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META-SCRUB 60

Automated Cleaning Robot

User Manual

Read carefully the META-SCRUB 60 user manual before operations. This user manual is the property of METABOTS company and should only be shared with authorized personnel.

Introduction

Smart Sensors Detection

Equipped with a combination of 12 sensors, META-SCRUB 60 can identify, detect, and avoid static and dynamic obstacles in any situation, allowing it to perform safe cleaning operations. Our robots are safe to use and keep people safe. Equipped with a live stream camera, META-SCRUB 60 can record continuously more than a week of cleaning operations for the safety of everybody.

Dynamic Cleaning Operations

The ability to clean close to walls is now a reality! With less than 10 cm gap between our META-SCRUB 60 and walls, METABOTS push beyond existing industry standards.

Thanks to its unique ability to rotate, META-SCRUB 60 can deliver superior cleaning efficiency in comparison to other cleaning robots and machines, suppressing the cleaning gap between 2 cleaning passages.

Flexible & Simplified User Interface

Using Mirror technology, the METABOTS application can be used from any type of device simultaneously. Users can use their own devices to control and interact with META- SCRUB 60. Our robotic teams have developed a unique removable tablet concept never seen for cleaning robots before. Users can directly interact with META-SCRUB 60 panel control or remove it for remote control. Regardless the distance you will always be connected to META-SCRUB 60. Thanks to the dual wireless connection technology, users can choose whether if they want to directly connect via a short-range connection or remotely using a long-range connection (via cloud technology).

Simple & Fast Maintenance

Robotic maintenance never has been made that simple! META-SCRUB 60 maintenance can easily be done by one operator alone. No tools and screws are needed to get access to the different technical elements of the robot.

- Replaceable battery for extended operation time.
- Auto-dumping of water tanks with a single button.
- Removable front bumper for easy brush replacement.
- Universal access key to all compartments (Tablet, Battery, Power).

Recommended reading before using META-SCRUB 60

Prior using META-SCRUB 60, read carefully “Safety Precautions” (page 7) and “Cleaning Operation Precautions” (page 8) to avoid any accidents and misuse.

Packing List

Before starting operations, check whether the machine package contains all the following items. If items are missing, please contact your distributor.

List of items and accessories.

No	Code	Description	Qty	Note
1	612000001	META-SCRUB 60	1	Standard Packing include: Water Squeegee, Filters, Debris Filter Bag, Scrubbing Brushes, and a Battery.
2	606000022	Water Squeegee	1	
3	601000020	Filter (50um)	1	
4	601000021	Filter (5um)	1	
5	601000022	Debris Filter Bag	1	
6	956000035	Scrubbing Brushes	3	
7	606000024	Battery	1	
8	611000052	User Manual	1	Packed with Host.
9	611000053	Operation Training Manual	1	
10	611000054	Certificates of Inspection	1	
11	611000043	QR Code parking code	2	
12	606000023	Dust Mop Holder	1	Packed individually in cartons.
13	611000010	Dust Mop	2	
14	956000034	Pads Holder	3	
15	956000033	Floor Pads	3	
16	606000031	Charging Station	1	Carton packaging

Need additional Consumables? (Water Squeegee, Filters, Debris Filter Bag, Scrubbing Brushes, Dustmop, Floor Pads), please contact your dealer or METABOTS Service Team.

(The delivery cost of METABOTS items and accessories by a third-party company will be at the charge of clients).



META-SCRUB 60
(Automated Cleaning Robot)



Dustmop Holder



Dustmop



Pads Holder



Floor Pads



Charging Station

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Safety Precautions

The following precautions are essential to avoid any injuries or safety hazards. Make sure to understand and observe these safety precautions before starting to use META-SCRUB 60.

For any malfunctions, problems, or damages with META-SCRUB 60, directly contact our METABOTS service or your dealer for detailed information and assistance.



Warning: Please observe the following safety precautions and warnings. Failing to respect safety precautions may lead to robot faulty operations and safety hazards.

- To avoid fires, overheating, chemical spills, explosions, and electric shocks, follow the following safety precautions:
 - Do not use any other batteries, power sources or accessories not specified in the instruction manual. Do not use homemade batteries, modified batteries, or damaged batteries.
 - Do not short-circuit, disassemble, or modify the battery by yourself. Do not heat or weld the battery. Do not allow the battery to come into contact with fire, heat or water. Avoid direct impact or collision with the battery.
 - Do not switch the positive and negative poles of the battery.
 - Do not charge the battery under unfavourable environment conditions. Do not over-charge the battery. The recommended charging time of the battery is mentioned in META-SCRUB 60 user manual.
 - Do not insert any foreign objects into the electrical outlets of the robot such as metal plates, accessories, wires...
- Smoke or oily fumes could be seen when the battery overheats. Immediately unplug the battery charger from the power outlet to stop the charging process or it may cause fire hazards, damages, or electrical leakages.
- When the battery leaks, changes colour, deforms, or emits smoke and unusual smell, remove it immediately. During the removal process, do take extra precautions to avoid burns. Continuous usage of the damaged battery will cause fire hazards, electrical leaks, or burns.
- Avoid contact with eyes, skin or clothing when there is a battery leakage as it may cause blindness or chemical burns. If the battery acid comes into contact with eyes, skin or clothing, immediately rinse the area with water (do not rub) and seek medical assistance immediately.
- Do not place any power cords near to heat sources, as it may cause deformities and melts into the insulating layers of the battery.
- When META-SCRUB 60 or accessories are not in use, remove the battery from the device before storing. It will prevent electric shock, overheating, fire, and corrosion.

Safety Precautions

- Do not use META-SRUB 60 in an environment with flammable gas, flammable liquids, or flammable dust to avoid explosion or fire hazards.
- If the robot drops and the casing breaks and the internal parts might be exposed. Do not touch the exposed parts. Do not touch the parts as it may cause electric shock.
- Do not disassemble or modify META-SCRUB 60 by yourself. Internal components with high voltage parts may cause electric shock.
- Do not store the machine in a dusty or humid environment. Keep the battery away from any metallic objects and store it with protective covers to prevent fire hazards, overheating, electric shocks, and burns.
- To avoid safety hazards, follow the following safety precautions:
 - Ensure that power connectors are well plugged.
 - Do not touch power plugs with wet hands.
 - When unplugging connectors, hold on to the power connector and pull out gently. Do not pull the connector holding the power cord.
 - Do not scratch, cut, or excessively bend the power cord. Do not place heavy objects on the power cord. Do not bend or knot the power cord.
 - Do not connect too many power plugs to the same power outlet.
 - Do not use power cords with exposed or broken wires.
- Unplug the power connector periodically and keep the power connector area clean with a dry cloth. If the power connector area is dusty, damp, or greasy, it could lead to short circuits and fire hazards.
- Do not cover or wrap META-SCRUB 60 with a cloth. It may cause deformities or fire hazards due to poor heat dissipation.
- Remove the battery immediately if submerged in water or in contact with metallic objects as it could lead to fire hazards, electric shocks, and burns.
- Do not use paint thinner, benzene, or other organic solvents to clean META-SCRUB 60. Failure to do so may cause fire hazards or health effects.
- Do not use or store META-SCRUB 60 in a high-temperature environment. The robot might overheat which could lead to battery leakage or explosion. It could also degrade the battery's performance and shorten its lifespan.
- Disposal of META-SCRUB 60 battery must be done following local laws and safety regulations.

Cleaning Operation Precautions

1. Do not operate the robot under the following conditions:

- Do not operate the robot without training and authorization.
- Do not operate the robot without reading and understanding the user manual.
- This robot can only be used indoors and in covered environments.
- Do not use the robot in an environment containing flammable gas, flammable liquids or other dangerous materials.
- Do not operate the robot under the influence of alcohol.
- Not to be used by minors or persons with mental disabilities.

2. Before robot operations:

- Inspect the META-SCRUB 60 for liquid leaks.
- Make sure all safety equipment is in place and in good working condition.
- Check if consumables of META-SCRUB 60 are in good working condition (Brushes, Squeegee, Filters).
- Check that the water level in the water tank meets the requirements to start cleaning operations.
- Check if the emergency stop button is released.

3. During robot operations:

- Use only META-SCRUB 60 according to the instructions in this user manual.
- Do not use it on slopes of more than 5 degrees.
- Use extreme caution when reversing the machine.
- Keep children and unauthorized individuals away from the robot.
- In case of an emergency, press the emergency stop button on top of the machine immediately. Pressing the emergency stop will interrupt all the systems of META-SCRUB 60 (such as Sensors, cleaning tools, robot movements and localization).
- Do not let clothing, hair, fingers, and other parts of your body near the running cleaning parts of META-SCRUB 60.
- Do not let the robot pick up any items (during cleaning operations) such as stones, wastepaper, ... that may block and damage META-SCRUB 60.

4. After robot operations:

- Drain the water tank and clean the recovery tank.
- Clean the debris filter bag and other filter elements.
- Clean floor brushes and water squeegee.
- Disconnect the robot from the power supply.
- If not in use for a long time, please remove the battery and place the robot in a dry and cool environment with good ventilation flow.

5. Robot maintenance:

- META-SCRUB 60 is a sensitive and precise robotic device. Do not drop it or expose it to physical impacts.
- META-SCRUB 60 is not waterproof and must not be exposed to rain or directly washed with water.
- During maintenance, be sure to turn off the power to prevent accidents.
- All reparations and modifications must be performed by trained professionals.
- Replacement parts must be provided and approved manufacturer (METABOTS).
- Do not make any modifications to the product that may differ or alternate the design of the cleaning operations of META-SCRUB 60.
- Do not use spray or water to clean the machine when powered on.

6. Robot transportation:

- The water tank must be drained before loading the robot.
- For long-distance transportation, special packing (e.g. wooden boxes) must be used.
- Lower the brush plate and squeegee before shutting down the machine.
- Use a ramp capable of supporting the combined weight of the machine and operator.
- Do not operate the machine on a slope higher than 5 degrees.
- Jam the machine wheels to prevent the machine from slipping during transport.

Technical Data



Automatic
Charging



Auto-Dumping
Auto-Refills



Scrubbing
Operations



Dustmop
Operations

Cleaning Width	600 mm
Cleaning Efficiency	2,100 m ² / hour
Brush Rotation Speed	180 rpm
Cleaning Pressure	25 kg
Water Recycling	Yes
Clean Water Tank	50 L (3-stage filtration)
Recovery Tank	50 L
Battery Capacity	Lithium Iron 100 Ah/24v
Scrubbing Operations	4 hours
Dustmop Operations	20 hours
Charging Time	4 hours
Operational Speed	0-1 m / s
Edge Cleaning	< 10 cm
Integrated Charging Station	Optional
Gradient	< 5°
Weight	200 kg
Dimensions (L x W x H)	810 x 784 x 1100 mm

- **Machine Sensors Configuration:**

2D LIDAR (x1), 3D Cameras (x4), Front Security Camera (x1), Ultrasonic Sensors (x5), and Electronic Bumper (x1).

1

General Outlook

General understanding of META-SCRUB 60 built & external parts.



General Outlook

Top View



1. **Emergency Stop:** When activated, the robot will stop working. Once the emergency stop is released, the robot's localization will be lost. To initiate localization manually refer to page 36.
2. **Key Power Switch:** Control power on/off of the robot.
3. **LED Ring Light:** Display different status of the robot (details on page 25).
4. **User Interface Panel:** The User Interface Panel of META-SCRUB 60.
5. **Manual / Auto Mode:** Switch between automatic mode and manual mode.
6. **Power Button:** Long press this button for 5 seconds, and META-SCRUB 60 will enter into sleep mode.

Front View



1. **Depth Camera:** For obstacle avoidance.
2. **Ultrasonic Sensors:** For obstacle avoidance.
3. **Charging Plates:** For Charging Station or Integrated Station.
4. **2D LIDAR:** For obstacle avoidance and mapping.
5. **Depth Camera:** For obstacle avoidance.
6. **Water Refills:** For clean water, used with the Integrated Station.
7. **Live Stream Camera:** To monitor and record the real-time status of the robot.
8. **LED:** To display LOGO and patterns.
9. **Automatic Dumping Outlet:** For sewage.
10. **Electronic Bumper:** Provides protection from collisions and shocks. When the Bumper is triggered, the robot stops working. Release the Emergency Stop Switch to cancel the emergency stop triggered by the Bumper.

Rear View



- 1. Water Pipe Level:** Display clean water tank level.
- 2. Air Switch:** When Air Switch is off the entire META-SCRUB 60 system (Robot Panel, Sensors & Cleaning Tools) is powered off.
- 3. Technical Panel:** electrical cables set-up / battery replacement / Sim card slot.
- 4. Water Squeegee:** rubber tool that collects water on the floor and pick-up with integrated suction.
- 5. Sewage Pipe:** to dispose of the dirty water from the recovery tank.
- 6. Speakers:** Display sound messages and background music.
- 7. Manual Charging & USB Port:** manual battery recharging & data migration.

Warning:

- Trained users are allowed to operate META-SCRUB 60, however they are not qualified to disassemble and modify it. The robot warranty will not be active anymore in case of unauthorized modifications and reparations. METABOTS will not be held responsible for any damages caused in such a case.
- Do not hit & disassemble LiDAR, ultrasonic sensor, depth camera or any other sensors.
- Only use the official charging station or/and power cables provided by METABOTS teams.

2

Quick Start Guide

Introduction of META-SCRUB 60 basic cleaning operations. Quick Start Guide, will allow you to start operations in less than 3 minutes.

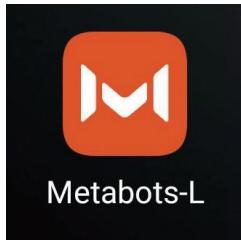


Quick Start Guide

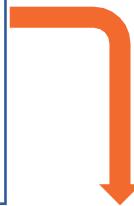
1. Login Interface



1. Start the robot with the key



2. Tap on the APP to enter the login interface.



Metabots

Network: connected



admin



.....|



Remember Login

Login

1	2	3
4	5	6
7	8	9
C	0	X

Network: connected

3. Enter
Username: admin
Password: 123456
Login to enter the home page interface.

User Interface Login

Metabots

Network:MX-SC60A-2112002



admin



.....|



Remember Login

Login

1	2	3
4	5	6
7	8	9
C	0	X

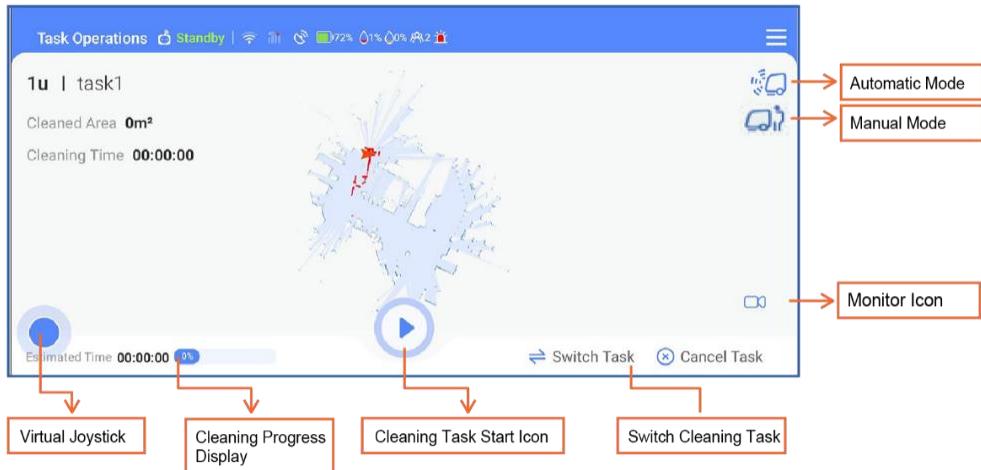
3. Click "Network"



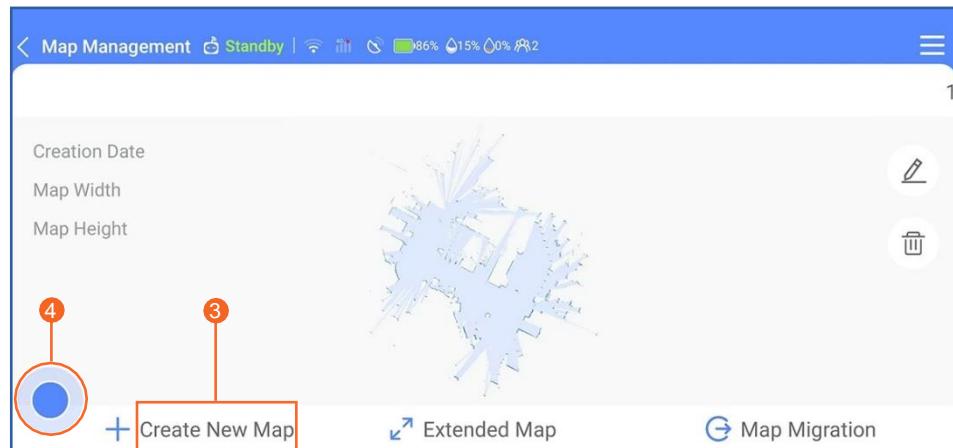
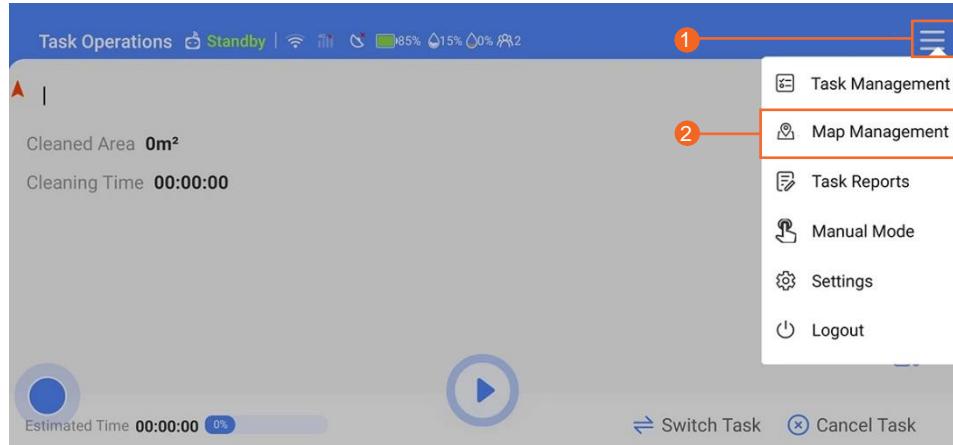
4. Enter
Username: admin
Password: 123456
Login to enter the home page interface.

Mobile, Tablet login

2. Home Page Interface (Icon Information)

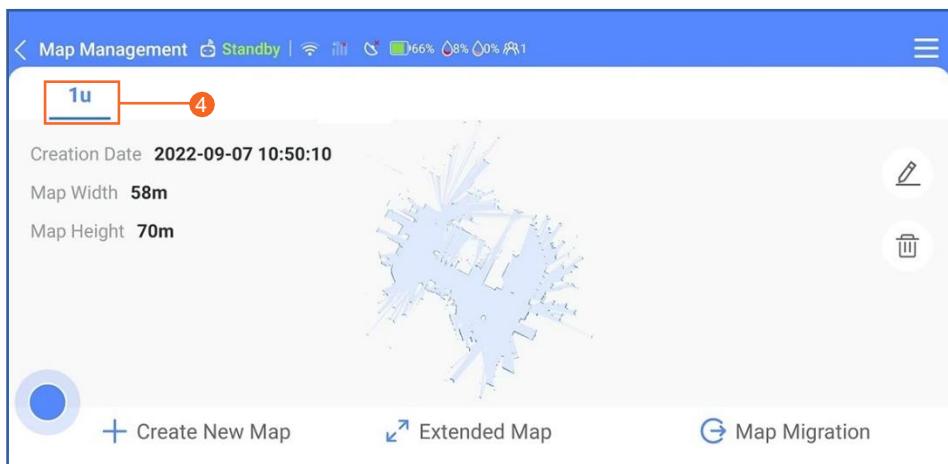


3.1. Map Management



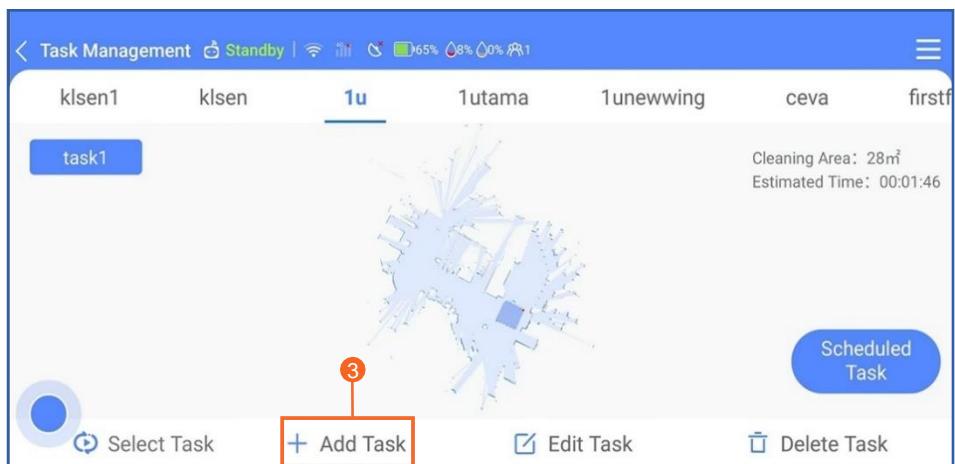
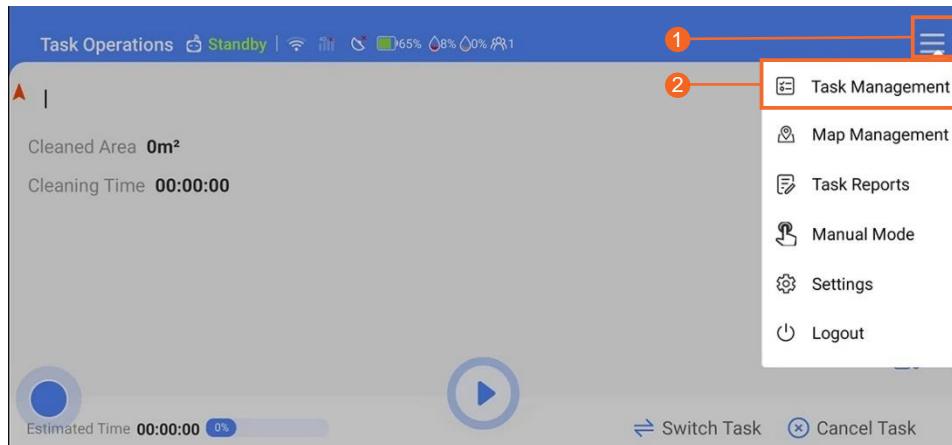
1. Tap [] to open main menu.
2. Select Map Management. Go to the Map Management page.
3. Tap Create New Map. Go to the Mapping page.
4. Tap [] to activate the Virtual Joystick.

3.2. Map Management



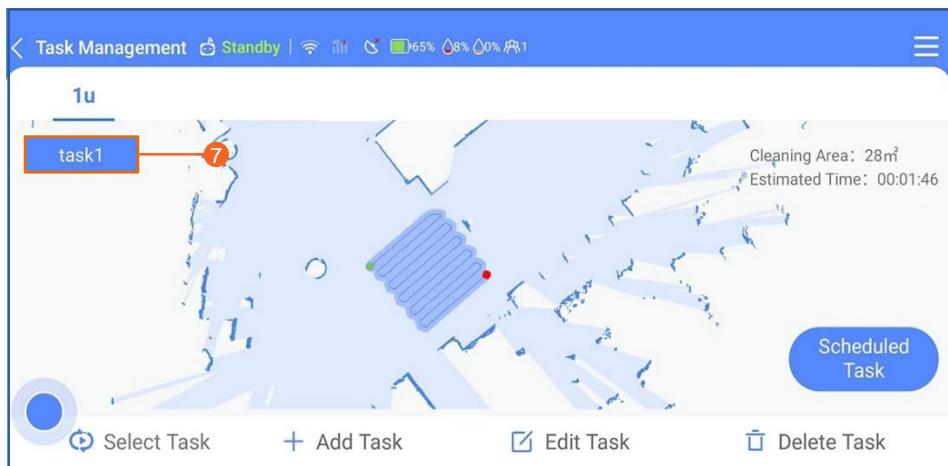
1. Control robot movements by using the “Virtual Joystick”. Map will gradually appear while META-SCRUB 60 scan the cleaning area.
2. Use blue arc (around “Virtual Joystick”) to adjust the robot speed.
3. Tap “Save” when once the map is sufficiently detailed.
4. Enter map name and tap Yes. The map is now created.

4.1. Task Management



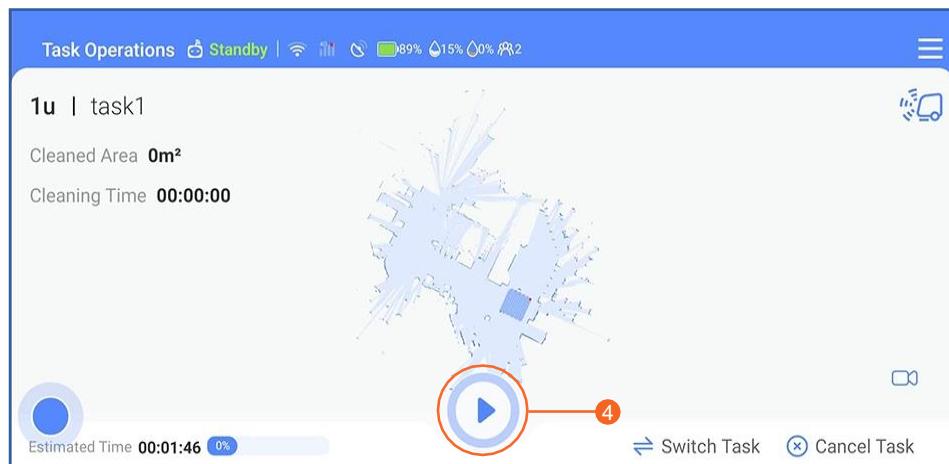
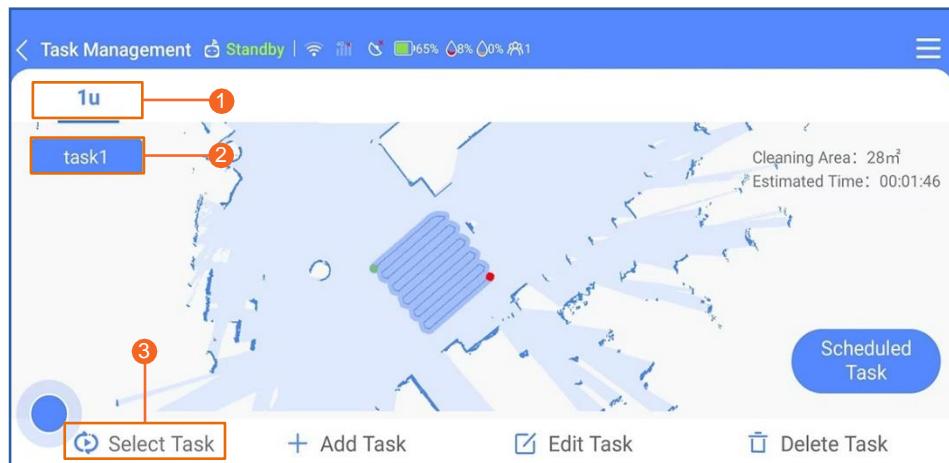
1. Tap [≡] to open main menu.
2. Select Task Management.
3. Tap Add Task.

4.2. Task Management



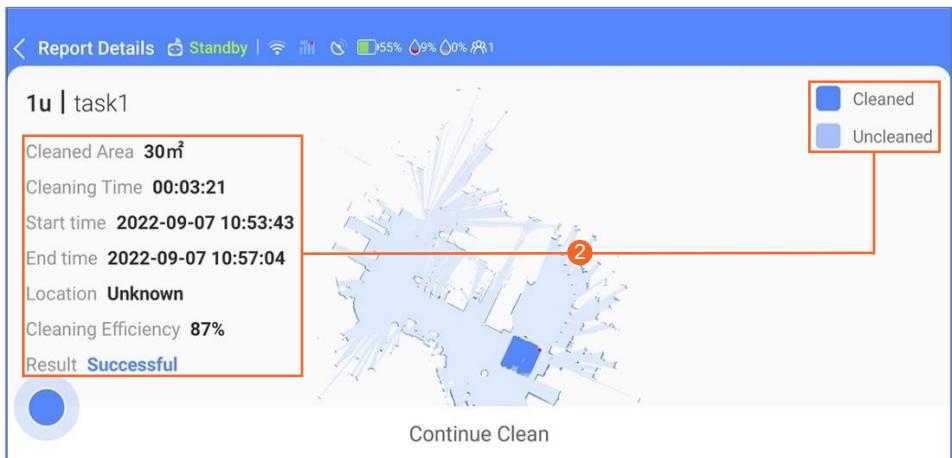
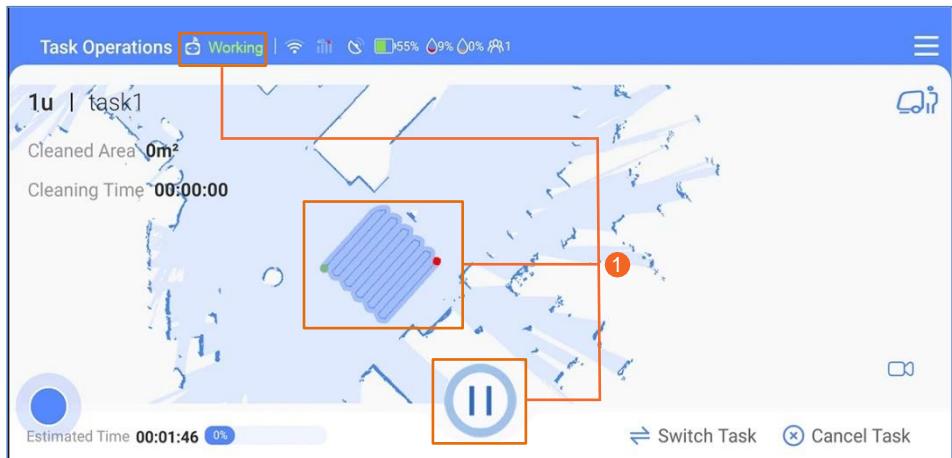
1. Tap [Area] to draw a cleaning area.
2. Tap [] to place the starting point of the cleaning area, slide the map, tap [] again to confirm the line, slide the map, and tap [] one more time to complete the cleaning area.
3. Tap [] to return to the previous step.
4. Tap [] to confirm the cleaning area.
5. Select a Cleaning Mode (**High** Scrubbing Operations, **Low** Scrubbing Operations, Dust **Mopping**).
6. Tap [Cleaning Repetition] to enter the number of cleaning cycles required.
7. Tap [Save], enter the task name, then tap Yes.

5. Task Operations



1. Select the [Map Name] to be cleaned.
2. Select the [Task Name] to be cleaned.
3. Tap [Select Task].
4. Tap [] to start the Cleaning Task.

6. Task Reports



1. Cleaning Task is in process.
2. Once cleaning operations completed, the “Report Details” will be automatically displayed.

7. Robot Status Description

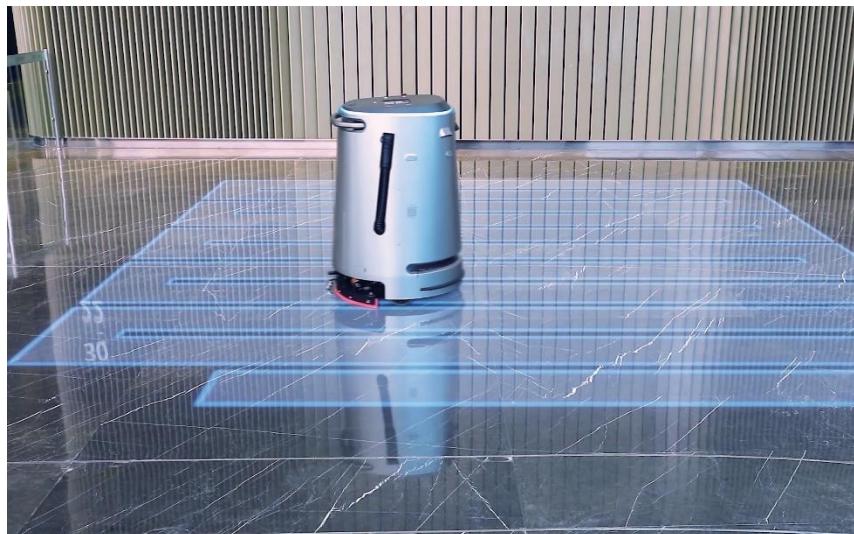


Robot Status	Displayed Light Colours
Standby	Fading Blue
At Work	Continuous Blue
Task Paused	Flashing Blue
Turn Left	Left Yellow Turn Signal
Turn Right	Right Yellow Turn Signal
Low Battery	Fading Yellow
Low Water Level	Continuous Yellow
High Sewage Level	Continuous Yellow
Charging	Fading Green
Robot Exception	Continuous Red
Emergency Stop	Flashing Red
Press the Brake Release Button	Flashing Yellow

3

Preparations Before Usage

Recommended preparations that have to be fulfilled before launching META-SCRUB 60 cleaning operations.



Preparations Before Usage

How to set up the Floor Brushes / Pad Holder / Mop Pad before cleaning operations?

Installation set-up for Floor Brushes / Pads Holder / Dust Mopping Tool



1. Pull-out the front bumper.



2. Replace the Floor Brushes
 - Pull down and rotate to remove.
 - Push up to set up.



3. Replace the Pad Holder
 - Pull down and rotate to remove.
 - Push up to set up.



4. Attach the Dust Mopping Tool at the Water Squeegee level.

Floor Type Consumables	Concrete	Terrazzo	Epoxy	Wooden	Ceramic Tile	Marble
Scrubbing Brushes 	2-3 Months	2-3 Months	Not Applicable	Not Applicable	8-10 Months	Not Applicable
Floor Pads (Red) 	1 Month	1 Month	Not Applicable	Not Applicable	1 Month	Not Applicable
Floor Pads (White) 	1 Month	1 Month	1 Month	Not Applicable	1 Month	1 Month
Floor Pads (Cloth) 	Not Applicable	0.5-1 Month	1 Month	1 Month	1 Month	1 Month
Dust Mop 	Not Applicable	1 Month	1 Month	1 Month	1 Month	1 Month

Ensure that clean water level is sufficient to perform cleaning operations.

Fill-in only with Clean Water (Mandatory) and Low Foam Detergent (optional).



Flip the top lid of the META-SCRUB 60



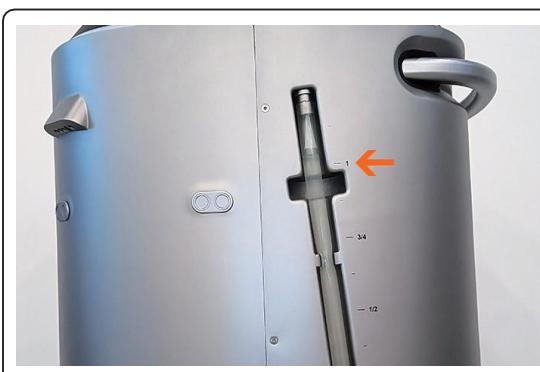
Open the lid of Clean Water Tank



Clean Water Tank (50 Liters maximum)



Detergent Tank (2 Liters maximum)



Water level displayed of the side of the robot should not exceed the number "1".

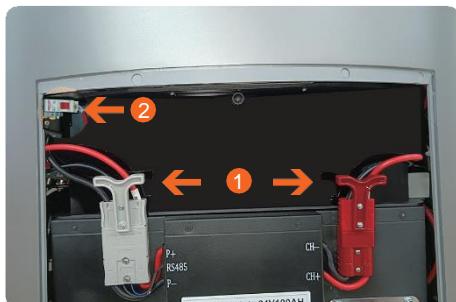
(1 = full tank capacity).

Make sure that the Battery Power Cord is well connected and turn on the Main Switch before starting META-SCRUB 60.

Power Check



Insert the key and turn left to remove the Technical Back Panel.



- ① Insert the Battery Cord.
- ② Turn on the Main Switch.



Insert & turn the key and switch it to the ON position. Robot top LED ring will light up and the robot tablet panel will turn on. Wait about approximately 20 seconds and starting music will be played. Your META-SCRUB 60 unit is now ready for operations.

Before turning on the Main Switch, make sure that the Battery Power Cord is well connected, in order to avoid power shortage and ensure stable and smooth cleaning operations.

Functional Check

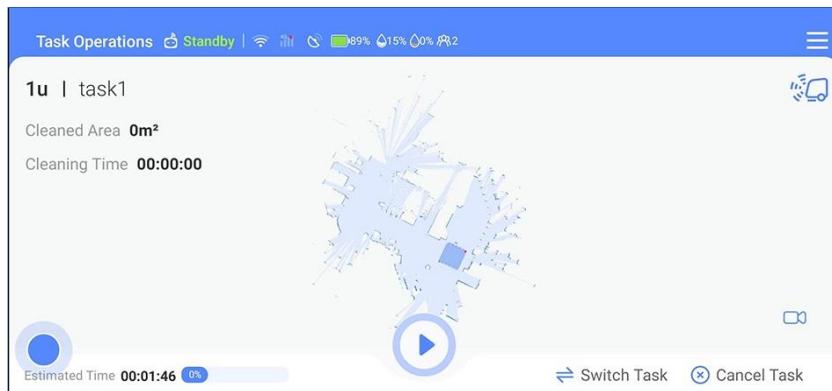


1. Enter your username and password. Once the power-up sound is displayed, you can log in to META-SCRUB 60 user interface.
2. Press the Emergency Stop button (LED ring light will be flashing red colour) and release the Emergency Stop button (LED with blue flashing). The Emergency Stop button works properly.
3. Press and hold the Power Button for 5 seconds, the robot will now enter into sleeping mode, press and hold again for 5 seconds to turn back on the robot.
4. Press the Manual Mode Button to switch to Manual Mode. Bring over the META-SCRUB 60 to the cleaning area and start cleaning operations.

4

Login and Basic Settings

General knowledge about login, user interface navigation, functionalities and basic settings

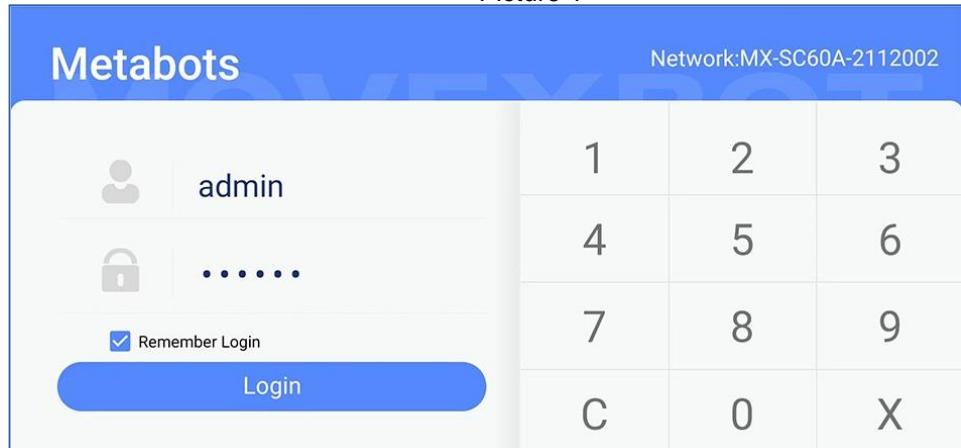


Login and Basic Settings

Login Interface

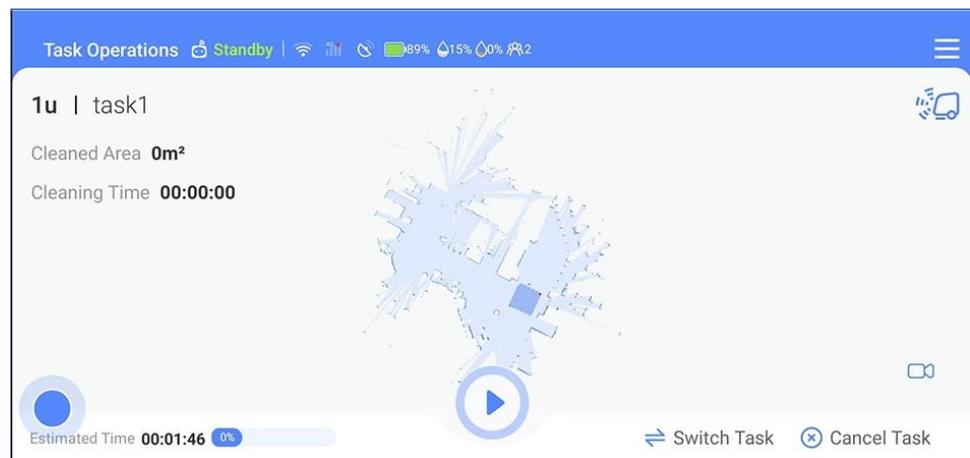
To log in with your mobile phone, please scan the QR code to download METABOTS APP.

Picture 1



Enter the username (admin) and password (123456) to log in to the APP interface.

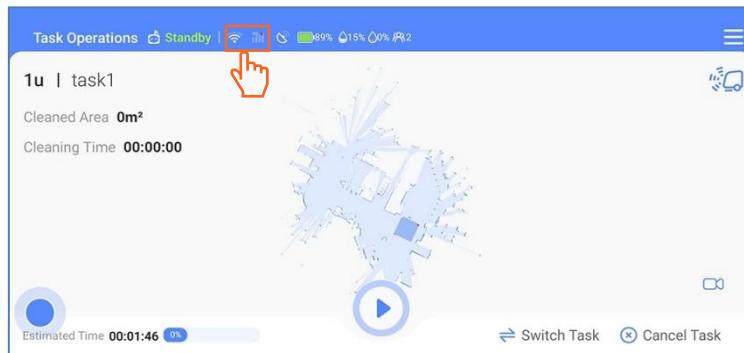
Picture 2



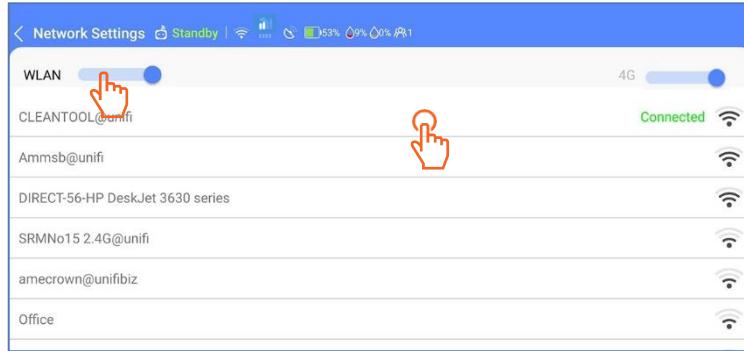
Administrators and users have different login accounts. Default username and password will be provided and can be edited afterward.

Network Settings

SIM card is required to activate 4G network connection



Tap [] to enter the Network Setting page.



Tap WLAN and select a wireless network. Tap 4G to connect to the 4G network.
(Note: to design Adjust the pointing finger to 4G icon.)

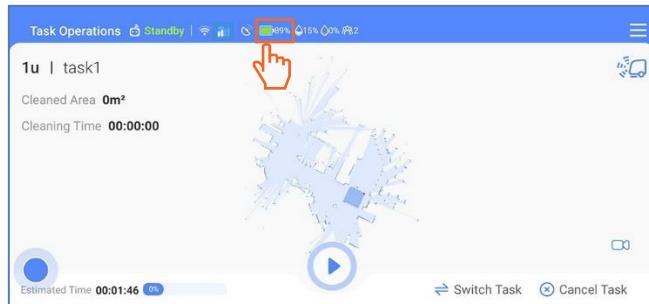


When these 2 icons light up, Robot is fully connected to networks.

Do not touch the screen with any sharp objects which might causes scratches on the touch screen.

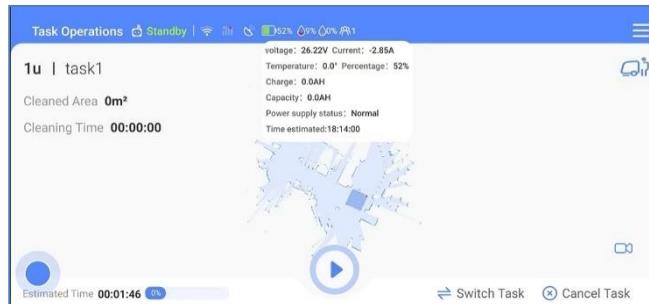
Battery Maintenance

Make sure that the battery is above 80% before starting Cleaning Operation.



Tap the User Interface [] to open the battery information details.

Tap [] again to close the information details.



- META-SCRUB 60 battery level will not be full upon delivery. Make sure that battery level is full before starting your first cleaning operations.
- Recharge the battery regularly in order for robot to be ready to use. During storage, the battery level will gradually discharge overtime and lose power.
- If using charging cable, unplug it once the battery level is full to prevent overcharge.
- When the robot is not going to be used for a long time, unplug charging cable and power off main switch.

Live Stream Camera

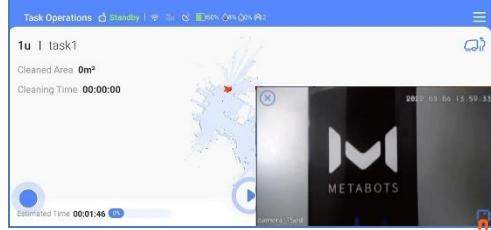
Live Stream Camera can continuously record more than a week of cleaning operations.



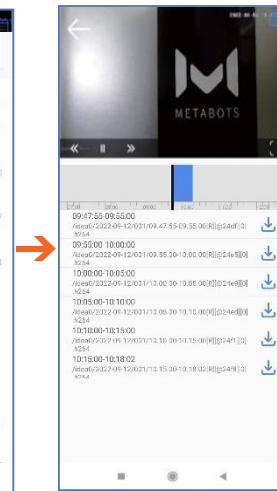
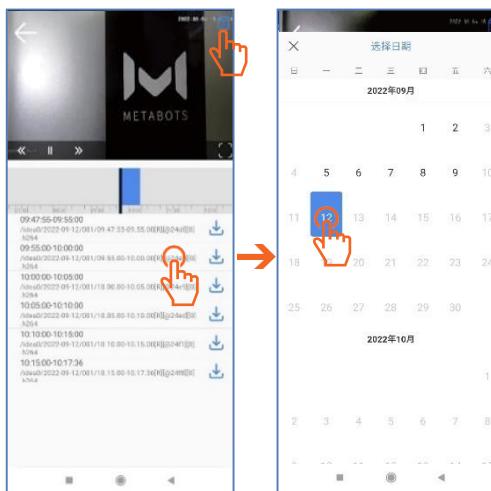
Tap [] to open Live Stream Camera.



Double-tap on Live Stream Camera monitor to zoom in and out.



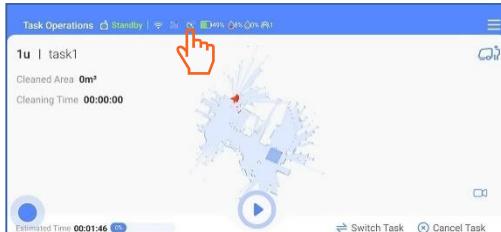
Tap [] Live Stream Camera monitor screen to open playback function.



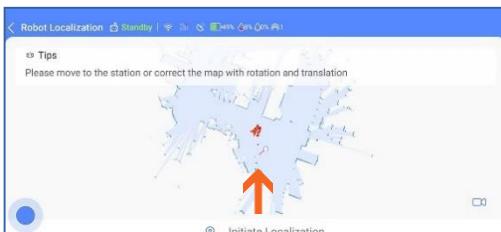
Tap [] to download Live Stream Camera recording on the surveillance playback screen. Tap [] to select the playback date.

Localization

Initialize the robot's location through QR Code, Charging Station, Map Position.

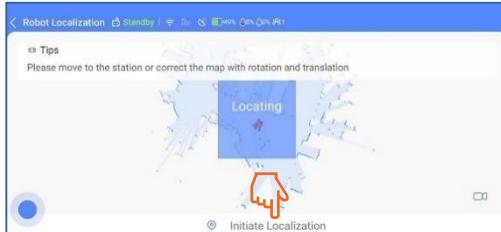


Tap [] to enter the Robot Localization page.



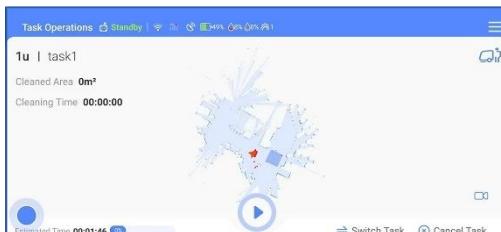
Auto-localization:

Push the robot to the front of the QR Code or Charging Station.



Manual Localization:

Match and align map details (blue colour) and robot sensors (red colour) by sliding the map.



Tap the “Initiate Localization” button.

Once the localization is successful, user interface will automatically return to “home page”.

The robot will lose its location in the following situations:

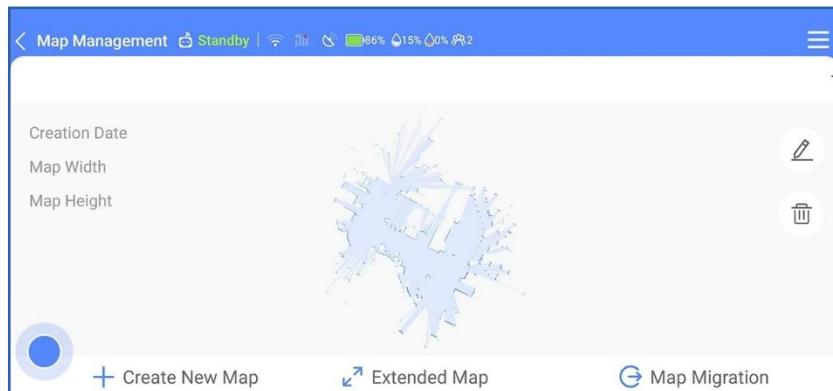
1. Emergency Stop Button is activated.
2. The Power Supply is depleted.
3. The Power Button is turned off.
4. The Key Power is turned off.

When the Robot Location is lost (during cleaning operations), initiate localization manually; otherwise, the robot will not be able to resume cleaning operations.

5

Map Management

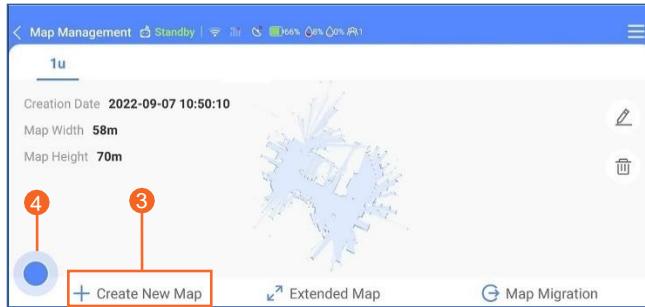
Create a new map, edit map, extend map, and map migration.



Map Management

Create New Map

Users can choose two mapping methods, 1. Use the APP to control the robot to move. 2. Switch the robot to manual mode and push the robot to scan a new map.

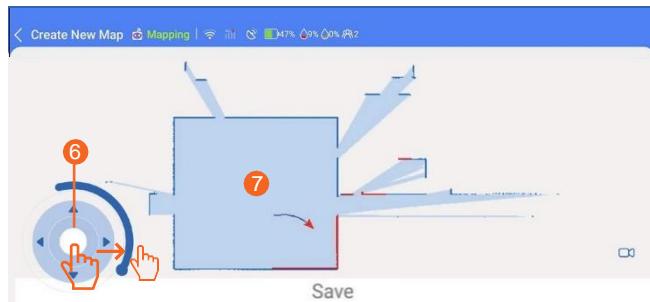


1. Tap [] to open the main menu (1), and select [Map Management] (2).
2. Tap [Create New Map] (3). Tap [] to enable the "Virtual Joystick" (4).
3. Slide your finger on the blue ruler (5) to adjust the Robot's speed.

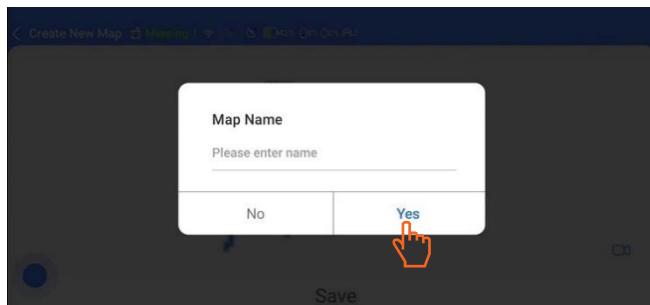
- Activating the "Manual / Auto" button will allow the robotic operator to manually control the robot by pushing it to create a new map (under manual mode).
- Disactivating the "Manual / Auto" button will allow the robotic operator to remotely control the robot by using METABOTS app to create a new map.

Create New Map

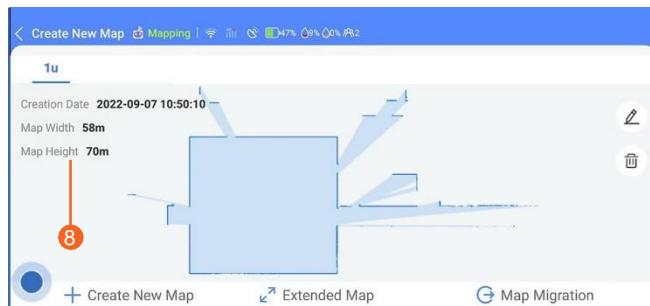
Use a map name that can be easily understandable and recognizable organization and easy to retrieve. (e.g., a combination of date and name of the place; 0922 Main Hall).



4. Hold your finger on the white dot (6) in the center of the “Virtual Joystick”, and slide your finger up, down, left, and right to control the robot to walk, and the robot will automatically scan the trajectory drawing of the cleaning area in the same time.



5. After scanning, the map shown in (7) will be displayed. Tap [Save] to confirm the map. Enter the map name and tap Yes.

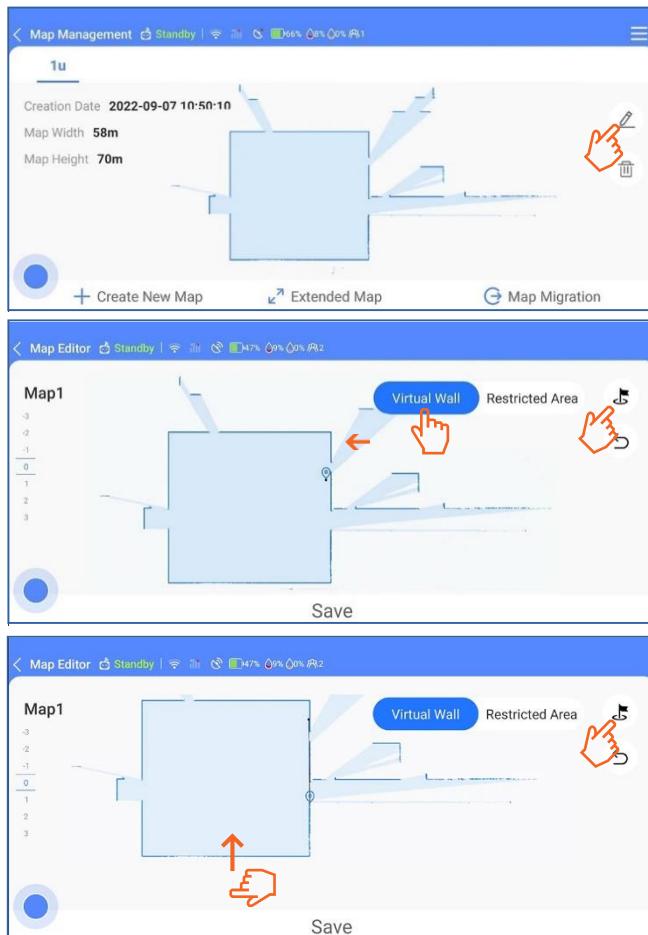


6. After the map is created, you can view (8) for map information.

For optimum map details, the robotic operator needs to push META-SCRUB 60 along the wall (not less than 50 cm) clockwise and anti-clockwise. It will increase the number of points of reference and reduce the blind spot area to provide stable localization during cleaning operations.

Virtual Walls

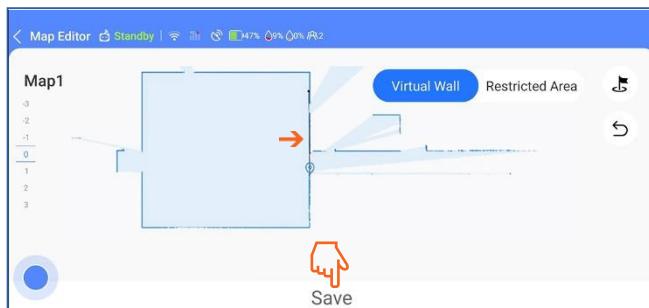
Specific surface and object materials need specific marking to be clearly identified by META-SCRUB 60 sensors such as: lights-transmitting, fragile and irregular objects. As well as glass walls, mirrors, escalators, steps, carpet floors...



1. In the map management menu, tap [edit] to enter the map editing screen.
2. Tap [Virtual Walls], press your finger on the map, drag the map up, down, left and right to align the eyedrop [📍], and tap [marker] to mark the starting point of the virtual wall.
3. Swipe up the map and click [marker] again to mark the end of the virtual wall.

Multiple virtual walls can be created on the same map. It is recommended to save after the creation of each virtual wall to ease map adjustments and future modifications.

Virtual Walls



4. Tap [Save] to complete the virtual wall drawing. Repeat the same steps to draw multiple virtual walls.



Tips:

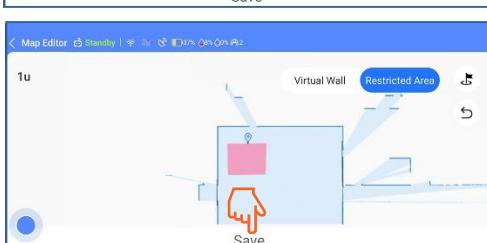
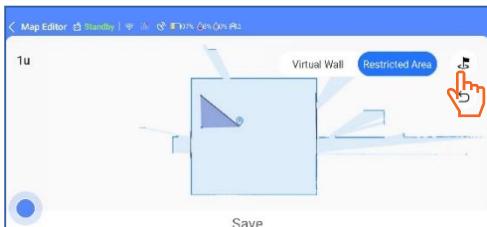
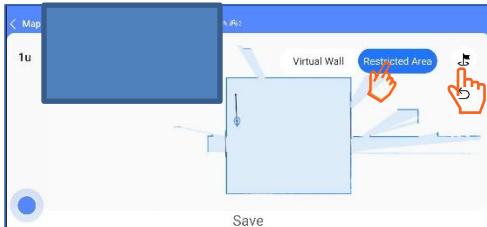
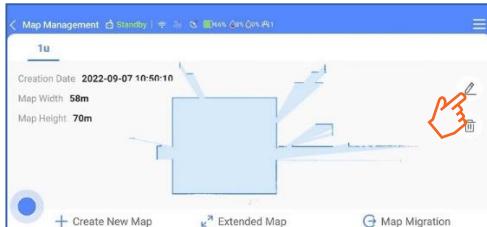
Zoom-in: Swipe both fingers outward on the map simultaneously.

Zoom-out: Swipe both fingers inward on the map simultaneously.

Rotate: Turn both fingers on the map simultaneously.

Restricted Area

Restricted areas allow your robot to pass through without using cleaning tools.
Restricted area must be smaller than the size of your map.



1. In the map management menu, tap [] to enter the map editing screen.

2. Tap [Restricted Area], hold your finger on the map, drag the map up, down, left and right to align the “eyedrop” [], tap [] to mark the starting point of the restricted area, then, slide the map up, tap [] to mark the second point of the area.

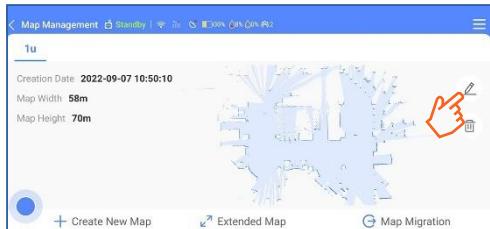
3. Swipe the map to the left and tap [] again to mark the 3rd point in the area.

4. Swipe down on the map and tap [] again to mark the 4th point of you restricted area.

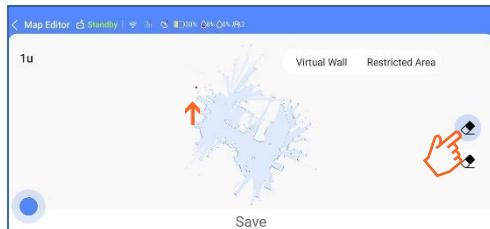
5. Tap [Save] to complete your restricted area.

Map Edition

Manually edit map, remove obstacles, add / remove cleanable areas.



1. In the map management menu, tap [] to enter the map edition screen.



2. Tap [], to use the eraser tool:

- Blue eraser tool allow you to add cleanable area and to remove obstacles on the map.
- White Eraser tool will allow you to remove cleanable area and to remove obstacles on the map.



3. Slide the square cursor up and down to add a map, tap [+] to zoom in, tap [-] to zoom out, tap [↺] to return to the previous step, and tap [✓] to confirm.



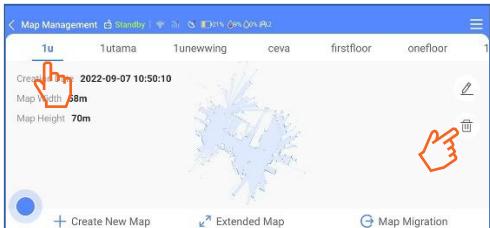
4. Tap the [] Eraser and slide the cursor up and down to delete the map.



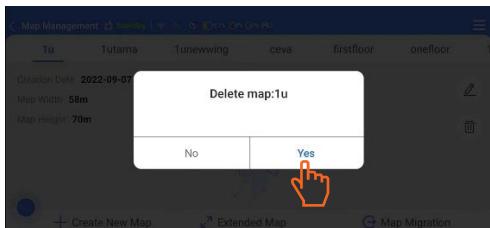
5. Tap [✓] to confirm and click [Save].

Delete Map

Maps that have been uploaded to the server can be re-downloaded on the map migration screen after deletion.



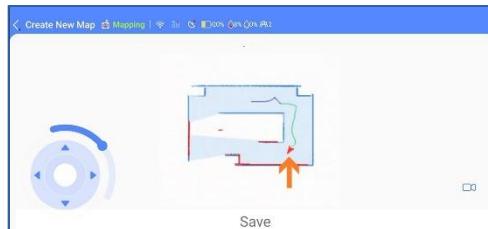
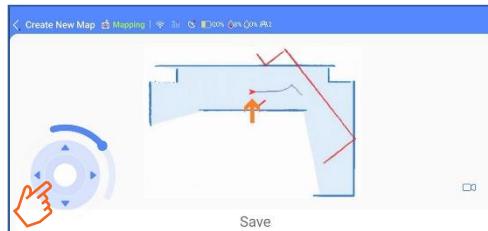
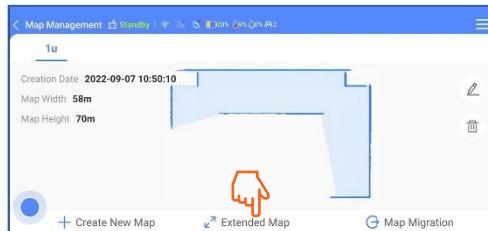
1. On the map management interface, select the map to be deleted and tap [].



2. Tap [Yes] to delete the map.

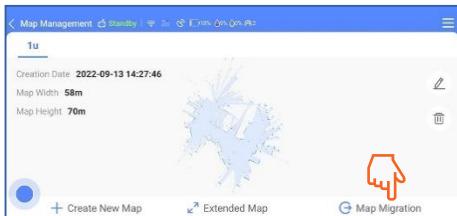
Extended Map

You can increase the possible cleanable area using Map Extension Menu.

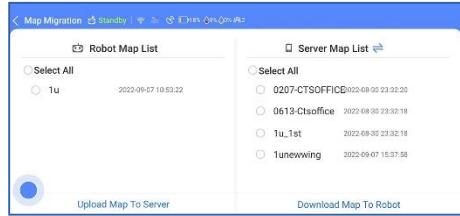


1. In map management menu, tap [Extended Map] to enter the map which is need to be extended.
2. Use the “Virtual Joystick” to control the robot.
3. The robot will automatically scan and extend the map.
4. The Extended Map is complete.
5. Tap [Save].

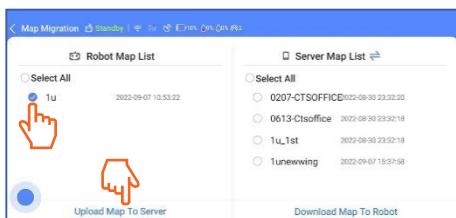
Map Migration



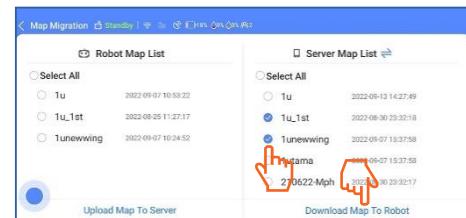
1. On the map management menu, tap [Map Migration].



2. Enter the Map Migration menu.



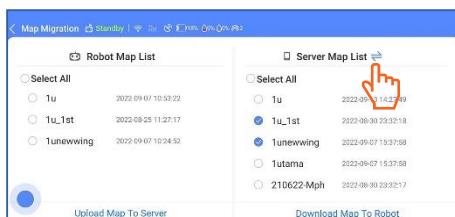
3. In the Robot Map List, select a [Map] and click [Upload Map to Server].



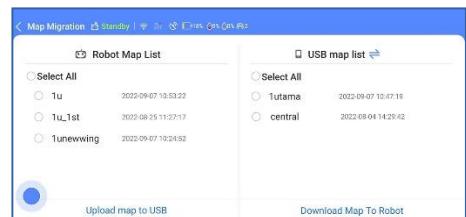
4. In the Server Map List, select a [Map] and tap [Download Map to Robot].



5. You can also store the map in a Thumb Drive, insert the Thumb Drive into the USB port of the robot's (next to the charging port cover).



6. Tap the Server Map List [] to switch to the USB Map List.

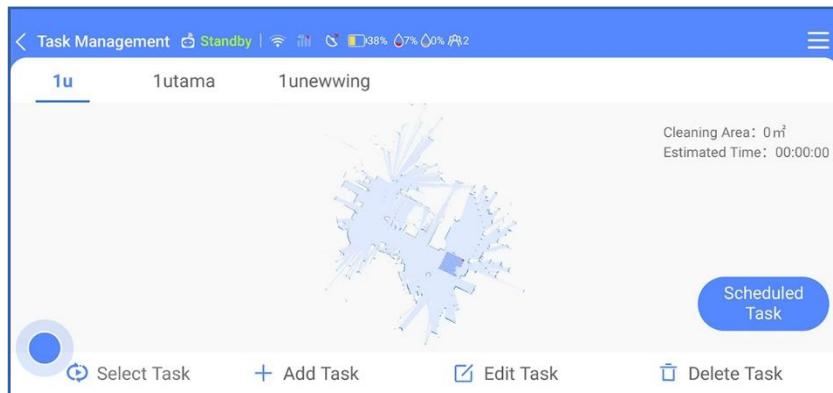


7. Upload or download maps to a Thumb Drive.

6

Task Management

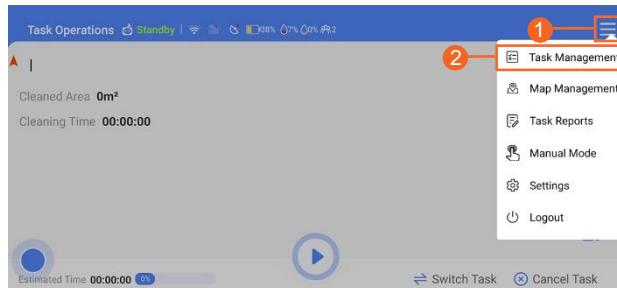
Task Creation, Task Edition and Task Operations.



Task Management

Add Task - Area

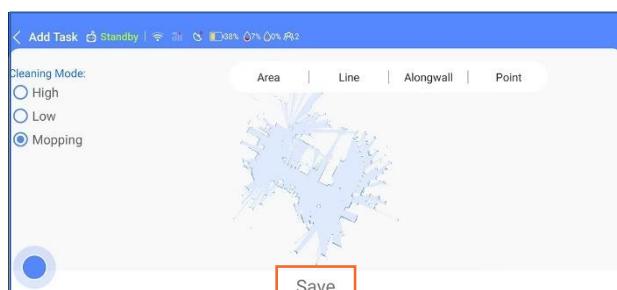
Multiple cleaning tasks can be created on the same map.



1. Tap [] to open the main menu bar (1), select [Task Management] (2).



2. Tap [Map] (3) and select [Add Task] (4).



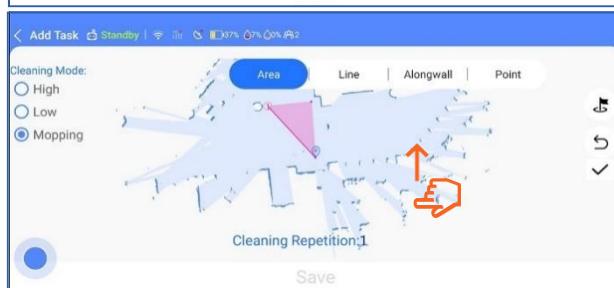
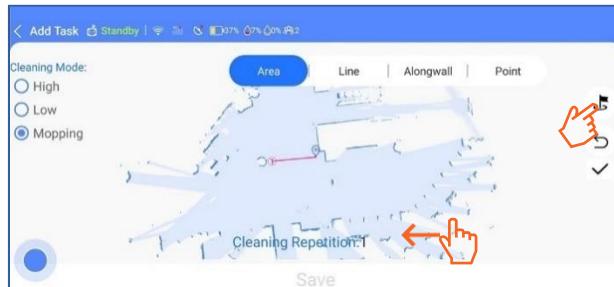
3. Enter the new task screen.



4. Tap [Area] (5), drag the map to align [], tap [] to mark the starting point of the cleaning area.

Add Task - Area

Once the areas are completed, META-SCRUB 60 algorithm will generate automatically the cleaning path for optimal operations.



5. Swipe the map to the left and tap [] again to mark the 2nd point of the cleaning area.

6. Swipe up on the map and tap [] again to mark the 3rd point of the cleaning area.

7. Swipe the map to the right and tap [] again to mark the 4th point of the cleaning area. Tap [Cleaning Repetition] (6).

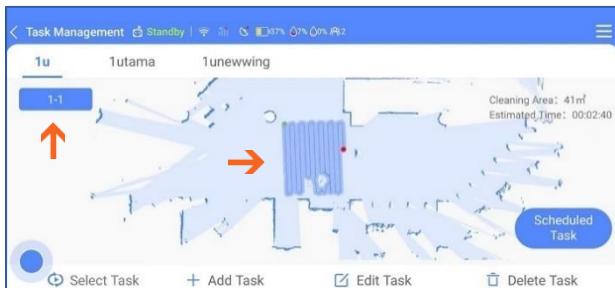
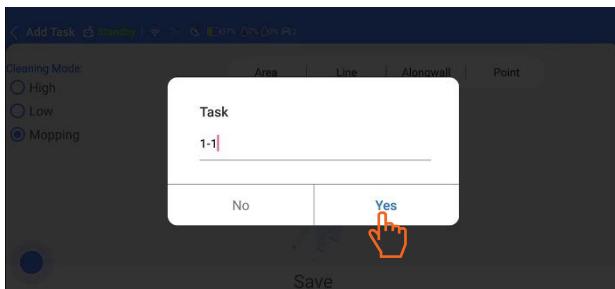
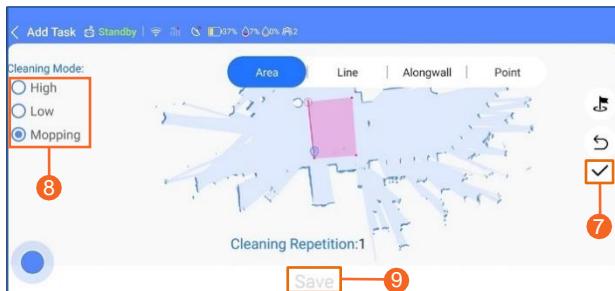
8. Enter the number of cleaning repetitions and click [].

Add Task - Area

There are three cleaning pre-settings modes that can be selected.

- **High:** High-level scrubbing operations
- **Low:** Low-level scrubbing operations
- **Mopping:** Dust mopping operations

Refer to [cleaning mode setting] for cleaning mode modification.



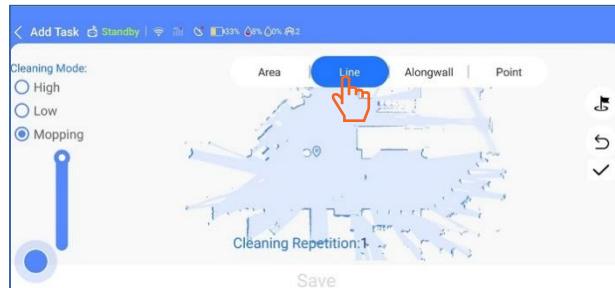
5. Tap [✓] to confirm the area (7), select the Cleaning Mode (8), and tap [Save] (9).

9. Enter the task name and tap Yes.

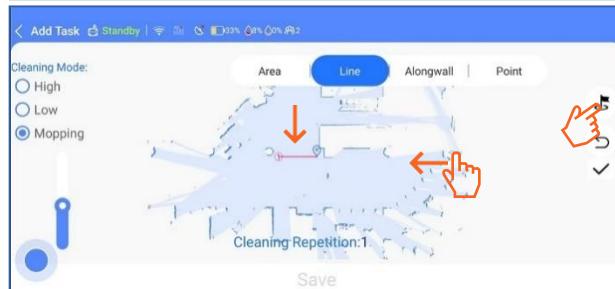
10. Once the new cleaning area is completed, META_SCRUB 60 algorithm will generate automatically the best cleaning route for optimal operations.

Add Task - Line

Manual Pathing allows the robotic operator to manually draw the cleaning path you wish META-SCRUB 60 to take. Cleaning lines are suitable for small and narrow areas where the cleaning surface space is limited.



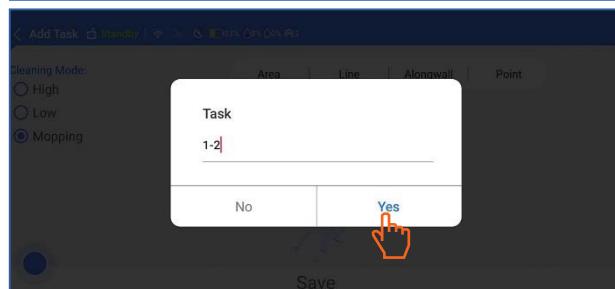
1. Tap [Line] on the new task screen.



2. Tap [] to mark the starting point of the route, slide the map to the left, and tap [] to mark the 2nd point of the route.



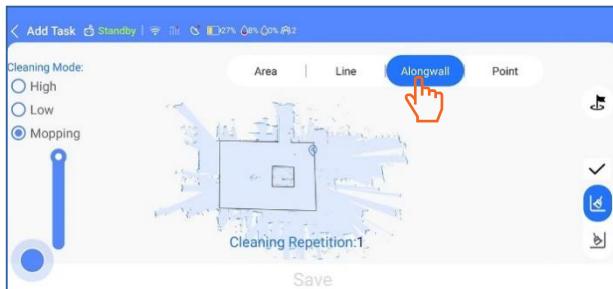
3. Swipe up on the map, tap [] again to mark the third point of the route, tap [✓](1) to confirm the route, and tap [Save](2).



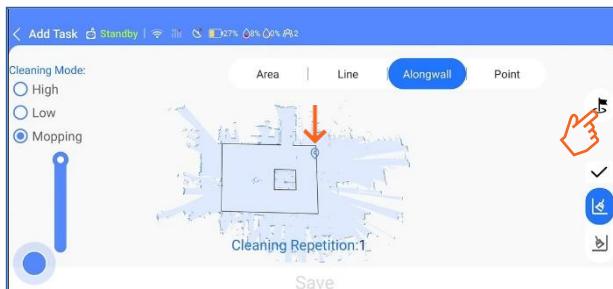
4. Enter the task name and tap Yes. (If you do not wish to save your modifications under a different cleaning task just tap yes without changing the name).

Add Task – Edge Cleaning

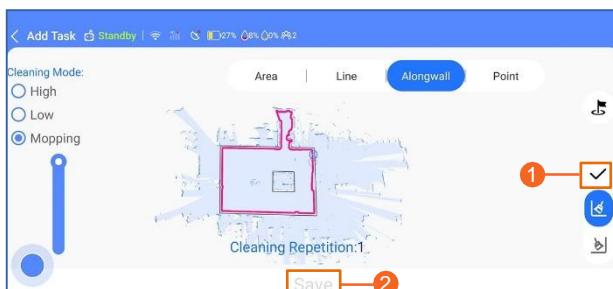
Allow META-SCRUB 60 to clean as close as 10 cm from the wall of the cleaning area. Also named edge cleaning.



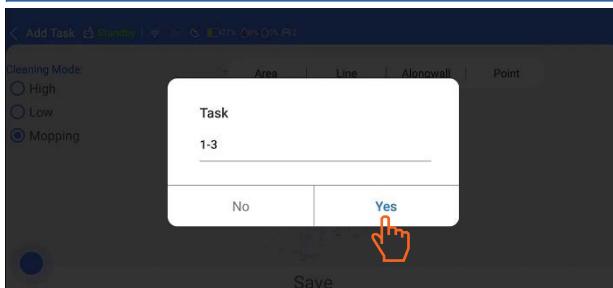
1. On the Add Task screen, tap [Alongwall].



2. Drag the map edge to align []. Tap [] to create a line along the wall (Edge Cleaning).



3. Tap [✓] (1) to confirm the task and tap [Save].



4. Enter the task name and tap Yes. (If you do not wish to save your modifications under a different cleaning task just tap yes without changing the name.)

Add Task - Point

Designates the starting point for the robot when placed before cleaning operations.

or

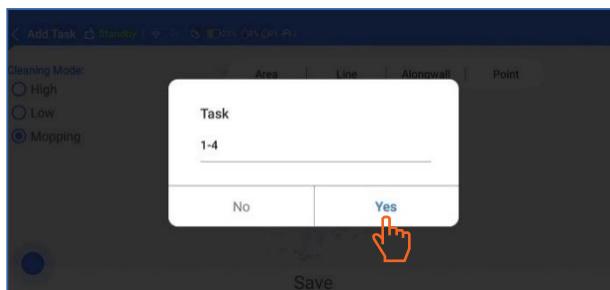
Designates an endpoint for the robot when placed after cleaning operations.



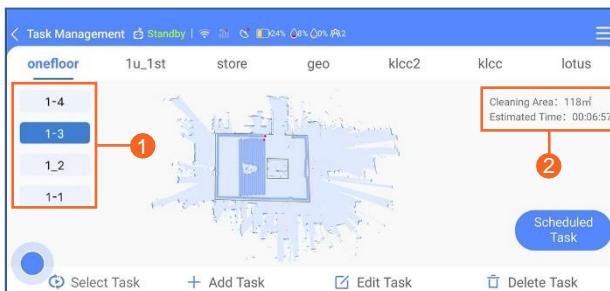
1. Tap [Point] in the Add Task screen.



2. Tap [] to mark the target point, slide the map to confirm the direction, tap [✓] (1) to confirm, and tap [Save] (2).



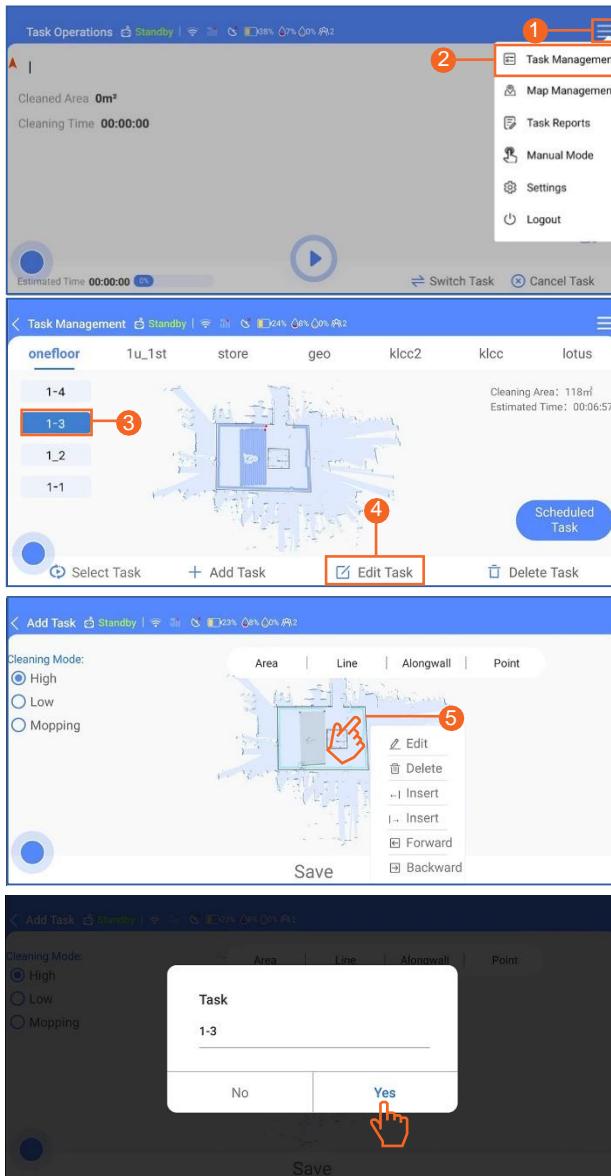
3. Enter the task name and tap Yes. (If you do not wish to save your modifications under a different cleaning task just tap yes without changing the name.)



4. Task list (1), Task Information Details (2).

Edit Task

A cleaning task can gather multiple cleaning jobs together, such as: cleaning areas, along wall cleaning, line cleaning. Under “Edit Task” screen user will be able to modify, delete or change the priority order of the different cleaning tasks.



1. Tap [] to open the main menu bar (1), and select [Task Management] (2).

2. Select the task you want to modify (3), and tap [Edit Task] (4).

3. Long tap on the task you want to edit to display the pop-up edit menu (5).

Edit: Modify an existing task.
Delete: Delete an existing task.

←| Insert: Insert a new task before an existing task.

Insert |→ : Insert a new task after the existing task.

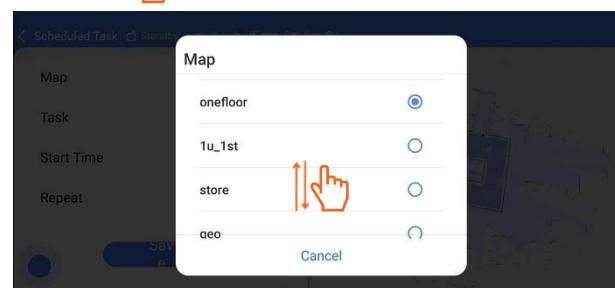
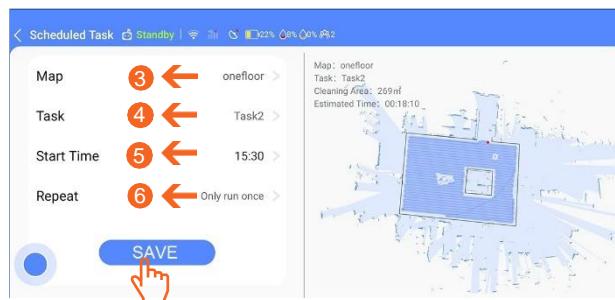
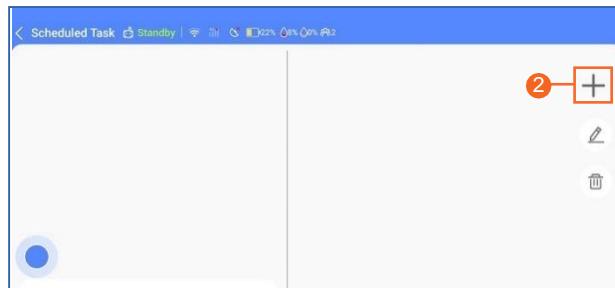
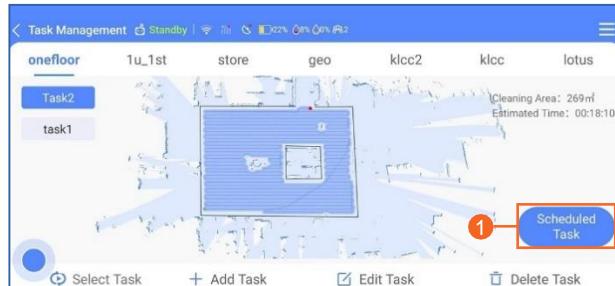
Forward: Increase the task queue order.

Backward: Decrease the task queue order.

4. Change the task name or keep the original name and click Yes.

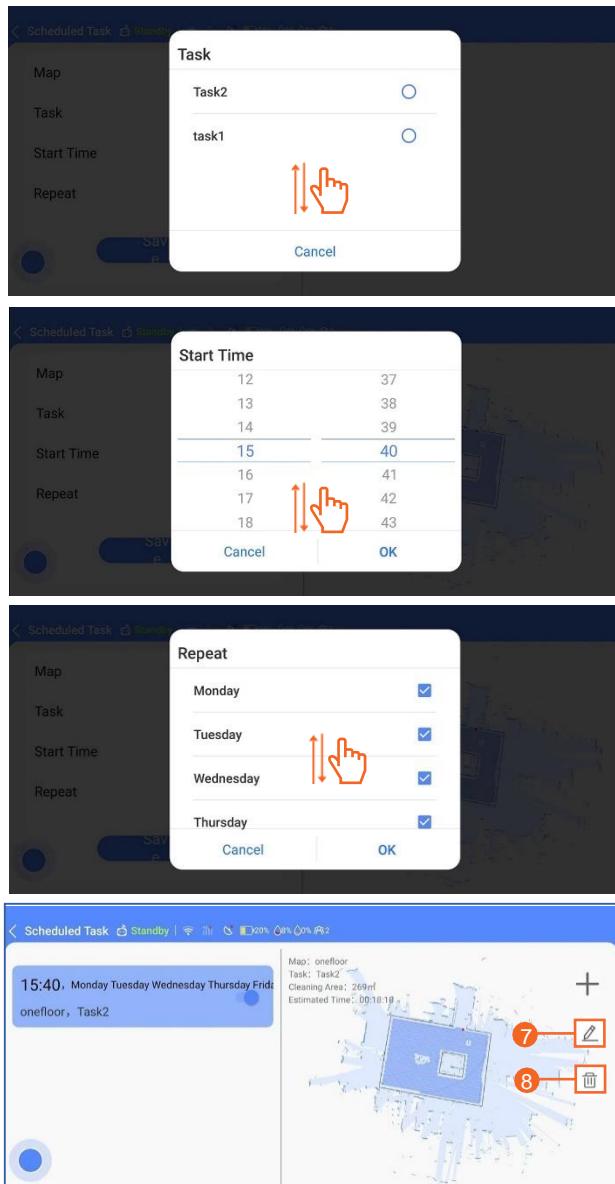
Scheduled Task

Scheduled Task allows META-SCRUB 60 robot to start cleaning operations automatically following pre-settings timing.



1. On the Task Management screen, tap [Scheduled Task] (1).
2. On the Scheduled Task screen, tap [+] (2) to add a new Scheduled Task.
3. Select the Map (3), select the Cleaning Task (4), select the Start Time (5), and select the number of Repetitions (6). Tap [Save] to complete the reservation.
4. Swipe up or down the Map List to select a map.

Scheduled Task



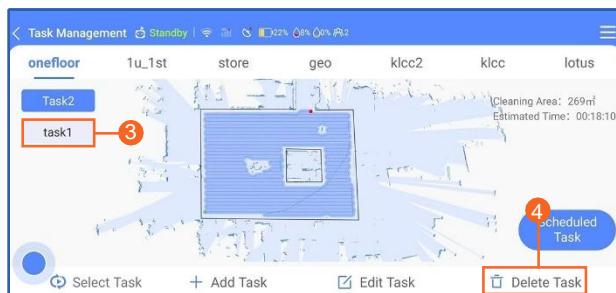
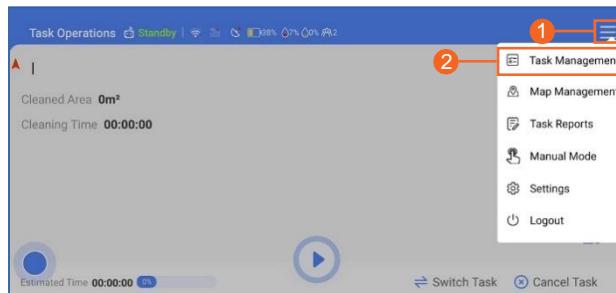
5. Swipe up or down on the Task List and select the task to be cleaned.

6. Swipe up or down to select the Start Time to be scheduled.

7. Swipe up or down to select the frequency of the scheduled cleaning over the time.

8. Tap [edit] to modify the scheduled task (7). Tap [trash] to delete the scheduled task (8).

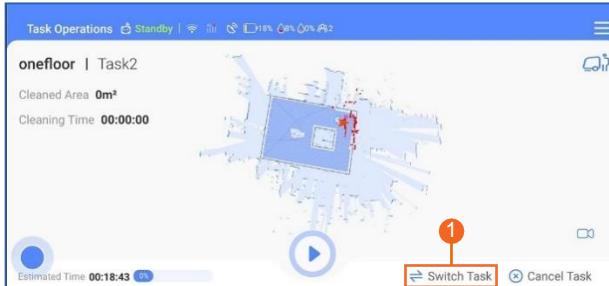
Delete Task



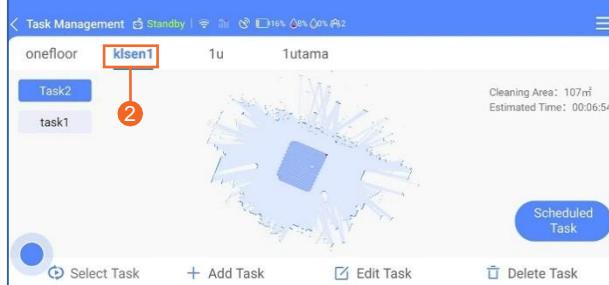
1. Tap [] to open the main menu bar (1), select [Task Management] (2).
2. Select the task to be deleted (3) Tap on [Delete task] (4).

Task Operations

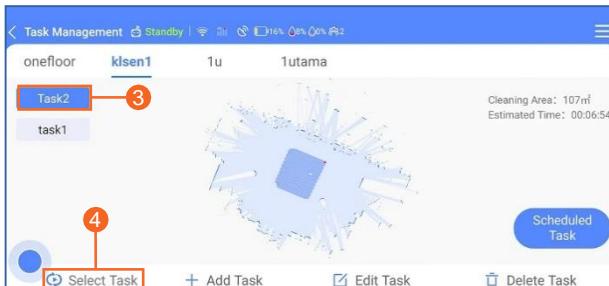
Before launching cleaning operations, release the “Manual Mode Button” and switch to automatic mode.



1. Tap [Switch Task] (1) on the Home Screen change the map where the META-SCRUB 60 is located.



2. Select your Map (2).

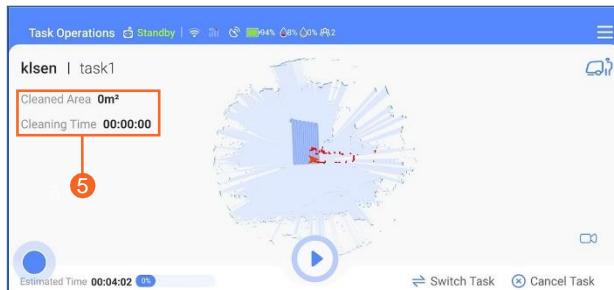


3. Select the task to be executed (3), tap [Select Task] (4).



4. Tap [] to start the Cleaning Task.

Task Operations



5. Surface in m² of the map cleanable area and cleaning time (5).



6. The Time Progress Bar (6), tap [Cancel Task] to cancel the current cleaning task (7).



7. Once the cleaning task is completed, the task report will be automatically generated and uploaded to the server.

Total Area	0m ²	Total Time	0min	Total Number	904
56m ²	00:04:54	2022-09-08 14:31:59	Cancelled		
Klsen task1					
74m ²	00:06:44	2022-09-08 14:16:31	Successful		
Klsen task1					
75m ²	00:07:32	2022-09-08 14:03:37	Successful		
1u task1					

8. Access to Cleaning Task Reports from the main menu bar [Task Reports].

7

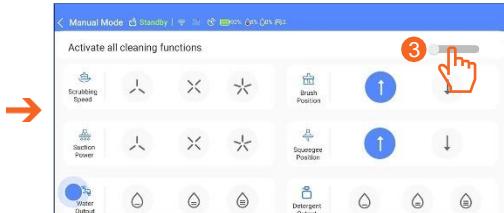
Manual Cleaning

META-SCRUB 60 basic cleaning setting and operations under in manual mode.



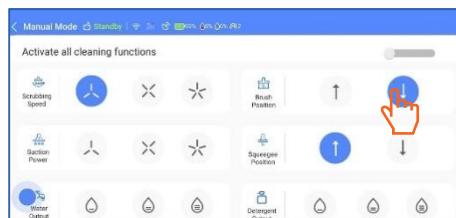
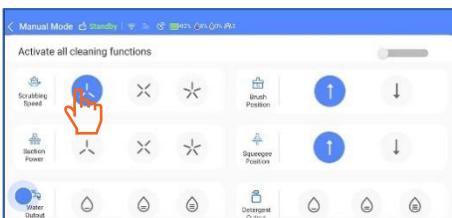
Manual Cleaning Operations

Activate All Cleaning Functions



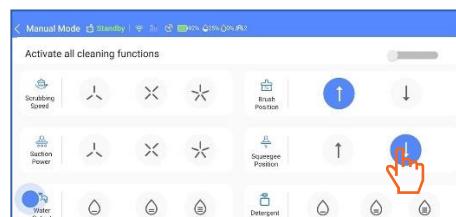
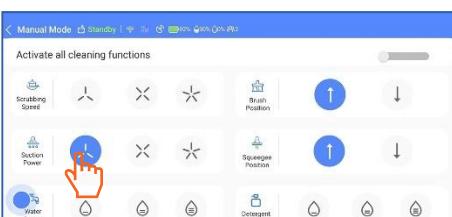
1. Tap [≡] to open the main menu (1), select [Manual Mode] (2).

2. Activate all cleaning functions(3).



3. [↘] Low Scrubbing Speed,
[✕] Medium Scrubbing Speed,
[⚡] High Scrubbing Speed,
Tap again to turn off Scrubbing Brushes.

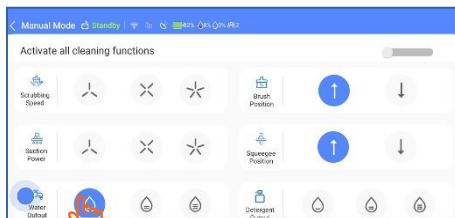
4. [↓] Set Brushes down,
[↑] Set Brushes up.



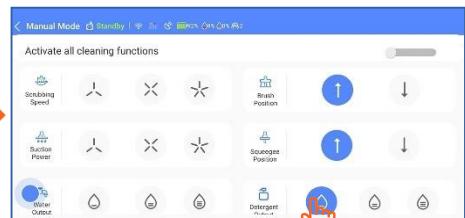
5. [↗] Low Suction Power,
[✕] Medium Suction Power,
[⚡] High Suction Power,
Tap again to turn off the Suction Motor.

6. [↓] Set Squeegie down,
[↑] Set Squeegie up.

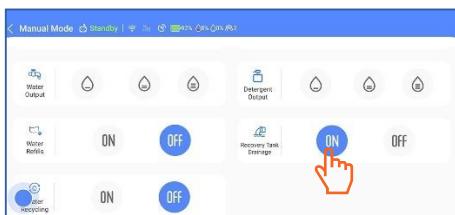
Activate All Cleaning Functions



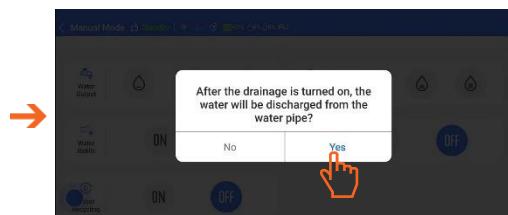
7. [] Small flow of water,
 [] Medium flow of water,
 [] Large flow of water, Click
 again to turn off the flow of
 clean water.



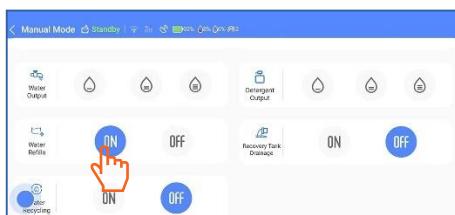
8. [] Small flow of detergent,
 [] Medium flow of detergent,
 [] Large flow of detergent,
 Click again to turn off the flow of
 detergent.



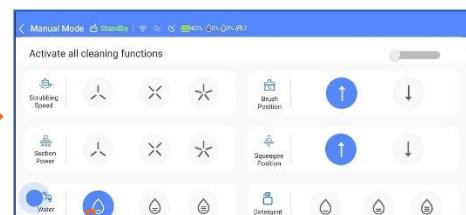
9. [ON] Turn on Auto Drainage,
 [OFF] Turn off Auto Drainage.



10. Click [OK] to start discharging sewage.



11. [ON] Turn on auto Water Refills,
 [OFF] Turn off auto Water
 Refills.
 (Auto Water Refills require the
 Support of an Integrated
 Charging Station)

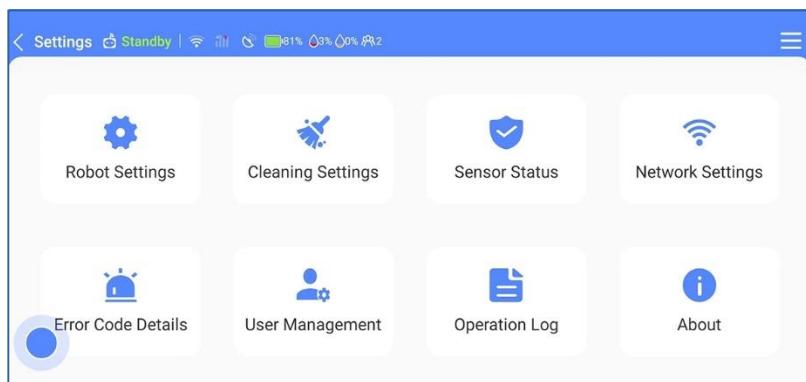


12. [ON] Turn on Water Recycling,
 [OFF] Turn off Water Recycling.

8

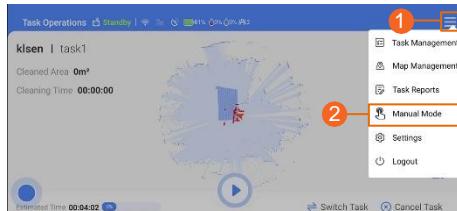
Settings

Robot Settings, Cleaning Settings, and other information details about your META-SCRUB 60.

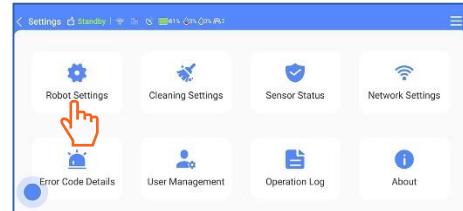


Settings

Robot Settings



1. Tap [≡] to open the main menu (1), select [Settings] (2).



2. Tap [Robot Settings].



3. (3) Cleaning Speed

(4) Robot Speed

(5) Revisit Cleaning

(6) Remote Obstacle Avoidance

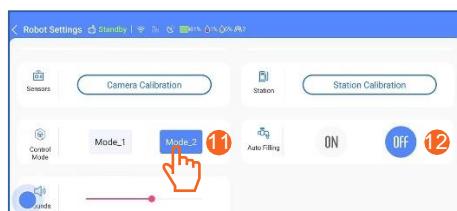
(7) Station Detection

(8) Debug mode



4. (9) Camera Calibration

(10) Charing Station Calibration



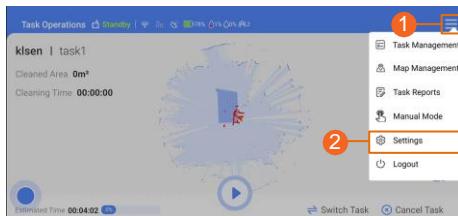
5. (11) Control Mode (Virtual Joystick).

(12) Water Auto Refills.

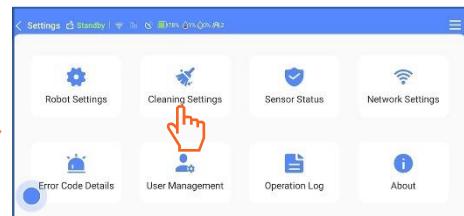


6. Swipe left or right to adjust the displayed volume level.

Cleaning Settings



1. Tap [≡] to open the main menu (1), select [Settings] (2).



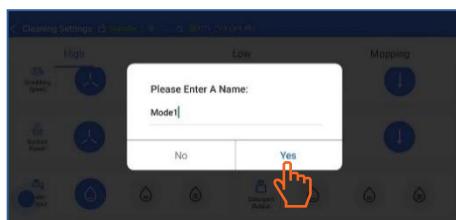
2. Tap [Cleaning Settings].



3. (3) Cleaning pre-setting mode 1.
- (4) Cleaning pre-setting mode 2.
- (5) Cleaning pre-setting mode 3.
- (6) Low/medium / high Scrubbing Speed.
- (7) Low/medium / high Suction Power.
- (8) Small/medium / large water flow.
- (9) Small/medium / large detergent flow.



4. (10) Long tap on mode name to edit the name of the cleaning pre-settings.



5. Enter cleaning pre-settings name and tap [Yes].



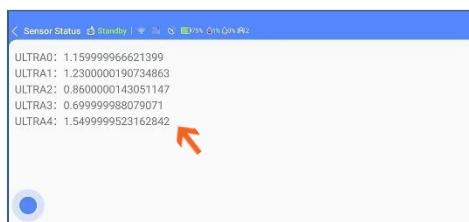
6. Default cleaning modes are now completed.

Sensor Status



1. Tap [≡] to open the main menu (1),
select [Settings] (2).

2. Tap [Sensor Status].



3. Ultrasonic sensors are active.



4. Ultrasonic sensors are not active.

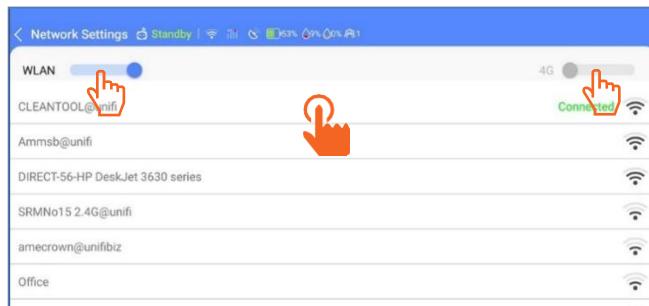
Network Settings



1. Tap [] to open the main menu (1), select [Settings] (2).



2. Tap [Network Settings].

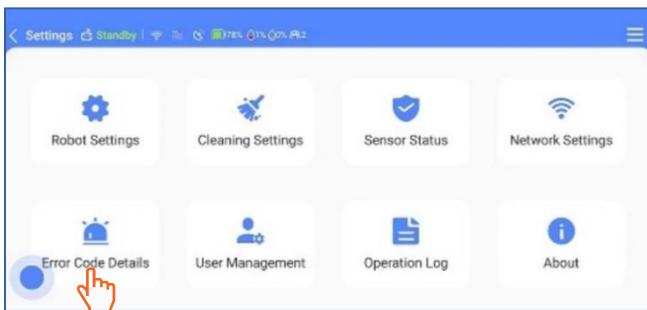
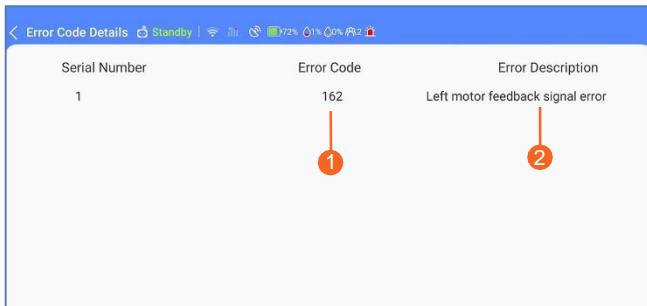
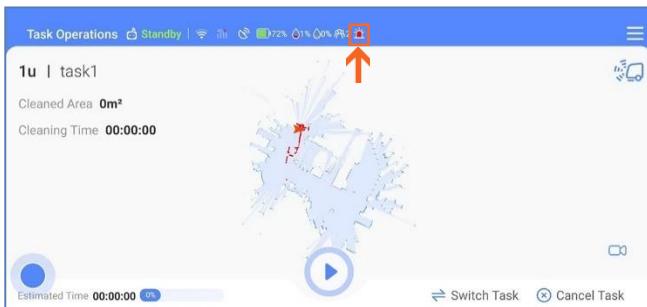


3. Tap WLAN and select a wireless network. Tap 4G to connect to the 4G network. Both network connection type can be opened at the same time.



4. [] The icon lights up and the network connection is active.

Error Code Details



1. Home page displays the [!] icon, which indicates that META-SCRUB60 robot encounter an Error. Tap [!] icon to display more information details.

2. (1) Error Code.
(2) Error Description.

3. Tap [Error Code Details] to get detailed information.

When the robot falls under faulty status or is unable to operate properly, stops all cleaning operations immediately, and report to your manager for assistance.

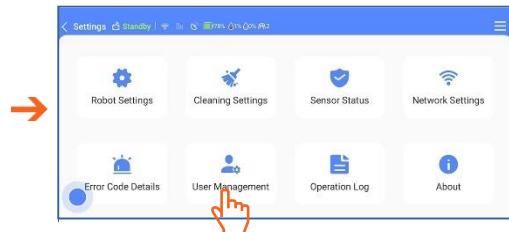
Therefore, the manager will contact METABOTS service team (or authorized dealer). Assistance will be delivered remotely first, then on-site by sending professional technicians to troubleshoot and solve the issue.

Unauthorized interventions or modifications by an unauthorized person will not fall under the META-SCRUB 60 warranty scope.

User Management



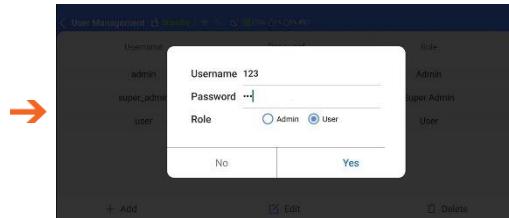
1. Tap [≡] to open the main menu (1), and select [Settings] (2).



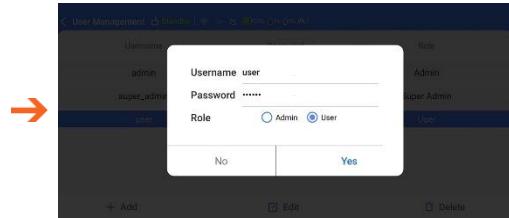
2. Tap [User Management].



3. Tap [Add] to create a new user account.

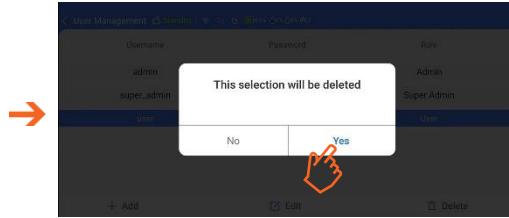


4. Enter a new username and password. Then select the user right (Admin or user).



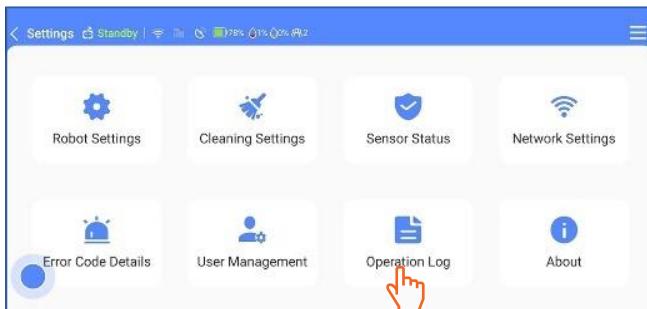
5. Select a user account and tap [Edit] to modify its details.

6. Modify the username, password, and user rights.

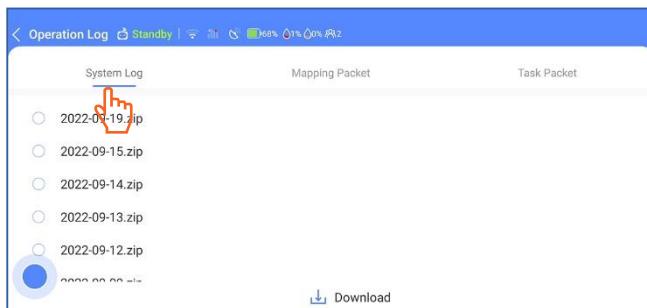


7. Select an account and tap [Delete]
8. Tap Yes to delete the account.

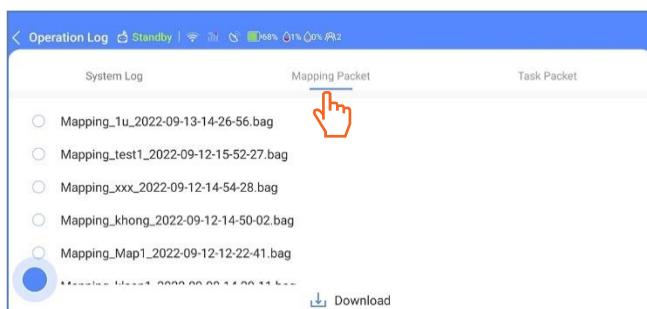
Operation Log



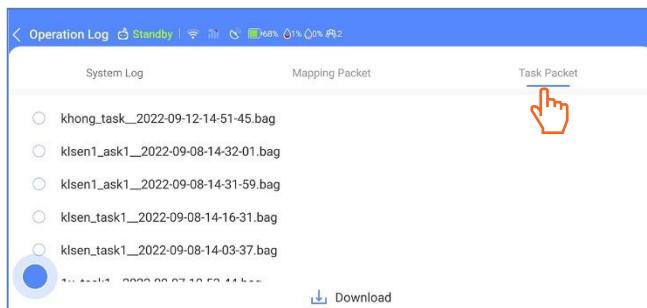
1. On the setting screen, select [Operation Log].



2. Operation Log batch download.

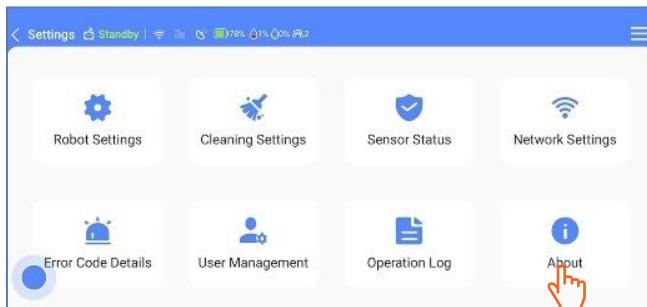


3. Mapping Packet batch download.



4. Task Packet batch download.

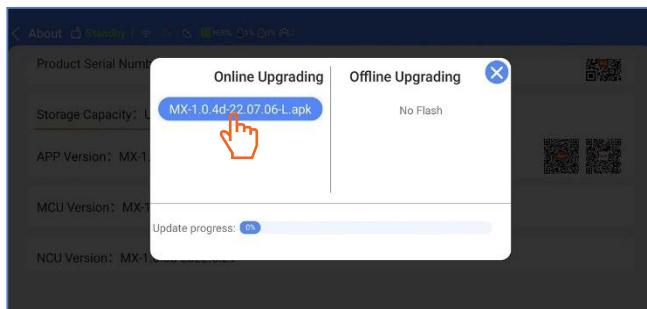
About



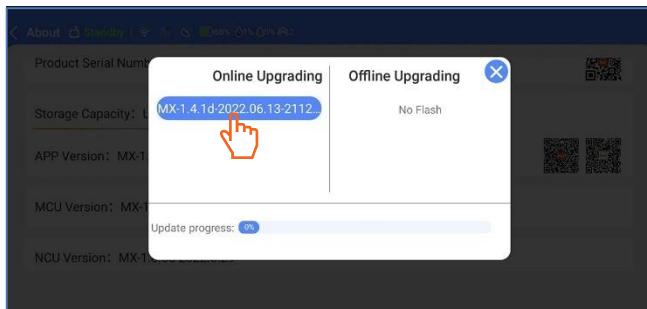
1. On the settings screen, select [About].



2. About Details:
 - (1) Product serial number.
 - (2) Storage Capacity status
 - (3) APP Version information.
 - (4) MCU Version information.
 - (5) NCU Version information.
 - (6) APP download QR code.



3. Tap [APP Version] to upgrade the APP to the latest version.



4. Tap [MCU/NCU] to enter the online update. Tap the latest version to do the update.

9

Maintenance

Different parts of META-SCRUB 60 and to properly maintain them.



Maintenance

Consumables (Replacement)

Floor Consumables	Concrete	Terrazzo	Epoxy	Wooden	Ceramic Tile	Marble
 Scrubbing Brushes	2-3 Months	2-3 Months	Not Applicable	Not Applicable	8-10 Months	Not Applicable
 Floor Pads (Red)	1 Month	1 Month	Not Applicable	Not Applicable	1 Month	Not Applicable
 Floor Pads (White)	1 Month	1 Month	1 Month	Not Applicable	1 Month	1 Month
 Floor Pads (Cloth)	Not Applicable	0.5-1 Month	1 Month	1 Month	1 Month	1 Month
 Mop Pad	Not Applicable	1 Month	1 Month	1 Month	1 Month	1 Month
 Squeegee	1 Month	1 Month	3-4 Months	6-8 Months	6-8 Months	6-8 Months
 Water Filters	0.5-1 Month	0.5-1 Month	1-2 Months	1-3 Months	1-3 Months	1-3 Months
 Debris Filter Bag	0.5-1 Month	1-2 Months	1-3 Months	1-3 Months	1-3 Months	1-3 Months

Dust Mop Installation

1



Remove the 2 screws from the squeegee attachment.

2



Slide the Dust Mop tool under the squeegee.

3



Lift-up the Dust Mop and insert it in the bayonet slots.

4



Tighten the screws gently.

5



The Dust Mop tools is now installed.

Floor Brushes Installation

1



Pull-out the front bumper.

2



Placed the Front Bumper aside together with the sensor wire connector.

3



Pull down the Brushes (x 3pcs).

4



Push up the Brushes (x 3pcs).

5



Once clipped to the tool adaptor, scrubbing brushes are fully installed.

6



Replace the Pad Holder (same procedure).

7



Adjust connecting wire into the frame.

8



Place back the Front Bumper and push-in.

Battery Replacement

1



Use the key to open the back Technical Panel.

2



Unplug the battery cables (2 pcs).

3



Push down the latch locks (2pcs) to release the battery.

4



Pull-out the battery.

5



Push the battery in.

6



Push-up latch locks (2pcs) to lock the battery.

7



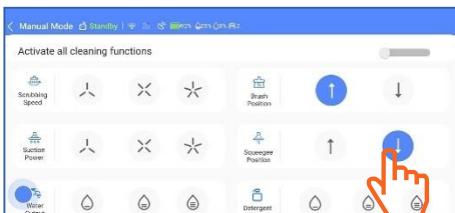
Plug in the battery cables (2 pcs).

8



Position the Back Technical Panel and lock it using the key.

Squeegee Replacement



1

Under Manual Mode, lower the Squeegee.

2



The Squeegee is now lowered.

3



Remove the suction hose clamp with a screwdriver.

4



Pull-out the Squeegee Tool.

5



Loosen the hose clamp with a screwdriver.

6



Pull out the suction pipe.

7



Loosen the screw the on top of the Squeegee.

8



Use a hex wrench to loosen the screw on the side.

Squeegee Replacement

9



11



13



15



10



12



Insert the new Front Squeegee Rubber.

14



Align and insert the Rear Squeegee Rubber.

16



Tighten with the Squeegee hex wrench.

Squeegee Replacement

17



Put all the screws back.

18



Tighten the fixing nuts at both ends.

19



Insert the suction pipe back.

20



Tighten the suction hose clamp.

21



Hold your fingers against the screw heads from the bottom.

22



Align bayonet and push into the Squeegee Holder.

23



Tighten the retaining nut.

24



Lift-up the Squeegee tool (using the robot panel interface – under Manual Mode screen).

Tank Cleaning

1



Drain the Recovery Tank.

3



Remove the Debris Filter Bag and other filtration elements.

5



Clean separately the Debris Filter Bag, cover and other filtration elements.

7



Reinstall the Debris Filter Bag and cover.

2



User water to flush and clean the bottom of the Recovery Tank.

4



Continue wash the surroundings walls of the Recovery Tank. 6. Align

6



Reinstall the different filtration elements.

8



8. Reinstall the Filter Debris Bag cover.

Filter Replacement

1



3



5



7



2



4



Take out the two used Filter inner tubes.

6



Install 2nd Inner Filter tube (50 microns) and filter plastic cover.

8



Filter Replacement is complete.

10

Troubleshooting

Troubleshooting methods and solutions to resolve robot error status during cleaning operations.



Troubleshooting

Issue	Cause	Solution
Robot do not turn on.	Emergency stop Activated.	Release the emergency stop button.
	Low battery Level.	Recharge the battery.
	Battery connection failure.	Open the technical panel and ensure that battery power cables are connected properly.
	Air Switch turned off.	Open the Technical Panel and turn on the Air Switch.
	Power Switch failure.	Please contact METABOTS service team.
	Battery failure.	Please contact METABOTS service team.
	Robot failure.	Please contact METABOTS service team.
The charging Station do not turn on.	AC plug is not connected to the power supply.	Plug the charging station to AC plug to power supply.
	Charging Station failure	Please contact METABOTS service team.
Poor scrubbing operations	Brushes/pads worn out	Replace with new brushes or pads.
	Cleaning consumables are not suitable for the floor.	Replace current cleaning tools to suitable ones.
	Brush Assembly cannot be lowered.	Please contact METABOTS service team.
	Insufficient power of the motor brush.	Under Cleaning Mode Setting, change to High.
Poor water suction operations.	Suction Motor is underpowered.	Under Cleaning Mode Setting, change to High.
	Clean Water Tank cover leakage.	Check whether the cover is in place and if the seal is damaged.
	Suction Pipe leakage.	Check if the Suction Pipe is well positioned or damaged.
	Drain Pipe leakage.	Check whether the Drainpipe cover is covered properly or damaged.
	Recovery Tank full.	Drain the Recovery Tank.
	Squeegee is not adjusted properly.	Adjust the water Squeegee angle and Universal Wheel height.
	The filter of the Suction Vent is blocked.	Open the Recovery Tank and clean the Debris Filter Bag.
	The Float Ball in the Suction Vent is blocked.	Open the Recovery Tank, remove the filter and takeout the Float Ball.
	Squeegee Rubber is worn out.	Flip the Rubber or replace it with a new one. Clean up sundries.
	Suction motor failure	Please contact METABOTS service team.

Issue	Cause	Solution
Poor water flow during cleaning operations.	Water flow level is set up at small.	Under Cleaning Mode Setting, change to Small.
	Clean Water Tank is empty, or the level is low.	Fill in the Clean Water Tank.
	The Filter of the Clean Water Tank is blocked.	Clean the Clean Water Tank Filter.
	Water Outlet is blocked.	Open the front cover of the machine and check the Water Outlet and Water Outlet Pipe.
	Water Pump and Valve failure.	Please contact METABOTS service team.
Poor Mopping operations.	Dustmop worm out.	Replace with a new Dustmop.
	Dustmop accumulates debris.	Clean up Dustmop.
The robot frequently stops and triggers obstacle avoidance.	Environment with bright lights (natural or artificial).	Turn off interference sources or mark interference areas.
	Highly reflective walls and floor surfaces.	Please contact METABOTS service team.
	The radar is dirty.	Gently wipe the surface of the radar, clean with a dry softcloth.
Robot or User Interface crash.	IPC process error.	Restart the META-SCRUB 60
The machine status is marked as "collision"	Robot bumper collision triggered.	Press and release emergency stop to resume operations.
Depth camera exception.	The USB data cable is not inserted correctly or became loose.	Check whether the two ends of the USB data cable are plugged in correctly. Restart the META-SCRUB 60. If it cannot be fixed, please contact METABOTS service team.
No data at the communication port.	The communication line is loose or not active.	Restart META-SCRUB 60 and check if the robot can return to normal status for cleaning operations. If not please contact METABOTS service team.
Laser radar abnormal or no data.	LIDAR power supply is abnormal or communication data error.	Use a mobile phone lens to film whether there is red light in the light position of the Lidar. If there is no red light, check whether the power plug is loose or not: - if there is red light, check whether the network cable is well connected. - if there is red light, please contact METABOTS service team.
Wrong signal for left and right driver.	The communication cable is not plugged in properly to the motor wheel.	Check whether the communication cable is plugged in properly, if the error message remains, please contact METABOTS service team.

Issue	Cause	Solution
Robot is starting cleaning operations, but the cleaning tools are not activated.	Debug mode is enabled.	Under "Robot Settings" check is "Debug Mode" is turned off.
	The cleaning mode setting are incorrect.	Check that the cleaning mode configurations for the selected task are correct (under "Cleaning Task Management" and "Cleaning Settings").
During map creation/recording it suddenly disappears.	The Robot Emergency Stop Button was ON.	Release the Emergency Stop Button, cancel the robot current Task and redraw the map.
Robot Localization failed/lost.	After pressing the Emergency Stop Button and moving the robot, the Localization is lost.	Tap the GPS icon at the top to initiate manual localization of the robot.
The robot is unable to return to the Charging Station.	The Charging Station has been moved and the positioning is lost.	Make the robot and Charging Station plates touch each other and maintain the position. Under "Robot Settings" tap "Station Calibration".
	The QR code of the Charging Station is hidden or not visible enough.	Remove obstacles that are blocking the QR code. Make sure that the QR code is highlighted properly.
	Station Calibration failed.	Make the robot and Charging Station plates touch each other and maintain the position. Under "Robot Settings" tap "Station Calibration".
The target area is unreachable by META-SCRUB 60.	Robot Localization error.	Tap the GPS icon at the top of the screen and adjust the localization manually.
Under Manual Mode, after activating all cleaning functions, the robot cannot be pushed.	The Auto / Manual Button on robot panel is not turned on.	Press the Auto / Manual Button to switch from Auto Cleaning Mode to Manual Cleaning Mode.

11

Charging Station and Integrated Charging Station

Technical deployment requirements for Charging Station and Integrated Charging Station.

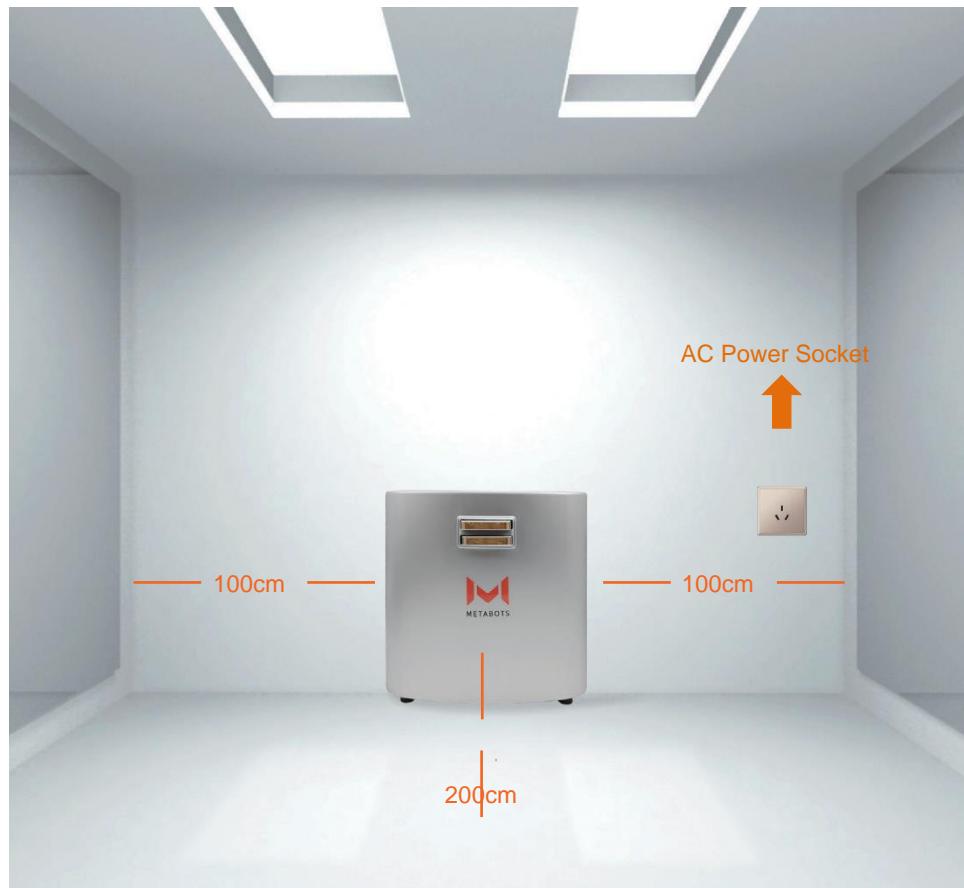


Charging Station and Integrated Charging Station

Charging Station

Charging Station deployment:

1. The charging Station should be placed on a flat floor and fixed solidly to the wall.
2. Do not place any object or obstacles within 100cm left and right and 200cm in front of the Station.
3. An AC power socket is required close to the Charging Station. (Minimum power requirement: 1300w).
4. The Charging Station comes with a 100cm long power cord. The AC power socket should be within 100cm of the Charging Station.
5. Avoid direct sunlight and sun exposure in order for META-SCRUB 60 to initialize localization, depart from the Charging Station and return to Charging Station by scanning the QR code.
6. The charging station must be fixed to the wall and positioned on flat ground for optimal results (to get charging plate alignment). Failing to do so might cause hazards during or after cleaning operations, such as automatic-localization loss, fail return to the charging station, and uneven charging cycle of the robot.



Integrated Charging Station

Integrated Charging Station deployment:

1. The Integrated Charging Station should be placed on a flat floor and fixed solidly to the wall.
2. Do not place objects within 100cm left and right and 200cm in front of the Integrated Charging Station.
3. An AC power socket is required close to the Charging Station. (Min. power requirement: 1300w).
4. The Integrated Charging Station comes with a 100cm long power cord. The AC power socket should be within 100cm of the Integrated Charging Station.
5. A water evacuation is required to be connected to the 40 cm black flexible recovery tank pipe to collect sewage water from META-SCRUB 60.
6. A clean water connection supply is required to be connected to Integrated Charging Station refills META-SCRUB 60. (By default, a 5-meter-long water pipe is provided together with the Integrated Charging Station).
7. Avoid direct sunlight and sun exposure in order for META-SCRUB 60 to initialize localization, depart from the Integrated Charging Station and return to Integrated Charging Station by scanning the QR code.
8. The Integrated charging station must be fixed to the wall and positioned on flat ground for optimal results (to get charging plate alignment). Failing to do so might cause hazards during or after cleaning operations, such as automatic-localization loss, fail return to the charging station, and uneven charging cycle of the robot.





METABOTS

Scan for more information



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