



Vacuum Cleaning Robot user manual

- ※ Before operating this unit, please read the instructions carefully.
- ※ For indoor use only.

English



imagine the possibilities

Thank you for purchasing a Samsung product.



SAMSUNG

safety information


SAFETY INFORMATION

- 
WARNING
- Before operating the appliance, please read this manual thoroughly and retain it for your reference.
- 
WARNING
- Because these following operating instructions cover various models, the characteristics of your vacuum cleaner may differ slightly from those described in this manual.

CAUTION/WARNING SYMBOLS USED

 WARNING	Indicates that a danger of death or serious injury exists.
 CAUTION	Indicates that a risk of personal injury or material damage exists.

OTHER SYMBOLS USED

 NOTE	Explains terms to help users understand how use the product properly.
--------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should be observed, including the following:

READ ALL INSTRUCTIONS BEFORE USING YOUR VACUUM CLEANING ROBOT.

Unplug from outlet when not in use and before conducting maintenance.

WARNING: to reduce the risk of fire, electric shock, or injury:

GENERAL

- Use only as described in this manual.
- Do not operate the vacuum cleaning robot or charger if it has been damaged in any way.
- If the cleaner is not working as it should, has been dropped, damaged, left outdoors, or dropped in water, return it to a customer care center.
- Do not handle the charger or vacuum cleaning robot with wet hands.
- Use only on dry, indoor surfaces.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

BATTERY CHARGER

- Do not modify the polarized plug to fit a non-polarized outlet or extension cord.
- Do not use outdoors or on wet surfaces.
- Unplug the charger from the outlet when not in use and before servicing.
- Use only the charger supplied by the manufacturer to recharge.
- Do not use with a damaged cord or plug.
- Do not pull or carry by the cord, use the cord as a handle, close the door on the cord, or pull the cord around sharp edges or corners. Keep the cord away from heated surfaces.

- Do not use extension cords or outlets with inadequate current carrying capacity.
- Do not unplug by pulling on the cord. To unplug, grasp the plug, not the cord.
- Do not mutilate or incinerate batteries as they will explode at high temperatures.
- Do not attempt to open the charger. Repairs should only be carried out by a qualified customer care centre.
- Do not expose the charger to high temperatures or allow moisture or humidity of any kind to come into contact with the charger.

VACUUM CLEANING ROBOT

- Do not pick up hard or sharp objects such as glass, nails, screws, coins, and etc.
- Do not use without a filter in place. When servicing the unit, never put fingers or other objects into the fan chamber in case the unit accidentally turns on.
- Do not put any objects into openings. Do not use with any openings blocked; keep openings free of dust, lint, hair, and anything that may reduce air flow.
- Do not pick up toxic materials (chlorine bleach, ammonia, drain cleaner, etc.).
- Do not pick up anything that is burning or smoke, such as cigarettes, matches, or hot ashes.
- Do not use to pick up flammable or combustible liquids such as gasoline, nor use on areas where they may be present.
- Do not use vacuum cleaning robot in an enclosed space filled with vapours given off by oil based paint, paint thinner, moth proofing substances, flammable dust, or other explosive or toxic vapours.
- Leaks from battery cells can occur under extreme usage or temperature conditions. If the liquid gets on skin, wash quickly with water. If the liquid gets into the eyes, flush them immediately with clean water for a minimum of 10 minutes. Seek medical attention.

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safety information

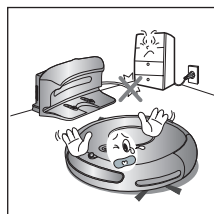
POWER RELATED



WARNING

Do not bend the power cord forcefully or place a heavy object on it that could break it.

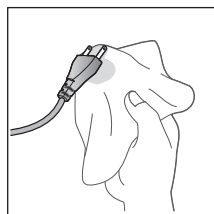
- This may result in fire or electric shock.



WARNING

Make sure to remove any dust or water from the power plug.

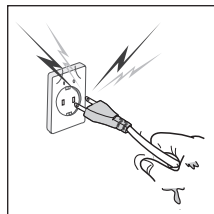
- Failing to do so may result in a malfunction or electric shock.



WARNING

Do not pull the power plug by the cord or touch the plug with wet hands.

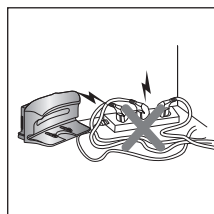
- This may result in fire or electric shock.



WARNING

Do not use multiple plugs in a single socket. (Do not leave the cord lying exposed on the floor.)

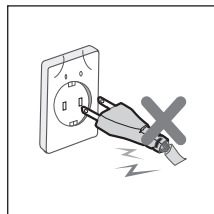
- This may result in fire or electric shock.



WARNING

Do not use a damaged power cord, plug, or a loose power outlet.

- This may result in fire or electric shock.

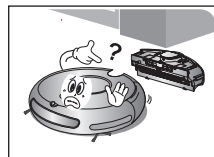


BEFORE USE



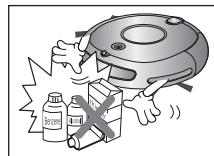
Before activating the vacuum cleaning robot, make sure that the dust bin is assembled.

- If the dust bin is not inserted, vacuum cleaning robot will not operate.



Never use vacuum cleaning robot in locations with combustible material such as.

- Locations with candles or desk lamps on the floor.
- Locations with unattended fires (fire or embers).
- Locations with gasoline, distilled alcohol, thinner, ashtrays with burning cigarettes, etc.



Vacuum cleaning Robot is for domestic use only. Do not use it in the following locations.

- Attics, basements, warehouses, industrial buildings, separate rooms distant from the main building, locations exposed to wet or damp conditions such as bathrooms or wash rooms, and narrow and highly situated locations such as tables or shelves. Critical damage (abnormal operation and breakage) may occur when used in these locations.



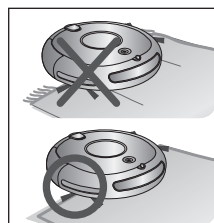
Open all doors to clean all rooms.

- When a door is closed, the vacuum cleaning robot will not be able to enter that room.
- However, make sure to close the doors to the main entrance, the veranda and the bathroom, and any other rooms where the vacuum cleaning robot may fall to a lower floor.



For carpets with long tassels, fold the tassels under the carpet.

- Unfolded tassels may result in critical damage to the carpet and the machine itself, as they get caught in the driving wheel or the power brush.

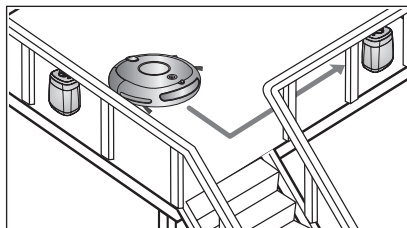


<OPTION>

When the cliff sensor is polluted, robotic vacuum cleaner may be falling down from entrance of stairs, handrail etc.

This may cause an injury of people and the critical damage to the product.

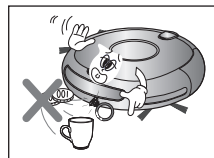
For preventing from the risk, install the VIRTUAL GUARDS(Fence Mode setting) in front of dangerous areas. And clean the sensor window and camera not to make a wrong orders.





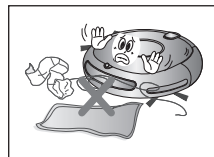
Remove small objects or brittle items from the area to be cleaned in advance.

- Make sure to clear any objects before cleaning.
- Make sure to remove fragile items such as china, glass objects, flowerpots, and etc.
- Robotic vacuum cleaner does not recognize coins, rings or other valuable items such as jewelry.



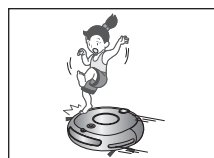
Remove objects scattered on the floor before cleaning.

- Vacuum cleaning robot is designed to detect obstacles 5cm away from it.
- Bath towels, pads in front of bathrooms and sinks, entrances, utility rooms, power cords, table cloths or belts can become entangled in the driving wheel or power brush. This can cause objects to fall from the table.



Inform all family members (or relevant parties) to be cautious before cleaning or when using the Scheduled Cleaning Mode.

- Vacuum cleaning robot may run into children, causing them to fall.



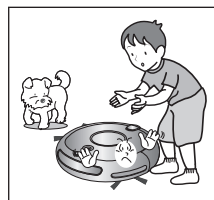
Ensure that children do not step or sit on the vacuum cleaning robot.

- Children may fall and injure themselves or critical damage may occur to the product.



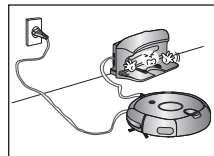
When a child or pet is left alone, make sure to turn off the Power Switch of the vacuum cleaning robot.

- Vacuum cleaning robot may attract their attention.
- When the rotating wheel or brush catches fingers, feet, clothing or hair, this may result in injury.
- If a child or pet is in the way of the vacuum cleaning robot, it may be identified as an obstacle and the area may not be cleaned.
- When the Power Switch is turned off, it will cut off the power supply and deactivate all functions.



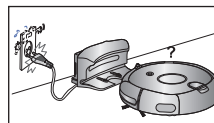
When installing the charger station, do not leave the power cord exposed on the floor.

- When the vacuum cleaning robot automatically recharges or passes by the charger station, it may drag the power cord around with it.



Always keep the power cord of the charger plugged into the outlet.

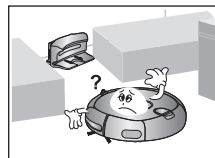
- Although the vacuum cleaning robot has a self-charging function, if the power cord of the charger station is unplugged, it cannot charge its battery automatically.





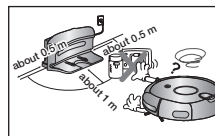
Install the charger in a location that can be easily accessed by the vacuum cleaning robot.

- If the charger is installed in a corner, this may cause extra movements and may disturb the automatic recharging process.

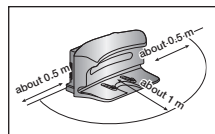


Objects in front of the charger will prevent the vacuum cleaning robot from auto-charging itself.

- Clear the area.

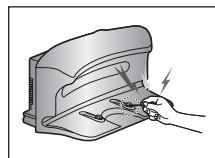


There should be no obstacles and cliffs 0.5m to the left and right and within 1m of the front.



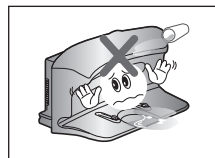
Do not short-circuit the charge pins with metal objects such as chopsticks, screwdrivers, and etc.

- This will result in critical damage to the charger.



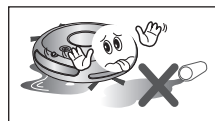
Make sure that there is no trace of liquids on the charger station.

- Failing to do so may result in fire or electric shock.



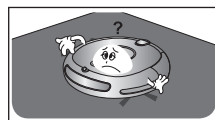
Make sure the vacuum cleaning robot does not vacuum or move over liquids such as water, oil or pet litter.

- This may result in critical damage to the product.
- Liquids may spread through the wheels resulting in contamination.



Do not use the cleaner on a black floor.

- The vacuum cleaning robot may not run normally in this case.



Do not use the charger for other purposes.

- This may result in critical damage to the charger or cause a fire.

IN USE



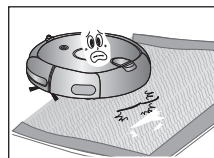
Do not lie down around the Robot Vacuum that is running.

- Your hair may be caught between the power brush and the side brush, resulting in physical injury.



You cannot use the vacuum cleaning robot on thick carpets.

- This may result in problems with the vacuum cleaning robot.
- This may result in damage to carpets.



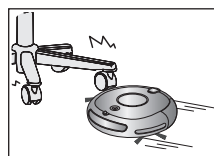
Do not use the vacuum cleaning robot on a table or other high locations.

- This may result in damage when the unit accidentally drops.



Vacuum cleaning robot may bump into furniture such as chair legs, table legs, thin and long furniture, etc. while operating.

- For a quicker and cleaner performance, place the chairs on top of the table.



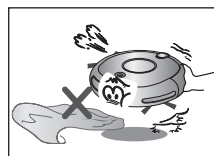
Do not place any objects on top of the vacuum cleaning robot.

- This may result in malfunction.

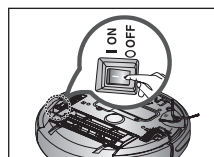


Immediately remove any large pieces of paper or plastic bags from the machine while cleaning.

- Using the machine for an extended period of time with its inlet port obstructed may result in critical damage to the product.



If an unusual sound, smell or smoke is emitted from the vacuum cleaning robot, immediately turn off the Power Switch and call the customer care center.

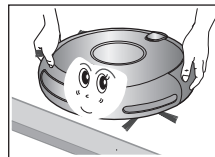




NOTE

Vacuum cleaning Robot may not be able to continue its operation if it is stuck at the entrance or veranda doorsill.

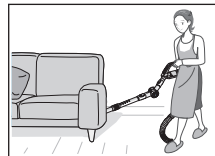
- Vacuum cleaning Robot stops operating for safety reasons if it cannot move for more than 5 minutes.
- To resume operating, turn the Power Switch off and then on again after moving it to a location where it can continue cleaning.



NOTE

Vacuum cleaning Robot cannot completely clean locations that it cannot reach, such as corners, and spaces between sofas and walls.

- Please clean these locations occasionally.



NOTE

Dust clusters may remain after cleaning, when the vacuum cleaning robot fails to pick up dust clusters that were formed while cleaning.

- In this case, sweep up the dust with another cleaning tool.

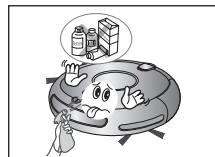
CLEANING AND MAINTENANCE



CAUTION

When cleaning the product, do not spray water directly onto the exterior or wipe it with a volatile material such as benzene, thinner or alcohol.

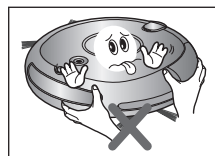
- This may result in critical damage to the product.



CAUTION

Do not forcefully press the bumper on the Vacuum cleaning Robot.

- If the bumper sensor gets damaged, the Vacuum cleaning Robot may bump into walls or furniture.



CAUTION

The unit must not be disassembled or reconstructed by anyone other than a qualified service engineer.

- This may result in damage to the product.

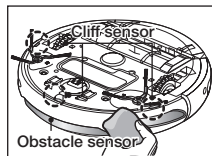




WARNING

Remove any foreign substances accumulated on the Obstacle and Cliff sensors on a regular basis.

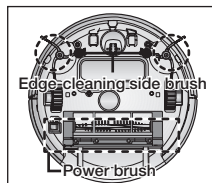
- Dirt accumulated on the sensors will result in inaccurate functioning of the sensors.



WARNING

When removing foreign substances, always use the cleaning brush after turning the Power Switch off.

- Failing to do so may result in sudden operation of the unit and cause an injury or critical damage to the product.



WARNING

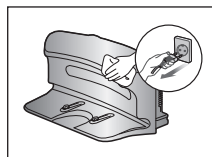
If the power cord is damaged, have it replaced by a qualified service engineer from the customer care center.

- Failing to do so may result in fire or electric shock.



WARNING

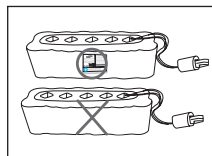
Before cleaning the charger, make sure to disconnect the power cord for safety.



WARNING

Contact the Samsung Electronics customer care center to replace the battery.

- Failing to use original batteries will result in product failure.



product features

CONVENIENT VIRTUAL GUARD FUNCTION

You can confine the robotic vacuum cleaner to a particular section by using Fence (virtual wall) mode.



- **What is ceiling shape recognition (Visionary mapping plus™)?**

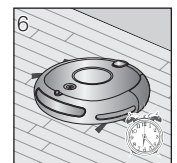
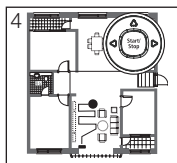
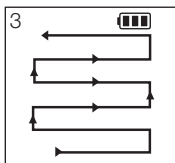
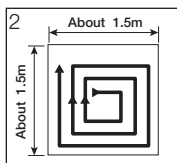
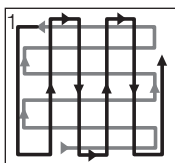
This function recognizes the shape of the ceiling using the camera on top to identify the area to be cleaned and determines the best way to pass over and clean every section of the floor.

DELICATE CLEANING OF EVERY CORNER

Since the vacuum cleaning robot cleans the floor in a sequential way (📊) along the map determined by the ceiling shape recognition function, it cleans every corner of the floor.

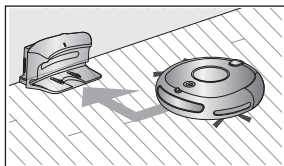
VARIOUS CLEANING MODES

Various cleaning modes are provided to meet all your needs.



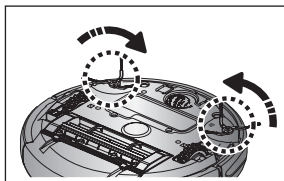
1. **Auto Mode** : Cleans all rooms automatically.
2. **Spot Mode** : Cleans a localized area intensively. It can be used to clean bread or cookie crumbs.
3. **Max Mode** : Runs until the battery is nearly depleted.
4. **Manual Mode** : You can clean the floor manually by moving the robotic vacuum cleaner with a remote control.
5. **Edge Mode** : When the Obstacle Sensor detects an obstacle during the cleaning, the Robot Cleaner reduces its speed to minimize the bumping impact and the Bumper Sensor also helps it lower the bumping impact. And, it cleans the corners by reaching to them as close as possible.
6. **Scheduled Cleaning Mode** : At the specified time, the robotic vacuum cleaner cleans the floor.

AUTO CHARGING



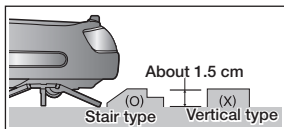
When the battery is low, the robotic vacuum cleaner is automatically guided to the charger to enable it to perform a quick auto charge.

EDGE-CLEANING SIDE ROTATING BRUSH



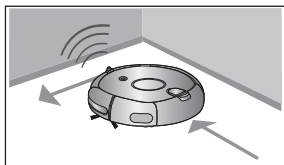
The edge-cleaning side rotating brush cleans dust from the edges.

DOORSILL CROSSING



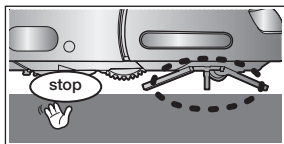
The robotic vacuum cleaner's innovative driving system makes it possible for it to cross over doorsills with a height of about 1.5 cm and clean all rooms. The robotic vacuum cleaner may not be able to pass a 1.5 cm doorsill depending on the shape of the doorsill.

ANTI-CRASH



The robotic vacuum cleaner detects and avoids obstacles in 2 stages. First, the 7 obstacle sensors detect obstacles in stage 1 and if the robotic vacuum cleaner does crash into an obstacle, the 2 bumper sensors absorb the impact.

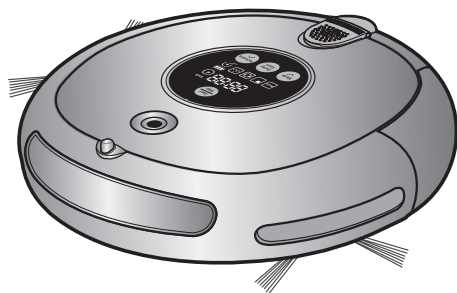
SAFETY DEVICE



When robotic vacuum cleaner is lifted up while cleaning, automatically driving wheels, power brush, suction motor, side rotating brush are stopped by sensor's detecting.

assembling the cleaner

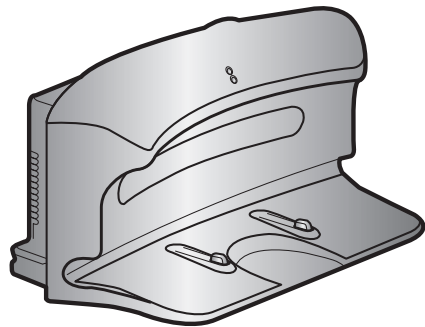
COMPONENTS



■ Main Body


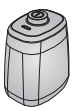

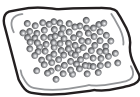
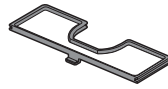


■ Remote Control



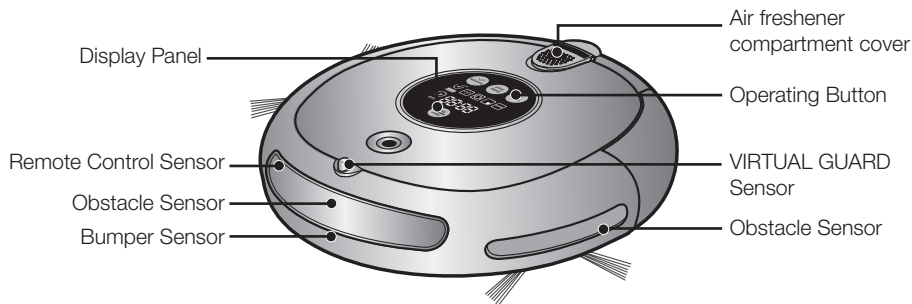
■ Charger

■ Others Components

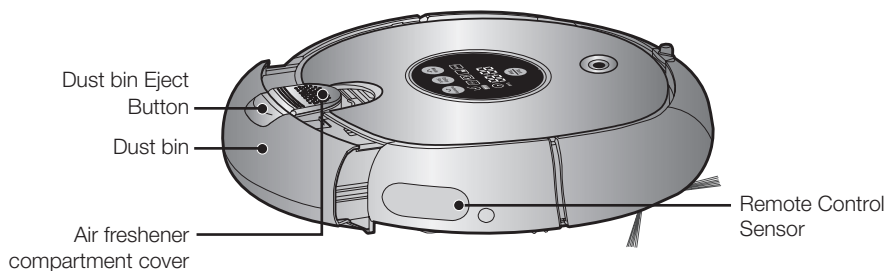
 User Manual (CD-ROM) / 2 Batteries	<p>✱ Option</p>  VIRTUALGUARD	 Cleaning Brush	 Air Freshener
<p>✱ Option</p>  Spare Filter			

NAME OF EACH PART

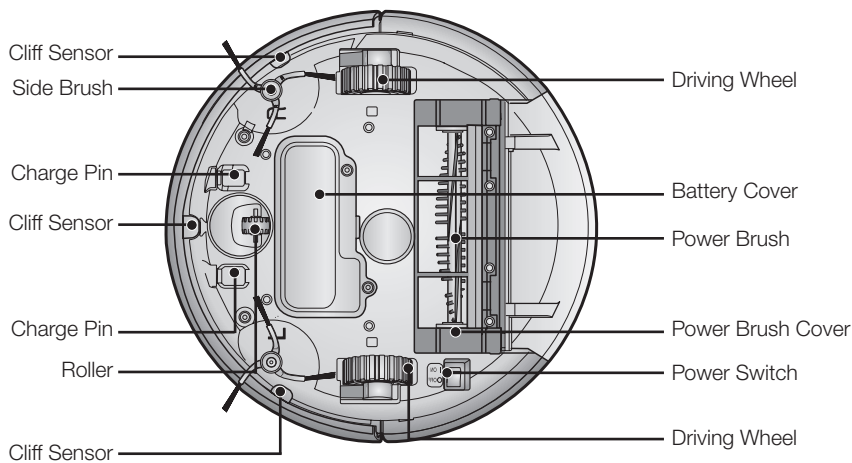
[Main unit]



Front

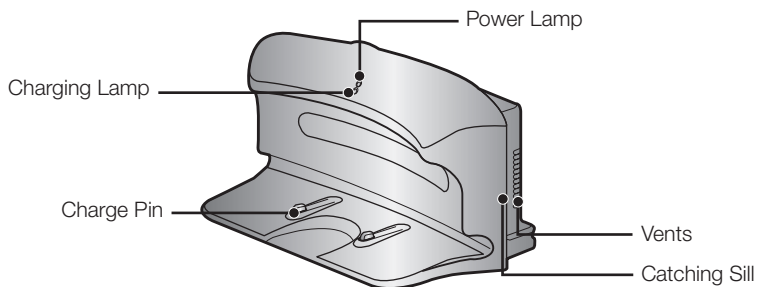


Side

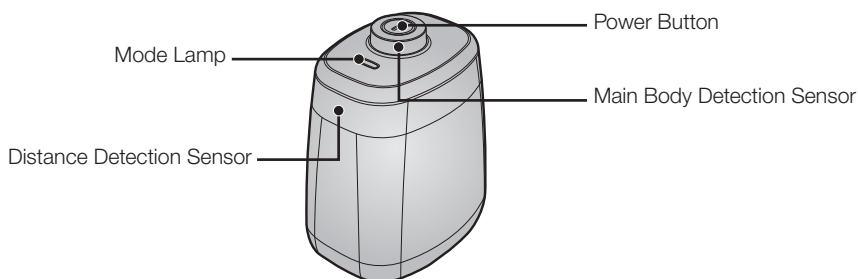


Bottom

[Charger]

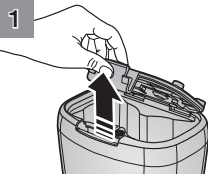


[VIRTUAL GUARD (OPTION)]

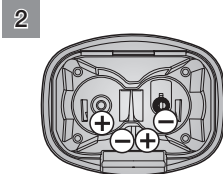


■ Installing the batteries

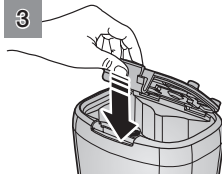
Batteries are not supplied with the product. You have to purchase the batteries additionally. Install the batteries (type D) before use.



Lift the cover of the VIRTUAL GUARD while pressing the locking tab.



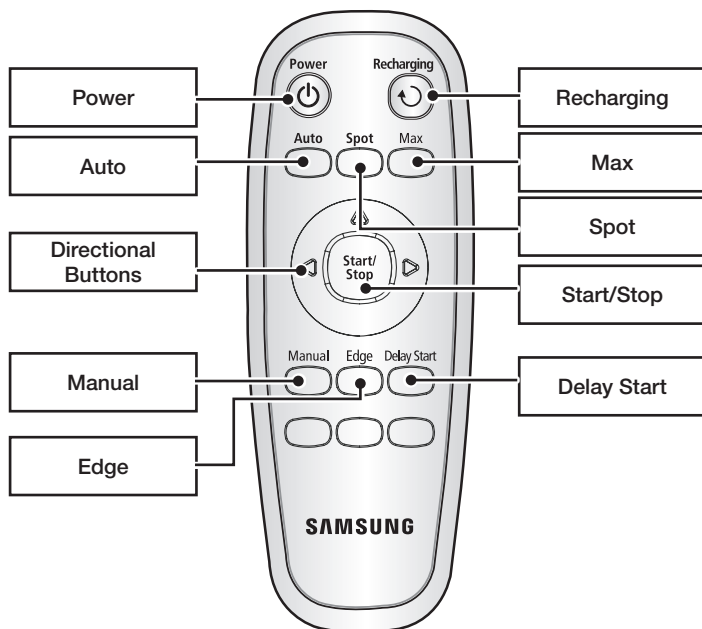
Install the batteries into the VIRTUAL GUARD as shown by the figure below. (If the batteries are installed with the incorrect polarity, the VIRTUAL GUARD will not work.)



After inserting the tip of the cover into the slot, push the other end to close it until it clicks into place.

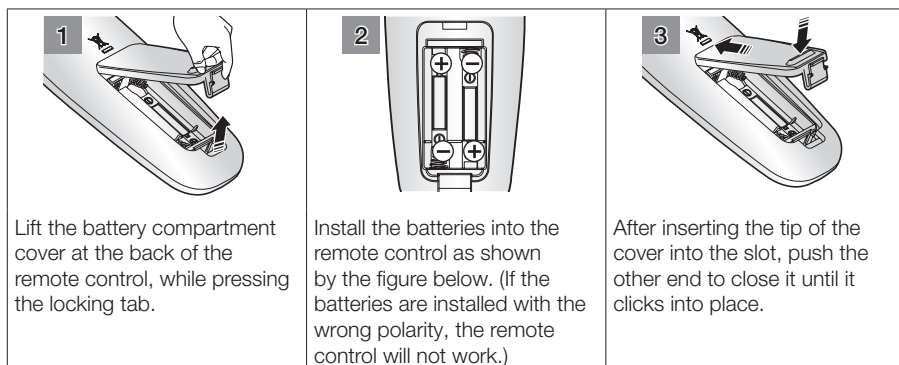
※ Specification: Type D (LR20) batteries

■ Remote Control



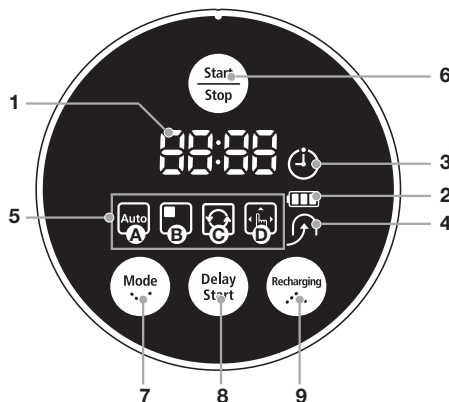
■ Installing the Batteries

Batteries are not installed in the remote control when purchasing the product.
Install the batteries (type AAA) before use.



※ Specification: AAA type batteries

■ Display panel



DISPLAY PART

1. Number Display

- Shows the timer display, progress status, and error codes using numbers, letters and graphics.

2. Battery Level Indicator

- Charging: Shows the charging progress in 3 steps.
- In Use: Shows the battery charge level. The battery charge level is reduced by each level from FULL while operating. (When the battery is fully discharged, one level will flash to display "LO".)

3. Scheduled Cleaning

- When cleaning is scheduled, the Scheduled Cleaning icon is lit.

4. Recharging

- This icon turns on when the robotic vacuum cleaner returns to the charger station to charge its battery.

5. Cleaning Mode Display

- Each time the cleaning mode button is pressed, the corresponding cleaning mode is displayed.

(A) Auto Mode : This icon turns on when Auto cleaning mode is selected.

(B) Spot Mode: This icon turns on when Spot cleaning mode is selected.

(C) Max Mode: This icon turns on when Max cleaning mode is selected.

(D) Manual Mode: This icon turns on when Manual cleaning mode is selected.

(E) Edge Mode : "ㄷ ㄷ" is on when Edge cleaning mode is selected.

BUTTON PART

6. Start/Stop

- Press to start/stop cleaning.

7. Cleaning Mode

- Press to select a cleaning mode. After selecting a cleaning mode, press the (Start/Stop) button to start cleaning.

8. Delay Start

- Press to schedule a cleaning. You can delay a cleaning up to 23 hours.

9. Recharging

- When this button is pressed, the Recharging icon is turned on and robotic vacuum cleaner will return to the charger to charge its battery.

operating the cleaner

INSTALLING THE VACUUM CLEANING ROBOT

Installation order

1. Turning the Power Switch on or off

To use the robotic vacuum cleaner, you must turn on the Power Switch at the bottom of the main unit.

2. Installing the Charger

To charge the robotic vacuum cleaner, you must first install the charger.

Since the battery is discharged when the product is purchased, you must fully charge the battery before use.

3. Charging the Battery

You should charge the battery completely before using the robotic vacuum cleaner.

4. Installing the VIRTUAL GUARD

You can confine the robotic vacuum cleaner to a particular section by using Fence (virtual wall) mode.

5. Installing the air freshener

Please install the air freshener before using the robotic vacuum cleaner.

If the air freshener is installed, the robotic vacuum cleaner will give off a pleasant fragrance.



Turning the Power Switch on or off

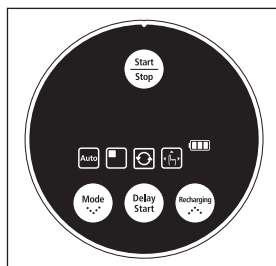
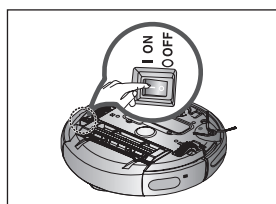
To use the robotic vacuum cleaner, you must turn the Power Switch on.

If you turn the Power Switch off, all settings will be reset.

1. Turn over the main unit and turn the Power Switch on.

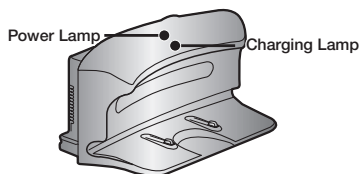
- If the icons are not turned on, it indicates that the battery charge is depleted. In this case, dock the robotic vacuum cleaner to the charger station after turning the Power Switch on.
- Note that turning the Power Switch off will reset all settings.

- ✱ When no key is pressed for approximately 10 minutes when the power is on, the power is automatically turned off to save battery power. In this case, to use this robotic vacuum cleaner again, please push the “Power” button or “Start/Stop” button.

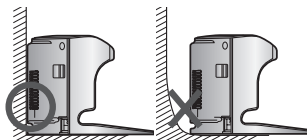


If the Power Switch is turned off, the robotic vacuum cleaner will not be charged even if it is docked with the charger station.

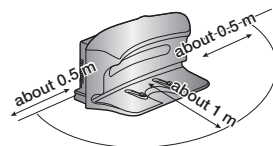
Installing the charger



1. Install the charger on a flat surface.



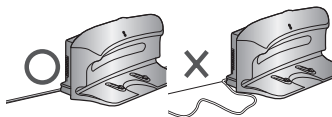
2. There should be no obstacles 0.5 m to the left and right and within 1 m of the front.



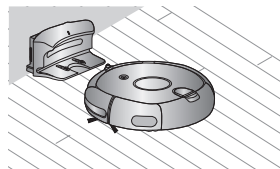
3. Install the charger in a location where it can be easily accessed by the robotic vacuum cleaner.



4. Arrange the power cord along the wall.

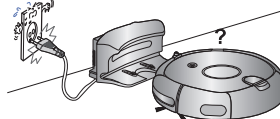


5. When the floor is made of wood, install the charger in the same direction as the grain of the wood.



Always keep the power cord of the charger plugged into the power outlet.

- If no power is supplied to the charger, the robotic vacuum will not be able to find the charger and will not be able to charge automatically.
- If the robotic vacuum cleaner is separated from the charger, the battery is automatically discharged.

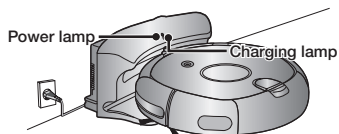


Charging

When the product is initially purchased, the battery is fully discharged, and you must charge the robotic vacuum cleaner manually.

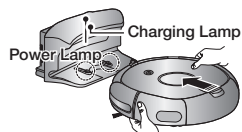


Turn on the Power Switch at the bottom of the product.



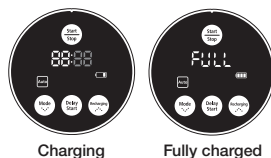
1. After aligning the charge pins of the main unit with the charge pin of the charger, press the main unit until you hear a “Recharging power” sound from the charger.

- The Charging Lamp turns green.



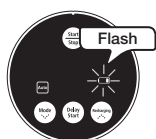
2. Check the charge status of the robotic vacuum cleaner.

- When charging starts, the battery level indicator and “88:88” will be displayed in sequence in the display panel.
- When charging is complete, the battery level indicator and “FULL” will be displayed in the display panel.

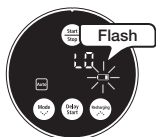


Charging

Fully charged

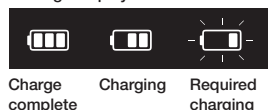


- When the battery level display flashes while cleaning, the robotic vacuum cleaner stops vacuuming and automatically charges itself at the charger.



- When the battery level flashes and “LO” is displayed while cleaning, robotic vacuum cleaner cannot be operated by the remote control or the buttons on the main unit. In this case, directly carry the robotic vacuum cleaner to the charger to charge the battery. (This is when the battery is completely discharged.)

<Charge display>



Charge complete

Charging


Required charging



NOTE

- When the product is initially purchased, it will take about 120 minutes to fully charge the battery and will run for about 90 minutes.
- When charging the battery while the battery is over-heated, the charging time can increase.
- Measures to take when charging is not smooth.
When the robotic vacuum cleaner cannot be automatically charged, check the following:
 - Turn the Power Switch at the bottom of the robotic vacuum cleaner off and on (Reset).
 - Re-plug the power of the charger (Reset).
 - Check whether there are any foreign substances on the charge connector and wipe the charge connector on the main unit and the charger with a dry cloth.
 - Check whether there are objects near the charger that are strong reflectors.
- When separating the robotic vacuum cleaner from the charger, it will discharge naturally.
- Charge the robotic vacuum cleaner through the charger, if possible. (When leaving your home unattended for a long period of time due to a business trip, travelling etc., turn off the Power Switch of the robotic vacuum cleaner and unplug the power of the charger to store them.)

About the Battery

- The robotic vacuum cleaner is powered by an environment-friendly Nickel Metal Hydride (NiMH) rechargeable battery, and an over-charge prevention function guarantees an extended life time.
- **The battery warranty period is 6 months from the date of purchase.**
- When purchasing a battery, ask the customer care center for the genuine part symbol () and model number before purchasing it.

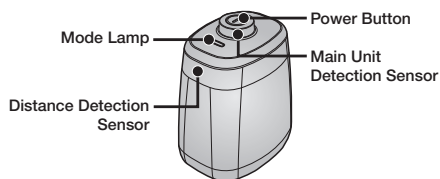


- This battery is only for Samsung vacuum cleaning robot. It is strictly prohibited to use it for other appliances or for other purposes.
 - Do not disassemble or modify the battery.
 - Charge it in a location with good ventilation.
 - Do not expose the battery to fire and do not heat it.
 - Do not connect any metallic objects to the (+) or (-) terminals of the battery.
 - Keep it indoors (0 °C~40 °C).
 - Before you discard product, dispose of batteries in an environmentally safe manner.
 - Do not discard this batteries with your regular household trash.
 - Follow all local regulations when disposing of old batteries.
-
- ※ If the battery is out of order, do not disassemble it. Contact your nearest customer care center.
 - ※ An increased charging time and a shorter battery life indicates the near end of the battery life. Please contact an authorized customer care center to replace your battery.

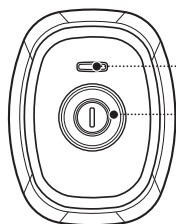
The rechargeable battery incorporated in this product is not user replaceable.
For information on its replacement, please contact your service provider.

Installing the virtual guard (option)

You can confine the robotic vacuum cleaner to a particular section by using Fence (virtual wall) mode.



Button operations



1. Lamp operations

- Fence (virtual wall) Mode : The red lamp flashes.
- Off : The lamp is turned off.

2. Turn the Power Button on

- Whenever you press the Power button, Fence (virtual wall) mode → Power off is selected in this sequence.
- ✱ The distance of virtual wall is 2.5 m at minimum and may differ depending on surroundings and movement status of the robot.

Forming a Fence (virtual wall)

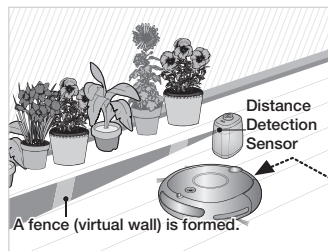
VIRTUAL GUARD creates an invisible barrier that the robotic vacuum cleaner cannot cross. E.g. in front of pots, furniture, the front door, and so on.

1. Turn the Fence (virtual wall) mode on using the Power button.

- The mode lamp flashes red.

2. Install the VIRTUAL GUARD in front of the area you want to block access from the vacuum cleaning robot.

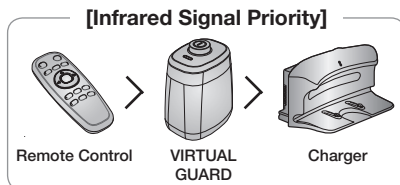
- Install the VIRTUAL GUARD so that the distance detection sensor can form an invisible barrier that the vacuum cleaning robot cannot cross.





About the IrDA sensor.

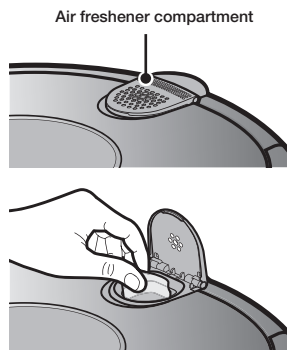
- The infrared signal transmission may not be smooth in locations exposed to halogen lamps or in outdoor locations.
- Robotic vacuum cleaner uses 3 types of infrared devices and a device may not work in front of another device with a higher priority.
- When controlling the robotic vacuum cleaner with the remote control, the robotic vacuum cleaner may cross the virtual fence of the VIRTUAL GUARD or run against an obstacle, because the remote control signal has a higher priority than the VIRTUAL GUARD signal.
- When using the robotic vacuum cleaner in a small location or at a close distance, it may malfunction due to interference of the infrared signals.
- Install the VIRTUAL GUARD away from the charger as auto charging may be interrupted if the VIRTUAL GUARD is near the charger.
- If more than one robotic vacuum is used simultaneously, they may malfunction due to interference of the infrared signals.



Installing the air freshener

Please install the air freshener before using the robotic vacuum cleaner. If the air freshener is installed, the robotic vacuum cleaner will give off a pleasant fragrance.

1. Remove the plastic bag containing the air freshener.
 2. Open the air freshener compartment cover at the top of the Dust bin and put the air freshener in the compartment.
 3. Close the air freshener compartment cover.
- ✱ To purchase the air freshener additionally, please contact the Samsung Electronics service center.

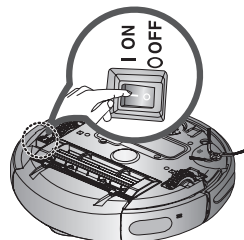


USING THE VACUUM CLEANING ROBOT

Starting / Stopping Cleaning

You can run or stop all robotic vacuum functions.

- Each robotic vacuum function only runs when the Power Switch is turned on.
- When the robotic vacuum is operating, press the (⏻) button to cancel the operation and select a function.



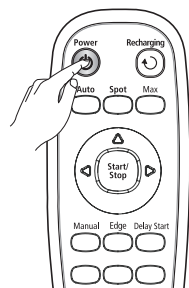
Turning the power on or off

Turning the power on

- Remote control: Press the **[Power]** button.
- Main unit: Press the (⏻) button.
- The main unit buttons, battery level indicator and cleaning mode icons are turned on.

Turning the power off

- Remote control: Press the **[Power]** button.
- Main unit: Press and hold the (⏻) button down for 3 seconds.
- All icons except for the battery level indicator are turned off.



Using the remote control

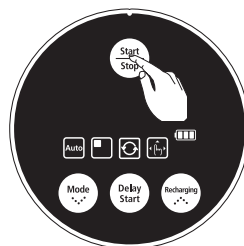
Starting or stopping cleaning

Starting

- Remote control: Press the Auto, Spot, Max, Manual or Edge button.
- Main unit: Select Auto / Spot / Max / Manual / Edge mode by using the (⏻) button and then pressing the (⏻) button.
- When cleaning begins, the robotic vacuum cleaner starts to move.
- ✳ Pressing the (⏻) button without selecting cleaning mode starts to perform the Auto mode cleaning.

Stopping

- To stop, press the (⏻) remote control or main unit button.
- When cleaning is stopped, the robotic vacuum cleaner stops.

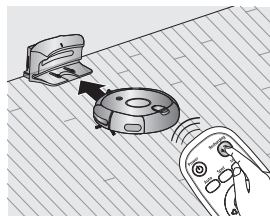


Using the main unit buttons

Recharging

You can have the robotic vacuum cleaner return to the charger to charge the battery by using the Recharging button.

- When the robotic vacuum cleaner is operating, press the (⏮) button to cancel the operation and press the Recharging button.

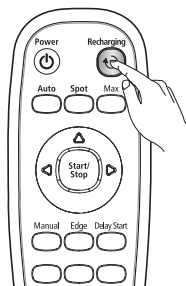


1. Press the Recharging button.

- The main unit icon (⏮) is turned on and the robotic vacuum cleaner will return to the charger.

2. To stop the robotic vacuum cleaner while it is returning to the charger, press the (⏮) button.

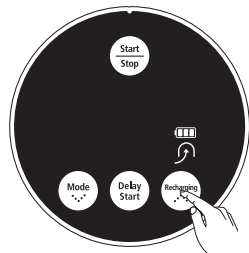
- 3. To test the auto charge function, press the Recharging button when the robotic vacuum cleaner is less than 1.5 m from the charger.



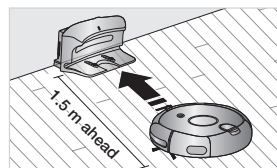
Using the remote control

Troubleshooting when the robotic vacuum cleaner does not return to the charger.

- Check the installation of the charger
 - When the charger is in a location where the charger cannot guide the robotic vacuum cleaner to the charger.
 - When the charger is more than 5m away from robotic vacuum cleaner.
 - : It may require a longer time for the robotic vacuum cleaner to return to the charger.
- Manually charge the robotic vacuum cleaner in the following cases.
 - When the charger is installed in a corner.
 - When the battery is fully discharged.
 - When the robotic vacuum cleaner is trapped by an obstacle (furniture etc.)
 - When the robotic vacuum cleaner cannot pass over the doorsill to the location where the charger is installed.



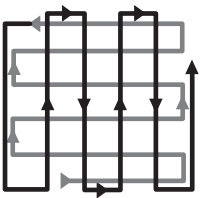
Using the main unit buttons



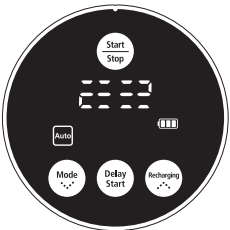
Auto Cleaning

The robotic vacuum cleaner will move by itself and automatically clean the house until cleaning is completed once.

- If cleaning begins when the robotic vacuum cleaner is docked with the charger station, the time to return to the charger is decreased since the robotic vacuum cleaner remembers its original position while moving.
- If the battery level becomes too low while cleaning, the robotic vacuum cleaner will automatically return to the charger station and resume cleaning after charging its battery.
(Number of cleaning operations resumed: Once)



Main unit button	Remote control button	Configuration Sequence
		1. Set the mode.
		2. Cancel the mode.



While cleaning



NOTE

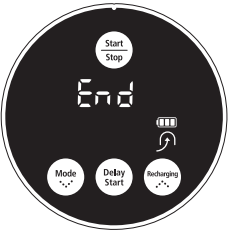
About the Resume Cleaning function

- If the robotic vacuum cleaner has evaluated that cleaning is complete, the resume cleaning function is not performed.
- If you move the robotic vacuum cleaner when it is being charged or press a button, the robotic vacuum cleaner judges cleaning to be complete and does not resume cleaning.



CAUTION

Do not move the Vacuum cleaning Robot when it is cleaning or press a button while it is cleaning. Otherwise, the Vacuum cleaning Robot judges cleaning to be complete and starts cleaning again from the beginning.

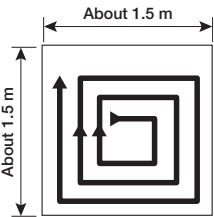


When cleaning is complete

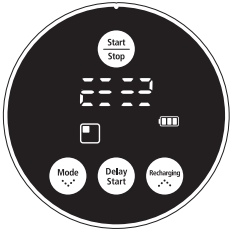
Spot Cleaning

You can conveniently clean a specific area that has a lot of cookie crumbs, dust, and etc.

- Move the robotic vacuum cleaner to the location where you want to perform a spot clean.



Main unit button	Remote control button	Configuration Sequence
		1. Set the mode.
		2. Cancel the mode.

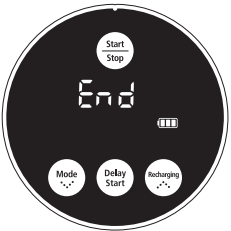


While cleaning

- In Spot cleaning mode, the robotic vacuum cleaner cleans an area with a length of 1.5m and a width of 1.5m.
- When cleaning is completed, the robotic vacuum cleaner will display End, Stop, and Stand by.



When the robotic vacuum cleaner is docked with the charger station, spot cleaning is not supported.

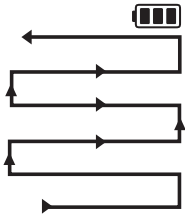


When cleaning is complete

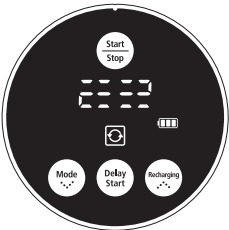
Max Cleaning

The robotic vacuum cleaner automatically moves and cleans until the battery runs out and the battery level flashes only one level.

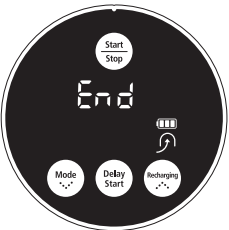
- If cleaning begins when the robotic vacuum cleaner is docked with the charger station, the time to return to the charger is decreased since the robotic vacuum cleaner remembers its original position while moving.
- If the battery level becomes low while cleaning, the robotic vacuum cleaner automatically returns to the charger station and resumes cleaning after charging the battery.
(Number of resumed cleaning operations: Once)



Main unit button	Remote control button	Configuration Sequence
		1. Set the mode.
		2. Cancel the mode.



While cleaning



When cleaning is complete



About the Resume Cleaning function

- If the robotic vacuum cleaner judges cleaning to be complete, resume cleaning is not performed.
- If you move the robotic vacuum cleaner while it is being charged or press a button, robotic vacuum cleaner judges cleaning to be complete (cleaning is not resumed).

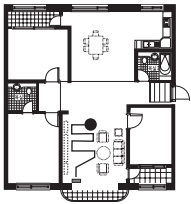


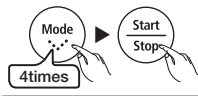



Do not move the robotic vacuum cleaner while it is cleaning or press a button while cleaning. Otherwise, the robotic vacuum cleaner judges cleaning to be complete and starts cleaning again from the beginning.

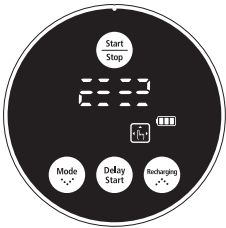
Manual Cleaning

You can move the robotic vacuum cleaner to clean a particular location directly by using the remote control.

- Move the robotic vacuum cleaner to the location where you want to perform manual cleaning.
- You can manually clean using the remote control only.



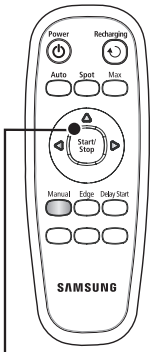
Main unit button	Remote control button	Configuration Sequence
		1. Set the mode.
		2. Cancel the mode.



While cleaning



When the robotic vacuum cleaner is docked with the charger station, manual cleaning is not supported.



Directional Buttons
(Forwards, Left, Right)
A backwards function is not supported.

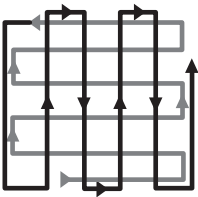
Edge Cleaning

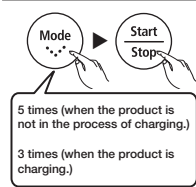



When the Obstacle Sensor detects an obstacle during the cleaning, the Robotic vacuum Cleaner reduces its speed to minimize the bumping impact and the Bumper Sensor also helps it lower the bumping impact. It cleans the corners by reaching to them as close as possible. (This Robotic vacuum Cleaner is a touching type cleaner.)



The robotic vacuum cleaner will move by itself and automatically clean the house until cleaning is completed once.

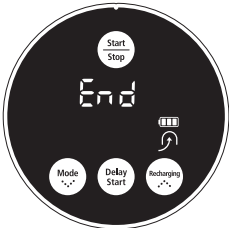
- If cleaning begins when the robotic vacuum cleaner is docked with the charger station, the time to return to the charger is decreased since the robotic vacuum cleaner remembers its original position while moving.
- If the battery level becomes too low while cleaning, the robotic vacuum cleaner will automatically return to the charger station and resume cleaning after charging its battery. (Number of cleaning operations resumed: Once)



Main unit button	Remote control button	Configuration Sequence
 <p>5 times (when the product is not in the process of charging.) 3 times (when the product is charging.)</p>		1. Set the mode.
		2. Cancel the mode.



While cleaning



When cleaning is complete



About the Resume Cleaning function

- If the robotic vacuum cleaner has evaluated that cleaning is complete, the resume cleaning function is not performed.
- If you move the robotic vacuum cleaner when it is being charged or press a button, the robotic vacuum cleaner judges cleaning to be complete and does not resume cleaning.

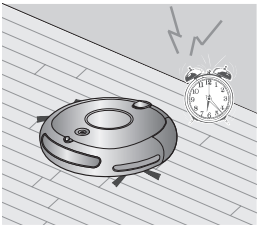


Do not move the robotic vacuum cleaner when it is cleaning or press a button while it is cleaning. Otherwise, the robotic vacuum cleaner judges cleaning to be complete and starts cleaning again from the beginning.

Scheduled Cleaning

You can schedule robotic vacuum cleaner to start cleaning from a particular time. (Time delay: Up to 23 hours)

- Scheduled cleaning is only performed when robotic vacuum cleaner is docked with the charger station.



Main unit button	Remote control button	Configuration Sequence	(Example) To clean 5 hours Later from now
		1. Enter the Scheduled Cleaning mode.	 The icon is turned on.
		2. Whenever the button is pressed, the time is increased or decreased.	
		3. Finish the setting.	
		4. Cancel the setting.	 The icon is turned off.



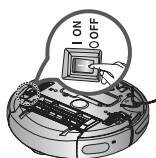
When setting is complete, and you press the (⏻) button instead of the Delay Start button, the scheduled cleaning time is canceled.
After completing the setting, if you manually move the robotic vacuum cleaner from the charger station, the scheduled cleaning time is cancelled.

maintain tools and filters

CLEANING THE VACUUM CLEANING ROBOT

Please keep the cleaning and maintenance methods in mind

- When the Power Switch is damaged, please contact the service agent so that it does not cause any accidents.
- Do not use any means or mechanical devices not installed by the manufacturer that could accelerate the deformation of the robotic vacuum cleaner.



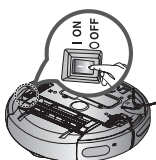
- Always turn off the power switch at the bottom of the main unit before cleaning the robotic vacuum. The robotic vacuum cleaner could operate suddenly and cause an injury.



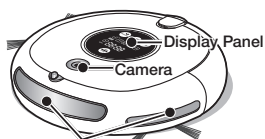
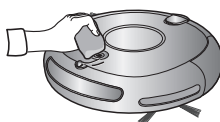
Cleaning the Sensor Window and the Camera

You must turn off the Power Switch at the bottom of the main unit before cleaning the robotic vacuum.

- Never spray water, thinner, benzene etc. directly onto the main unit of robotic vacuum cleaner.

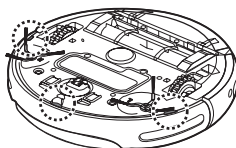


- Lightly wipe the sensor window or camera using a soft cloth.

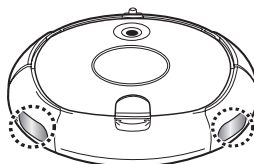


Front Sensor window

Front Sensor Window and Camera



Cliff Sensor Window

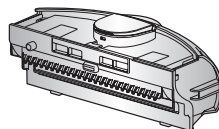


Rear Sensor Window

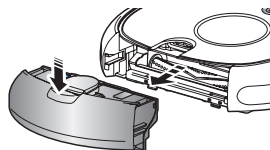
Cleaning the Dust Bin and the Filters

First, empty the dust bin before cleaning it.

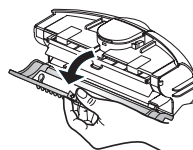
- When separating the Dust bin, take care not to spill the dust out of the Dust bin.
- Empty the Dust bin in the following cases.
 1. When dust has accumulated inside the Dust bin.
 2. When the suction power suddenly becomes weak.
 3. When the noise suddenly increases.



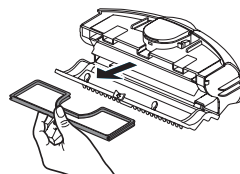
1. Press the Dust Bin Eject (PUSH) button and pull the dust bin to separate the dust bin.



2. Separate the Dust bin cover by pulling it in the direction of the arrow in the figure.

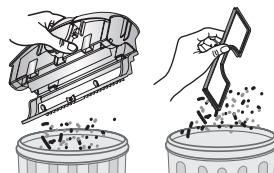


3. Separate the Filter from the Dust bin by pulling it in the direction of the arrow in the figure.



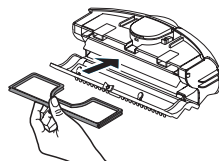
4. Wipe the dust from the Filter and the Dust bin.

✱ You can wash them with water.

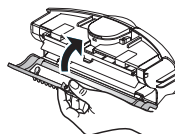


5. Install the Filter into the Dust bin.

- Make sure that the grid pattern of the Filter is facing downwards. It cannot be installed in the wrong direction.



6. Close the Dust bin cover and install it into the main unit.

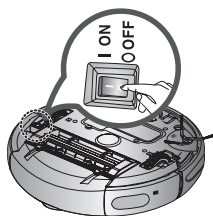


Cleaning the Power Brush

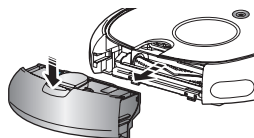
You must turn off the Power Switch at the bottom of the main unit before cleaning the robotic vacuum.



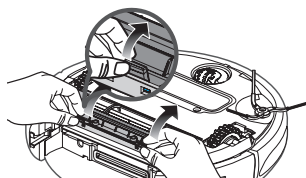
Because the dust in the Dust bin may come out, separate the Dust bin first before cleaning the power brush.



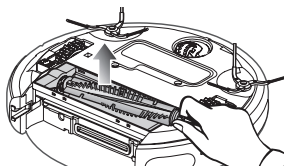
1. Separate the Dust bin by pressing the Dust bin Eject (PUSH) button.



2. After checking whether there are any foreign substances, press the hook that is fixing the brush cover to separate it.



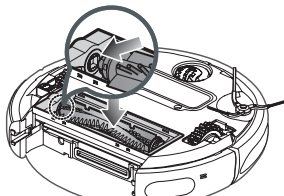
3. Lift the power brush up from the main unit.



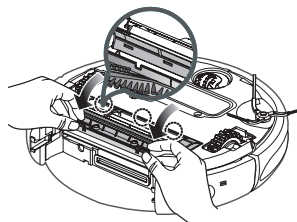
4. Remove any foreign substances such as long hairs or strings wrapped around the power brush using a cleaning brush or a vacuum cleaner.



5. When cleaning is complete, fix the Power Switch side of the power brush first and then fix the other side of the brush in the same way.



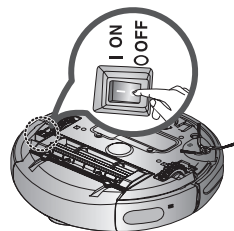
6. After inserting the 3 tips at the top of the cover, push the other end in until it “clicks” into place.



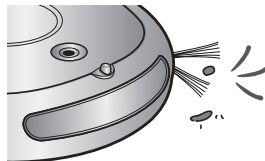
- To prevent the robotic vacuum cleaner from becoming clogged, be careful not to vacuum tooth picks or cotton swabs.
- When removing foreign substances becomes difficult, contact a customer care center.
- Because the power brush vacuums the dust on the floor, long strings or hair can become wrapped around the brush. Check and clean the power brush regularly.

Cleaning the Edge-Cleaning Side rotating Brush

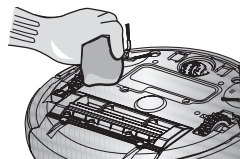
You must turn off the Power Switch at the bottom of the main unit before cleaning the robotic vacuum.



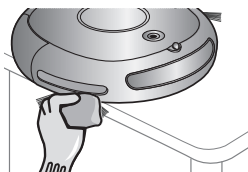
1. Check whether the side rotating brush is bent or whether there are any foreign substances stuck on the brush.



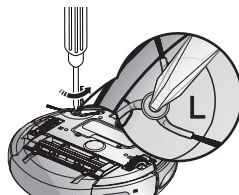
2. Wearing rubber gloves, wrap the side rotating brush with a cloth using hot water for about 10 seconds and wipe it on the cloth.



3. Turning the side rotating brush, repeat the procedures in Step 2.



4. If hair or string is wrapped between the main unit and the side rotating brush, undo the screw of the side rotating brush using a (+) driver to remove it. When reassembling the brush, check the "L" mark on the edge-cleaning side rotating brush and the "L" mark on the main unit and then reassemble the side rotating brush. (Letter "R" is carved at the right side rotating brush.)



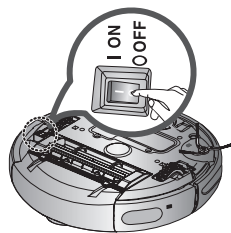
Because the side rotating brush easily attracts hair and other foreign substances, make sure to clean it frequently.

Excessive foreign substances on the side rotating brush can damage the brush.

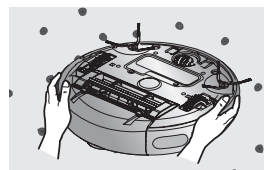
Cleaning the Driving Wheel

You must turn off the Power Switch at the bottom of the main unit before cleaning the robotic.

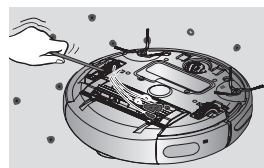
- If the robotic vacuum cleaner suddenly starts to zigzag, there may be foreign substances stuck on the driving wheel.



1. When cleaning the driving wheel, place a soft cloth on the floor and flip the main unit, placing it down carefully.




2. Check for foreign substances and remove them using a stick or a pair of blunt nippers if necessary.



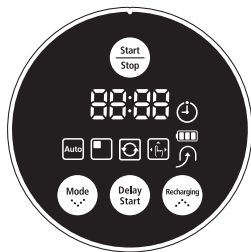
troubleshooting

CHECKLIST BEFORE SVC CALLS

Symptom	Checklist	Measure to Take
Vacuum cleaning Robot does not operate at all before cleaning.	<ul style="list-style-type: none"> Is the Power Switch turned on? 	<ul style="list-style-type: none"> Turn on the Power Switch.
	<ul style="list-style-type: none"> Is cleaning mode (Auto) in the display panel turned on? 	<ul style="list-style-type: none"> Press the (Auto) button. (To turn it off, press and hold the (Auto) button down for 3 seconds or longer.)
	<ul style="list-style-type: none"> Is the battery level flashing only one level and is 'LO' displayed in the display panel? 	<ul style="list-style-type: none"> Lift up the robotic vacuum cleaner, and manually dock the robotic vacuum onto the charger to charge it.
	<ul style="list-style-type: none"> Robotic vacuum cleaner will not operate when the battery in the remote control is depleted. 	<ul style="list-style-type: none"> Replace the batteries in the remote control. (AAA type)
Vacuum cleaning Robot stopped operating while cleaning. 	<ul style="list-style-type: none"> Is the battery level flashing only one level and is 'LO' displayed in the display panel? 	<ul style="list-style-type: none"> Lift up the robotic vacuum cleaner, manually dock the robotic onto the charger to charge it.
	<ul style="list-style-type: none"> Has the robotic vacuum cleaner become hooked on wires on the floor? 	<ul style="list-style-type: none"> Turn off the Power Switch and remove the wires.
	<ul style="list-style-type: none"> Is the robotic vacuum cleaner stuck to the floor where there is a height difference? <ul style="list-style-type: none"> The driving wheel is lifted. 	<ul style="list-style-type: none"> Turn off the Power Switch and move the cleaning robotic vacuum to another place to clean.
	<ul style="list-style-type: none"> Is there a thin towel (cloth) wrapped around the driving wheel? 	<ul style="list-style-type: none"> Turn off the Power Switch and remove the thin towel.
	<ul style="list-style-type: none"> Is the robotic vacuum cleaner stuck on the doorsill? 	<ul style="list-style-type: none"> Turn off the Power Switch and move the robotic vacuum cleaner to another place to clean.
The suction power is weak while cleaning.	<ul style="list-style-type: none"> Check whether the Dust bin is full of dust. 	<ul style="list-style-type: none"> Stop the robotic vacuum cleaner and empty the Dust bin.
	<ul style="list-style-type: none"> Check whether the suction inlet is clogged by foreign substances. 	<ul style="list-style-type: none"> Turn off the Power Switch and remove the foreign substances on the suction inlet.
	<ul style="list-style-type: none"> Check whether the Filter is clogged. 	<ul style="list-style-type: none"> Clean the Filter well.

Symptom	Checklist	Measure to Take
Vacuum cleaning Robot cannot find the charger.	<ul style="list-style-type: none"> Check whether the power plug of the charger is plugged correctly into the outlet. 	
	<ul style="list-style-type: none"> If there are any obstacles within a range of about 1 m in front of the charger and about 0.5 m range to the left and right of the charger, you should remove the obstacles. 	
	<ul style="list-style-type: none"> If there are any foreign substances on the charge pin, wipe them off with a dry towel. 	
	<ul style="list-style-type: none"> Is the VIRTUAL GUARD installed near the charger? 	<ul style="list-style-type: none"> Move the VIRTUAL GUARD to another place so that the robotic vacuum cleaner can charge automatically.
Robotic vacuum cleaner passes through the VIRTUAL GUARD. (OPTION)	<ul style="list-style-type: none"> Are the batteries of the VIRTUAL GUARD worn out? 	<ul style="list-style-type: none"> Replace the batteries. (2 type D (LR20) batteries)
	<ul style="list-style-type: none"> Is the VIRTUAL GUARD set to Guard (virtual door) mode? 	<ul style="list-style-type: none"> Set the VIRTUAL GUARD to Fence (virtual wall) mode.
	<ul style="list-style-type: none"> Is the Mode lamp turned off? 	<ul style="list-style-type: none"> Check if the VIRTUAL GUARD is turned off and then set the VIRTUAL GUARD to a desired mode.
Vacuum cleaning Robot cannot find the charger.	<ul style="list-style-type: none"> Check the batteries, whether they are run down or not. 	<ul style="list-style-type: none"> Replace the batteries with new batteries. (2 type D (LR20) batteries)

TROUBLESHOOTING FOR ERROR CODES



ERROR CODE	CAUSE	SOLUTION
0000	<ul style="list-style-type: none">Vacuum cleaning Robot is caught, stuck or trapped while navigating.	<ul style="list-style-type: none">Turn off the Power Switch at the bottom and move the robotic vacuum cleaner to a different location.
0001	<ul style="list-style-type: none">A foreign substance (string, paper, toy etc.) is caught in the power brush.	<ul style="list-style-type: none">Turn off the Power Switch at the bottom and remove the foreign substance from the power brush.
0002	<ul style="list-style-type: none">A foreign substance (string, paper, toy etc.) is caught in the left driving wheel.	<ul style="list-style-type: none">Turn off the Power Switch at the bottom and remove the foreign substance from the left driving wheel.
0003	<ul style="list-style-type: none">A foreign substance (string, paper, toy etc.) is caught in the right driving wheel.	<ul style="list-style-type: none">Turn off the Power Switch at the bottom and remove the foreign substance from the right driving wheel.
0005	<ul style="list-style-type: none">Check bumper sensor.	<ul style="list-style-type: none">Slightly pull the stuck bumper outward.
0006	<ul style="list-style-type: none">A foreign substance (dust, stain etc.) is on the Obstacle sensor window.	<ul style="list-style-type: none">Turn off the Power Switch at the bottom and wipe the foreign substance from the front and rear sensor windows using a soft cloth.
0007	<ul style="list-style-type: none">A foreign substance (Dust, stain etc.) is on the Cliff sensor window.	<ul style="list-style-type: none">Turn off the Power Switch at the bottom and wipe the foreign substance on the cliff sensor window with a soft cloth.
0009	<ul style="list-style-type: none">A foreign substance (String, cloth etc.) is caught on the edge-cleaning side rotating brush.	<ul style="list-style-type: none">Turn off the Power Switch at the bottom and wipe the foreign substance from the edge-cleaning side rotating brush.

✱ If you press the Start/Stop button or turn off the Power Switch, the error code is cleared.

WARNINGS ABOUT BATTERY



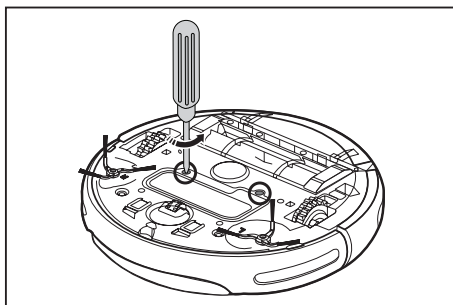
You must not remove (or attempt to remove) the battery incorporated in this product on your own. To replace the battery, you must contact your service provider or an independent qualified professional. These instructions have been prepared for the exclusive use of your service provider or independent qualified professional.

FOR YOUR OWN SAFETY, DO NOT ATTEMPT TO REMOVE THE BATTERY ON YOUR OWN OR DISPOSE OF IT IN FIRE. DO NOT DISASSEMBLE, CRUSH OR PUNCTURE THE BATTERY.

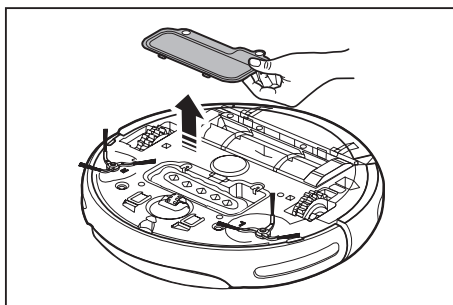
How to remove the battery

Take off the vacuum cleaning robot from the charger (station) for disassemble this product. Must turn off your vacuum cleaning robot for safety before disassemble.

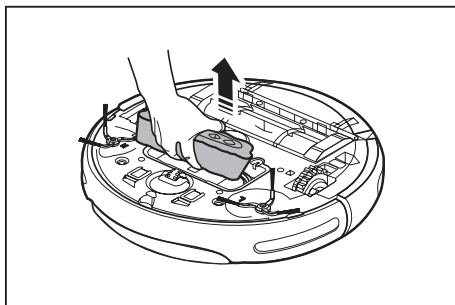
1. Lay down and invert vacuum cleaning robot and then Remove 2 screws.



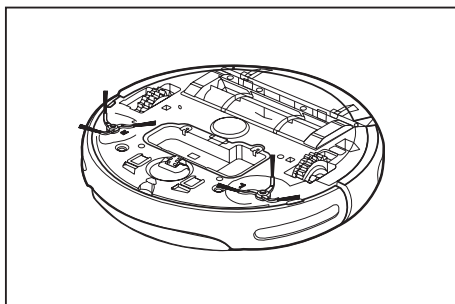
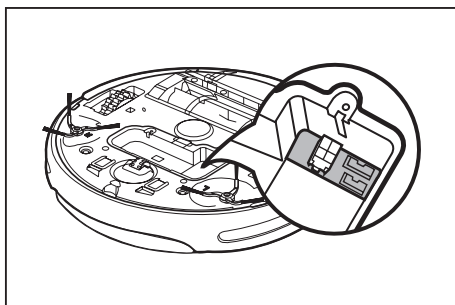
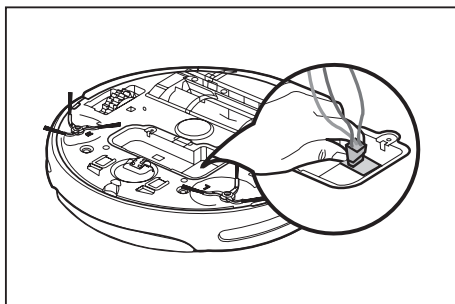
2. Disassemble the COVER BATTERY.



3. Disassemble the ASSY BATTERY.



4. Keep finger pushing connector and then disassemble.



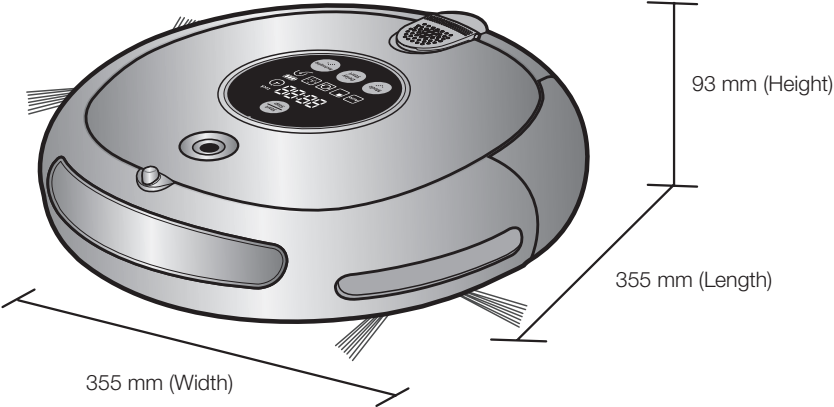
***Correct disposal of batteries in this product
(Applicable in countries with separate battery return systems.)***



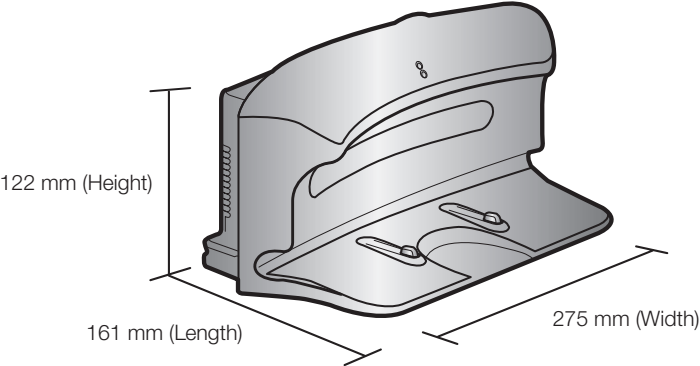
The marking on the battery, manual or packaging indicates that the battery in this product should not be disposed of with other household waste. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66.

The battery incorporated in this product is not user replaceable. For information on its replacement, please contact your service provider. Do not attempt to remove the battery or dispose it in a fire. Do not disassemble, crush, or puncture the battery. If you intend to discard the product, the waste collection site will take the appropriate measures for the recycling and treatment of the product, including the battery.

product specification



Main Body



Charger

Classification	Item	Detail
Mechanical Specifications	Diameter	355 mm
	Height	90 mm
	Weight	3.5 kg
Electrical Specifications	Power voltage	AC 220-240 V~, 50-60 Hz
	Charge power consumption	50 W
	Main unit power consumption	40 W
	Battery specifications	14.4 V / 2,000 mA
Cleaning Specifications	Dust bin capacity	About 0.6 ℓ
	Charging type	Auto Charging / Manual Charging
	Cleaning mode	Auto, Spot, Max, Manual (Option)
	Charging time	About 120 minutes
	Cleaning time (on the basis of hard floor)	About 90 minutes
Cleaning method		Ceiling shape recognition
Main unit button type		Button type

Open Source Announcement

The software included in this product contains copyrighted software that is licensed under the GPL/LGPL.

You may obtain the complete Corresponding Source code from us for a period of three years after our last shipment of this product by sending email to: oss.request@samsung.com

If you want to obtain the complete Corresponding Source code in the physical medium such as CD-ROM, the cost of physically performing source distribution may be charged.

This offer is valid to anyone in receipt of this information.

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Linux kernel, BusyBox

LGPL Software :

uClibc

- GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

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That's all there is to it!

- JPEG

This software is based in part on the work of the Independent JPEG Group.

- OpenCV :

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