

# Autonomous Driving Floor Scrubber Chancee Series SC80 user Manual



It is strictly prohibited to use this equipment without reading this manual.

# Preface

Sincerely thank you for purchasing the Chancee SC80 autonomous driving floor scrubber (hereinafter referred to as “the product ”).To achieve the best cleaning effect and prolong the service life of the floor scrubber, please read the instructions in this manual carefully before operating and maintaining the floor scrubber, and follow the instructions strictly. If you have any comments and suggestions, please contact us in time. We' re more than happy to provide you with enthusiastic and fast service! Specific operations vary among different versions and models, and this manual is only used as a reference for end users. Our company reserves the right to modify and interpret this manual.

If you encounter any problems in the use,please contact our account manager for answer. For more information, please visit our website:

# Cautions

Caution read the instructions before using the machine.

This machine is not intended for use by persons (including children) with reduced physical.

This appliance contains batteries that are non-replaceable.

Machines left unattended shall be secured against unintentional movement.

WARNING Operators shall be adequately instructed on the use of these machines.

WARNING Always ensure that safety support is installed before working beneath hopper.

WARNING Do not inhale exhaust gas fumes. Only use indoors when adequate ventilation is provided, and when a second person has been instructed to look after you.

CAUTION This machine is for indoor use only.

CAUTION This machine shall be stored indoors only.

WARNING Do not use for cleaning purposes on surfaces having a gradient exceeding that marked on the machine.

WARNING Always ensure that warning light is switching on when the hazardous exposed side brushes are moving.

WARNING Do not allow the supply cord to come into contact with the rotating brushes.

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# 1. Safety Precautions

## 1.1 Safety Guidelines

To ensure safety, please observe the following rules when operating and using the Chancee SC80 autonomous driving floor scrubber.

### 1.1.1 Do not operate the floor scrubber

- Unless you have received proper training or are authorized by the manufacturer/dealer;
- Unless you have carefully read and fully understand the user manual;
- Unless you are physically and mentally ready to operate the floor scrubber properly in accordance with the user manual;
- If the floor scrubber is in conditions unsuitable for operation, such as when it is being charged, drained or filled with water;
- If the floor scrubber has been installed with accessories or supplies that are not authorized by Chancee as errors may occur in the operation due to the use of such supplies or accessories;
- Do not use the floor scrubber in unsuitable environments, grounds or areas with possible falling objects. If you have any questions, please contact the Chancee after-sales service.

### 1.1.2 Before turning on the floor scrubber

- Check whether there is enough power to complete the task;
- Check whether the consumables of the floor scrubber are in a normal and usable state;
- Check whether all parts of the floor scrubber are intact;
- Check whether there is enough water in the solution tank to complete the task;
- Check whether the Emergency stop button is working properly.

### 1.1.3 precautions for manual operation

- In non-manual cleaning, please lift the brush assembly and squeegee of the floor scrubber;
- In manual operation, observe the reminder for full sewage with care. when the reminder appears, please be sure to stop scrubbing and discharge the sewage;
- Drive and carry out other operations of the floor scrubber in strict accordance with the user manual;
- In manual driving, please grab the handle tightly, slowdown in turning, and do not turn the steering wheel suddenly. To avoid collision, please observe the surrounding environment with care when driving manually;

- In emergencies where the floor scrubber needs to be stopped right away, press the red Emergency stop button immediately;
- On slopes  $\leq 10^\circ$ , to avoid danger, push the floor scrubber with at least two people;
- On floors that may cause slippage, to avoid danger, make sure that the floor scrubber moves at a slow speed;

#### **1.1.4 when the cleaning task is finished**

- Please be sure to completely cut off the power, except when charging;
- Please discharge the sewage, clean the filter element effectively, and rinse the recovery tank to avoid odor;
- Please park the floor scrubber at the designated location.

#### **1.1.5 please be sure to completely cut off the power when maintaining the floor scrubber**

- Please use the accessories and consumables specified by the manufacturer for replacement;
- Please do not disassemble the floor scrubber without permission. For maintenance, please contact the professional maintenance personnel designated by the manufacturer;
- Please do not modify the floor scrubber, change its original design or configuration without permission. Any modification to the machine requires the authorization from the manufacturer.

#### **1.1.6 In transporting the floor scrubber**

- The power must be cut off during the transportation of the floor scrubber. Do not touch the laser and other sensors directly, otherwise it will directly affect the operation of the floor scrubber;
- To reduce freight pressure and avoid water in the water tanks from splashing or leaking during the transportation, please make sure to empty the solution tank and recovery tank before transporting the floor scrubber;
- If you want to transport the floor scrubber by a vehicle, please pack and protect the floor scrubber with packing tape, boxes, wooden pallets and foam, so as to avoid unnecessary damage during the transportation.

#### **1.1.7 when not using the floor scrubber for a long time**

- Fully charge the floor scrubber at least every 3 months, otherwise it will directly affect the service life of the floor scrubber;
- If the floor scrubber is not used for more than a week, please be sure to discharge the

water/sewage, and cut off the power. Otherwise, it will cause over discharge of the batteries, which will affect the service life of the floor scrubber.

### **1.1.8 Anti-freeze protection**

- When the floor scrubber stops working, please discharge the water in the solution tank and the recovery tank in time to avoid freezing, blocking or cracking the water pipe. keep the floor scrubber in a dry and warm place;use the floor scrubber in a warm indoor environment if at all possible.

## **1.2 Precautions for use**

1.2.1 Chancee SC80 is only suitable for normal use in standard scenarios. please do not operate it on uneven and soft floors, nor use it in scenarios with poor floor conditions, such as places with a lot of garbage, pits, etc.

1.2.2 If there is a lot of glass or other transparent materials and obstacles around the use environment, it will cause malfunction of the sensors. It is not recommended to use the floor scrubber in such environment.

1.2.3 If there are places or objects less than 7cm above the floor in the working environment, please move the objects away or draw virtual walls to separate the objects or places from the working environment.

1.2.4 If there are blind corridors, speed bumps and other areas on the floor unsuitable for scrubbing, please draw the speed bump zones.

1.2.5 If there are areas with carpets on the floor, please draw the carpeted zones.

1.2.6 If there are steps, stairs, elevators, pools or other areas in the environment that may cause falling, draw the virtual walls to separate them.

1.2.7If there are ground lamps in the environment, which maybe damaged when the floor scrubber passes by, please draw the virtual walls to separate them.

1.2.8 The floor scrubber is not waterproof. Do not splash water directly on the machine or rinse the machine.

1.2.9 Please charge the floor scrubber in time everyday after using it.

1.2.10 Please check whether there is enough power everyday before using the floor scrubber.

1.2.11The cleaning effect is better with warm water. If you use warm water for cleaning, make sure that the water temperature shall not be higher than 70°C. If you're not sure if your scenario will work with our product, please contact our after-sales service for more information.

## **1.3 Maintenance Matters**

1.3.1 within the warranty period, free maintenance will be provided for non-man-made damage.

For man-made damage, maintenance fee will be charged according to the standards of our company. please refer to the after-sales service policies of Chancee.







1.3.2 After the warranty period, you can choose to extend the warranty or pay for maintenance.

1.3.3 It is strictly forbidden to disassemble the floor scrubber without authorization, such as panels, the internal control box, etc. Once found, the user will not be able to enjoy the established warranty policy.

1.3.4 If the floor scrubber works abnormally and the problem cannot be solved by regular troubleshooting, please contact the after-sales service in time for support or contact the dealer to inquire about warranty matters.

## 1.4 Safety signs

Instructions and safety signs of Chancee SC80 have been indicated below. please refer to and follow the safety regulations to avoid danger. If the user fails to operate the floor scrubber safely in accordance with the chart below, the loss and risk to the company or individual shall be borne by the user.

Signs	Description	Remarks
	Mind your hands: Don't put your hands in wherever this label is attached, otherwise it may cause great danger.	
	The floor scrubber is automatic and smart. Before starting the automatic operation, please stay way to avoid danger.	
	Do not push the floor scrubber. Only the operation is allowed to move the floor scrubber during task execution.	
	Do not pedal on any part or any platform of the floor scrubber to avoid danger.	
	The floor scrubber must be parked on a flat surface.	
	The maximum slop is 8° .	

## **2. Product Overview**

### **2.1 Product Instruction**

Chancee SC80 is a general -purpose smart floor scrubber , which integrates scrubbing, sweeping and mopping. It can autonomously perform multiple tasks such as sweeping, scrubbing, and mopping on various grounds in various. With functions such as accurate environmental sensing, automatic charging, automatic, water filling / draining, sewage filtration and recycling, ect., it can be operated easily on various indoor and outdoor medium and large scenarios of hard grounds such as concrete, marble and PVC .

It is widely used in indoor and outdoor scenarios such as indoor parking lots, industrial plants, logistics warehouses, shopping malls, high-speed railway stations, airports, gymnasiums, exhibition halls,which improves cleaning efficiency, relieves the cleaners from heavy workload, empowers the cleaning industry with autonomous driving, and helps enterprises effectively reduce costs and increase efficiency.

### **2.2 Product Features**

#### **2.2.1 Professional Cleaning**

- Double roller brushes + double side brushes design, scrubbing and sweeping in one, greatly reducing the blockage of the suction pipe
- Supports multiple ways of scrubbing and adapts to various types of hard grounds.
- Large-capacity batteries, with total capacity of the water tank of 140L, which greatly prolongs the duration of a single operation

#### **2.2.2 Autonomous Driving**

- Extremely fast,automatic and efficient mapping, with highly-precise and highly-reliable positioning and navigation.
- Complex scenarios , with multi-sensor fusion- based precise positioning and precise control.
- Obstacle recognition, autonomous obstacle avoidance, automatic full coverage path planning.

#### **2.2.3 Safe and Reliable**

- Ensure the safety of floor scrubber with multiple functions such as anti-collision, anti-fall, anti-slip.
- Ensure safe operation with sound and light warnings and multiple safety strategies for autonomous driving.



- Compliant with EU safety certification, ASPICE Standard design, reliable and guaranteed quality.

### 2.2.4 Smart Operation

- Break point resuming & cleaning of missed areas
- Automatic charging & automatic water filling and drainage
- Task Reports & Data Dashboards, Smart Voice & Minimal Interaction
- Scheduled shifts & Timed Operation , Cloud Operation & Butler Service

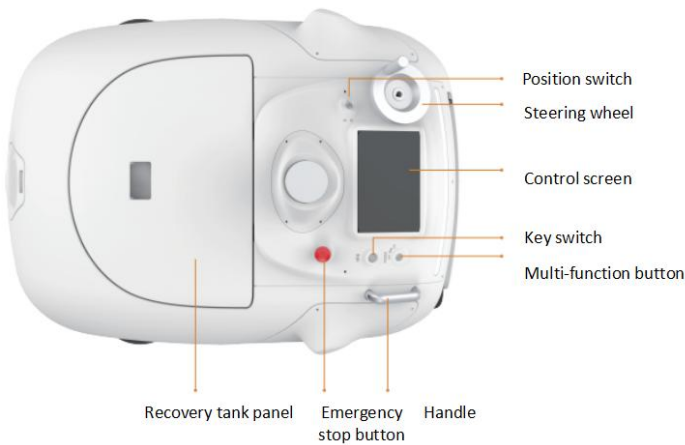
### 2.3 Product Parameters

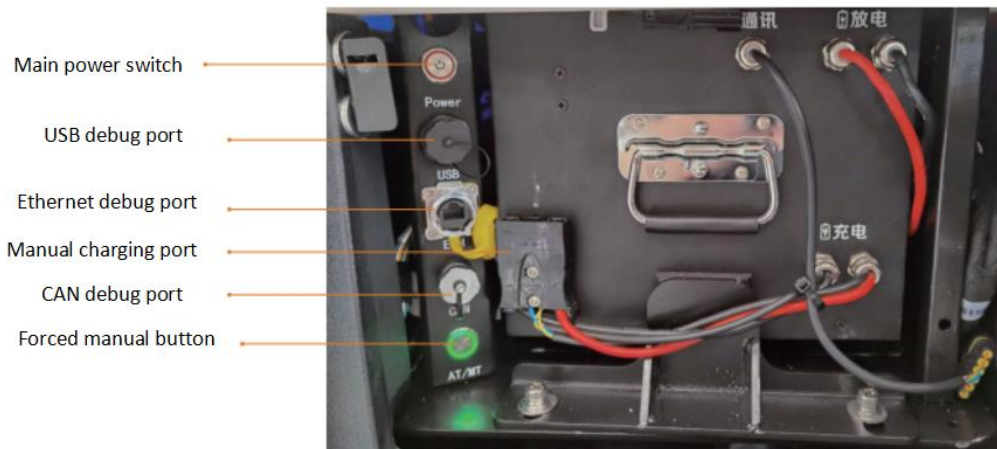
Chancee SC80 Product Core Specification Description					
Category	Specification item	Specific value	Category	Specification item	Specific value
Vehicle specification	Dimension	1340(L)X1024 W) X1350(H)mm	Battery specifications	Endurance time	4~6h
	Vehicle Weight	400KG		Battery capacity	36V 200Ah
	Total weight	420KG		Cleaning specifications	Maximum cleaning efficiency
	Rated Power	1440W	Cleaning width (with side brushes)		1160mm
	Maximum travel speed	1.8m/s	Scrubbing width		800mm
	Vertical height of surmountable obstacle	2 cm	Squeegee width		1024mm
	Height of recognizable obstacle	5 cm	Solution tank capacity		140L
	Maximum slope	17%	Recovery tank capacity		170L
	Minimum U-turn width	1.6m	Width of edge cleaning		5 cm
	Minimum passage width	1.2m	Trashcan size		1.5L
	Sensor configuration	16-lineLidar, signli-line-Lidar , ultrasonic radar, vision sensor, wheel speedometer, IMU, collision	Vacuum degree		18.18 Kpa
			Roller brush speed		1000 rpm
		Roller brush overrun	2mm		

		sensor, anti-fall sensor			
Screen specifications	Screen size	10 inc		Side brush speed	200 rpm
	Battery specifications	Endurance time	4~6h	Operating noise	70dB
	Battery capacity	36V 200Ah		Roller brush diameter	100mm

### 3. structure Description

#### 3.1 component Names





### 3.2 Terminology Explanation

- **control Screen**

At the central part of the operation panel of the Chancee SC80 floor scrubber, there is a touch screen, which is automatically loaded with the floor scrubber APP after the floor scrubber is turned on. Through the APP, users can carry out operations such as mapping and creating tasks, and can have manual control over the floor scrubber through the APP.

- **key Switch**

Insert the key into the keyhole and turn the key from Off to On. wait for about 30 seconds for the floor scrubber to be powered on and the start-up screen will appear, and then the operator or manager can carry out subsequent cleaning operations, such as controlling the movement of the floor scrubber and clicking other buttons on the control panel.

In terms of storing the floor scrubber in the storage room after cleaning, please make sure to turn the key from On to Off to shut down the floor scrubber, and pull out the key and keep it in good place after it is completely shut down.

- **Forced Manual Button**

Open the battery compartment cover of the Chancee SC80 floor scrubber, you will see a forced manual button. when there is a problem with the screen and you cannot enter the APP to switch to manual operation/ or when the industrial controller fails to issue instructions, you can press this button. The floor scrubber will be switched to the Bottom-level control Mode for manual driving.

Note: when the manual mode is enabled, the floor scrubber does not have function of automatic obstacle avoidance, so the movement of the floor scrubber is completely dependent on the observation and control of the operator. Therefore, please observe the dynamics of the surroundings with care and react in time in case of emergencies.

- **Foot Pedal**

The foot pedal is located at the lower back of the floor scrubber, it can be used during manual driving when necessary, but when it is not in use, it should be lifted up.

- **Main power switch**

It is the main switch of the batteries. when the floor scrubber is not used for a long time, the main power switch should be turned off.

- **Manual charging port**

The charging port is located inside the battery compartment of the floor scrubber. when charging the floor scrubber, it is recommended to turn off the floor scrubber by the key switch, which will shorten the charging time; when charging manually, plug the charger into the manual charging port.

Note: If the floor scrubber has been equipped with a workstation, after manual charging is completed, the automatic charging connector needs to be connected.

- **Emergency stop Button**

It is easy to use the Emergency stop button. press the button, the floor scrubber will be stopped immediately, and the indicator of the floor scrubber will turn red. At this time, no man can move the floor scrubber nor operate nor drive it. To restore the running or operation of the floor scrubber before pressing the Emergency stop button, turn the Emergency stop button clockwise and pull it up. After restored, the floor scrubber will resume its running or operation.

Note: press the Emergency stop button with care. press the Emergency stop button to stop the floor scrubber immediately only in emergencies. In manual mode and automatic mode, the Emergency stop button works normally.

## **4. Operation Introduction**

This chapter is mainly for the personnel who directly operate or manage the Chancee SC80 floor scrubber. Those who directly operate the floor scrubber need to know how to control the floor scrubber to move, execute cleaning tasks, fill the water tanks, drain the recovery tank, charge the floor scrubber and carry out other basic operations, while for the managers of the floor scrubber, besides the above content, they also need to know how to build maps, create cleaning paths,

deploy cleaning tasks, view the cleaning task completion reports of the floor scrubber, check the health status of the floor scrubber and carry out a series of advanced operations. The above operations will be introduced successively below.

#### **4.1 Turn on and Move the Machine**

4.1.1 The Chancee SC80 autonomous driving floor scrubber is too large to move when it is off, please turn it on with the key switch first. If it is still off, please check whether the main power switch has been turned on.

4.1.2 The Chancee SC80 floor scrubber is on automatic mode by default when it is turned on with the key, and does not support manual driving. Do not push the floor scrubber by force, otherwise it may cause damage to the motor.

4.1.3 Motor control screen. Go to the APP interface with account password, now you can switch to manual driving through the screen switch button.

#### **4.2 Add water**

When APP indicates that the water level is low (you can also check it through the water level viewing window), it means that the water in the water tank has not been added or has been consumed. To continue floor scrubbing and sweeping, please add water for the operation, such as tap water, etc.

Note: Before adding water, please move the floor scrubber to the designated location for water filling, and make sure that you have already inserted the key into the On/Off keyhole on the control panel and turned the floor scrubber off by turning the key from On to off.

4.2.1 Remove the solution tank panel at the back of the floor scrubber, and then open the solution tank cover.

4.2.2 Put the water pipe into the solution tank, turn on the water tap to add clean water into the solution tank until it is 90% full.

4.2.3 After adding water, remove the water pipe, put back the water tank cover, and then manually drive the floor scrubber to the area to be cleaned and start operation.

#### **4.3 Manual Operation**

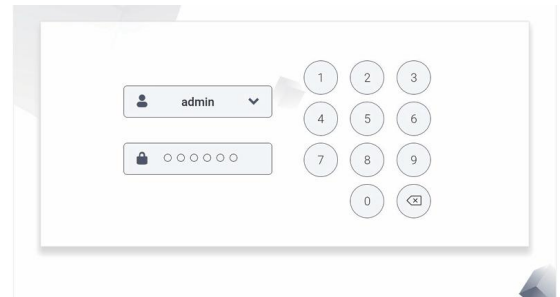
The autonomous driving floor scrubber has completely retained the manual operation of the traditional floor scrubber. It supports executing cleaning tasks through manual operation, allowing cleaners to carry out cleaning tasks by manually controlling the movement and

steering of the floor scrubber.

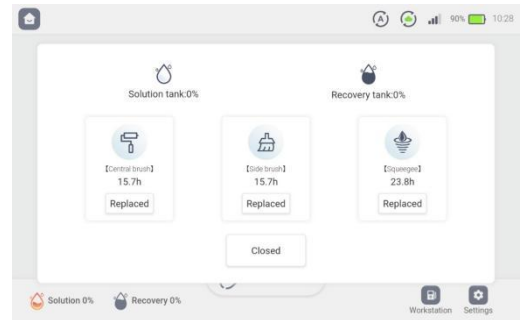
### Operation steps are as follows:

(1) 30 seconds after turning on the floor scrubber with the key, the floor scrubber will enter the vehicle APP;

(2) As shown in the picture below, the login interface will appear on the screen. select the corresponding user name among the login options, and then enter the corresponding password to enter the APP.



(3) After logging in successfully, a reminder of the floor scrubber status will pop up as below, which will display the current water tank status, remaining service life of consumables and other information. click the below [close].



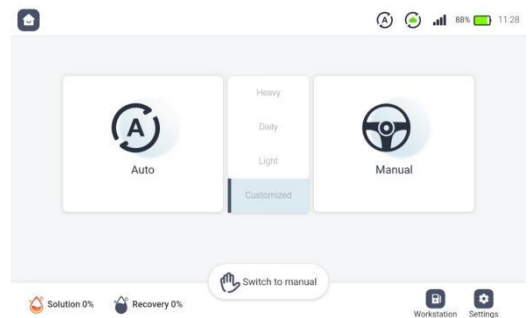
(4) click [close] to enter the APP main interface, as shown in the picture below.

① Before you start manual operation, make sure that the floor scrubber is in [Manual Mode].

② click [Manual Operation] to start the manual operation of the floor scrubber directly. You can control the cleaning operation of floor scrubber by stepping on the throttle with the foot pedal and turning the steering wheel.

③ After the cleaning is finished, click [close Manual Operation] directly to stop all cleaning operations.

④ In the middle of the page, you can choose the scrubbing mode of the floor scrubber. Three fixed cleaning modes are available, with support of customized cleaning.



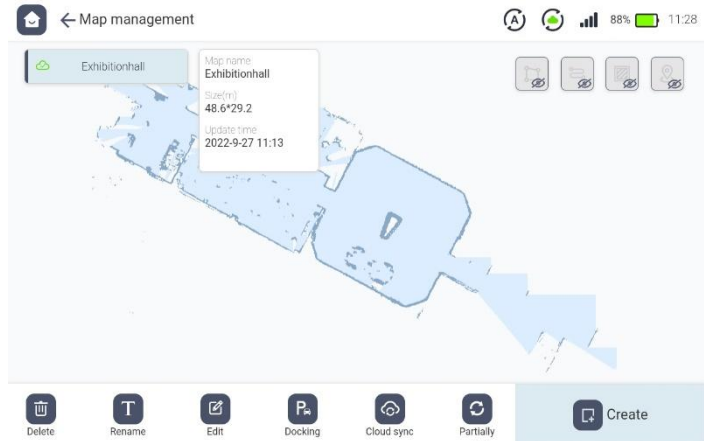
⑤ After the manual operation is initiated, as the floor scrubber is too big, you may not be able to see the floor conditions before the floor scrubber. You can click [Front vehicle condition] to view the floor conditions before the floor scrubber.

⑥ During manual operation, you can check the direction of the wheels by clicking the APP operation button, thus are able to control the direction that the floor scrubber is moving.

### 4.4 Automatic Operation

First, move the floor scrubber to the location where the operation should be carried out. In the APP main interface, click the [Automatic Operation] button to enter the Automatic Operation interface shown as below. In this interface, you can choose to add in advance the task to be

completed, and set the desired cleaning mode and cleaning times. After completing the settings, click the [start Task] button at the bottom right corner of the page. The floor scrubber will carry out the task automatically according to the selected task, the cleaning mode and the cleaning times. Operation steps are as follows:

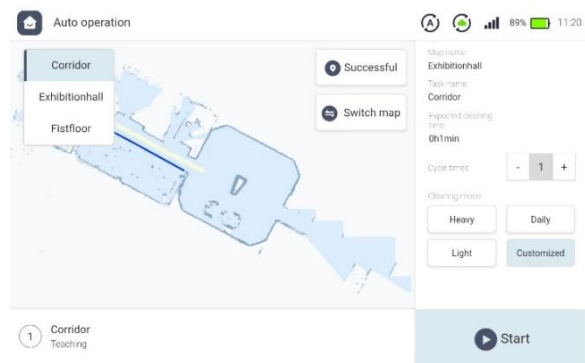


### (1) Switch Maps:

On the right side of the start Automatic Operation page, you can [switch Maps]. Go to the Map List page, select the "Map List" option on the left side to check the maps in which cleaning operations need to be carried out, as well as the number of executable tasks in the current map.

### (2) Select Task:

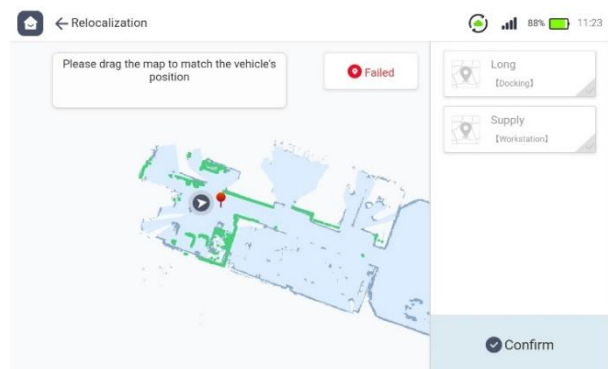
On the left side of the start Automatic Operation page, you can view the executable tasks in the current map. By switching to different tasks, the covered cleaning areas of the selected task will be displayed in the map synchronously. select the task you need to execute by the task name, and then click the [start Task] button.



### (3) Repositioning:

If the current status of map positioning displayed in the screen is [positioning Failed], click the [positioning Failed] status button to reposition the map.

Drag the map or pinpoint the current approximate location of the floor scrubber in the map through the Function point list on the right, then click the [confirm positioning] button and



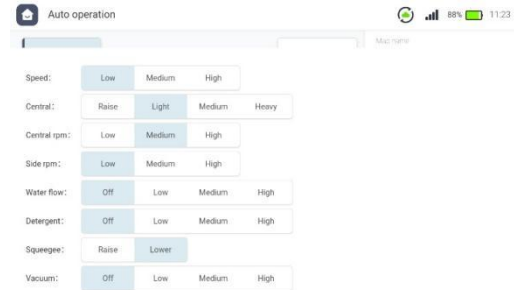
wait until the positioning status in the upper right corner becomes [positioning succeeded], and the green laser line and the edge of the obstacle overlap, which indicates that the positioning is successful. If not, repeat the above operation.

### (4) Set the cleaning Times:

In the Task Information bar on the right side of the Automatic Operation page, you can select the cleaning times of the task by clicking the "+", button. The floor scrubber will then execute the task you have selected repeatedly until the selected cleaning times have been met.

**(5) Select the cleaning Mode:**

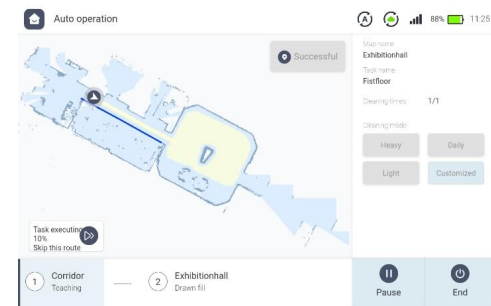
In the Task Information bar on the right side of the Automatic Operation page, you can select the cleaning mode for the task to be executed. The floor scrubber will then carry out the cleaning operation according to the cleaning parameters set in the cleaning mode.



**(6)** After you click the [start Task] button at the bottom right corner, the floor scrubber will count down to 5seconds, and then start the automatic operation after the countdown.

**(7)Pause Task:**

① At anytime during the automatic operation, you can click [Pause Task] to pause the current task, click [continue Task] to continue the task, and click [End Task] at the bottom right corner to end the current cleaning task.

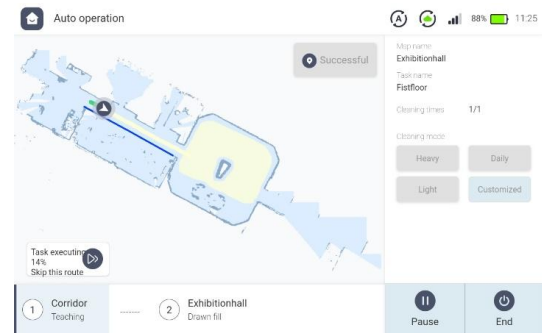


② During the task, you can click the [skip This Task] button at the bottom left corner to skip the current task and execute the next task.

③ After the task is paused, you can readjust the cleaning mode of the automatic operation.

**(8)End Task:**

Click the [End Task] button at the bottom right corner to directly end the whole automatic operation task.



**4.5 Stop the Machine**

There are multiple ways to stop the machine.

(1) In case of emergencies, directly press the red Emergency stop button on the control panel to immediately stop the floor scrubber.

(2)When the floor scrubber is under manual driving and control, let go of the throttle to stop the floor scrubber from moving.



(3) Turn the key inserted into the On/Off keyhole on the control panel from On to Off to turn off the floor scrubber, so as to stop the floor scrubber from moving.

#### **4.6 Manual Drainage**

During floor cleaning, if the APP indicates that the recovery tank is full, it means that the sewage in the recovery tank of the floor scrubber has reached its limit capacity. At this time, the floor scrubber will not be able to continue the cleaning operation. You need to drive the floor scrubber to the designated drainage point to discharge the sewage before continuing the operation. The operation steps are as follows:

(1) Drive the floor scrubber to the designated drainage point (it is recommended that it should be consistent with the water filling point, which will be convenient for the cleaning and maintenance of the recovery tank);

(2) Pull out the drainage hose, unplug it and discharge the sewage into the sewer;

After discharging the sewage, put the plug back (make sure that the plug is tight enough, otherwise it may be affect the scrubbing effect), and the floor scrubber will be back to normal again. At this time, put the drainage hose back to its proper place, and then drive the floor scrubber to the area to be cleaned and start the operation.

If you want to discharge the water in the solution tank altogether, you can turn the valve at the bottom of the solution tank 90 degrees counterclockwise into a straight horizontal position, it will discharge the water in the solution tank automatically.

Note: Choose the position to discharge the water in the solution tank with care. There must be a sewer under the solution tank. After using the floor scrubber, discharge the water in both the solution tank and recovery tank, and then store the floor scrubber in the storage room.

#### **4.7 Chargin**

In the upper right corner of the APP interface on the control panel display, you can check the current remaining power of the floor scrubber. when the power is less than 15% (the default value of low power, which can be modified in the advanced settings), the floor scrubber will prompt that the power is low. At this time, the floor scrubber cannot carry out the cleaning operation normally. You need to drive the floor scrubber back to the charging point, and make sure that it is fully charged before proceeding to the next step.

(1) Manually drive the floor scrubber to a known charging point; it is recommended that the charging point should be set at a flat and dry place, and protective measures should betaken to keep the children out of reach and dangerous accidents.

(2) After driving it to the designated charging point, please park the floor scrubber on a flat floor and insert the key into the on/ off keyhole on the control panel. Turn the key from On to Off to shut down the power, and then charge the floor scrubber.

(3) Please use the original charger of the Chancee.

(4) After the floor scrubber is fully charged, perform proper operations in-strict accordance with the following order.

Fully charged unplug the charger AC input plug---unplug the charger DC out put plug.

Then turn on the floor scrubber and drive it back to the designated place to continue the cleaning operation. You can also store the floor scrubber in the storage room and use it next time.

## 5. Data Management

In [settings], the data of the floor scrubber can be managed in a unified way. The content of data management mainly includes: one, map management; two, task management, and three, combo task management. content one is the precondition of content two, that is, a successful mapping is the precondition for task management. The following will elaborate on how to implement the functions of map management and task management.

It is recommended that data management and related operations should be carried out by professionals.

### 5.1 Map Management

click the [Map/Task Data] icon in the [settings] menu on the homepage, and then select [Map Management] to enter the Map Management main interface as shown in the picture below. In this interface, you can scan new maps, select and view the maps scanned before in the Map List on the left, as well as rename, edit and delete the maps.

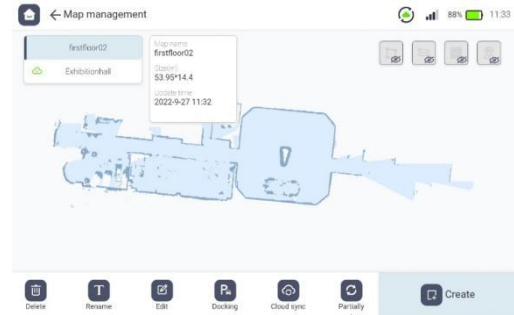
### 5.2 Map scanning

(1) click the [New Map] button in the lower right corner of the Map Management main interface. After entering the map name, you will enter the Map scanning interface. You can drive the floor scrubber around manually in the environment, during which time the laser sensor will detect the surroundings and create a high-precision map based on the collected environment data.

(2) After the mapping process is finished, please click [save Map]; if you are not satisfied with the map currently built, click the [Back] button in the upper left corner to cancel the saving.

### 5.3 Map Editing

(1) At the bottom left of the Map Management main interface: we click the [Rename] button to rename the map.



(2) Click the [stop Point] button to bind the map to the stop point. After the map is bound to the stop point, the floor scrubber will automatically return to the stop point if there is no operation for a long time after the automatic operation is completed.

(3) Click the [Edit] button to edit the current map. In the newly opened Map Editing interface, you can add various map elements to the map.

#### ① Function points

Types of function points	Description	Remarks
Navigation point	By integrating the added navigation points into the tasks, you will be able to customize the navigation paths among tasks during the operation.	
Docking	After the operation is completed, if not operated for a long time, the floor scrubber will return to the stop point automatically for standby.	
Workstation	After adding a depot, if the power, the solution tank and the recovery tank of the floor scrubber reach the threshold, the floor scrubber will automatically go to the depot for charging, water filling and water drainage.	

#### ② Virtual walls

Virtual walls are added to the map to mark the areas that the laser fails to scan, so as to keep the floor scrubber from accidental collisions in the above areas and causing danger.

#### ③ Function zones

Map Elements	Description	Remarks

speed Bump	.Add speed bumps to the map.In automatic driving, before the floor scrubber passes the speed bumps, it will lift its roller brushes, side brushes and squeegee in advance and stop watering to prevent the speed bumps from damaging the cleaning equipment.	
carpeted zone	.Add carpeted zones to the map.In automatic driving, before the floor scrubber passes the carpeted zones, it will lift its roller brushes, side brushes and squeegee in advance and stop watering to avoid damaging the carpets.	
No-go zone	.Add no-go zones in the map..Mark dangerous zones or no-go zones on the map to prevent the floor scrubber from cleaning such zones and entering such zones during automatic operation.	
Map Beautification	.To beautify the original map, you can define the areas to be cleared or filled. . [ clear zone] means to clear the map data in the zone. The zone will be an obstacle-free zone. .[ Fill zone] means to mark the zone as an obstacle zone. .users can beautify the obstacles or laser noises in the map by this function.	

APP-Map Editing Description

#### ④Map Beautification

To beautify the original map, you can define the areas to be cleared or filled

·[clear zone] means to clear the map data in the zone. The zone will be an obstacle-free zone.

·[Fill zone] means to mark the zone as an obstacle zone.

Users can beautify the obstacles or laser noises in the map by this function.

Please refer to the Map Editing interface shown above, the general editing steps are as follows.

(1)Click the [Map Elements] button in the upper left corner to hide/show the previous function points, function zones, virtual walls and task paths in the map.

(2)In the [Map Elements] of the right Edit bar, select the elements to be edited.

(3) In terms of adding zones/ line segments, select [Add], drag the map, and draw a line segment. click [Add] again, and draw another line segment to delineate different shapes on the map. click the [Finish] button after delineating the desired zones/line segments.

(4) In terms of adding function points, drag the map to the location to be marked. After selecting the type of a function point, click the [Add] button and enter the name of the function point to add it on the current map. For some types of function points, by adjusting the directional arrows, you can also choose

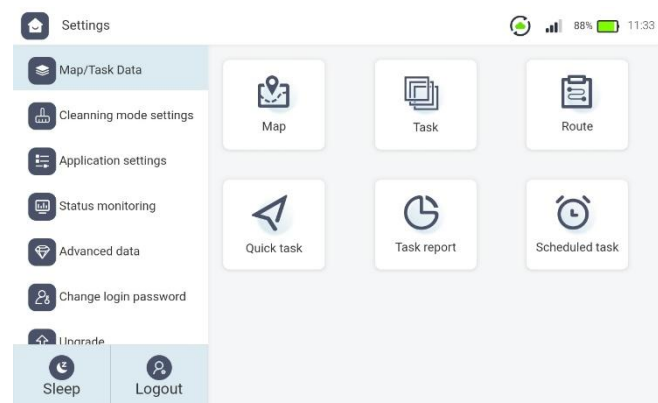
which direction the floor scrubber should be facing after reaching the function points.

(5) To delete the changes you just saved, click the previously edited elements again, such as virtual walls, function zones and function points, and then click the [Delete] button on the right to delete the corresponding elements.

(6) Click the [save] button to save the current operation. save all and exit.

## 5.4 Task Management

Click the [Map/Task Data] icon in the [settings] menu on the homepage, and then select [Task Management] to enter the Task Management main interface as shown in the picture below. In this interface, you can create a series of basic tasks, such as recording teaching tasks, fill tasks, the hand-drawn fill tasks, etc.



## 5.5 Add Task

In the Task Management interface, click the [Add Task] button at the bottom right corner, and then select what type of tasks you want to add. There are three types of tasks : manual teaching, teaching auto-fill, and hand-drawn auto-fill. You can add any one of them.

### (1)Teaching:

If you select the type "Teaching" for the task, after entering the name of the completed task, you will enter the Teaching page.

Manually drive the floor scrubber around, during which time the floor scrubber will record its own traveling path in real time. After drawing an ideal path with control over the floor scrubber and save it successfully, the trace of the floor scrubber will be generated.

Later when the floor scrubber executes its task, it will carry out the cleaning along the path that it has traveled in the teaching.

### (2)Teaching Auto-fill:

If you select the type "Teaching Auto-fill" for the task, after entering the name of the completed task, you'll enter the Teaching Fill Recording page. Drive the floor scrubber around until a closed-loop zone (i.e., connecting the start point and the end point of the floor scrubber's traveling path, with the central area enclosed by the path) or a closed-loop zone formed by crossed paths has been drawn .

After the closed-loop zone is successfully drawn, on such basis, the floor scrubber will automatically work out the path in the closed-loop zone to fill the entire zone, so that the floor scrubber's path can automatically cover the zone.

If there is an obstacle in the zone, when carrying out the automatic coverage operation, the floor scrubber will automatically avoid the obstacle and continue the coverage operation.

### (3)Hand-drawn Auto-fill:

If you select the type "Hand-drawn Auto-fill" for the task, after entering the name of the completed task, you'll enter the Hand-drawn Task Recording page. Select multiple points in the map to form a closed-loop zone, and confirm to complete the zone. It will automatically work out the path in the closed-loop zone to fill the entire zone, so that the floor scrubber's path can automatically cover the zone.

If there is an obstacle in the zone, when carrying out the automatic coverage operation, the floor scrubber will automatically avoid the obstacle and continue the coverage operation.

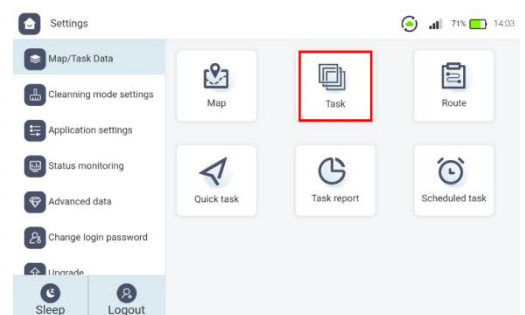
### (4)Quick Tasks:

Click the [Map/Task Data] icon in the [settings] menu on the homepage to create a quick task. This is used to quickly create a task, with type as "Manual teaching" or "Teaching Auto-fill" . The process of creating quick tasks is the same as that of creating normal tasks, which is by manually teaching a path or a closed zone.

When a quick task is created, the map will be scanned automatically. After the quick task is saved, a new map and a combo task will be generated automatically, skipping the process of creating a new map and a new combo task.

## 5.6 Combo Task

Click the [Map/Task Data] icon in the [settings] menu on the homepage, and then select [Combo Task] to enter the combo Task main interface as shown in the picture below. click the [New Combo Task] button at the bottom right corner, enter



the name of the Combo Task, and choose to enter the Combo Task interface.

Enter the combo Task interface, click the [Add Task] and the [Add Function Point] buttons to combine into a new task with all kinds of tasks and function points you have created before. check in the List of Added Tasks whether the added tasks meet the requirements, and click the [save] button to save the added tasks to the List of combo Tasks.

Note: Only the Combo Tasks can be selected and executed in [Automatic Operation].

## **5.7 Path planning considerations**

When planning the cleaning zones, the edges of the zones or the teaching routes should be as square or rounded as possible; try to avoid too many bumpy shapes in the polygon and avoid obvious sharp corners, otherwise the path automatically generated in certain parts may cause abnormalities;

If the cleaning zone is irregularly shaped, please divide it into several regular coverage areas according to the actual situation on site;

If the passage is too narrow, manual teaching is recommended over auto-fill(considering work efficiency, it is recommended to use teaching mode if the passage width is less than 2m. Please make decisions according to the site situation);

If it is a solid wall, 5cm away from the wall is acceptable, but if it is a shelf or a glass door and some other irregular fragile/ reflective or translucent edge, don't get too close, otherwise it may cause unnecessary danger.

# **6. Maintenance suggestions**

## **6.1 Daily Maintenance**

when using the Chancee SC80 floor scrubber, the operator needs to carry out simple maintenance on the floor scrubber before and after each use, periodically carry out the necessary inspection and maintenance, and regularly replace the consumables to ensure the best performance of the floor scrubber and maximize the service life.

Before maintenance, the power must be turned off to prevent accidental electric shock or parts damage.

The floor scrubber should be placed in a dry and ventilated place to avoid the humid environment affecting the electronic and electrical components and shortening the service life.

If the storage environment is below 5 °C, please make sure that there is no remaining water in the whole water circuit.

If you add detergent in the solution tank, please make sure to add defoamer in the recovery tank.

## **Daily Maintenance and care**

(1) Drain the water in the solution tank and the recovery tank, and clean the water tanks with a hose or a spray gun. Make sure that the water tanks are clean inside out, prevent the accumulated dirt from blocking the recovery tank, and at the same time, avoid spilling water elsewhere. Each time after discharging sewage, please close the valve in a timely manner.

(2) Cleaning of filter element: As tiny solid particles will attach to the filter element, rinse the filter element with flowing water.

(3) Cleaning of waste container: please clean up the waste in the waste container of the recovery tank daily.

(4) Check whether there is silt/debris in the recovery tank, if there is, please clean it up immediately.

(5) Cleaning of absorbent strip: use a wet towel to clean the inner side of the rubber strip to prevent the accumulated hair and other dirty things from affecting the scraping effect. keep the surface clean, so as to reduce wear and tear and extend its service life.

(6) Trash can cleaning: After daily operation, dump out the garbage in the Trash can on the front side of the roller brushes to prevent odor.

(7) After the floor scrubber finishes operation, please check the battery power. If necessary, please charge in time.

## **Weekly Maintenance and care**

(1) Check whether there is dirt on the Lidar and depth camera. If there is, please wipe it gently with a soft cloth or paper towel. Avoid wiping it directly by hand, which will cause scratches and other damages.

(2) Check the water scraper for wear and tear, and replace it if necessary.

(3) Check the wire filter element of the recovery tank, if there is a hole or other damage, please replace it in a timely manner.

(4) Every week after removing the roller brushes, clean them, as there maybe hair or other dirt entangled in the brushes.

(5) check whether the sewage suction hose is broken. Take it off and flush the inner wall to prevent the accumulated lint and other debris from affecting the effect of water absorption.

(6) If the water tanks have an odor, deodorize the water tanks with the deodorant purchased in accordance with product instructions.

(7) It is recommended to disinfect the tanks twice a week. use the disinfectant solution according to the proportion recommended by product instructions.



(8) Flush the pipelines: After cleaning the water tanks, add water and clean the floor for 3 to 5 minutes with a large amount of water, so that the large amount of water can fully flow through the pipelines to clean the pipelines thoroughly.

### **Long-term Maintenance and care**

(1) Check whether the spring, screw, sheet metal parts of the squeegee are loose, deformed and damaged.

(2) Check whether the recovery tank is leak-proof. If there is air leakage, please replace it.

(3) Check whether the sealing ring of the tank cover is broken, and whether there is air leakage in the drainage hose.

(4) Check whether there is strange sound in the whole structure that affects the normal use.

(5) Apply grease to squeegee pulleys and other frequently rotating or rubbing areas.

(6) If the roller brushes have worn down to the red bristles, please replace them.

### **6.2 Description of consumables**

The main consumables of the Chancee SC80 include the absorbent strip, roller brushes, water stopper, wire filter, etc. Their replacement cycles vary according to the floor materials of the use scenarios. In the actual application scenario, the users can shorten or prolong the replacement of the

consumables at their sole discretion depending on whether the working frequency of the floor scrubber is high or low. The

replacement cycle should be adjusted according to the cleaning effect of the floor scrubber.

### **6.3 Trash can Maintenance**

Material: LDPE

Maintenance standard: It is recommended to rinse it everyday after the cleaning operation is finished.

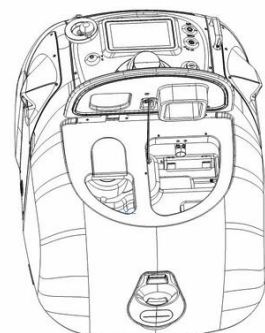
Maintenance method: Take out the Trash can every day after the cleaning operation is finished, pour out the garbage, and rinse the Trash can with clean water to prevent it from getting smelly.

### **6.4 wire Filter Maintenance**

Wire filter maintenance

Material: stainless steel wire

Maintenance standard: users equipped with workstations are



recommended to flush the wire filter everyday after operation to avoid poor drainage;

Maintenance method: remove the wire filter from the recovery tank and brush it under the faucet or flush it with a high-pressure water gun. see the picture below.

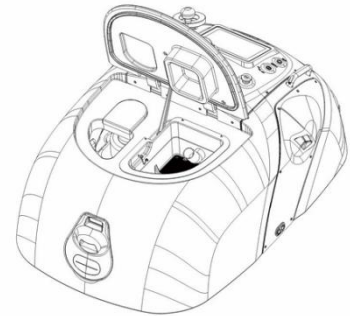
### 6.5 Recovery Tank waste container Maintenance

Material: LDPE

Maintenance standard: Everyday after operation

Maintenance method: Take out the waste container, pour out the garbage and flush it with water to avoid blockage.

See the picture below.



### 6.6 Roller Brush Maintenance

Material: Nylon roller brush

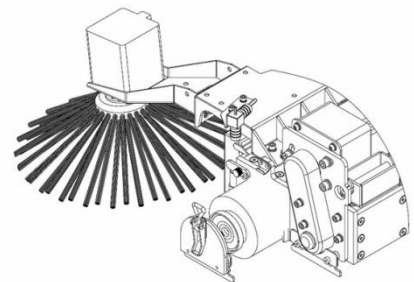
Replacement standard: when the use time reaches the replacement time specified in the consumables, or when a roller brush has worn down to the red bristles.

Roller brush replacement method:

Remove the side maintenance panel, open the roller brush cover, pull out the roller brush; then put in a new one, check whether the other end is in place during installation, and then lock the roller brush cover; the front and rear roller brushes

are disassembled and assembled from the left side and the right side respectively in the same way.

See the picture below.

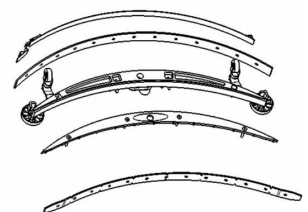


### 6.7 Absorbent strip Maintenance

Material: Natural rubber material

Service life: Depending on the actual use.

please check whether the absorbent strip is seriously worn and affects the effect of water absorption. If yes, replace it.



Note: If the effect of water absorption has become worse, but the absorbent strip does not appear to be worn, please check whether the water tank cover has been installed properly. You can first turn on the suction function, and then pull the buckle on the water tank, if the water tank cover cannot be opened, then the cover is installed properly.

See the following chart.

## **6.8 Water Tank Maintenance**

Each time after the cleaning task is finished, carry out necessary maintenance on the water tank: empty the sewage in the recovery tank, and rinse the water tank with clean water; take out the wire filter of the recovery tank and rinse it, and remove the waste container of the recovery tank and clean it with a brush.

## **6.9 Battery Maintenance**

Do not disassemble or replace the batteries without permission, otherwise it may cause unnecessary losses.

(1) Do not place the batteries near heat sources nor places with high pressure, nor expose the batteries to sunlight for a long time.

(2) Do not throw the batteries into water or fire.

(3) Do not short-circuit the batteries by connecting metals directly to the positive and negative poles.

(4) Do not expose batteries to excessive physical vibration and shock. Do not hit, drop or step on the batteries.

(5) Without the manufacturer's, permission and guidance, it is strictly prohibited to disassemble or assemble the batteries.

(6) Do not mix batteries of different manufacturers, types and models.

(7) Do not use or store the batteries in high temperature (>45 °) environment, otherwise it will cause the batteries to overheat or catch fire, or shorten the battery service life.

(8) In the event of long-term storage, make sure to charge and discharge the batteries every 30 days.

(9) Please use the matching or recommended professional lithium battery charger.

(10) Please stop using the batteries if there are noticeable abnormalities such as abnormal smell, discoloration, noise, liquid leakage, or serious deformation.

(11) If any electrolyte gets in the eyes or on the skin, wash it off immediately with water and seek immediate medical attention.

(12) Keep the batteries out of the reach of pets and children, and do not allow children to touch the batteries.

(13) Do not drop the batteries when you install or remove the batteries during transportation. Do not stack the batteries in more than 3 layers and turn them over to ensure that the front sides are facing up.

## 7. Troubleshooting

The floor scrubber may not work as you expected. we have summarized the most common problems based on the data feedback from technical support, and provided effective ways to troubleshoot and solve the problems. You can refer to the following chart to troubleshoot the problems immediately when they occur.

Problems	Possible reasons	Solutions
Map unclear or double image	The floor scrubber is moving fast, resulting in poor mapping.	Please adjust the speed to medium or low in the Mapping interface, and then drive the floor scrubber around manually to build the map.
	The sensor is contaminated by dust or obstructed by obstacles.	Clean the outer part of the laser sensor with a dust-free cloth and check if there are any foreign objects blocking the sensor.
	The environment is complex, with glass walls and other highly transparent materials.	In mapping, please control the map boundaries with virtual walls if highly transparent materials are detected in the surrounding environment.
Positioning initialization failed	<ul style="list-style-type: none"> <li>① A wrong map has been selected</li> <li>② The initialized location selected by App is far away from the actual location, which should be within 2m range.</li> <li>③ There are many onlookers at close range.</li> </ul>	<p>Select the correct map.</p> <p>When choosing the initialized location, make sure that the laser data and the map are matched. It is recommended to find a location with obvious landmarks for initialization.</p> <p>No onlookers at close range.</p>
No movement of the floor scrubber	The floor scrubber is not powered on, thus cannot be turned on nor move.	Please connect the charger to the charging port of the floor scrubber, and control the floor scrubber to move after the floor scrubber is fully charged.
	The floor scrubber is not on and cannot move.	Please turn on the floor scrubber with the key in the On/Off key hole on the control panel of the floor scrubber. If it doesn't work, please check whether the main power switch has been turned on, and try if you can control the floor scrubber to move.
	It is on automatic mode.	Need to switch to manual mode manually.

	The red Emergency stop button on the control panel has been pressed, which has triggered emergency braking of the floor scrubber and caused it unable to move.	Please turn the red Emergency stop button clockwise to restore the motion function of the floor scrubber.
Roller brushes of the floor scrubber not spinning	In the cleaning mode on the control panel, the pressure of the roller brushes is in a lifted state.	Go to the cleaning Mode settings on the APP home page, adjust the pressure of roller brushes to high, medium or low (set according to the actual situation), and set the speed of roller brushes to medium.
	Whether the APP has indicated that the recovery tank is full or there is no more clean water, causing the floor scrubber unable to continue the cleaning.	Drive the floor scrubber to the water room to discharge sewage or add clean water before continuing the cleaning.
	The roller brushes have been entangled with hair or other linear objects, and an over-current warning has been given.	Check whether there is any related warning on the APP. any Remove the roller brushes and check if there is entanglement problem.
The floor scrubber not absorbing water	Squeegee not put down	Go to the cleaning Mode settings on the APP home page. Check whether the squeegee is put down. Put it down and see whether the absorbent strip is down.
	The suction button set in the cleaning mode is off and cannot absorb water.	Go to the cleaning Mode settings on the APP homepage, turn on the suction function to see if it is normal.
	Whether the APP has indicated that the recovery tank is full or there is no more clean water, causing the floor scrubber unable to continue the cleaning.	Drive the floor scrubber to the water room to discharge sewage or add clean water before continuing the cleaning.
	The water suction pipe is in poor connection or it has been blocked by unknown objects.	Check whether the suction pipe is normally connected to the front part of the absorbent strip and the recovery tank, and whether there is any blockage. If yes, adjust it or remove it in time.
	The squeegee has poor contact with the floor.	Adjust the universal wheel of the squeegee so that the rubber part is in good contact with the floor.

	There are solid residues stuck on the absorbent strip, or the shape of the absorbent strip has changed, or it has been severely damaged and worn, which affects effect of water absorption.	Clean the absorbent strip, adjust the shape or replace it with a new absorbent strip.
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problems	possible reasons	Solutions
poor cleaning effect of the floor scrubber	The roller brushes have not been cleaned for a long time and have been stained with a lot of dust and garbage, affecting the cleaning effect.	Remove the roller brushes for cleaning, and then install them back to the floor scrubber.
	The roller brushes are severely worn and have poor cleaning performance.	Replace the roller brushes with new ones of the same specification.
	The floor to be cleaned is dirty or there is solid waste on the floor, and the floor scrubber cannot clean it all at once.	Pre-clean the floor to be cleaned. clean the regular garbage, and then start the cleaning. To ensure the final cleaning effect, you can repeat the cleaning onemore time.
Unable to charge	The power supply socket is powered off and cannot provide power.	Please make sure that the power supply socket is powered on. check it out by connecting the charger to other sockets.
	The charger is damaged and cannot be used for charging.	Check whether the charger indicator is always on red. If it is, the charging is normal. if it is off or flashing, the charger is working abnormally. Please contact Chancee technical support for repair.
	The batteries are damaged and cannot be charged properly.	If the charger works normally,but the percentage of battery power does ot increase with the charging time, it indicates that the batteries have been damaged or are abnormal. Please contact Chancee technical support for battery replacement.
Unable to turn on	①The main power switch is off. ②The batteries have no power. ③The key switch is not turned on.	Turn on the main power switch. charge the batteries. Turn on the key switch.

If you have tried all the solutions to the above problems, but the problems still exist, or if you encounter a problem that is not listed above, please contact Chancee after-sales service in time for further assistance. Thank you for your support.

# Warranty Card

Client Name		Telephone	
Mail address		Bill No.	
Purchase time		Machine Code	
Product model		Date	
Replace accessories			
Faults description			





