



F1

Lefant Intelligent Robot Vacuum Cleaner

User Manual

Please keep the manual properly and read it carefully before using the product.

Congratulations on the purchase of your Lefant ROBOTS!

We hope it brings you satisfaction. We trust your purchase will keep your home clean and provide you a high-quality life.

Should you encounter situations that have not been properly addressed in this User Manual, please contact our Customer Service Center, we will solve your specific problem.

For more information, please visit the Lefant ROBOTICS official website:
www.lefantlife.com or send email to **support.us@lefant.com**

The Company reserves the right to make technological and/or design changes to this product for continuous improvement.

Important Safety Instructions

IMPORTANT SAFETY INSTRUCTIONS

READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE.

For Household use only

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

WARNING: Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire or serious injury.

1. The robot must be used in accordance with the directions in this User Manual. Our company cannot be held liable or responsible for any damages or injuries caused by improper use.
2. Do not allow to be used as a toy. Close attention is necessary when used by or near children. Do not allow children to sit on the vacuum.
3. Clear the area to be cleaned. Remove power cords and small objects from the floor that could entangle the Robot. Tuck rug fringe under the rug base, and lift items such as curtains and table cloths off the floor.

4. If there is a drop off in the cleaning area due to a step or stairs, you should operate the Robot to ensure that it can detect the step necessary to place a physical barrier at the edge to keep the unit from falling. Make sure the physical barrier is not a trip hazard.
5. Only use as described in this manual. Only use attachments recommended or sold by the manufacturer.
6. Please make sure your power supply voltage matches the power voltage marked on the Docking Station.
7. Do not handle or plug appliance with wet hands.
8. Non-rechargeable batteries are prohibited.
9. Do not use without dust bin and/or filters in place.
10. Do not operate the robot in an area where there are lit candles or fragile objects on the floor to be cleaned.
11. Do not use and store in extremely hot or cold environments (below -5°C / 23°F or above 40°C / 104°F). Please charge the robot in temperature above 0°C / 32°F and below 40°C / 104°F . 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.

12. Keep hair, loose clothing, fingers, and all parts of body away from any openings and moving parts.
13. Do not operate the robot in a room where an infant or child is sleeping.
14. For INDOOR use ONLY. Do not use the robot in outdoor, commercial or industrial environments. Do not use Appliance on wet surfaces or surfaces with standing water.
15. Do not allow the robot to pick up large objects like stones, large pieces of paper or any item that may clog the robot.
16. Do not use the robot to pick up flammable or combustible materials such as gasoline, printer or copier toner, or use in areas where they may be present.
17. Do not use the robot to pick up anything that is burning or smoking, such as cigarettes, matches, hot ashes, or anything that could cause a fire.
18. Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
19. Take care not to damage the power cord. Do not pull on or carry the robot or the Docking Station by the power cord, use the power cord as a handle, close a door on the power cord, or pull power cord around sharp edges or corners. Do not run the robot over the power cord. Keep power cord away from hot surfaces. Do not unplug by pulling on cord, To unplug, grasp the plug, not the cord.
20. If the power cord is damaged, it must be replaced by the manufacturer or its service agent in order to avoid a hazard.
21. Do not use the Docking Station if it is damaged.
22. Do not use the robot or the Docking Station if it is not working properly, has been dropped, damaged, left outdoors, or come in contact with water. It must be repaired by the manufacturer or its service agent in order to avoid a hazard.
23. Turn OFF the power switch before cleaning or maintaining the robot. Turn off all controls before unplugging.

24. The plug must be removed from the receptacle before cleaning or maintaining the Docking Station.
25. Remove the robot from the Docking Station, and turn OFF the power switch to the Appliance before removing the battery for disposal of the robot.
26. The battery must be removed and discarded according to local laws and regulations before disposal of the robot.
27. Please dispose of used batteries according to local laws and regulations.
28. Do not incinerate the robot even if it is severely damaged. The batteries can explode in a fire.
29. When not using the Docking Station for a long period of time, please unplug it.
30. Prevent unintentional starting. Ensure the switch is in the off position before connecting to battery pack, picking up or carrying the appliance. Carrying the robot with your finger on the switch or energizing the robot that have the switch on invites accidents.
31. When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws, etc, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
32. Under abusive conditions, liquid may be ejected from the battery; avoid contact. 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.
33. Do not use a battery pack that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
34. Do not expose a battery pack or appliance to fire or excessive temperature. Exposure to fire or temperature above 130°C/265°F may cause explosion.
35. Have servicing performed by a qualified repair person using only identical replacement parts.
36. Do not modify or attempt to repair the robot or the battery pack (as applicable) except as indicated in the instructions.
37. Do not operate the robot in a room that has lit candles on furniture that the vacuum may accidentally hit or bump into.

38. 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.
39. Use the robot only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
40. The robot contains batteries that are only replaceable by skilled persons. To replace the robot's battery, please contact Customer Service.
41. If the robot is not going to be used for a long time, fully charge the robot, power it OFF, and unplug the Docking Station.

SAVE THESE INSTRUCTIONS

	Short-circuit-proof safety isolating transformer
	Switch mode power supply
	For indoor use only
	Direct current
	Alternating current
	detachable supply unit

Federal Communications Commission (FCC) Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, 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 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.

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.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user 5s authority to operate this equipment.

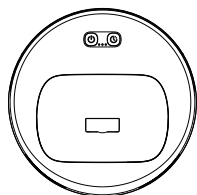
RF exposure warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

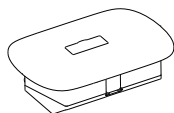
Contents

- 1 . Product composition 8
- 2 . Using the product 11
- 3 . Maintenance and servicing 18
- 4 . Lighting effect and alarm prompt 21
- 5 . Troubleshooting 23
- 6 . Technical parameters 26

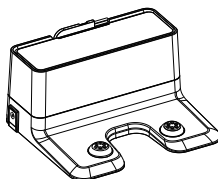
1. Product composition / 1.1 Packing list



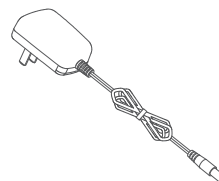
Robot vacuum cleaner
X 1



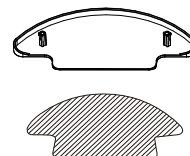
Dust bin
X 1



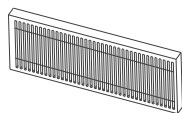
Docking Station
X 1



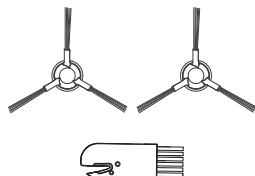
AC Adapter
X 1



Mop support X 1
&
Re-usable mop X 2



High Efficient Particulate Air
(HEPA) Filter
X 2



Side brush X2
&
Cleaning tool X 1



Magnetic strip
X 1



User manual
X 1

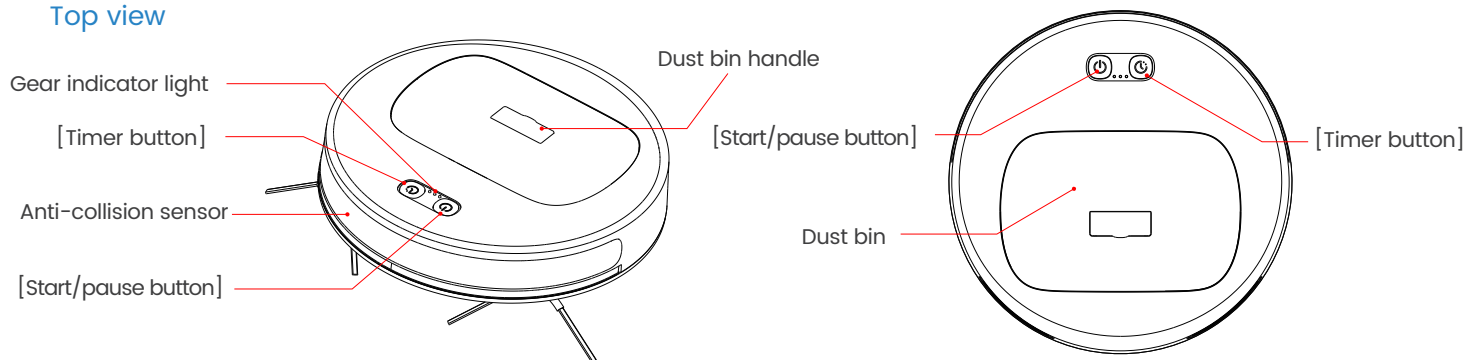


Disposable wet mop
X 2

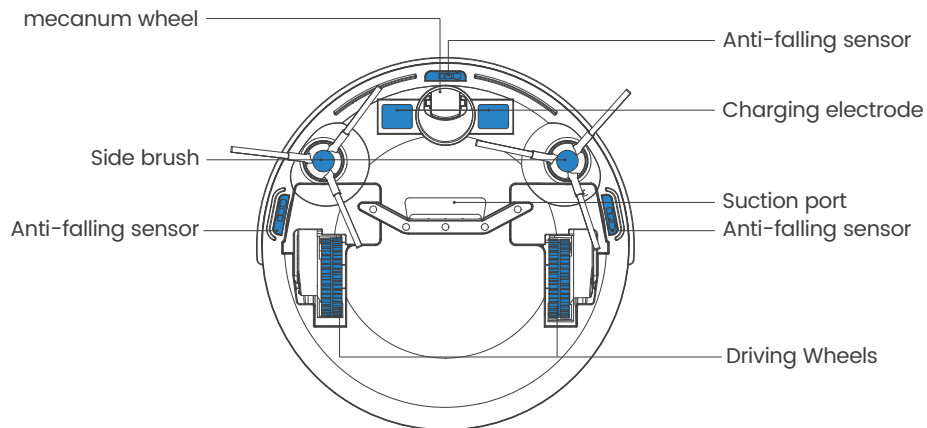
Note: The figures in this manual are only for reference. The actual appearance may differ.

1. Product composition / 1.2 Part name

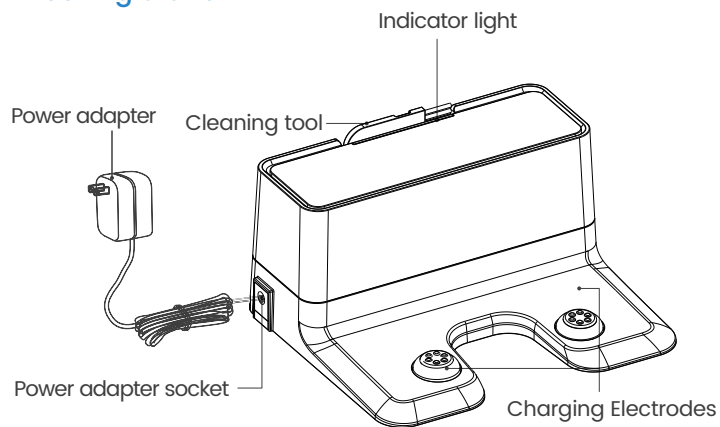
Top view



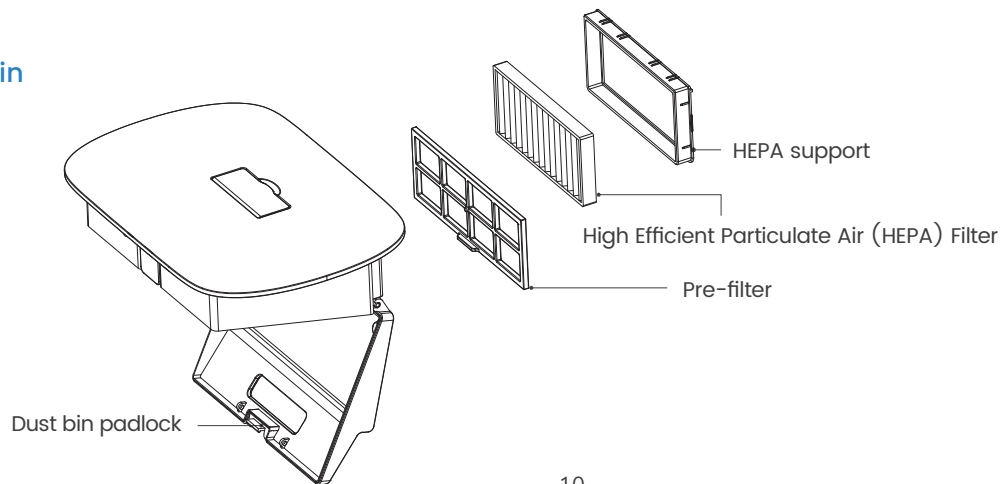
Bottom view



Docking Station



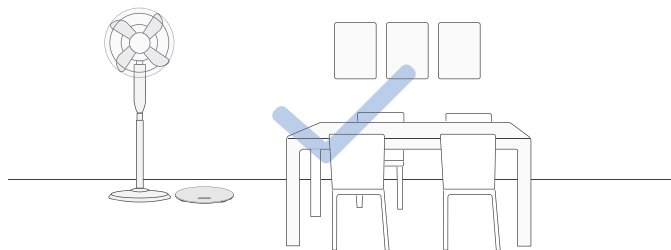
Dust bin



2. Using the product / 2.1 Precautions

1 Arrangement of room to be cleaned

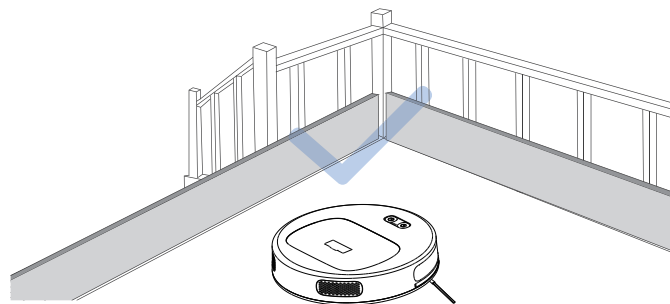
Please put tables, chairs, floor fan, weighing scale, etc. in place before using the robot to maximize the cleaning area.



Put away wires, cleaning pads, slippers, etc. to prevent them from getting stuck in the robot.

2 Prevention of robot falling

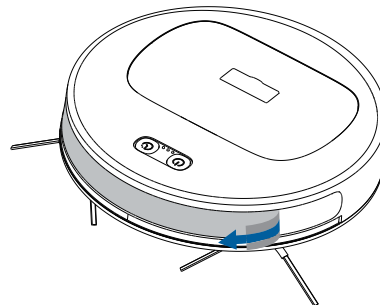
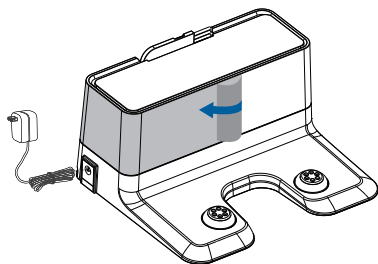
Although the robot has built-in anti-falling sensors, it is still a good idea to put a physical barrier around steep edges to prevent the robot from falling.



If your carpet has tassels, please put the tassels below the carpet to prevent them from getting stuck in the robot. Please do not use the floor-mopping function of product on carpets.

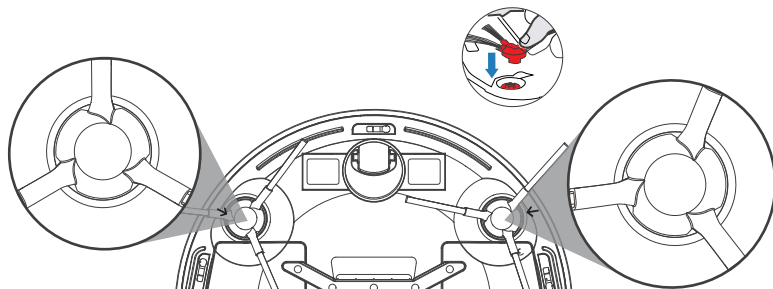
2. Using the product / 2.2 Preparation

- 1 Remove the protective film on the Docking Station
- 2 Remove the protective film on the Robot



- 3 Installation of the side brushes

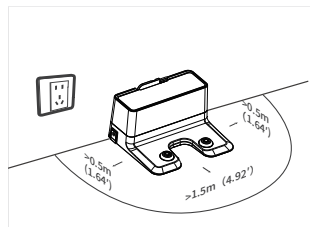
Please install the side brushes in the side brush sockets at the bottom of product. A click sound indicates a proper installation.



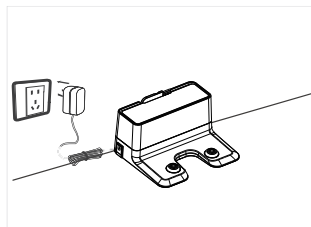
2. Using the product / 2.3 Charging the robot

1 Placement of the charging base/ connection of power supply

- * Place the charging base against the wall and on flat ground. Make sure that no objects are placed within 0.5m on both sides and 1.5m in the front.
- * Connect the power supply.
- * Please arrange power line to avoid machine twining.



Placement of the Docking Station



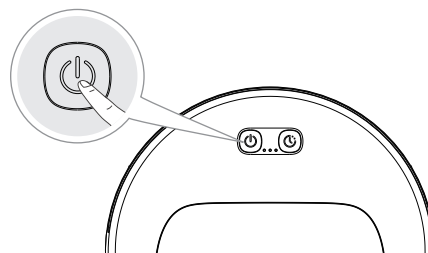
Connection of the AC adapter

2 Turning on the robot

Keep pressing the [start/pause button] for three seconds to turn on/off the robot.

To charge the robot, the robot must be turned on.

It is recommended not to turn off the robot after it finishes cleaning. Keep the robot in its charging base to prevent unnecessary loss of battery life.



3 Charging the robot

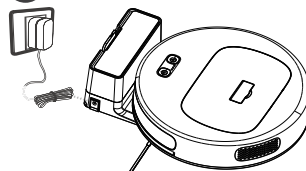
Place the robot at Docking Station and make sure to align the charging electrodes on the robot and the Docking Station.

⏻ [Start/pause button] Slow lighting and dimming of the ice blue color indicates the product is charging;

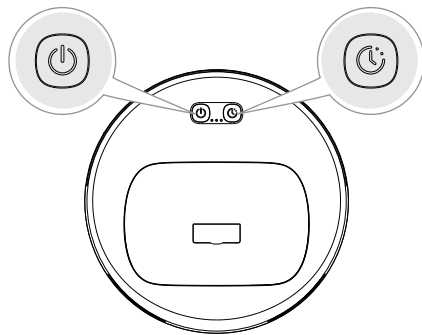
⏻ [Start/pause button] After the robot is fully charged, the Start/pause button will turn off.

A full charge takes 4 – 5 hours.

≥ 4-5h



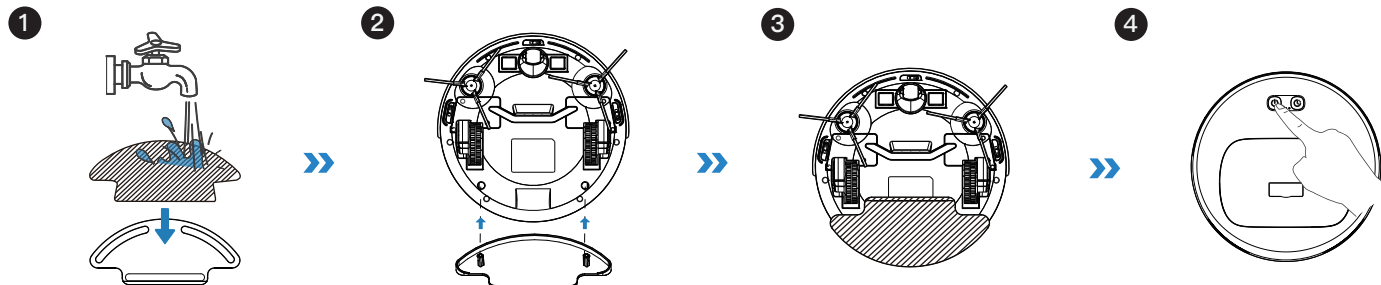
2. Using the product / 2.4 Controlling the robot with buttons



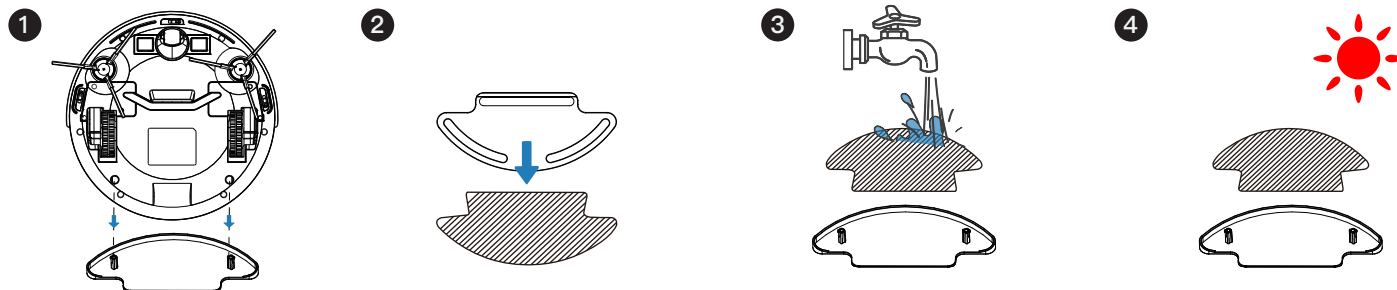
Button operation	Function
Keep pressing the [start/pause button] for 3 seconds	ON/OFF
Single press of the [start/pause button]	Start/pause
Double clicking the [start/pause button]	Automatic recharge
Single press of [Timer button]	Setting/Refreshing a scheduled daily cleaning at the current time of day.
Double clicking the [Timer button]	Timing turn off
Keep pressing the [Timer button] for 3 seconds	Changing suction level
Simultaneously pressing the [start/pause button] and the [Timer button] for 3 seconds	Entering WiFi pairing mode

2. Using the product / 2.5 Floor-mopping functions

Mopping the floor

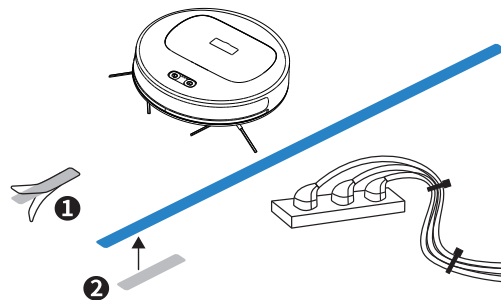
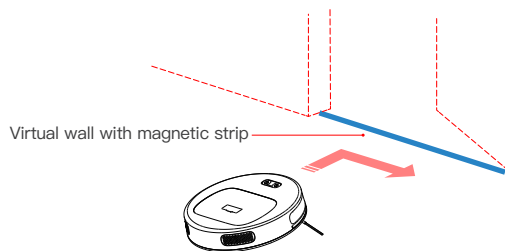


Maintenance and servicing

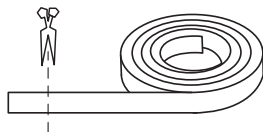


2. Using the product / 2.6 Application of virtual wall with magnetic strip

- 1 A magnetic strip can be used to separate an area not expected to be cleaned (e.g. bathrooms or an area where the robot may get stuck). The magnetic strip shall be placed on the ground across the entrance to the area.
- 2 Please place the virtual wall with magnetic strip on dry ground for best performance.



- 3 Cut the magnetic strip short with scissors if necessary.



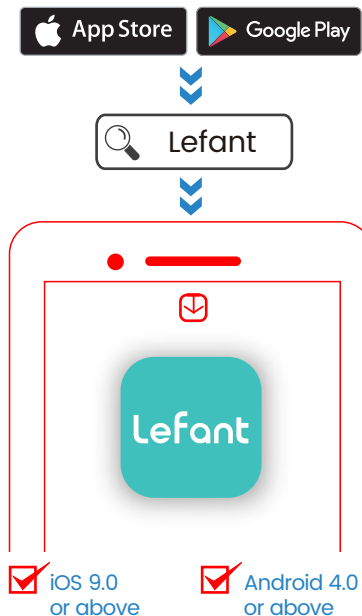
2. Using the product / 2.7 App download and configuration

Downloading and installation of the Lefant app

Method I : Scan the following QR code (also printed on the robot), and then download and install App according to the prompt.



Method II : Search "Lefant" in the app store, download and install the Lefant app.



- Tips:**
- * Follow the guidance in the Lefant app to register, login, and pair the robot.
 - * Please make sure that the mobile phone is connected to your WiFi network before pairing the robot vacuum cleaner.
 - * Note that the robot works with 2.4-GHz WiFi networks only.

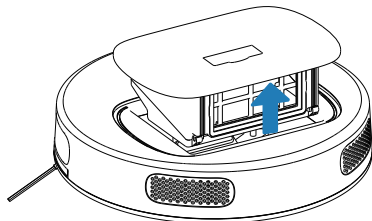
3. Maintenance and servicing / 3.1 Dust bin and HEPA filter

Warning:

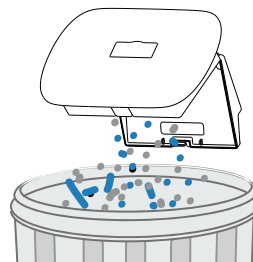
Neither the dust bin nor the HEPA filter can be washed with water.



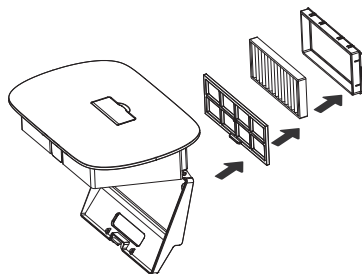
- ① Lift up the handle on the top surface of dust bin to take it out.



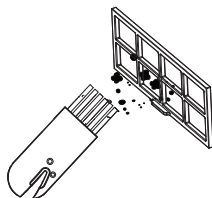
- ② Open the dust bin lock latch, to dump the dust.



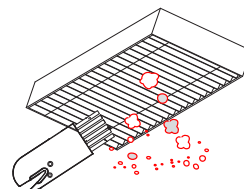
- ③ Remove the dust filtering components.



- ④ Clean the dust on the pre-filter with the brush on the cleaning tool. It's a good idea to clean up both the inner and outer surfaces.

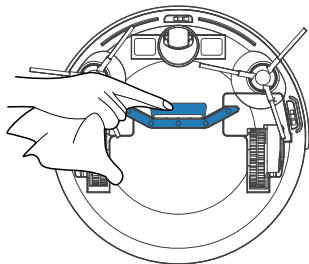


- ⑤ Clean the dust on the HEPA filter with the brush of the cleaning tool.



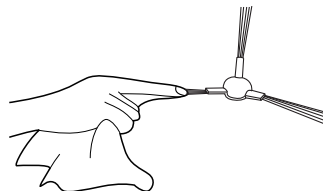
3. Maintenance and servicing / 3.2 Suction inlet and side brushes

1 Clean the suction inlet

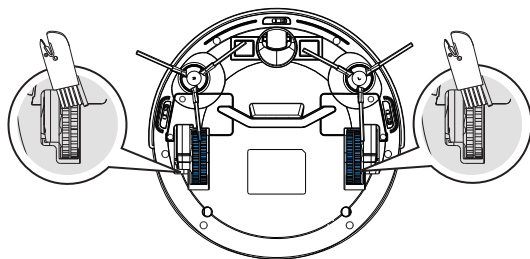


2 Clean side brush

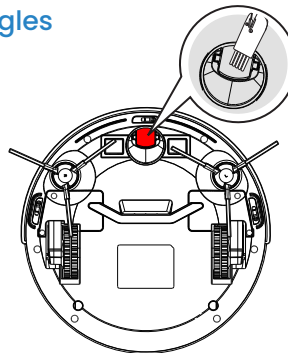
Unplug the side brushes and wipe them with a piece of clean cloth.



3 Clean the driving wheels

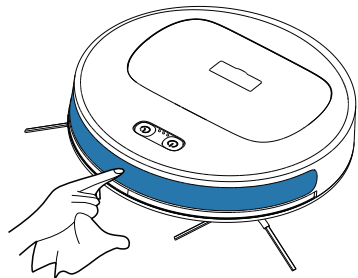


4 Clean the mecanum wheel and remove any hair tangles

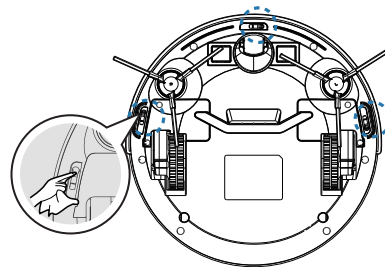


3. Maintenance and servicing / 3.3 Other components

1 Clean the anti-collision sensor

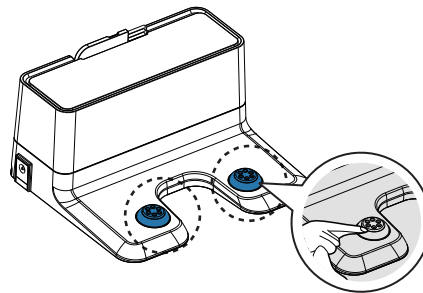
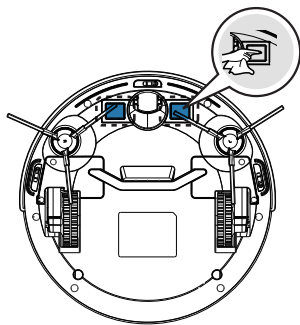


2 Clean the anti-falling sensors to guarantee the sensitivity of sensor



3 Clean the charging electrodes

Please clean the charging electrodes of the robot and the Docking Station, respectively, with duster cloth.



4. Lighting effects and alarm prompts / 4.1 Lighting effects

Robot status	Display status of indicator light
Cleaning	[Start/pause button] The ice blue light turns on
Charging	[Start/pause button] The ice blue light slowly lights up and dims
Charging complete	[Start/pause button] The light turns off
Charging automatically	[Start/pause button] The ice blue light or red light turns on
Entering pairing mode	[Start/pause button] + [Timer button] flash slowly, and the three indicator lights flash sequentially.
Paring failure	Exit pairing mode after 3 minutes of no operation.
Pairing complete	Restore to the status before pairing.
After setting up a scheduled clean	[Timer button] The ice blue light is normally on
After removing a scheduled clean	[Timer button] The ice blue light is off
The robot runs into error	[Start/pause button] A red light turns on or flashes

4. Lighting effects and alarm prompts / 4.2 Alarm prompts

When the robot runs into trouble, it will turn on or flash its red indicator light, and send out buzzing "beep" with different durations and separations. The following table summarizes the corresponding causes:

The red light is normally on			
S/N	Fault cause	Prompt sound	False prompt of APP and solution
1	Abnormal driving wheel	1 beep for three times	The driving wheel is abnormal. Please check whether the driving wheel is twined, and clean up the driving wheel.
2	Abnormal side brush	2 beeps for three times	The side brush is abnormal. Please check whether the side brush is twined, and clean up the side brush.
3	Abnormal fan	3 beeps for three times	The fan is abnormal. Please check the waste in dust bin and the air channel mouth.
4	Undetected dust bin	5 beeps for three times	The dust bin is undetected. Please install the dust bin in machine.
Red light flashes			
S/N	Fault cause	Prompt sound	False prompt of APP and solution
1	Ground penetrating alarm	2 beeps for three times	Machine hangs in the air, please move it to the ground.
2	Dilemma elimination alarm	3 beeps for three times	Fail to get rid of dilemma, please move to empty place.
3	Low battery	4 beeps for three times	Please manually move machine to charging base position for charging.
4	Abnormal adapter	5 beeps for three times	Check whether the connector of charging base and charging voltage are loose, and ensure the application of original adapter.
5	Abnormal charging	6 beeps for three times	The charging is abnormal. Please clean the machine and charging electrodes of charging base.

Warm prompt: If the above method cannot solve the problem, please attempt the following operations: Keep long press of [start/pause button] for 3 seconds to restart robot.

5. Troubleshooting / 5.1 Robot working

If the following problems occur in the application process of product, user can solve them independently by comparison and inquiry.

S/N	Fault	Possible causes	Solution
1	The robot can't access to App	The user name and password of router are inaccurate.	The router network is configured to ensure that the "user name" and "password" of router are accurate.
		The robot is beyond the coverage range of network signal of router.	Ensure that the robot is within the coverage range of network signal of router.
		The robot is at the status to be configured or not.	The network can be configured only when the robot is at the status to be configured. Please refer to [distribution network mode].
		2.4-GHz network isn't used.	The robot doesn't support the 5G network temporarily. Please use the 2.4-GHz distribution network upon networking.
2	The robot can't be charged.	The robot and the charging electrodes of charging base have poor contact.	Ensure the sufficient connection of the robot and the charging electrodes of charging base. Check whether the robot and the charging electrodes of charging base are dirty, and clean by reference of Chapter [Maintenance and Servicing] in instruction book.
		Charging base fails to connect power.	Ensure the charging base power has been connected and the interface of charging base has been plugged.
		Nonuse for a long time causes the battery function attenuation.	It is suggested to use the product frequently. If the nonuse for a long time causes the battery can't be charged, please contact the after-sales service personnel.
3	The robot change-back is difficult.	Charging base is placed at inaccurate position.	Please place charging base correctly in the method in Chapter [Robot Charging] of instruction book.
		Charging base powers down or is manually moved.	Please check whether the charging base connects the power supply. Do not manually move the charging base position in the operation of the robot.
		The robot gets stuck in the ground obstacles (such as wire, electric fan base, etc.), which causes it can't arrive at the position of charging base.	It is suggested to arrange the ground articles before use of robot by reference of [Precautions] in the instruction book in order to guarantee smooth robot running and avoid jamming, and keep the change-back route smooth.
		The robot doesn't start from charging base for cleaning.	It is suggested that the robot starts from charging base for cleaning.

5. Troubleshooting / 5.1 Robot working

S/N	Fault	Possible causes	Solution
4	Upon running, the robot has disorderly route, deviates from line, repeats cleaning, and omits sweeping in small area, etc.	The wire, slipper and other objects on the ground influence the normal running of robot.	Please arrange the wire, slipper and other objects scattered on the ground before robot running to reduce the scattered articles on the ground as far as possible. In case of sweeping omission, the robot will automatically supplement the omitted area. Please do not interfere manually (such as moving the robot or obstructing the robot route).
		The robot easily slips when running on the floor waxed and polished just due to less friction between driving wheel and ground.	Please do not run the robot on the floor waxed and polished just.
		Robot can't enter individual area for cleaning in different families.	It is suggested to arrange the domestic environment to guarantee the normal cleaning of the robot.
5	Robot is in a dilemma upon running.	The robot is twined or hindered by the scattered wire on the ground, the drooping curtain cloth or carpet tassels, etc.	The robot would independently attempt various methods to get rid of the dilemma. If not, it is suggested to manually help.
		The robot may get stuck in the furniture with the similar height with it.	It is suggested to bolster the furniture or manually shield the furniture.
6	The robot generates great sound upon running.	Side brush is twined, the dust bin and filter materials are blocked, etc.	It is suggested to regularly clean and maintain the side brush, dust bin, filter materials, etc.
7	The regular cleaning is inoperative.	The robot has low electricity.	It is suggested to charge the robot at first. The regular cleaning can start when the dump energy is more than 30%.

If the faults can't be removed according to the above operations, contact the after-sales service personnel.

* This product shall be subject to the material object. Our company reserves the right to update the product without prior notice.

5. Troubleshooting / 5.2 Wi-Fi Connection

Before Wi-Fi setup, make sure Robot, Mobile Phone, and Wi-Fi network meet the following requirements.

Robot and Mobile Phone Requirements

- The power switch of Robot is turned on.
- Robot is ready for network setup.

Wi-Fi Network Requirement

- You are using a 2.4-GHz or 2.4/5-GHz mixed network.
- Your router supports 802.11b/g/n and IPv4 protocol.
- Do not use a VPN (Virtual Private Network) or Proxy Server.
- Do not use a hidden network.
- WPA and WPA2 using TKIP PSK, AES/CCMP encryption.
- WEP EAP (Enterprise Authentication Protocol) is not supported.
- Use Wi-Fi channels 1-11 in North America and channels 1-13 outside North America (refer to local regulatory agency).
- If you are using a network extender/repeater, the network name (SSID) and password are the same as your primary network.

6. Technical parameters

Product model	F1		
Rated input of machine	19 V \equiv 1A 19W		
Docking Station Model	C2		
Rated Output Voltage	19 V \equiv	Rated Output Current	1A
Power Adapter Model	A934-190100W-US1		
Power Adapter Input	100-240V~ 50-60Hz 0.5A		
Power Adapter Output	DC 19V, 1A, CLASS II		
Off/Standby Mode Power	Less than 0.5W		
Networked Standby Power	Less than 2.0W		

Note: Since the product needs continuous improvement, the product in the instruction book shall be subject to the material object. Our company reserves the right to update the product.

Warranty

This warranty covers the repair or replacement of the malfunction device at our company's discretion for a period of 1-year. In addition this certificate is void if altered. The serial number must be provided as well as all accessories to be eligible for warranty coverage. Please kindly fill in below form accurately and completely.

Order Number: _____

Serial Number: _____

Date of Purchase: _____

Important:

When returning this device, carefully pack the product to avoid damage in shipping. Damage in shipping is not covered by the Warranty and shall be the sole responsibility of Buyer. Damage or loss not covered by this Warranty or occurring outside the Warranty Period will require a fee to cover the cost of handling and shipping. All such fees and costs shall be the sole responsibility of Buyer.

Exclusion

Unless agreed in writing, the warranty will not apply if the defects relate to:

- Consumable parts such as filters, or brushes etc, that are subject to normal wear and tear, and require regular maintenance and/or replacement to ensure the proper functioning of your unit.
- Defects caused by rough or inappropriate handling or use or damage caused by accident, misuse, neglect, fire, water, lighting or other acts of nature, external sources such as weather, electrical outages or power surges.
- Improper operation or maintenance, use not in accordance with the product instructions or connection to improper voltage supply.
- Accident, abuse, misapplication, or any unauthorized repair, modification, or disassembly of the product.
- Any failure to adequately package the Product for transportation.
- Use of parts not in accordance with the product instructions.
- Use of parts and accessories other than those produced or recommended by our company.
- Use in a commercial environment as the Product is designed for residential use only.
- Consequential and incidental damages.
- Any product(s) purchased from unauthorized dealers/resellers.
- Products used outside the country of purchase.
- Lost and/or stolen products.



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