



User Manual

Model: NG-RV1100

Version: 1.0

English

Due to the regular upgrades of systems and products, NGTECO could not guarantee exact consistency between the actual product and the written information in this manual.

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Important Notes

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

READ ALL INSTRUCTIONS BEFORE USING (THIS APPLIANCE)

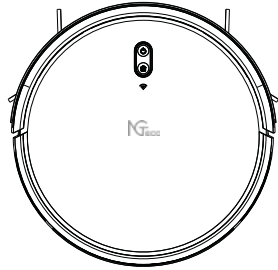
WARNING -To reduce the risk of fire, electric shock, or injury:

- 1) Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.
- 2) Do not use in outdoors or on wet surfaces.
- 3) Do not allow to be used as a toy. Close attention is necessary when it is used by or near children.
- 4) Use only as directed by this manual. Use only the attachments that the manufacturer recommends..
- 5) Do not use with damaged cord or plug. Return the appliance to a service center if it has been dropped, damaged, left outdoors, or dropped into the water but is still networking as it should.
- 6) Avoid using wet hands to handle plugs or appliances.
- 7) Do not insert anything into openings. Keep all openings clear of dust, lint, hair, and other obstructions that can restrict airflow; do not use with any openings blocked.
- 8) Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- 9) Turn off all controls before unplugging.
- 10) Use extra care when cleaning on stairs.
- 11) Do not use to pick up flammable or combustible liquids, such as gasoline, or use in areas where they may be present.
- 12) Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
- 13) Do not use without dust bag and/or filters in place.
- 14) Prevent unintentional starting. Ensure the switch is in the off-position before connecting to battery pack, picking up or carrying the appliance. Carrying the appliance with your finger on the switch or energizing appliance that have the switch on invites accidents.
- 15) Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- 16) Use appliances only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- 17) Avoid contact when liquid may be ejected from the battery under abusive circumstance. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.

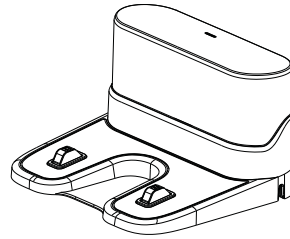
- 18) Do not use a battery pack or appliance that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- 19) Do not expose a battery pack or appliance to fire or excessive temperature. Exposure to fire or temperature above 130°C may cause explosion.
- 20) Follow all charging instructions and do not charge the battery pack or appliance outside of the temperature range specified in the instructions. Charging improperly or at temperatures outside of the specified range may damage the battery and increase the risk of fire.
- 21) Allow a qualified repair person to service using only identical replacement parts. This will ensure that the product's safety is maintained.
- 22) Do not modify or attempt to repair the appliance except as indicated in the instructions for use and care.
- 23) This product is used for household, not for commercial use.
- 24) For use only with CMICR18650F8M7-4S1P (or provided by manufacturer) battery pack.
For use only with AD-0121900060US (or provided by manufacturer) charger.
- 25) This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- 26) Children should be supervised to ensure that they do not play with the appliance.
- 27) The appliance is only to be used with the power supply unit provided with the appliance.
- 28) Batteries in this appliance can only be changed by qualified persons.

SAVE THESE INSTRUCTIONS

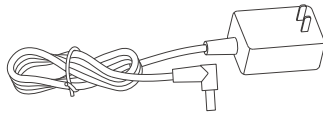
What's in the Box



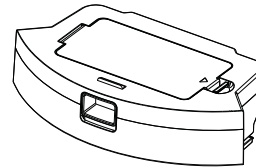
Sweeping Robot X1



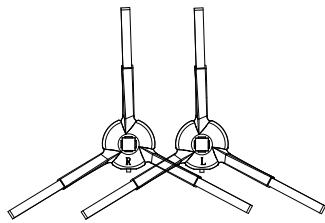
Charger X1



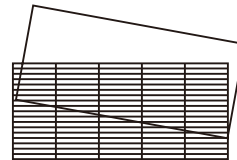
Adapter X1



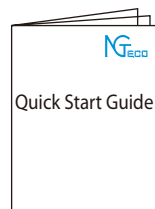
Dust Box X1



Brush in left X2
Brush in right X2



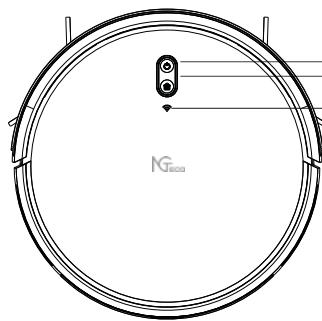
HEPA and Filter Sponge X1



Quick Start Guide X1

Product Overview

1. Top View

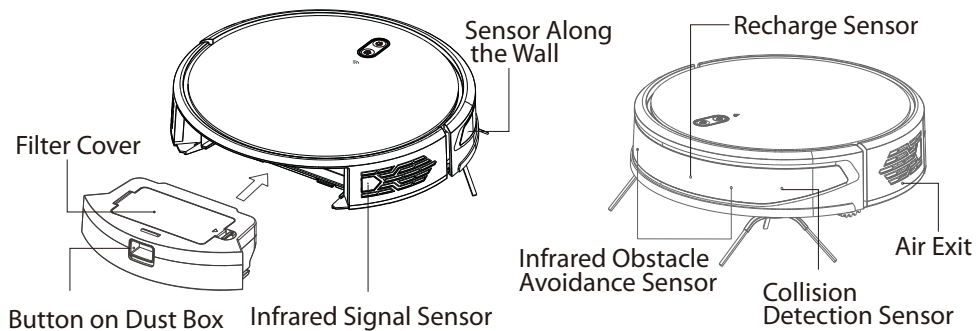


ON/OFF/Clean/Pause Short
 - Press to start clean/pause cleaning.
 - Press and hold for 3 seconds to power ON.
 - Press and hold for 8 seconds to power OFF.

Recharge Key/Fixed-point Cleaning/Pause
 - Short press to recharge/pause recharge.
 - Press and hold for 3 seconds to clean up as required.

Wi-Fi Indicator Reset Wi-Fi
 - Press and hold the ON/OFF key and the recharge key for 3 seconds at the same time.

2. Side View



Filter Cover

Button on Dust Box

Infrared Signal Sensor

Sensor Along the Wall

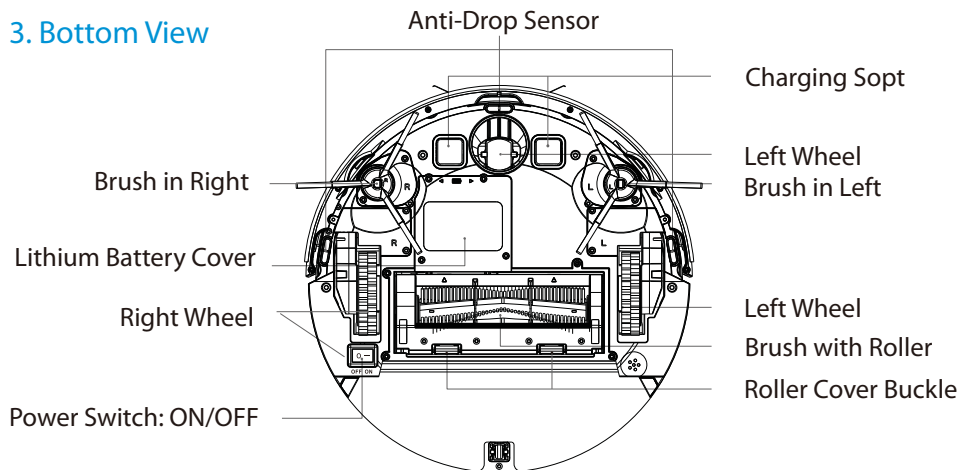
Recharge Sensor

Infrared Obstacle Avoidance Sensor

Collision Detection Sensor

Air Exit

3. Bottom View



Anti-Drop Sensor

Charging Sopot

Brush in Right

Left Wheel
Brush in Left

Lithium Battery Cover

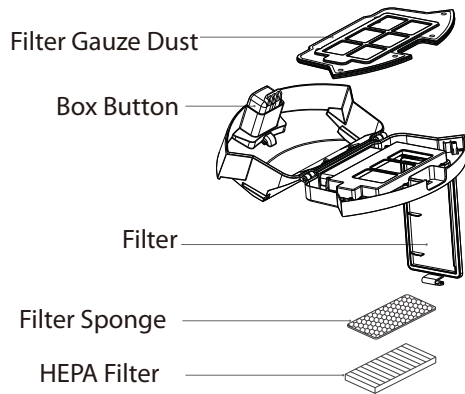
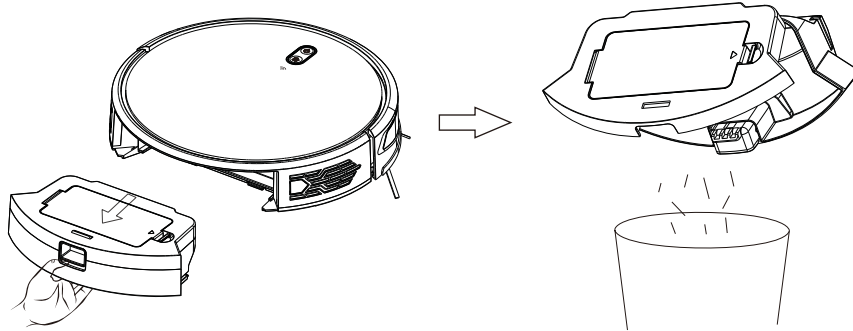
Right Wheel

Left Wheel
Brush with Roller
Roller Cover Buckle

Power Switch: ON/OFF

Other Accessories

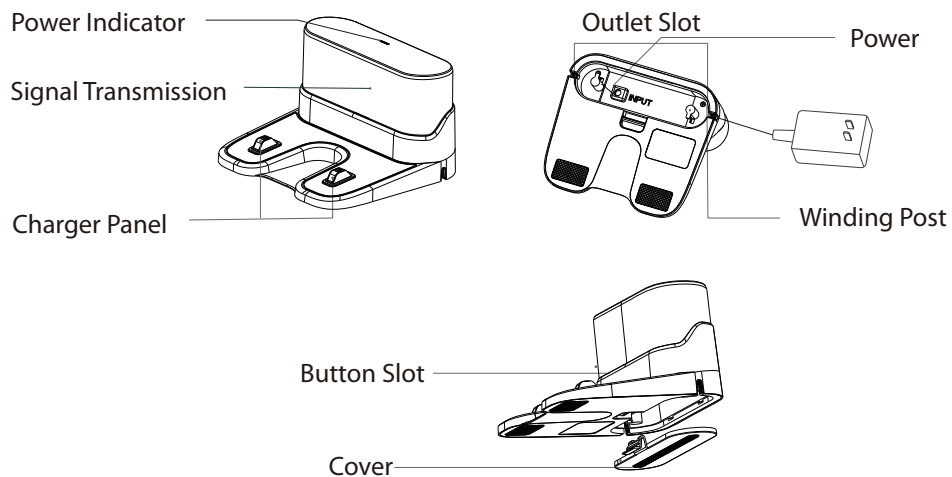
1. Dust Box



Note:


1. Please rinse with clean water, do not add any detergent.
2. Do not use a brush or fingers to clean the filter.
3. Air-dry the filter for at least 24 hours and dry thoroughly.
4. It is recommended to replace a set of filters every 3 to 6 months.

2. Charger



3. Keys and Indicators

-  1) ON/OFF/Clean/Pause Short
- Press to start clean/pause cleaning
 - Press and hold for 3 seconds to power ON
 - Press and hold for 8 seconds to power OFF

-  2) Recharge Key/Fixed-Point Cleaning/Pause
- Short press to recharge/pause recharge.
 - Press and hold for 3 seconds to clean up as required.

 3) Wi-Fi Indicator

- Reset Wi-Fi
- Press and hold the ON/OFF key and the recharge key for 3 seconds at the same time.

- Indicator light
- White: Normal work or standby, flashes white slowly while charging.
 - Red: Low battery looking for recharging or abnormal state.
 - No network configuration: The light is off.
 - In the distribution network: The light flashes white quickly.
 - Network distribution success: The light is always on white.




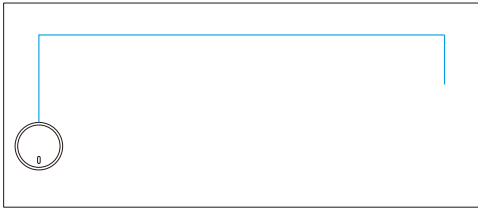
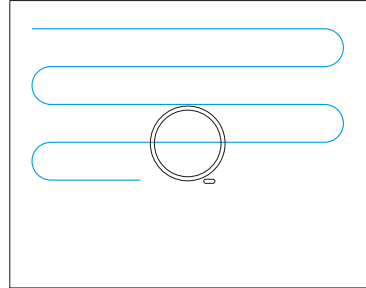
4) Master Control Power Switch

1. ON
2. OFF

Map Management

Automatic Cleaning


Press the  button on the main unit, or use Mobile APP to perform automatic cleaning mode.

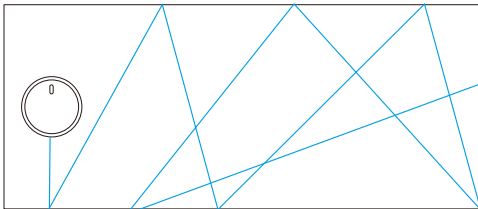
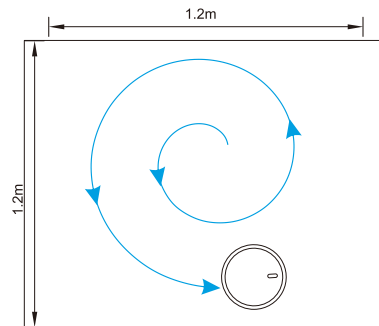


Edge Cleaning

You can use the Mobile APP to clean along the edge. The machine will immediately move to the right and along the wall to clean after encountering an obstacle.

Pot Cleaning

Press  button for 3 seconds or using the remote control, the machine will take itself as the center, at 1.2m*1.2m.

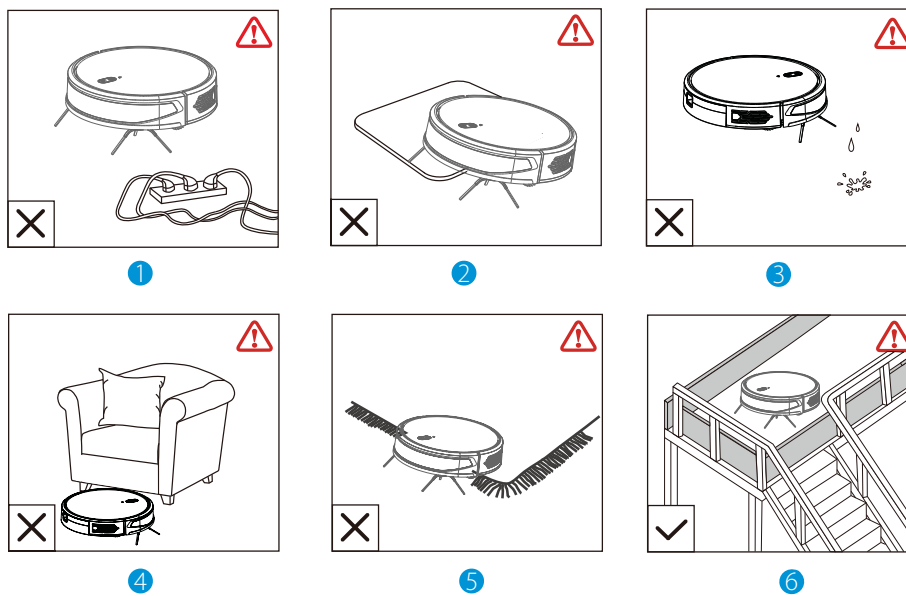


Random Cleaning

Use the Mobile APP to perform the random cleaning mode.

Installation Steps

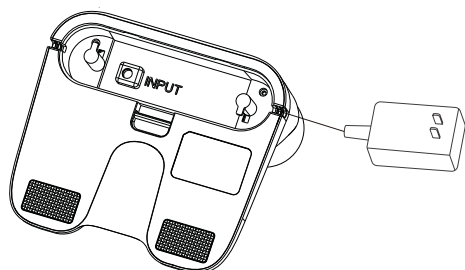
When using the robot for the first time, keep an eye on the robot to see if any problems occur.



1. Remove the power cords and small objects from the floor that may entangle robot.
2. Robot may climb on top of objects less than 0.59in. /15mm in height. Remove these objects if possible.
3. Keep the robot away from wet areas.
4. Keep the robot away from spaces lower than 2.95in. /75mm to prevent the robot from getting stuck. If necessary, place a physical barrier to block off the problem areas.
5. Fold tasseled edges of area carpets underneath to prevent tangling robot. Avoid cleaning very dark-colored high-pile carpets or if carpet is thicker than 0.86in. /22mm as they may cause robot malfunction.
6. Anti-drop sensors prevent robot from tumbling down stairs and steep drops. They may work less effectively if dirty or used on reflective/very dark-colored floors. It is recommended to place physical barriers to block off areas where robot may fall.

Place physical barriers in front of fireplaces and areas that may cause damage to the robot if entered.

Installation Steps

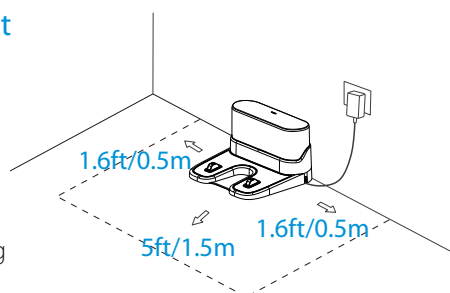


1. Connect the power cord, and then put the excess wire into the wire box.

2. Place the charging stand against a wall on a flat floor, and then connect power.

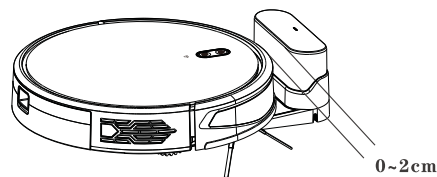
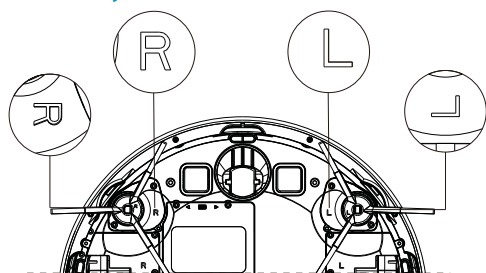
Note:

- Make sure there is a space of more than 0.5 meters on both sides and more than 1.5 meters in front.
- When installing, try to keep the power cord in the air; if it is close to the ground, it may be dragged by the host, causing the charging stand to lose power.
- The charging indicator light is always ON when the power is on.



3. Install brush
Match the left brush (L) and the right brush (R) to the letters L and R on the bottom case, and press the bottom vertically.

Turn on the main power switch, until the indicator light is always on, and then put the host on the charging stand to charge.



Note:



- With insufficient power cannot be turned on, please place the host on the charging stand the device will automatically turn on, because the device can work normally only when the power is $\geq 20\%$.
- (As the picture shows) The front end of the machine is facing the charging stand, so that the charging contacts on the main unit are in contact with the charging shrapnel and the distance between the front end of the machine and the charging stand is about 0 to 2cm.

Instructions for Use

1. Power Switch:

- 1) Turn "ON", after flashing white light, will hear "POWER ON", and then it works.
- 2) Turn "OFF", cut off the power supply, which mean it's shutdown completely.

2. ON/OFF key (Note: Turn power switch to "ON" to turn on the power status):

- 1) In the power-off state, long press  for 3 seconds, after flashing white light and hear "POWER ON", the boot is completed.
- 2) In the power-on state, long press  for 8 seconds, the red light flashes quickly and then goes out, and the voice announces "POWER OFF".

3. Sweeping/Pause:

After working, press  or use the Mobile APP to start the automatic cleaning or pause function.

Note:

- 1) Sweeping robot cannot be used to clean liquid.
- 2) If the power is lower than 20%, the cleaning task cannot be performed, please charge first and then continue cleaning, being lower than 20% during the cleaning process, the device will automatically recharge.
- 3) Please remove all kinds of wires on the ground before cleaning.

4. Recharge:

Start or control the recharge from the mobile APP, the white breathing light will be always on when the machine is charging.

Note:

- If the charging base is not found, the host will automatically return to the starting position.
- Please manually put the host back on the charging stand.

5. Suction Adjustment:

Use the remote control or Mobile APP to choose three suction modes: quiet, normal, strong (Default is normal).



6. Water Regulation (in tank mode):

Using the Mobile APP or remote control, you can choose three water volume modes: low, medium or high (Default is mid-range).

7. Silent Mode:

Turn on the silent mode, the device will not play the voice, you can use the Mobile APP or remote control to turn ON or OFF the silent mode.

8. Reset Wi-Fi:

When the router's configuration, password or other reasons cause the mobile phone to fail to connect to the machine, please press  and  hold for 3 seconds till hearing the "Wi-Fi resetting" sounds and Wi-Fi light turns white and flashes quickly, indicating that the reset is successful.

9. Schedule a cleaning:

Use the mobile APP to set the scheduled cleaning time, the host will automatically start cleaning at the specified time.

Note: During work, do not move the device at will and frequently.

Connecting to NGTeco Home App

Step 1: Download the App and Register Your Account

Search for the NGTeco Home App in Apple App Store or Google Play Store and download the App to your mobile phone. Open the NGTeco Home App and log in with your account. If you do not have an account, create an account with your phone number or Email ID.



Step 2: Adding Equipment




Open the APP and click the "+" button on the home page to enter the device selection page. Select the cleaning robot and complete the device addition according to the instructions.

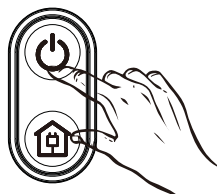
Firmware Upgrade

After entering the firmware upgrade function through the mobile phone APP and detecting the new firmware, follow the prompts to guide the upgrade. Firmware upgrade requires power $\geq 50\%$. It is recommended to place the device on the charging stand to upgrade.

Reset the Wi-Fi

When the router's configuration, password or other reasons cause the phone to fail to connect to the machine, please do the same:

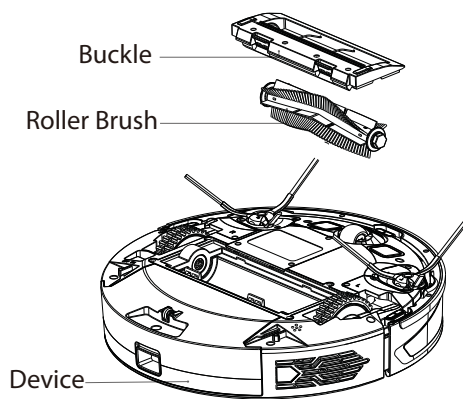
Press  and  hold for 3 seconds, till hearing the "Wi-Fi resetting" and Wi-Fi indicator  it turns white and flashes quickly, indicating that the reset is successful.



Routing Maintenance

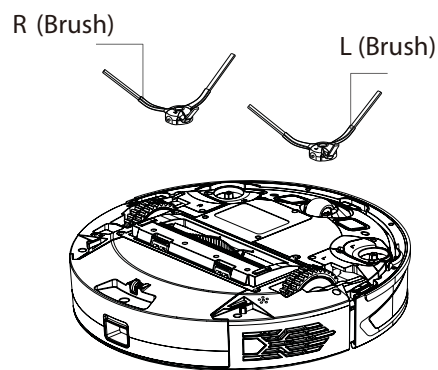
Roller Brush

1. Turn the machine over and press the buckle on the brush cover to take out the brush.
2. Use the matching cleaning tool to remove the dust in the roller brush and the roller brush dirt cavity, and then clean the entanglement on the roller brush.
3. Re-install the roller brush and press the roller brush cover fixing buckle.



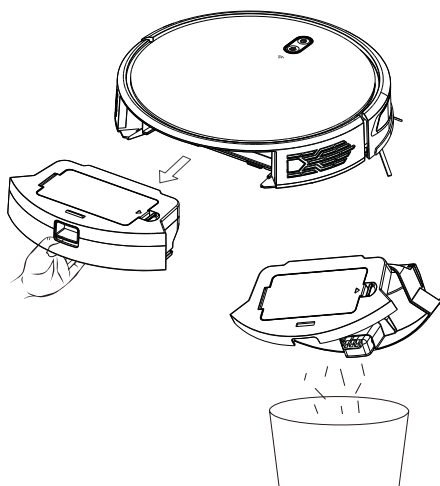
Brush Inside

1. Turn the machine over and pull out the side brush vertically.
2. Re-install after cleaning the tangled hair and dirt. Correspond the left brush (L) and right brush (R) to the letters L and R on the bottom case, press down to install.



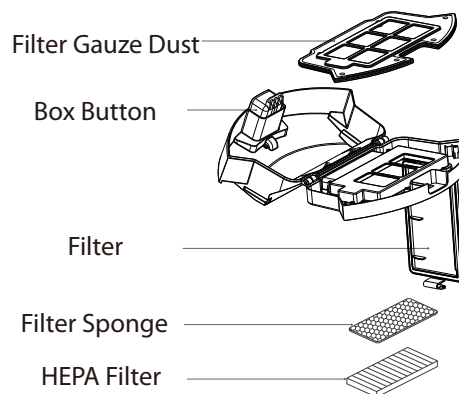
Dust Box

1. Press and hold the dust box button to pull out the dust box backwards.
2. Open the dust box and take out the garbage.

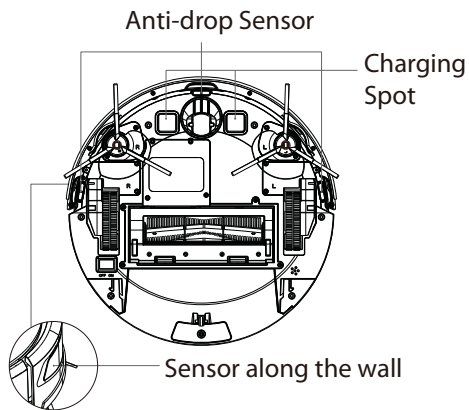


Filter

1. After a long time of use, remove the filter gauze, filter sponge and HEPA filter.
2. Put the removed filter gauze, filter sponge, HEPA filter, and dust box under the faucet to rinse.
3. After cleaning, shake off the water droplets, dry the filter screen and dust box, and wait until they are completely dry before use.
4. After drying thoroughly, install the filter gauze, filter sponge and HEPA filter in order.



Routing Maintenance



Sensors (Regular cleaning is recommended)

Wipe the various sensors on the machine with a soft and dry cloth, including:

1. Along the wall sensor on the right side of the main unit.
2. Three anti-drop sensors at the bottom of the main unit.
3. The infrared anti-collision sensor in front of the host.
4. Charging contacts at the bottom of the host, charging shrapnel of the charging base (please power off when cleaning).
5. Charging stand signal transmitting area.

Battery

The host has a built-in high-performance rechargeable lithium-ion battery pack. To maintain battery performance, use daily please keep the host charged; If you do not use it for a long time, please turn it OFF and store it, and charge it at least once every three months to avoid damage to the battery due to excessive discharge.

Basic Information

Device

Name	Robot Vacuum
Type	NG-RV1100
Size	327*325*76mm
Weight	2.8kg
Battery	2600mAh-Lin
Rated voltage	14.4V
Rated power	35W

Charging Base

Type	NG-RV1
Size	160*145*90mm
Rated voltage	11.4V
Rated power	11.4W

FAQ

Questions	Solution
Cannot boot	-The battery is low, please place the device on the charging stand and align the charging pads, and the device will automatically turn ON (when it is completely dead, it will take a while to automatically turn on). -When the ambient temperature is lower than 0°C and higher than 40°C, please use it in the environment of 0°C to 40°C.
Can't charge	Please remove the device, and check whether the indicator light of the charging stand is on, make sure that both ends of the power adapter of the charging stand are plugged in, the front of the machine is facing the charging stand, and the distance between the front of the machine and the charging stand is about 2 cm.
Can't recharge	The main unit is too far from the charging cradle, please try to place the main unit near the charging cradle.
Abnormal behavior	Restart
Abnormal noise when cleaning	The main brush, side brush or wheels may be entangled with foreign objects. Please clean it after stopping the machine.
Decreased cleaning ability or dust drop	- The dust box is full, please clean the dust box. - The filter is clogged, please clean or replace the filter. - The roller brush is entangled with foreign objects, please clean the roller brush.
Not connect WiFi	- The Wi-Fi signal is not good, please make sure that the host is in a good Wi-Fi signal coverage area. - The Wi-Fi connection is abnormal, please reset the Wi-Fi and download the latest mobile client to try to connect again. - Incorrect password. - The router is in the 5G band, and this sweeping robot only supports the 2.4G band.
Reservation for cleaning does not take effect	When the battery is low, the scheduled cleaning will be started only when the remaining Battery is $\geq 20\%$.
The machine running out of power when it is on the charging	Power consumption is extremely low when the console is always in the charging cradle, which helps to keep the battery at peak performance.
Do you need to charge for 16 hours for the first three uses?	Lithium battery can be used and charged with no memory effect, and it can be used immediately after being fully charged without waiting.

Troubleshoot

Fault Tone	Solution
Mistake 1: Dustbin removed, please check and restart	The cleaning is triggered when the dust box is taken out, please put the dust box back in.
Mistake 2: Water tanks removed	The cleaning is triggered when the water tank is removed, please put the water tank back in.
Mistake 3: Please restart in new position	Pick up the device; or the device is suspended in the air, please move the device to a level ground and start it again.
Mistake 4: Clean the bottom sensor and restart in new position	If the cliff sensor is blocked or placed at a high place, please wipe the cliff sensor window with a soft dry cloth, move the device to a flat ground and then start it again.
Mistake 5: Clean the front sensor and restart in new position	The infrared anti-collision sensor is dirty or blocked, please wipe the front infrared anti-collision sensor window with a soft dry cloth.
Mistake 6: Clean the right side sensor and restart in new position	The sensor along the wall is dirty or blocked, please wipe the sensor window along the wall with a soft dry cloth.
Mistake 7: Robot inclined, restart in level surface	The machine is tilted, please straighten the machine, and then start the machine.
Mistake 8: Bumper may be stuck please check	The edge or collision sensor is stuck, please push the collision plate left and right to confirm that there is no stuck.
Mistake 9: Please clean the dust bin and filters	Clean the dust box and filter, or replace the filter.
Mistake 10: Dust bin out, please clean the filter gently	Clean the dust box and filter, or replace the filter.
Mistake 11: Robot blocked, restart in new position	Please move the device to a level ground and restart.
Mistake 12: Main wheel may be stuck please check	The main wheel is stuck or entangled, please check the main wheel and clean up foreign objects.
Mistake 13: Brush bar may be stuck, please check	The roller brush is entangled or stuck, please check the roller brush and clean up foreign objects.
Mistake 14: Side brush may be stuck, please check	The side brush is entangled or stuck, check the side brush and clean up foreign objects.
Mistake 15: Charge station not found	If the charging station is not found during recharging, or the charging station is not plugged in, please check whether the indicator light of the charging station is always on, or move the machine back to the charging station.
Mistake 16: Something went wrong, please restart	Exception caused by unknown fault, it is recommended to restart the machine.
Mistake 17: Error, shutting down	Restart after shutdown, if still invalid, send it to after sales maintenance.
Mistake 18: Battery is low, please charge	Put the host on the charging stand to charge.
Mistake 19: Remove from charged station for power off	When the charging stand is charging, it cannot be turned off, please move it away from the charging stand and press and hold the power button to turn it off.

Product Hazardous Substance Content and Name

Name	Harmful Substances					
	(Pb)	(Hg)	(Cd)	(Cr(VI)d)	(PBB)	(PBDE)
Circuit Board Assembly	×	○	○	○	○	○
Battery	×	○	○	○	○	○
Charger	×	○	○	○	○	○
Power Cable	×	○	○	○	○	○
Metallic Parts	×	○	○	○	○	○
Motor	○	○	○	○	○	○
Shell	○	○	○	○	○	○
Other Accessories	○	○	○	○	○	○

This form is prepared according to the provisions of SJ / T 11364

O: Indicates that the content of this hazardous substance in all homogeneous materials of this part is below the limit requirement specified in GBT/T 26572

X: Indicates that the content of the hazardous substance in at least one homogeneous material of the part exceeds the limit requirement specified in GBT / T 26572

FCC Statement

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 - (1) This device may not cause harmful interference; and
 - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, in accordance to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Statement (Cont.)

IC warning:

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s).

Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Radiation Exposure Statement:

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Declaration of Conformity (DoC):

Hereby, NGTECO CO., LIMITED. declares that this equipment is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Type of Wireless	Operating Frequency (MHZ)	Maximum RF Power
WLAN	2412 to 2472	18.5 dBm

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