task, it will suspend the task and return to charge. Once the robot is charged to the upper threshold, it will resume the suspended task.



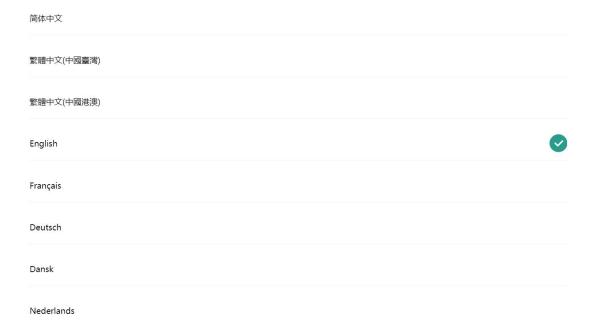
2. Volume

You can adjust the system volume by dragging the volume slider, as shown below. Clicking the volume icon will mute/unmute the robot.



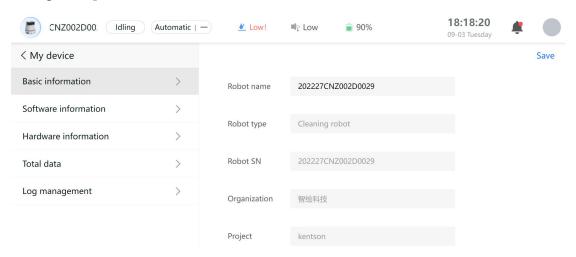
3.Language

The App's language will be automatically switched once selected and saved.

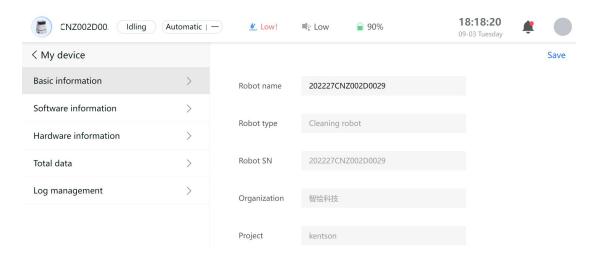


10. My Device

Click the [My Device] button in the [More] window on the homepage to enter the My Device page. You can click the tabs on the left side to view the robot's [Basic information], [Software information], [Hardware information], [Total data] and [Log management].



10.1. Basic Information

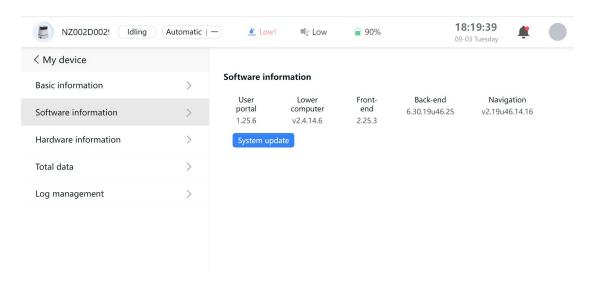


In the Basic Information window, you can view details about the robot, including the robot's name, type, serial number (SN), associated organization and project.

Clicking on the [Robot Name] field allows you to change the robot's name. The

[Save] button on the top right of the windows should be clicked to save any changes.

10.2. Software Information

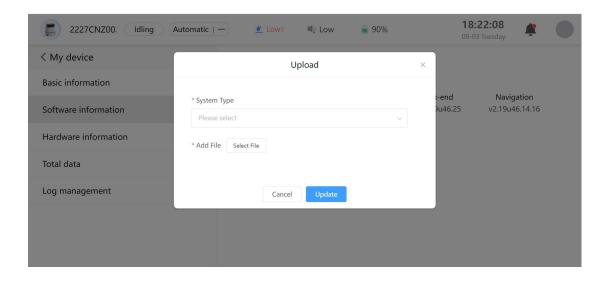


Click the [Software Information] button on the left navigation bar of My Device page to switch to the Software Information subpage.

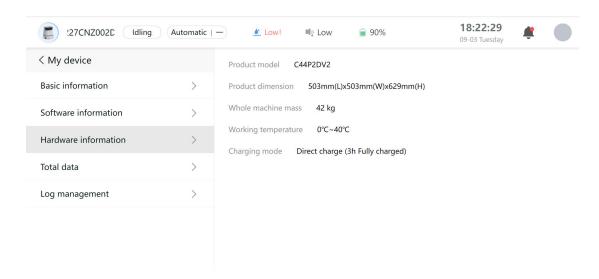
Here, you can view the version information for the robot's subsystems, including the User portal, Lower computer, Front-end, Back-end, and Navigation.

By clicking on a specific subsystem, the version history for that system will be displayed below.

Additionally, you can use the [System update] function to update the subsystems. Click the [System update] button, select the system to be updated in the pop-up window, upload the corresponding system software package, and click [Update] to automatically update the system.

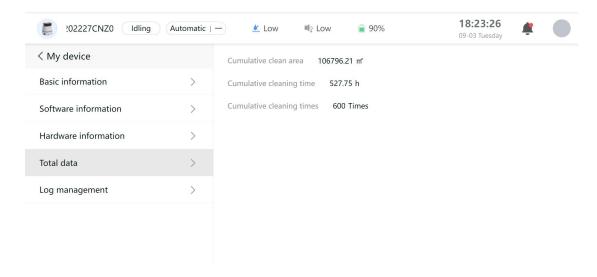


10.3. Hardware Information



Click the [Hardware information] button on the left side of the page to switch to the Hardware Information window, where you can view the robot's hardware details.

10.4. Total Data



Click the [Total data] button on the left side of the page to switch to the Total data window, where you can view the robot's cumulative cleaning data, including the clean area, cleaning time, and the number of cleaning cycles.

11. Positioning Initialization

Clicking this button in the [More window] on the homepage will cause the robot to rotate in place to perform location initialization. The page will switch to "Initial positioning", and no other operations can be performed until the localization is complete. If successful, the page will display a "Positioning success" notification; if not, it will display a "Localization failure" notification and return to the original page.

12. User Management

Click the user profile photo in the top right corner of the homepage to open a dropdown menu that displays the currently logged-in user. Click the [User Settings]

button to enter the User Management page, where you can view account and username information. Clicking the [Exit login] button allows you to log out directly.