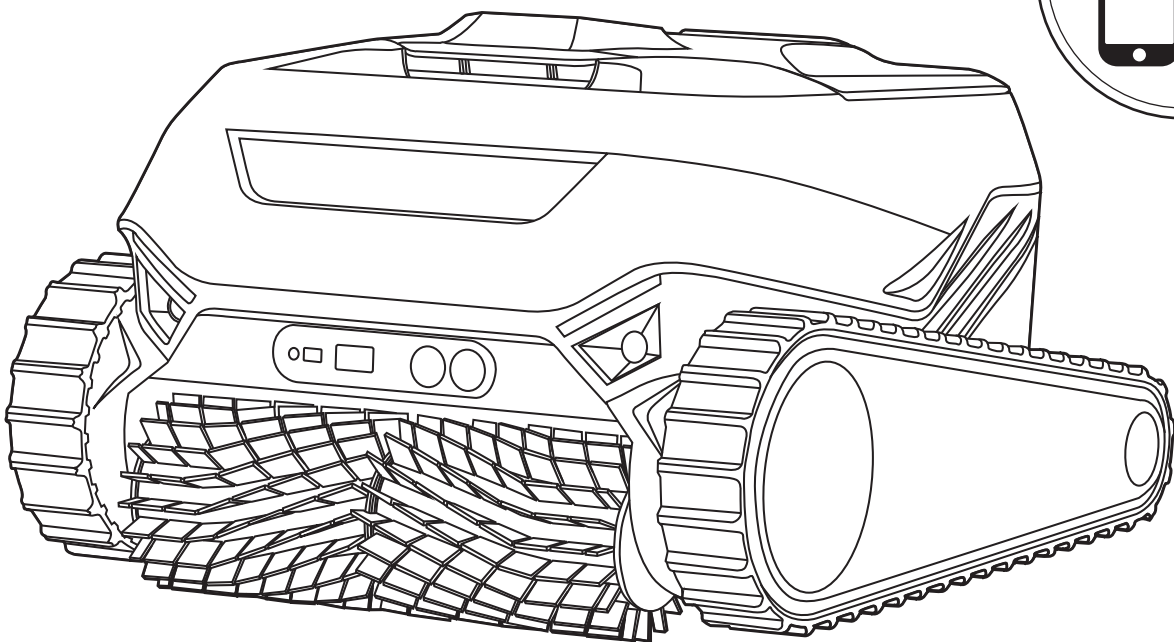


ROBO-TEK
Innovative Robotic Solutions

ROBO-NAV

User Manual



Commercial Cordless Robotic Cleaner



WARNING



GENERAL

- Children, people with reduced physical, sensory or mental capabilities, and people who are unfamiliar with the cleaner are strongly recommended not to use it. When the cleaner is in operation, please supervise children to ensure they do not play with it.
- To protect those around you, please only use genuine spare parts for the cleaner. DO NOT modify the cleaner, or remove, bypass or tamper with any of the safety devices installed in it. If any non-genuine spare part is used, the manufacturer shall not be held liable for any resulting damages.
- Please ensure the cleaner is turned off before carrying out any authorized adjustments or maintenance on it.
- DO NOT use or recharge the cleaner in an explosive and/or flammable environment.
- In the event of contact with the discharge, wash the cleaner with water or pH neutralizer. In the event of contact with human eyes, please seek immediate medical attention. Discharge from the battery may cause irritations or burns.
- As this product contains magnets and components that emit electromagnetic fields which CAN interfere with pacemakers, defibrillators and other medical devices, persons implanted with pacemakers or using such medical devices must ensure a safe distance between themselves and the cleaner. Should you believe that the cleaner is interfering with your pacemaker or medical device, please consult your doctor or the manufacturer of the medical device for specific information about such interference and DO NOT use the cleaner whenever you suspect any interference from the cleaner.
- The cleaner MUST be connected to an outlet protected by a ground fault circuit interrupter (GFCI) and such GFCI-protected outlets shall be supplied by a qualified installer and tested on a routine basis. To test the GFCI, push the "Test" button, then the GFCI should interrupt power. Push the "Reset" button, then the GFCI should restore power. If the GFCI does not operate as described above, the GFCI is defective and should be replaced with a proper one. If the GFCI interrupts power to the cleaner without the "Test" button being pushed, a ground current is flowing, indicating the possibility of an electric shock. In this case, DO NOT use the cleaner, but disconnect it from the electric outlet safely. Please engage a qualified service representative to rectify the problem.
- Do not enter the pool while the Smorobot cleaner is in water.
- DO NOT look directly at the laser to prevent eye damage.
- DO NOT expose the cleaner or its charger to direct sunlight, rain, poor weather, heat sources, pool and spa chemicals, or water when charging the cleaner. DO NOT place the cleaner or its charger on exposed soil.
- Always remove the cleaner from the pool when super chlorinating or adding acid to the pool.
- In the event of an abnormal operation or the release of odors from the cleaner, turn it off immediately, unplug it from its power supply and contact a professional.
- Do not immerse the charger in water or mud. The charger is not waterproof.
- If the charging port is not screwed completely, please do not put the cleaner into water.

WARNINGS ASSOCIATED WITH ELECTRICAL APPLIANCES

- If there is any physical damage to the chassis of the cleaner, such as a swollen or cracked casing, please STOP using the charger or charging the battery.
- Only use the battery charger supplied by the manufacturer. Improper use may cause electric shock, overheating, or discharge of corrosive liquids from the battery.
- If the battery charger is damaged, please inquire with the manufacturer or an authorized SMOROBOT dealer to replace it. DO NOT attempt to service the battery charger as a damaged



WARNING



wire can contact metal or water surfaces, causing electric shock.

- Do not use an extension cord to connect the charger to an electric supply.
- As the batteries can generate flammable or explosive gases, DO NOT smoke around the cleaner or expose the cleaner to sparks or flames.
- DO NOT attempt to disassemble the battery pack as short circuits which cause severe burns may happen. Ensure that exposed wires DO NOT contact other wires or metallic items to prevent sparking and short circuit of the battery. If a battery leak occurs, avoid any contact with the leaking fluids and place the cleaner in a plastic bag.
- DO NOT use battery packs or battery-operated appliances which are damaged or modified, in order to prevent unpredictable behaviors resulting in injury or death.

BATTERY LIFE & DISPOSAL OF LI-ION BATTERIES

- As regulations and laws pertaining to the recycling and disposal of Li-Ion batteries vary from countries and states, please look up the regulations and laws which apply to the place where you live.
- The Rechargeable Battery Recycling Corporation's web site, www.rbrc.org, is an excellent source for finding a facility to recycle such batteries. If you are unsure whether the facility in question can recycle Li-Ion batteries, please inquire with them to verify if such.
- Please fully discharge any batteries before disposing of them. Tape over the cleaner's charging contacts with electrical tape and package them to prevent them from making contact and causing a short circuit.
- This cleaner contains a maintenance-free, rechargeable Lithium-ion battery pack which MUST be disposed of properly.
- When disposing of the cleaner, please wear goggles, gloves and protective clothing.

CAUTION

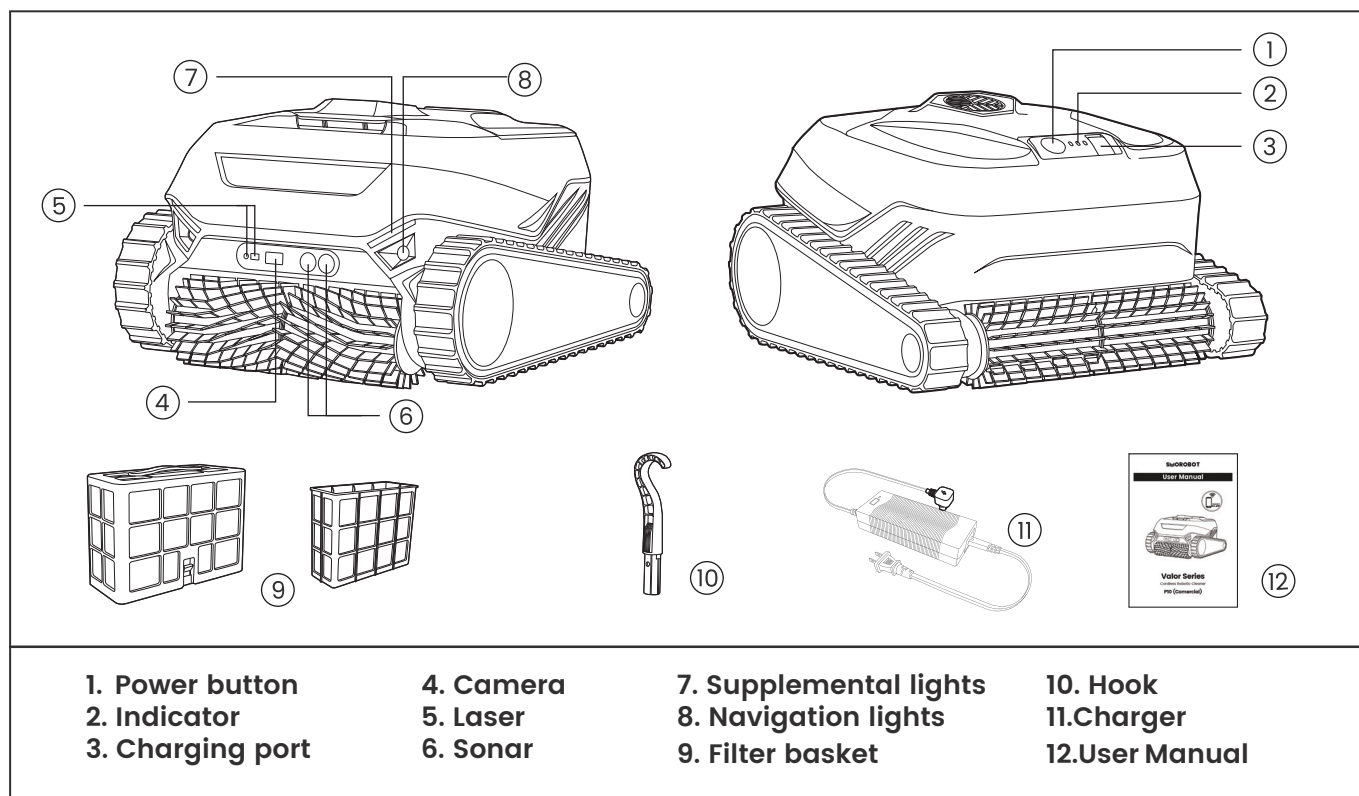
- The Smorobot cleaner must be installed and operated as specified herein. This product is intended for use with permanently-installed pools. Do not use it with storable pools. A permanently-installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity.
- Certain vinyl liner patterns are particularly susceptible to rapid surface wear of pattern removal caused by objects coming into contact with the vinyl surface, including pool brushes, pool toys, floats, fountains, chlorine dispensers, and automatic pool cleaners. Some vinyl liner patterns can be seriously scratched or abraded simply by rubbing the surface with a pool brush. Ink from the pattern can also be rubbed off during the installation process or when it comes into contact with objects in the pool. Smorobot is not responsible for, nor the Limited Warranty does not cover, pattern removal, abrasion or markings on vinyl liners.
- It's necessary to stop your filtration system before using your pool cleaner.
- Condensation visible around the LED bar is completely normal and does not affect the safety of the user or the proper functioning of the robot.
- Make sure to dry up the charging port before charging the cleaner.

Table of Contents

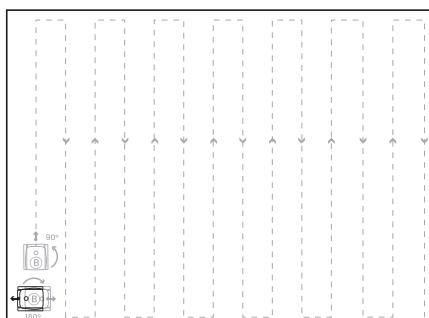
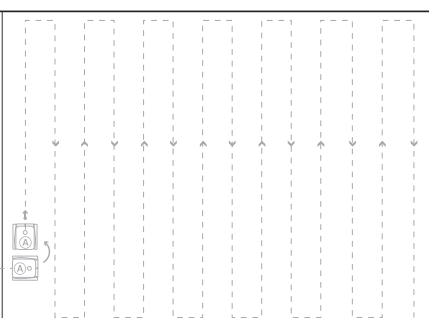
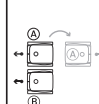
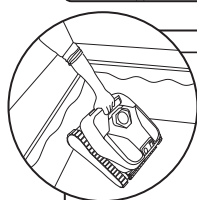
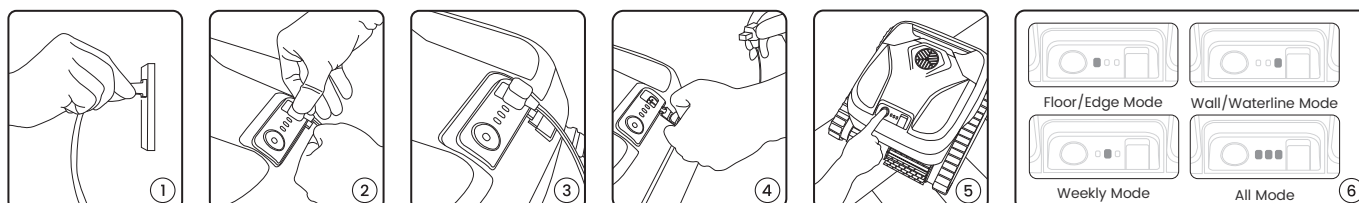
GETTING STARTED	04
1.1 What's in the Box	
1.2 First Time Use	
SPECIFICATIONS	05
2.1 Robot	
2.2 Water Conditions	
FEATURES AND INDICATIONS	06
CHARGING RECOMMENDATIONS	07
RETRIEVING THE ROBOT FROM THE POOL	08
5.1 Park at Waterline	
5.2 Using the Hook	
SMOROBOT CS App	09
6.1 Installing the SMOROBOT CS App	
6.2 Connecting Device	
6.3 Selecting A Cleaning Mode	
MAINTENANCE	10
7.1 Cleaning the Filter Basket	
7.2 Other Care Instructions	
7.2.1 After Each Use	
7.2.2 After a Cleaning Cycle in a Dirty Pool	
7.2.3 Every 3-4 Months or Before Off-Season Storage	
7.3 Off-Season Storage	
ROBOT TROUBLESHOOTING	12

1. GETTING STARTED

1.1 What's in the Box



1.2 First Time Use



- If you only use one robot, it'll automatically perform path planning and clean the swimming pool in "S" pattern.
- If you are using two robots or your pool is exceed 500-600 square metres, please place both robots into the pool with their handles facing the shorter wall. After sinking to the bottom, the robots will turn 180 degrees and enter their respective cleaning areas and start "S" pattern cleaning. If the robots are not initially placed facing the shorter wall, it may start working diagonally, so the entire swimming pool cannot be well divided into two measuring areas.

Note:

The robot's maximum cleaning area for one robot is 500 to 600 square metres.

A pool can support up to two robots working collaboratively at the same time.

7

CHARGING AND START UP

1. Plug the charger into a GFCI-protected wall outlet at least 3.5m (11.5ft) from the pool.
2. Connect the charger to the robot.
3. Fully charge the battery until 3 green lights go on.
4. Unplug the charger, put the rubber cap back on the charging port.

Turn the Pool Cleaner On

5. Press the Power button for 5 seconds, The first indicator will light up once you release your finger.

The default cleaning mode (first indicator on) is **Floor/Edge**: clean the floor and gentle sloped areas, ideal for daily clean. (Recommended Commercial Mode)

To Change the cleaning Mode

6. Shortly press the power button to select a different mode.

Press Once - Weekly: (second indicator light on) Clean the floor several times a week.

(Weekly cleaning cycle is **Not** recommended for Commercial Pools)

Press Again - Wall/Waterline: (third indicator light on) Clean the pool walls and the waterline. (*)

Press again - All: (All indicator lights on) Thoroughly clean the pool floor, gentle slopes, steps, walls and the waterline.

7. **NOTE:** It's suggested the inner layer filter basket be taken out for the first use. Place the robot in the pool* from the flat bottom surface in the shallow end (ensure water depth is at least water depth > 0.5m). It will start cleaning within 60 seconds.

(*)Not including pools with glass tile surfaces.

2. SPECIFICATIONS

2.1 Robot



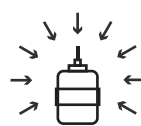
Charging temperature:
6°C-35°C / 43°F-95°F



Water depth:
0.5m-3m / 1.64ft-10ft



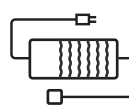
Filter basket:
outer layer 180µm +
inner layer 80µm



Motor protection:
IP68



Battery Lithium-ion:
25.2V DC; 9800 mAh



Charger:
Input 100-240V 50-60Hz &
Output 29.4V-4A

2.2 Water Conditions

(Cl) Chlorine: 4 ppm max.

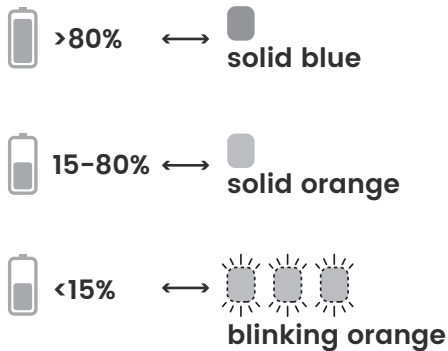
(°C/°F) Temperature: 6°C-35°C / 43°F-95°F

(pH) pH: 7.0-7.8

(NaCl) NaCl: 5,000 ppm max.

For more specifications refer to www.robotek.com.au/robo-nav

3. FEATURES AND INDICATIONS



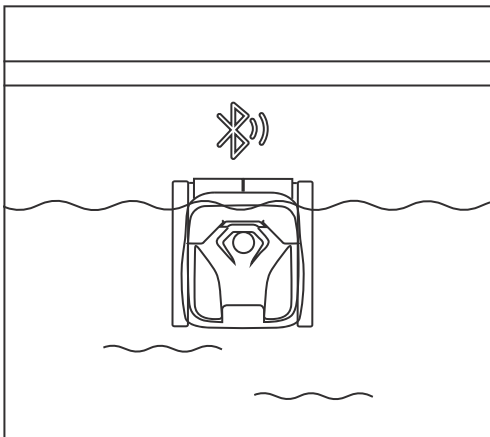
Power Button and Indicator LED When Charging

Battery level and LED color:

>80%: solid blue

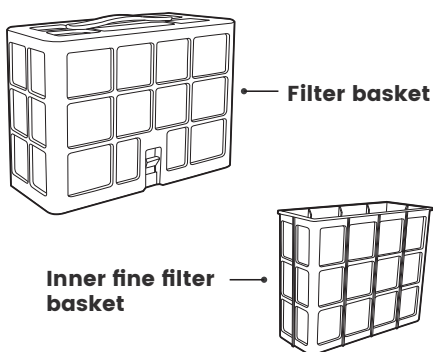
15-80%: solid orange

<15%: blinking orange



Park at Waterline

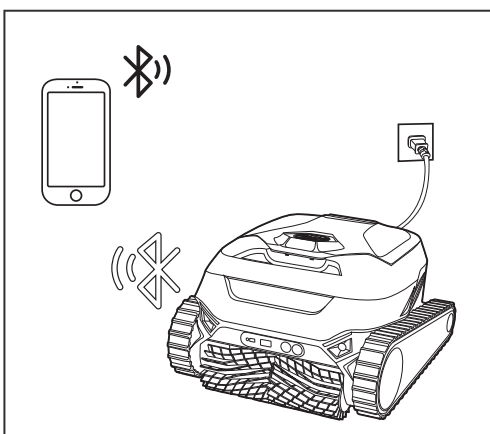
During the last 10 minutes of a cleaning cycle, the robot will climb the nearest wall and wait for 3 minutes at the waterline. If it is not removed from there, it returns to the pool floor and stays for 2 minutes before another attempt to wait for 3 minutes at the waterline. If it is still not taken out of the pool after a total of 3 attempts to the waterline, the robot goes down and waits at the bottom to save energy.



Dual Filter Baskets

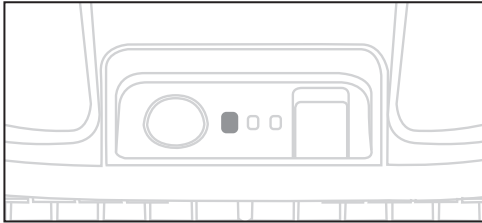
The improved dual filter baskets consist of an outer layer (180µm) and an inner layer (80µm). For first time use, it's recommended the outer layer be used only. For cycles on a daily basis or in a pool of light debris, install the inner fine filter to keep your pool immaculate.

Rinse the filter basket after each cycle before the debris dries on it.



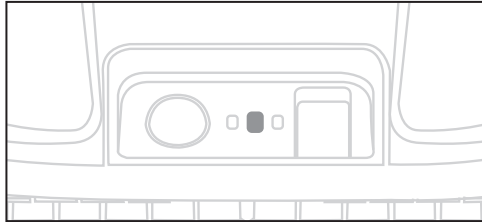
SMOROBOT Mobile App

Download the app onto your mobile phone, sign up and follow the app instructions to pair your mobile phone with your robot. You can configure it with the SMOROBOT CS App while the robot is out of the water.



Floor/Edge Mode

Most debris tend to accumulate on the pool floor, including the gentle slope between the shallow end and the deep end. Floor/Edge Mode well covers these areas and is ideal for daily cleaning.



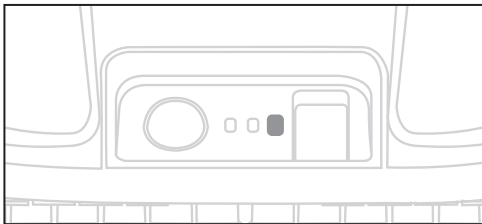
Weekly Mode **(Not recommended for Commercial pools)**

Use Weekly Mode to keep your pool floor clean for a week on one charge.

By the default setting, when being fully charged, the robot will automatically clean the pool floor 3 times*, with 48 hours between every two cleaning cycles.

1. Press the Power button for 3 seconds to turn it on until the LED lights up.
2. Shortly press the Power button to alternate between cleaning modes until the middle light goes on, selectable only when the battery is more than 80%.
3. Place the robot in the pool, and it will start working within 60 seconds.

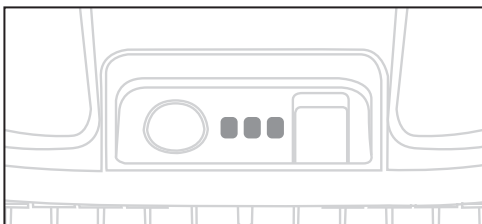
***Pool size may affect the default number of cleaning cycles in this mode.**



Wall/Waterline Mode

Every once in a while, you may want to give a scrub to the pool walls and the waterline. In Wall/Waterline Mode, the powerful brush rollers of the robot target the waterline and the wall surfaces ,including inclined areas connecting the bottom and the wall.

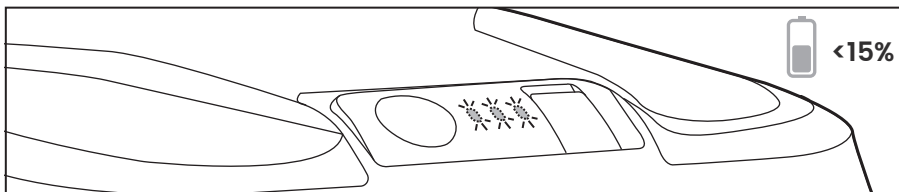
(Not recommended for Glass Tiled pools)



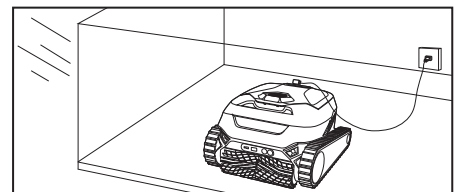
All Mode

The robot thoroughly cleans the bottom, gentle slopes, steps, walls and waterline of the pool. Fully charge the robot, and the cycle ends while the battery runs low.

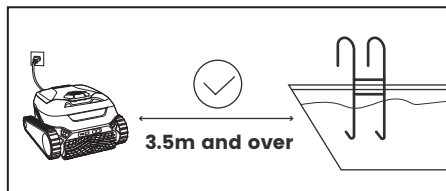
4. CHARGING RECOMMENDATIONS



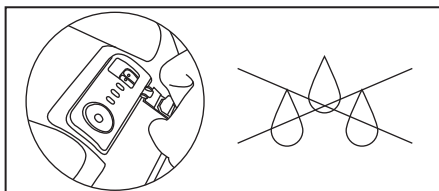
We do not recommend using the robot when the battery is less than 80% (solid or blinking in orange on the Power Button LED). In the case of a blinking orange LED, none of the modes can be selected.



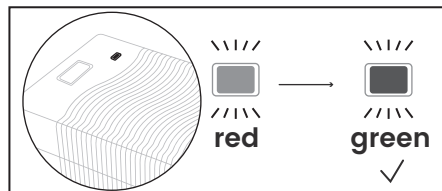
Always charge the robot in a shaded area at a temperature of 6°C – 35°C / 43°F – 95°F.



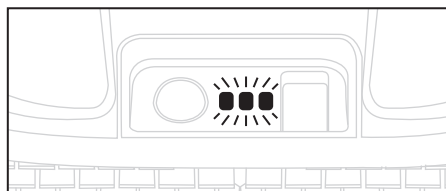
Make sure the robot is at least 3.5m (11.5ft) from the pool.



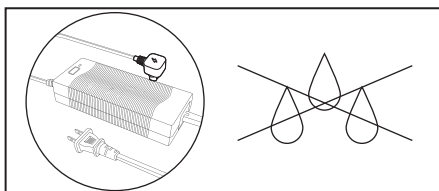
Make sure the charging port is dry before charging the robot.



When being fully charged, the charger light turns from solid red to solid green.



When being fully charged, the LED displays three green lights which are on.



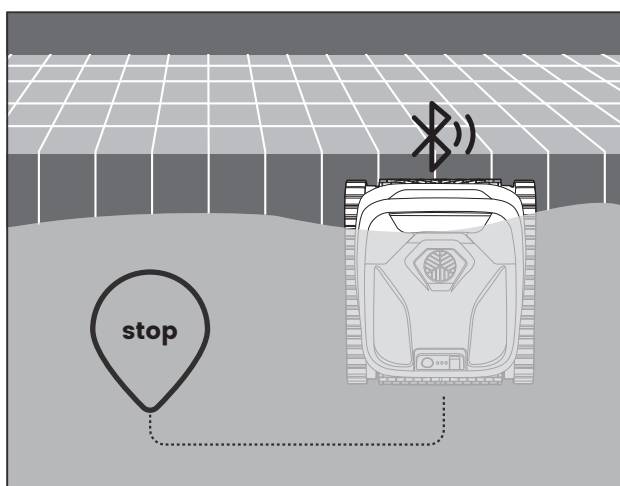
The charger is not waterproof. Use and keep it in a dry environment.



Use a GFCI-protected wall outlet.

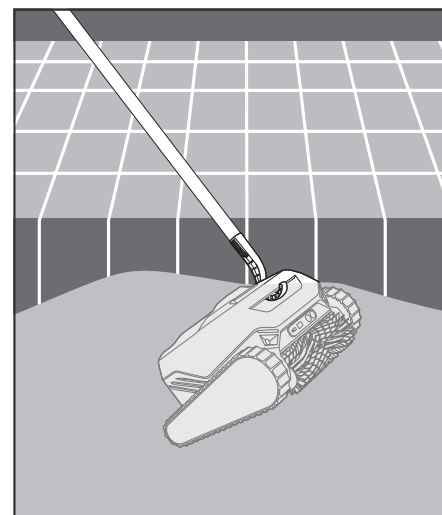
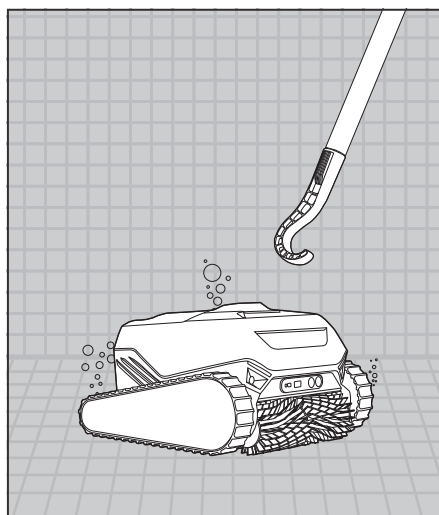
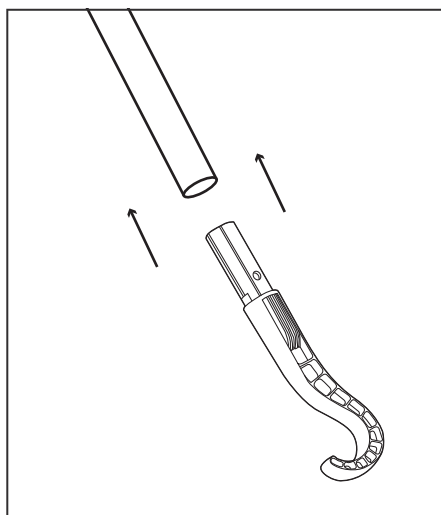
5. RETRIEVING THE ROBOT FROM THE POOL

5.1 Park at Waterline



During the last 10 minutes of a cleaning cycle, the robot will climb the nearest wall and wait for 3 minutes at the waterline. If it is not removed from there, it returns to the pool floor and stays for 2 minutes before another attempt to wait for 3 minutes at the waterline. If it is still not taken out of the pool after a total of 3 attempts to the waterline, the robot goes down and waits at the bottom to save energy.

5.2 Using the Hook



6. SMOROBOT CS APP

6.1 Installing the SMOROBOT CS App

Download the SMOROBOT CS App onto your mobile phone and use it to get personalized cleaning experience according to the pool specifications. You can download the app by scanning the QR codes below, or from App Store or Google Play with your mobile phone.



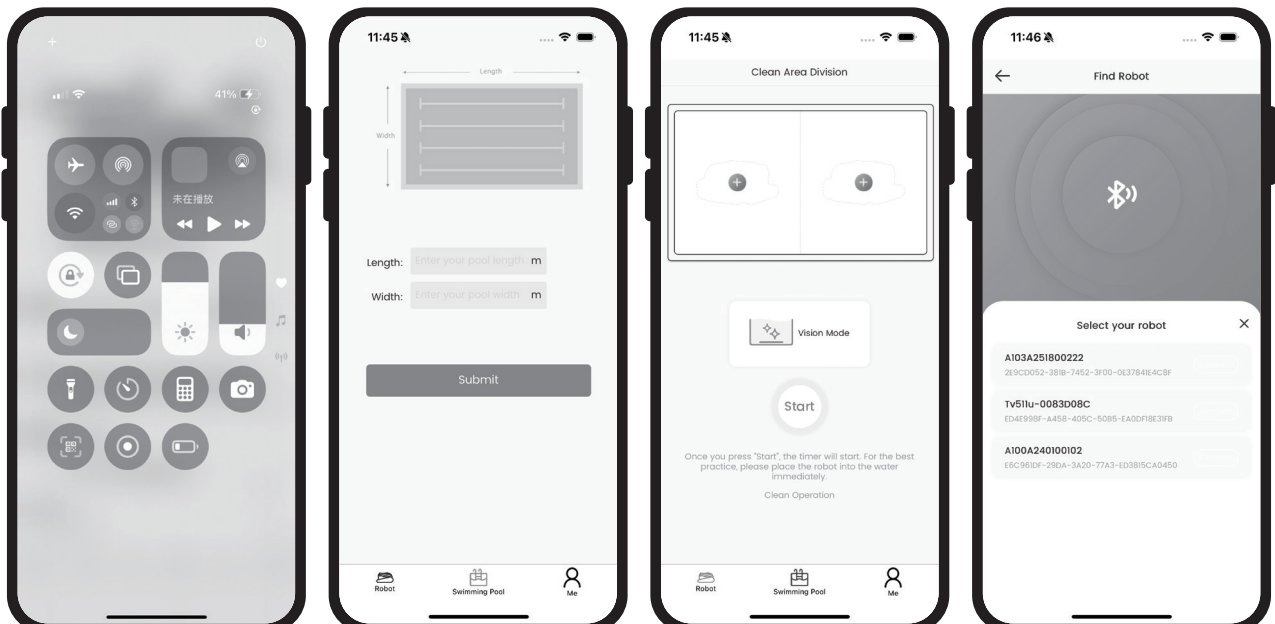
^
iOS



^
Android

6.2 Connecting the Device

1. Turn on your mobile phone's Bluetooth and turn on the cleaner, find smo-AX201XXXX device in the list of available and connect it, then open the APP.
2. Input the length and width of your pool and press the Submit button.
3. Click "+" button on the SMOROBOT CS app to add a new device.
4. Select the device from the list and connect it on the SMOROBOT CS App.

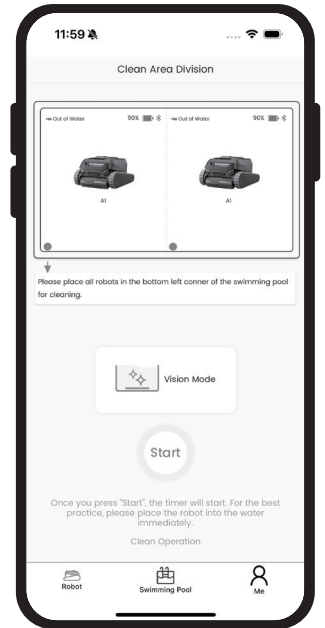


6.3 Selecting A Cleaning Mode

When the cleaner is connected to the app on your mobile phone.

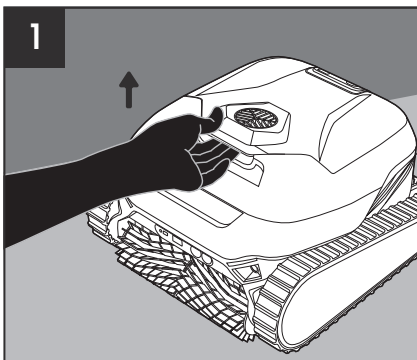
1. Press the Start button on the SMOROBOT CS App.
2. Place the cleaner in the pool. And the SMOROBOT CS App shows the cleaning progress of the current mode.
3. The robot automatically docks at the poolside for convenient retrieval and notifies users via the SMOROBOT CS App upon completion of the cleaning cycle.

Stay tuned to the latest software versions or the customized versions for your pool with the SMOROBOT CS App. Keep pace with technical advances with a simple click.

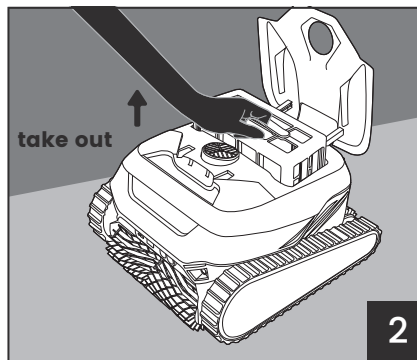


7. MAINTENANCE

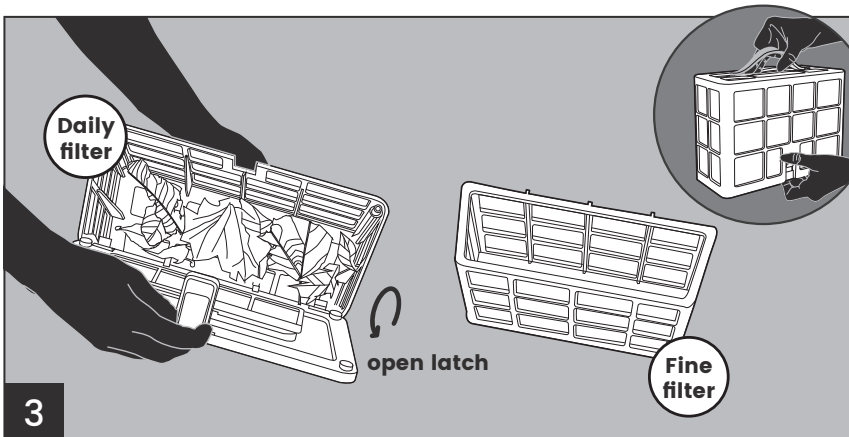
7.1 Cleaning the Filter Basket



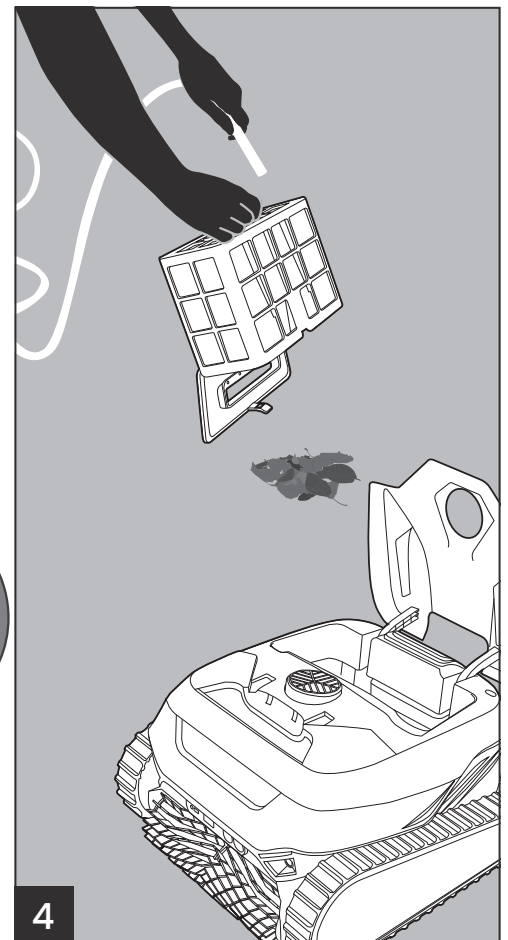
Open the top flip cover.



Take out the filter basket and open the latch to release the bottom lid.



Remove the debris (and take out the inner fine filter basket).



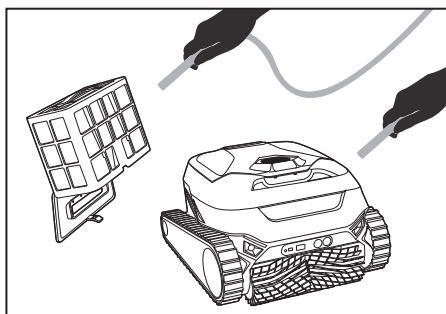
Rinse the filter basket layer(s) using a hose.

Important:

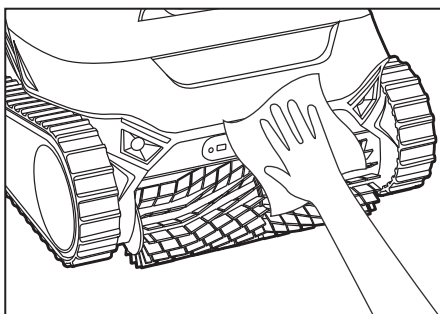
- Put on the inner fine filter basket in a pool at the "Light Debris" level only.
- Rinse the filter basket immediately after the robot is taken out of the pool.
- Clean the filter basket periodically with soapy water and a soft bristle brush.

7.2 Other Care Instructions

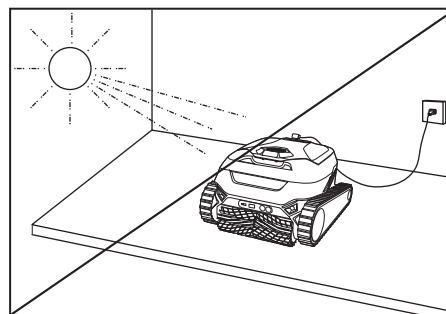
7.2.1 After Each Use



Clean the robot and the filter basket.



Use a piece of soft rag to clean the laser sensor, sonar and camera.



Keep the robot away from strong and direct sunlight.

7.2.2 After a Cleaning Cycle in a Dirty Pool

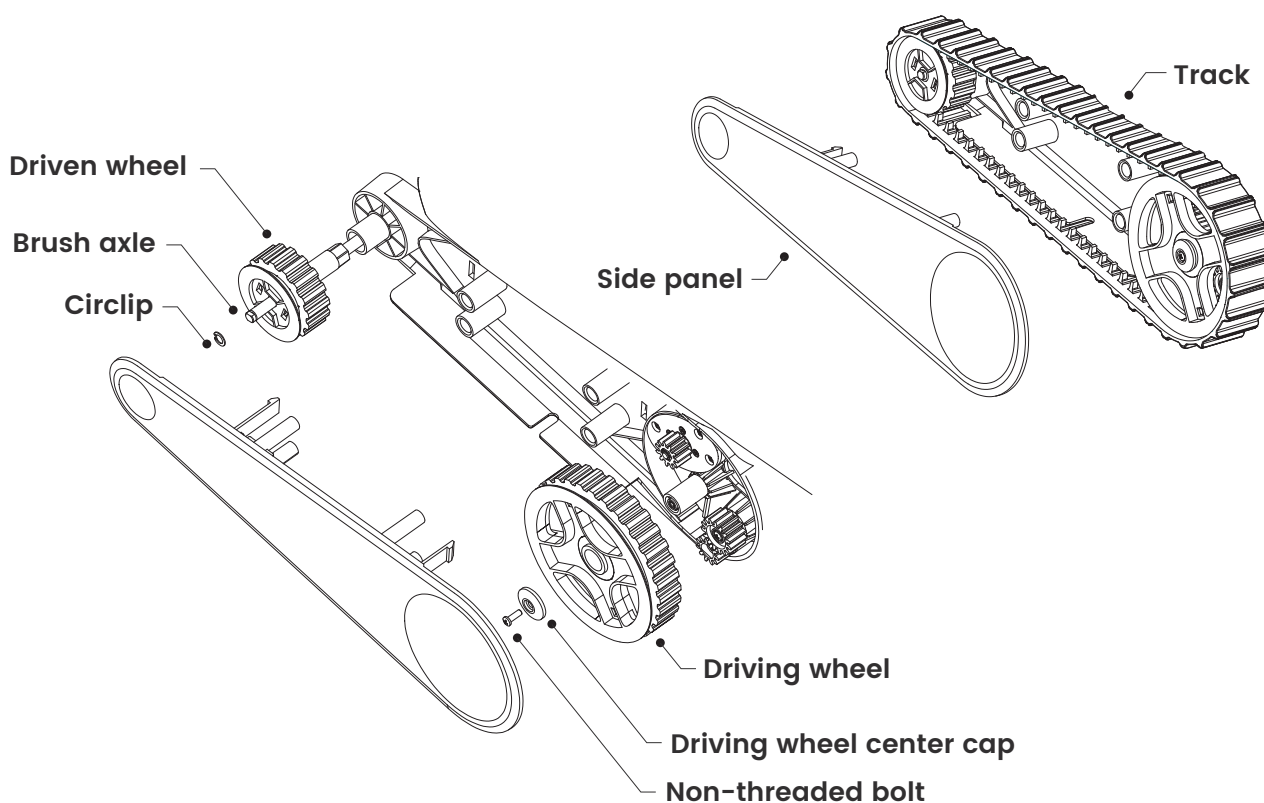
Ensure no debris is stuck in the impeller, track treads, wheels, or gears or between the brushes. Clean the robot according to the instructions below.

① Take off parts:

Remove the side panels with gentle force. Then remove the treads, wheels, and transfer gears.

② Clean:

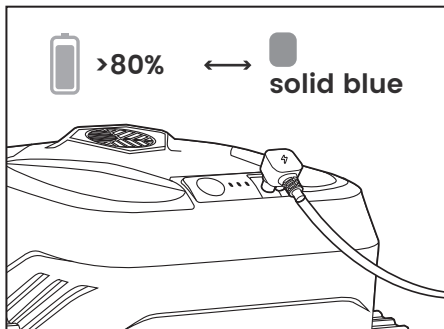
Clean the parts with water or cloth and dry them.



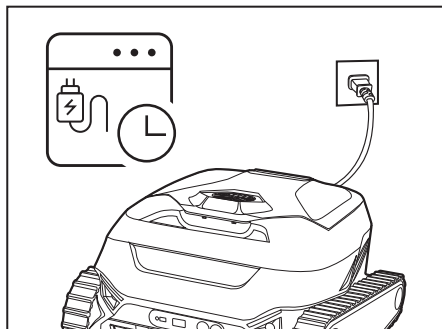
7.2.3 Every 3-4 Months of Before Off-Season Storage

Check the track treads, wheels, gears and brushes for wear.

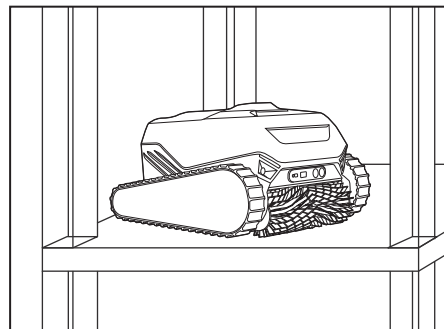
7.3 Off-Season Storage



Charge the machine to 80%-100% of its total capacity before storage.



Charge it at least every three months.



Please store it in an environment with a temperature of 5°C-45°C/41°F-113°F and a humidity of less than 75% RH.

8. ROBOT TROUBLESHOOTING

Issue	Possible Cause	Suggested Solution
The robot doesn't move.	An object is stuck in the tracks or wheels, or between the brushes.	Remove any debris in the tracks or wheels, or between the brushes. (See 7.2.2 also). Power off the robot by pressing the Power button for 20 seconds. Then press the Power button for 3 seconds to start the robot.
The robot is not waiting at the waterline after the cleaning is completed. It is standing at the bottom of a wall.	During the last 10 minutes of a cleaning cycle, the robot will climb the nearest wall and wait for 3 minutes at the waterline. If it is not removed from there, it returns to the pool floor and stays for 2 minutes before another attempt to wait for 3 minutes at the waterline. If it is still not taken out of the pool after a total of 3 attempts to the waterline, the robot goes down and waits at the bottom to save energy.	Install the provided hook to your pool pole and retrieve the robot with the hook.
The robot moves in circles.	The filter basket is clogged.	Empty and clean the filter basket.

Issue	Possible Cause	Suggested Solution
The robot moves in circles.	An object is stuck in the tracks or wheels, or between the brushes.	Remove any debris in the tracks or wheels, or between the brushes. (See 7.2.2 also).
	One driving motor stops working.	Contact Robo-Tek Customer Support
The robot doesn't charge.	No voltage in the wall outlet.	Make sure there is voltage in the wall outlet.
	The charger is malfunctional.	Ensure the charger works (when the charger is plugged into a power outlet with voltage but not connected to the robot, the charger light should turn green; if no light is on, it must be a malfunctional charger). If not, contact Robo-Tek Customer Support for replacement.
	Erosion on the charger plug or charging pins.	Wipe off rust from the charger plug or charging pins.
	Others.	Contact Robo-Tek customer support
The robot doesn't climb the walls.	The filter basket is full or carries heavy debris.	Empty and clean the filter basket.
	Debris gets into the impeller.	Remove any debris in the impeller.
	The wall surface is too slippery.	Check and adjust chemical levels in water or remove algae from the walls.

Issue	Possible Cause	Suggested Solution
The robot doesn't climb the walls.	The robot is not fully charged. In the Floor/Edge mode or Weekly mode. The pump motor stops working.	Fully charge the robot. Select the Wall/Waterline mode or All mode. Contact Robo-Tek Customer Support.
The robot passes the debris but doesn't clean it away.	The filter basket is full or carries heavy debris. Debris gets into the impeller.	Empty and clean the filter basket. Remove any debris in the impeller.

Customer Support

At Robo-Tek we provided dedicated after sales support for our Commercial customers.

For urgent support or assistance:

Phone: 0401 964 608

Email: servicel@robo-tek.com.au

ROBO-NAV

www.robo-tek.com.au

Leaders in Commercial Pool Cleaners

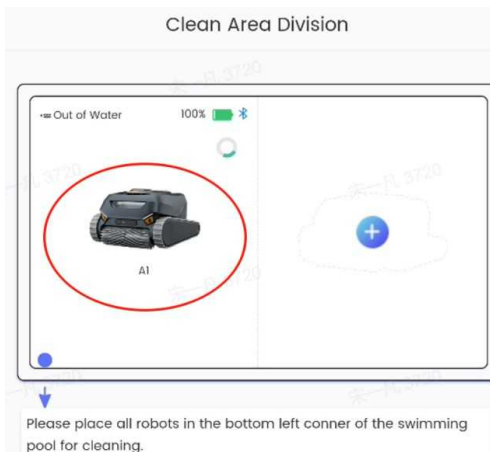
Additional Cleaning Scenarios

Scenario 1. Very large pool - Just one robot

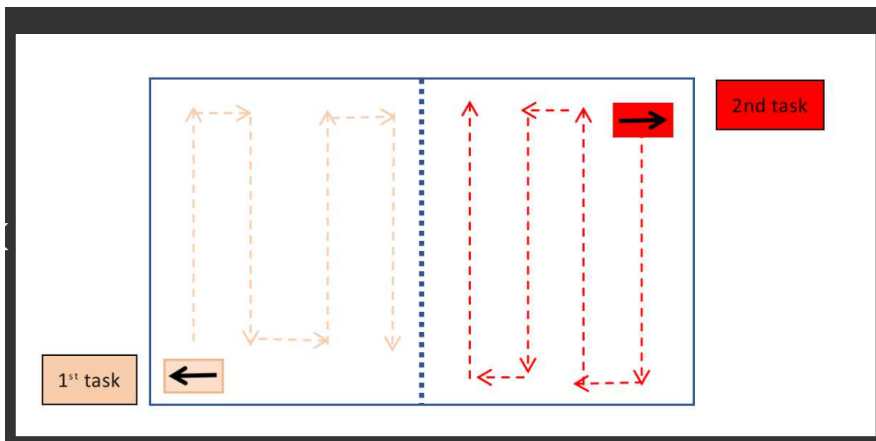
If you have a very large pool, but only have one robot, it is possible for the robot to clean the total pool over two separate run cycles.

For the first cycle (1st Task), Enter the real pool size into the app (50x25) and add the robot in A1 area. For the first cleaning task, please place it at left bottom side of the pool. (as illustrated below)

This process will be useful when a facility with 2 robots is having one robot serviced.



And for the 2nd Task, please place it at top right hand side of the pool (facing the short wall).



Scenario 2. For Trade Demonstrations

Where you have limited time to do a demonstration, say 30 mins. But the pool in question is large. (say 50 x 25)

Enter the pool size as 5 x 25 where 25 is the shorter wall, and place the robot in the pool facing the shorter wall.