

DEEBOT N78™

EN

Instruction Manual





Live Smart. Enjoy Life.

Congratulations on the purchase of your ECOVACS ROBOTICS DEEBOT! We hope it brings you many years of satisfaction. We trust the purchase of your new robot will help keep your home clean and provide you with more quality time to do other things.

Before you go any further, please register your product on the ECOVACS ROBOTICS website at www.ecovacsrobotics.com/registration/. We also suggest you record your model number, serial number, date of purchase and attach your receipt to this page for safekeeping.

MODEL # _____

SERIAL # _____

DATE OF PURCHASE ____/____/____

Should you have any problems programming the robot or getting your robot to function properly, please call us before contacting or returning it to the place of purchase. Call toll free number 1-844-ECOVACS (1-844-326-8227) or 1-330-994-1760 from outside the United States of America and Canada for assistance.

Thank you for choosing DEEBOT!

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1. Important Safety Instructions

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

READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE.

SAVE THESE INSTRUCTIONS

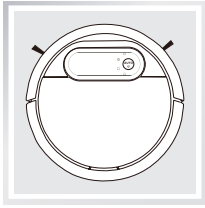
1. This Appliance is not intended to be used by children under 8 or anyone lacking knowledge on proper use. Supervision may be necessary. Do not allow children to sit on or play with the Appliance.
2. Clear the area to be cleaned. Remove power cords and small objects from the floor that could entangle the Appliance. Tuck rug fringe under the rug base, and lift items such as curtains and tablecloths off the floor.
3. If there is a drop off in the cleaning area due to a step or stairs, you should operate the Appliance to ensure that it can detect the step without falling over the edge. It may become 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.
4. Only use as described in this manual. Only use attachments recommended or sold by the manufacturer.
5. Please make sure your power supply voltage matches the power voltage marked on the Charging Dock.
6. For INDOOR household use ONLY. Do not use the Appliance in outdoor, commercial or industrial environments.
7. Use only the original rechargeable battery and Charging Dock provided with the Appliance from the manufacturer. Non-rechargeable batteries are prohibited. For battery information, please refer to Specifications section.
8. Do not use without dust bin and/or filters in place.
9. Do not operate the Appliance in an area where there are lit candles or fragile objects.
10. Do not use in extremely hot or cold environments (below $-5^{\circ}\text{C}/23^{\circ}\text{F}$ or above $40^{\circ}\text{C}/104^{\circ}\text{F}$).
11. Keep hair, loose clothing, fingers, and all parts of body away from any openings and moving parts.
12. Do not operate the Appliance in a room where an infant or child is sleeping.
13. Do not use Appliance on wet surfaces or surfaces with standing water.
14. Do not allow the Appliance to pick up large objects like stones, large pieces of paper or any item that may clog the Appliance.
15. Do not use Appliance to pick up flammable or combustible materials such as gasoline, printer or copier toner, or use in areas where they may be present.
16. Do not use Appliance to pick up anything that is burning or smoking, such as cigarettes, matches, hot ashes, or anything that could cause a fire.
17. Do not put objects into the suction intake. Do not use if the suction intake is blocked. Keep the intake clear of dust, lint, hair, or anything that may reduce air flow.
18. Take care not to damage the power cord. Do not pull on or carry the Appliance or Charging Dock 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 Appliance over the power cord. Keep power cord away from hot surfaces.
19. If the power cord is damaged, it must be replaced by the manufacturer or its service agent in order to avoid a hazard.
20. Do not use the Charging Dock if it is damaged.
21. Do not use with a damaged power cord or receptacle. Do not use the Appliance or Charging Dock 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.

1. Important Safety Instructions

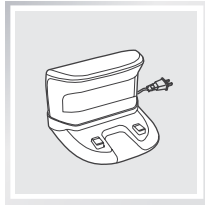
22. Turn OFF the power switch before cleaning or maintaining the Appliance.
23. The plug must be removed from the receptacle before cleaning or maintaining the Charging Dock.
24. Remove the Appliance from the Charging Dock, and turn OFF the power switch to the Appliance before removing the battery for disposal of the Appliance.
25. The battery must be removed and discarded according to local laws and regulations before disposal of the Appliance.
26. Please dispose of used batteries according to local laws and regulations.
27. Do not incinerate the Appliance even if it is severely damaged. The batteries can explode in a fire.
28. When not using the Charging Dock for a long period of time, please unplug it.
29. The Appliance must be used in accordance with the directions in this Instruction Manual. ECOVACS ROBOTICS cannot be held liable or responsible for any damages or injuries caused by improper use.

2. Package Contents and Technical Specifications

2.1 Package Contents



Robot



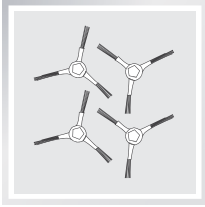
Charging Dock



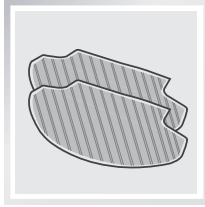
Remote Control with
Button Cell Battery



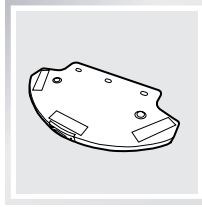
Instruction Manual



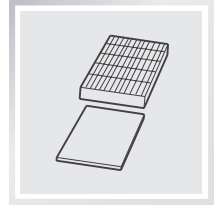
(4) Side Brushes



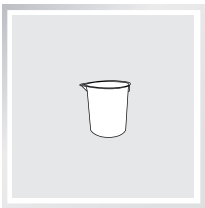
(2) Washable/
Reusable Microfiber
Cleaning Cloths



Water Reservoir



Replacement High
Efficiency Filter+
Sponge Filter



Measuring Cup



Reservoir Cleaning
Solution

2.2 Specifications

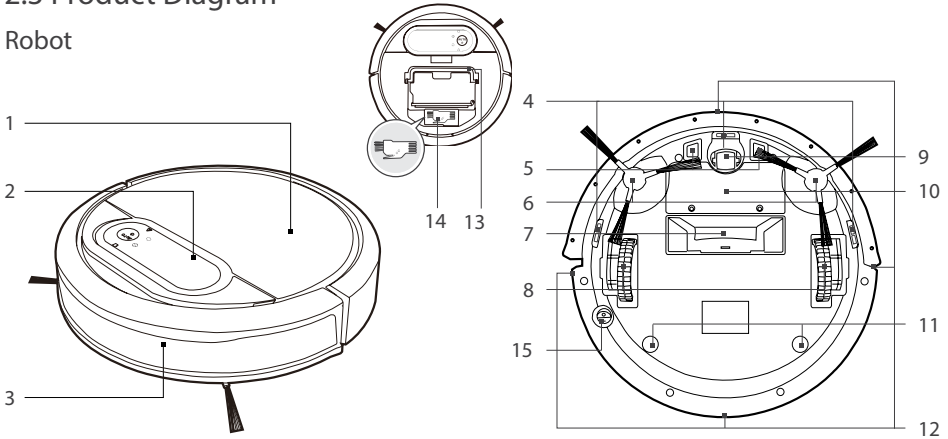
Model	DN78		
Working voltage	12V DC	Rated power	20W
Charging Dock Model	CH1465A		
Rated input voltage	100-240V AC	Rated output voltage	20V DC
Rated output current	1A	Rated Power	25W
Remote Control Model	RC1521B	Input voltage	3V DC
Battery	Ni-MH 3000mAh		

* Technical and design specifications may be changed in the course of continuous product improvement.

2. Package Contents and Technical Specifications

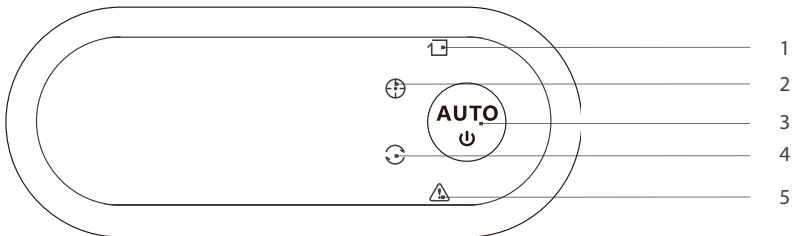
2.3 Product Diagram

Robot



- | | | |
|---------------------------|--------------------|--|
| 1. Top Cover | 6. Side Brushes | 11. Water Reservoir Slots |
| 2. Control Panel | 7. Suction Intake | 12. Infrared Receiver for Remote Control |
| 3. Anti-Collision Sensors | 8. Driving Wheels | 13. Upgrade Port (For Customer Service Only) |
| 4. Anti-Drop Sensors | 9. Universal Wheel | 14. Multi-function Cleaning Tool |
| 5. Charging Contacts | 10. Battery Pack | 15. Bottom Power Switch |

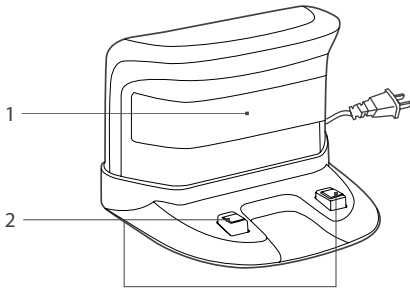
Control Panel



- | | |
|---------------------------------------|---|
| 1. Edge Cleaning Mode Indicator Light | 4. Intelligent Scheduling Indicator Light |
| 2. Spot Cleaning Mode Indicator Light | 5. Alarm Indicator |
| 3. AUTO Mode Button | |

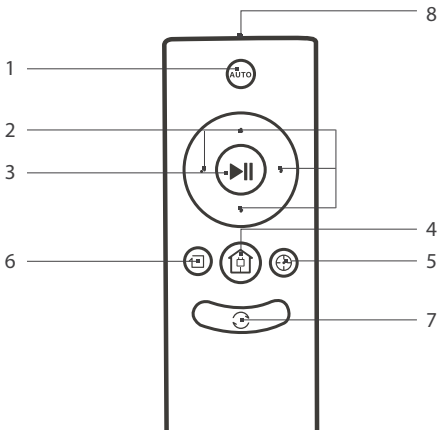
2. Package Contents and Technical Specifications

Charging Dock



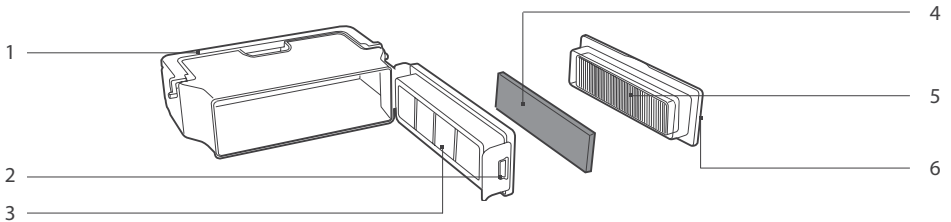
1. Infrared Signal Generator
2. Charging Dock Pins

Remote Control



1. AUTO Mode Button
2. Direction Control Buttons
3. START/PAUSE Button
4. Return to Charger Mode Button
5. Spot Cleaning Mode Button
6. Edge Cleaning Mode Button
7. Intelligent Scheduling Button
8. Infrared Emitter

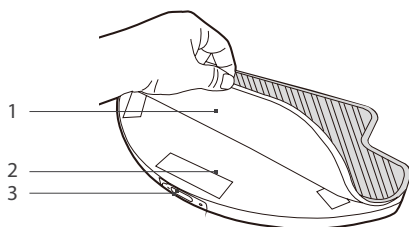
Dust Bin



1. Dust Bin Handle
2. Dust Bin Lock
3. Filter Net
4. Sponge Filter
5. High Efficiency Filter
6. Dust Bin Cover

2. Package Contents and Technical Specifications

Water Reservoir

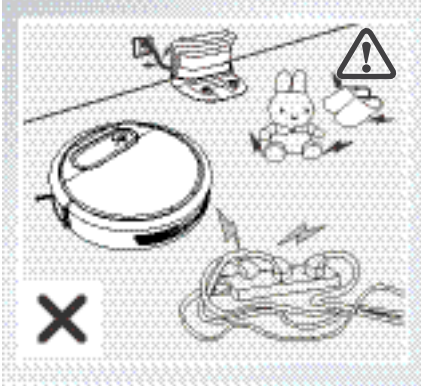


1. Washable/ Reusable Microfiber Cleaning Cloth
2. Water Reservoir
3. Water Inlet

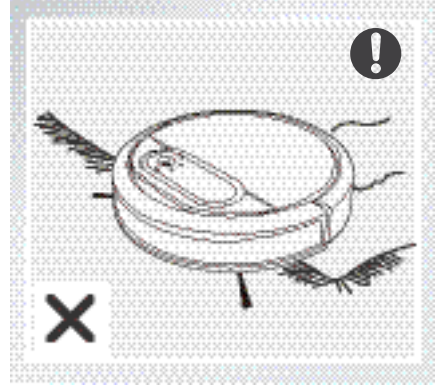
3. Operating and Programming

3.1 Notes before Cleaning

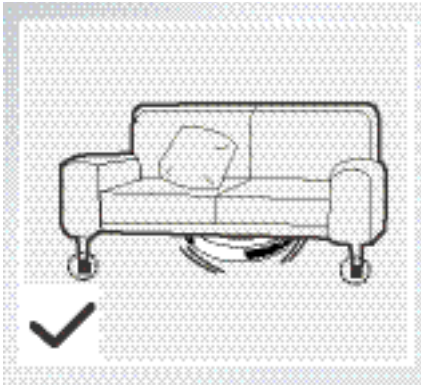
Before operating DEEBOT, take a few moments to survey the area to be cleaned and remove any obstacles.



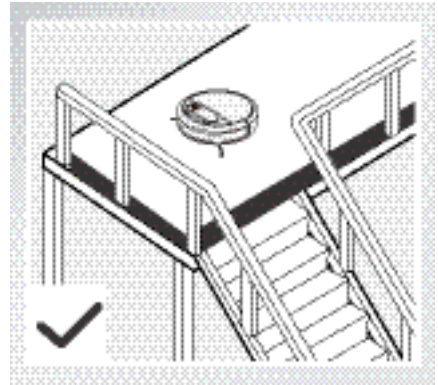
Remove power cords and small objects from the floor that could entangle the product.



This product cleans bare floors and short-pile carpet. It is not designed to clean long-pile or shag carpet.



Please be aware that the robot needs at least a 9 cm (3.5") clearance to clean under furniture without complications.

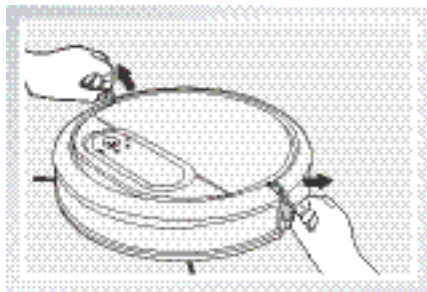


If there is a step or stairs in the cleaning area, please operate DEEBOT to ensure its Anti-Drop Sensors can detect the drop off. It may be necessary to place a physical barrier at the edge of the drop off to keep the unit from falling over the edge.

3. Operating and Programming

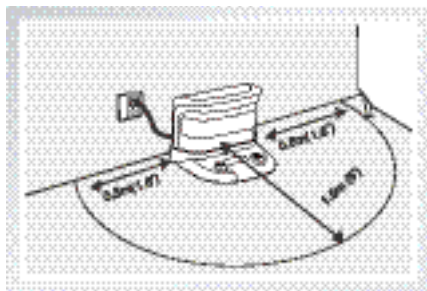
3.2 Quick Start

- * Remove the Bumper Rail protection sponges on both sides of the DEEBOT before the first use.



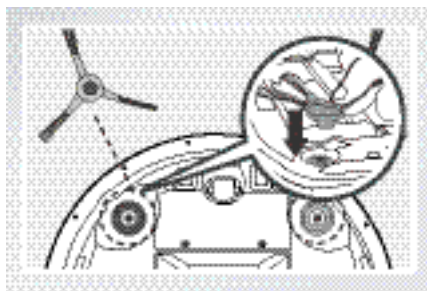
1 Charging Dock Placement

- Place the Charging Dock on a level floor surface against the wall with the base perpendicular to the ground. Keep the immediate area 1.5m (5') in front of the charger and 0.5m (1.6') on both sides of the charger clear of objects and reflective object surfaces.
- Plug the Charging Dock in.



2 Install Side Brushes

- Attach Side Brushes to the bottom of DEEBOT by pressing a brush into each slot with the matching color until it clicks.

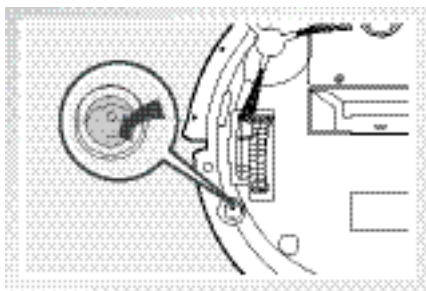


3. Operating and Programming

3 Power ON

- Turn the robot's Bottom Power Switch to the ON position. "I"=power ON; "O"=power OFF. DEEBOT is powered ON when the AUTO Mode Button glows a continuous BLUE.

* When DEEBOT is not cleaning, it is suggested to keep it powered ON and charging instead of powered OFF.



4 Charge DEEBOT

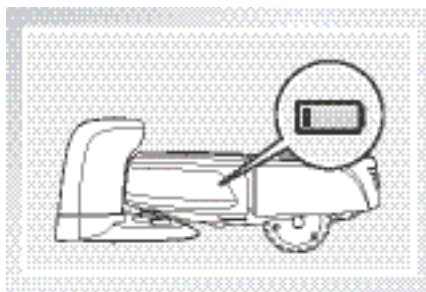
- Place DEEBOT on the Charging Dock making sure the Charging Contacts on DEEBOT and the Charging Dock Pins make a connection.
- Charge DEEBOT for at least 4 hours before first use.

* Make sure to turn the robot's Bottom Power Switch to the ON position before charging. ("I"=power ON; "O"=power OFF. The robot's default setting is "O".)

* DEEBOT is powered ON when the AUTO Mode Button glows a continuous BLUE.

* AUTO Mode Button blinks when DEEBOT is charging. AUTO Mode Button stops glowing when DEEBOT is fully charged.

* Remove the Water Reservoir before charging DEEBOT.



* Remove the robot's battery if it will not be used for a long time. In case of battery leakage, please remove the battery and wipe the battery slot clean while wearing protective gloves.

* If battery is fully discharged or not used for a long time, its capacity may decrease and need to be reactivated.

* To reactivate the battery: Place the robot on the Charging Dock by hand, remove after charging for 3 minutes; repeat 3 times, then charge normally for 3-5 hours.

* DEEBOT uses a long life battery, and does not require frequent replacement. To replace the battery, contact Customer Service or follow the below instructions:

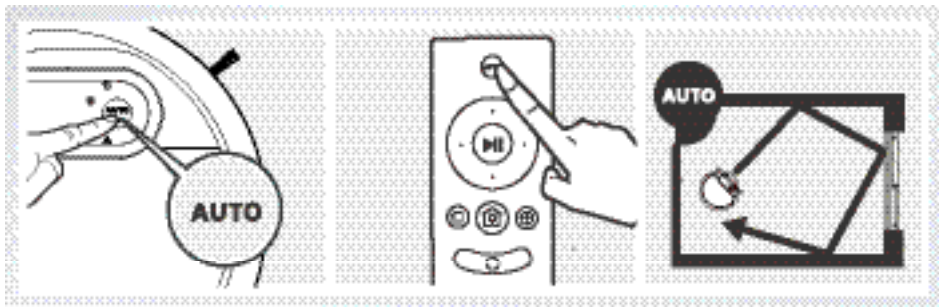
- Unscrew the Battery Cover Screws, remove Battery Cover.
- Remove the battery and disconnect the fasteners.
- Connect the corresponding positive and negative fasteners on the new battery. Insert the new battery, reassemble the Battery Cover and screw in the Battery Cover Screws.

3. Operating and Programming

5 Start

- Press the AUTO Mode Button on DEEBOT or on the Remote Control. DEEBOT starts to work immediately in AUTO Cleaning Mode.

* To choose another Cleaning Mode, please refer to section 3.3 Cleaning Mode Selection for details.

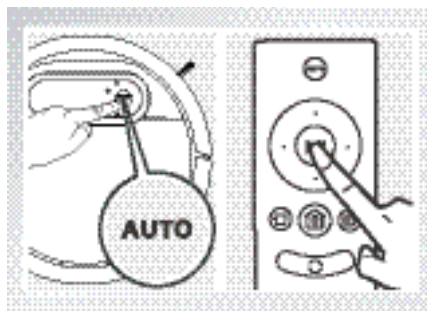


6 Pause

- Pause DEEBOT by pressing the AUTO Mode Button on DEEBOT or the START/PAUSE Button on the Remote Control.

* DEEBOT can be directed to move forward, backward, left and right using the Direction Control Buttons on the Remote Control when it is Paused. DEEBOT does not clean when Paused.

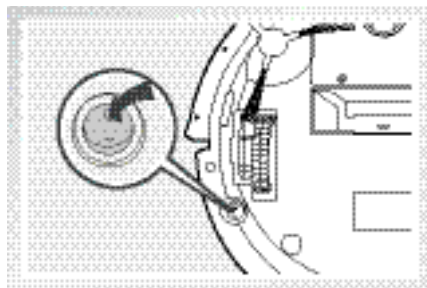
* To save power, DEEBOT enters Sleep Mode automatically and the AUTO Mode Button on the robot's Control Panel stops glowing after the robot is paused for more than 1 minute. Press AUTO Mode Button on the robot or press any button on the Remote Control to wake up the robot.



7 Power OFF

- Pause DEEBOT. Move the Bottom Power Switch to the OFF position.

* When DEEBOT is not cleaning, it is suggested to keep it powered ON and charging.



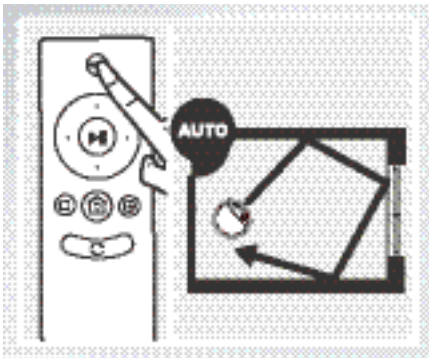
3. Operating and Programming

3.3 Cleaning Mode Selection

DEEBOT has several Cleaning Modes to choose from to effectively clean different floors. Cleaning Modes are selected with the Remote Control.

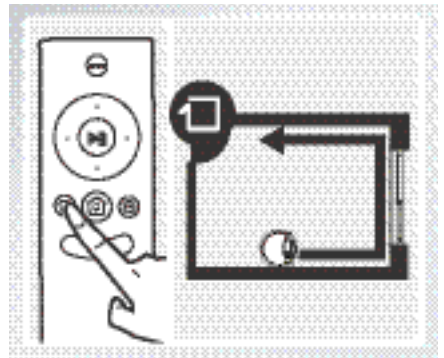
1 AUTO Cleaning Mode

This is the most commonly used mode. In AUTO Cleaning Mode, DEEBOT cleans in a straight line and changes direction when it meets an obstacle.



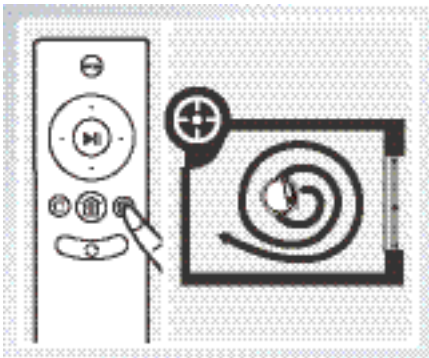
2 Edge Cleaning Mode

This mode is good for cleaning the edges and corners of a room. In Edge Cleaning Mode, DEEBOT cleans along a border (e.g. wall) and returns to the Charging Dock when it completes Edge Cleaning.



3 Spot Cleaning Mode (2-5 minutes)

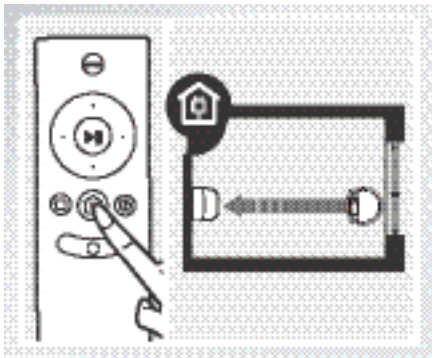
This mode is applicable for an area of highly concentrated dirt or dust. In Spot Cleaning Mode, DEEBOT focuses on a specific area to clean. DEEBOT cleans the area in a spiral pattern and stops when it completes Spot Cleaning.



4 Return to Charger Mode

When battery power gets low, DEEBOT automatically switches to Return to Charger Mode and returns to the Charging Dock to recharge itself.

* DEEBOT can also be sent back to the Charging Dock at any time by pressing the Return to Charger Button on the Remote Control.



3. Operating and Programming

3.4 Intelligent Scheduling

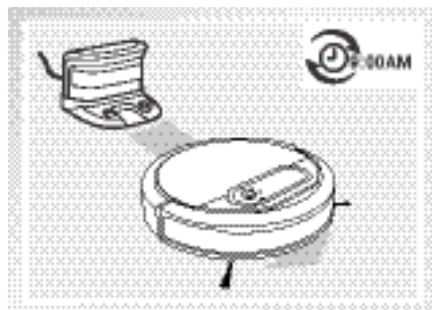
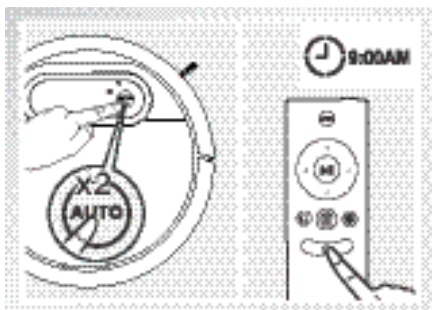
DEEBOT has an Intelligent Scheduling function. DEEBOT can be scheduled to clean once per day at the same time, even if nobody is at home.

* All scheduled cleanings are performed in AUTO Cleaning Mode.

1 Set Intelligent Scheduling

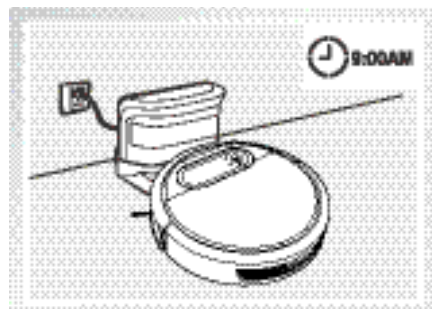
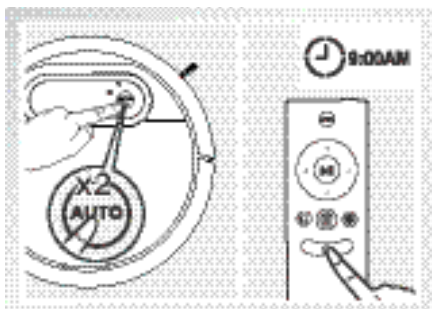
Press the Auto Mode Button on DEEBOT twice or press the Intelligent Scheduling Button on the Remote Control to set the current time as the scheduled cleaning time. Intelligent Scheduling is set when the robot beeps and the Intelligent Scheduling Indicator Light glows a continuous BLUE. DEEBOT will automatically clean at the set time every day.

For example: Set Intelligent Scheduling successfully at 9:00am, and DEEBOT automatically cleans at 9:00am every day.



2 Cancel Intelligent Scheduling

Press the Auto Mode Button on DEEBOT twice or press the Intelligent Scheduling Button on the Remote Control. Intelligent Scheduling is cancelled when the robot beeps and the Intelligent Scheduling Indicator Light stops glowing.



- * To automatically clean at another time, first cancel the current Intelligent Scheduling, then set Intelligent Scheduling again at the desired time.
- * If DEEBOT is powered OFF, Intelligent Scheduling is cancelled.

3. Operating and Programming

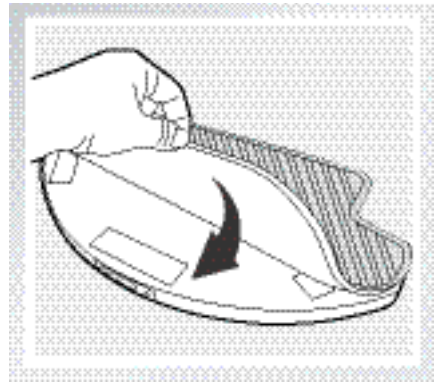
3.5 Optional Mopping System

DEEBOT has an Optional Mopping System using a Washable/Reusable Microfiber Cleaning Cloth attached to a proprietary Water Reservoir.

- * Do not use the mopping system on carpet.
- * When using the mopping system, fold area rug edges under themselves so DEEBOT will avoid the rug.
- * When using the mopping system, do not stop the robot and allow it to stand still. This prevents the Cleaning Cloth from leaving water on the floor.
- * Remove the Water Reservoir before charging DEEBOT.

1 Attach Washable/Reusable Microfiber Cleaning Cloth to the Water Reservoir

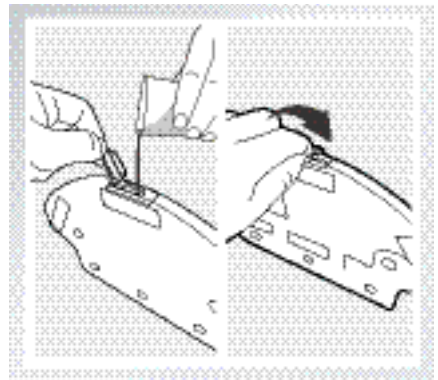
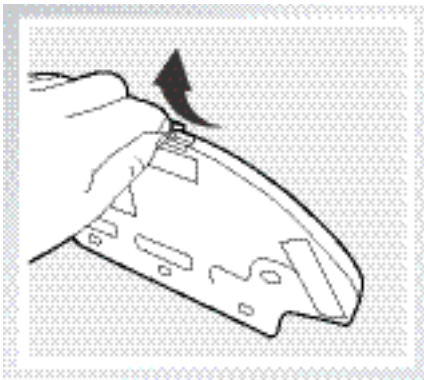
Attach the white side of the Washable/Reusable Microfiber Cleaning Cloth to the Velcro area on the bottom of the Water Reservoir. Ensure the blue side of the Cleaning Cloth faces out. Wrap the two loops on the Cleaning Cloth around the two Cleaning Cloth Fasteners protruding from the bottom of the Water Reservoir.



2 Add Water to the Water Reservoir

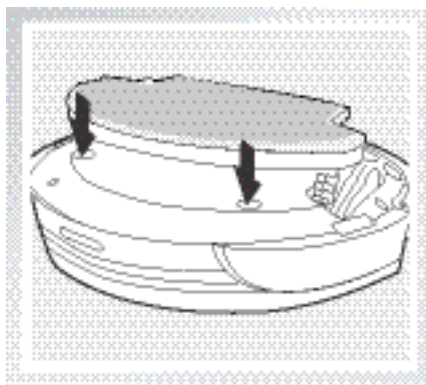
- * Before adding water to the Water Reservoir, remove the Water Reservoir from the bottom of the robot.

Fill the provided Measuring Cup with water. Open the Water Inlet lid on the Water Reservoir and slowly pour water from the Measuring Cup into the Reservoir. Close the Water Inlet lid.



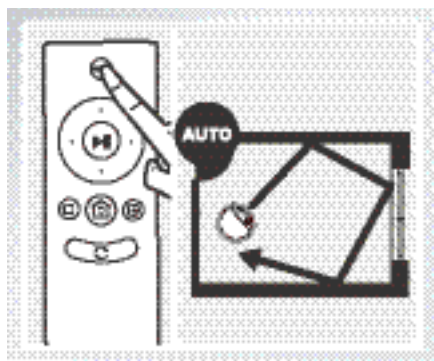
3. Operating and Programming

Attach the Water Reservoir to the bottom of the robot. Insert the tabs on the Water Reservoir into the Water Reservoir Slots on the bottom of the robot until you hear a click.



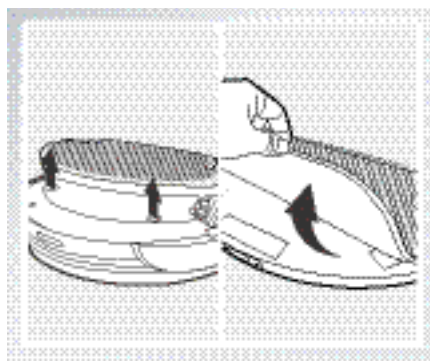
3 Start

Select the desired Cleaning Mode. DEEBOT sweeps, vacuums and mops in the selected mode.



4 Remove

After DEEBOT finishes cleaning, remove the Water Reservoir from DEEBOT, empty any remaining water from the Reservoir, and remove the Cleaning Cloth.



3. Operating and Programming

3.6 Alarm Indicator and Sounds

If DEEBOT detects a problem and needs your assistance, it emits alarm beeps and the Alarm Indicator flashes RED.

Alarm Sound	Problems	Solution
One Beep	Driving Wheel Malfunction	Check Driving Wheels for tangled hair or debris and clean as described in section 4 Maintenance.
Three Beeps	Driving Wheel Malfunction	Turn over the robot. Press Driving Wheels to check for a clicking sound. If they do not click, please contact Customer Service.
Four Beeps	Dust Bin Malfunction	Remove the Dust Bin and re-install it properly. If the robot still emits the alarm, please contact Customer Service.
Five Beeps	Low Battery	Manually place the robot on the Charging Dock to charge.
Six Beeps	Side Brush Malfunction	Check Side Brushes for tangled hair or debris and clean as described in section 4 Maintenance.
Seven Beeps	Anti-Drop Sensor Malfunction	Check Anti-Drop Sensors for dust and clean as described in section 4 Maintenance.

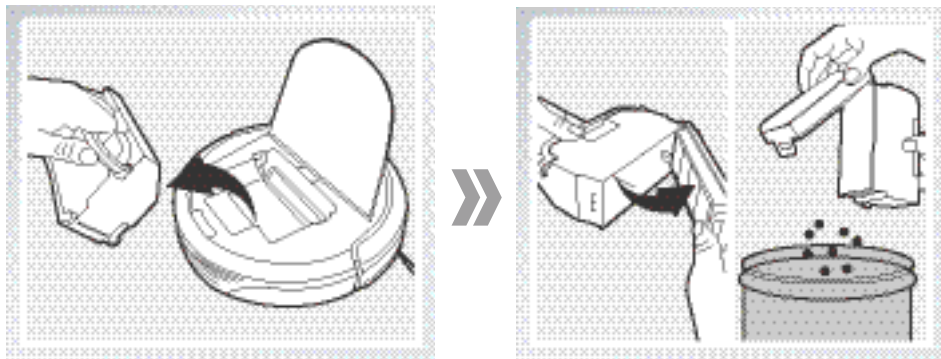
4. Maintenance

Before performing cleaning and maintenance, power OFF DEEBOT and unplug the Charging Dock.

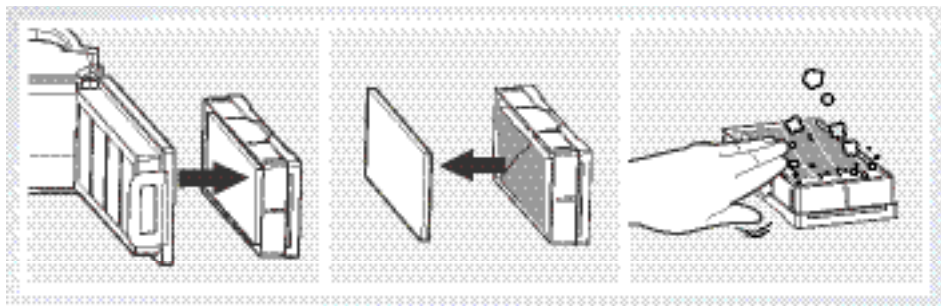
4.1 Dust Bin and Filters

Cleaning the Dust Bin and Filters

Open the robot's Top Cover and remove the Dust Bin. Open the Dust Bin Lock and empty the Dust Bin.

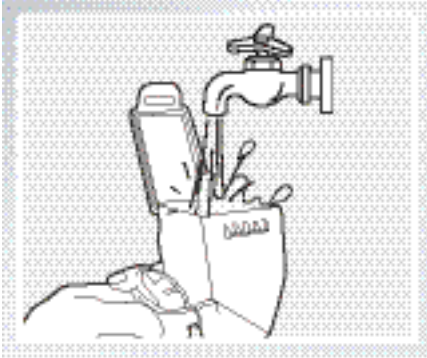


Remove the filters. Pat the High Efficiency Filter and Sponge Filter clean. Do not rinse the High Efficiency Filter under water.

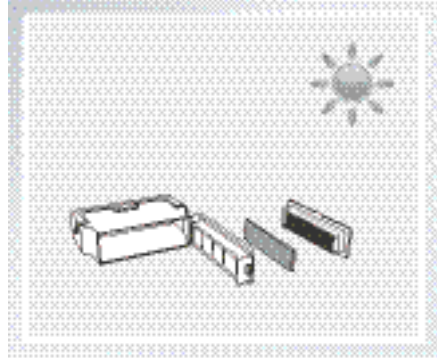


4. Maintenance

Rinse the Sponge Filter, Dust Bin and Filter Net under running water.



Dry the Dust Bin and filters completely before reinstalling.



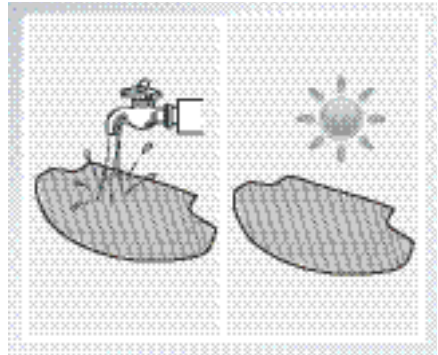
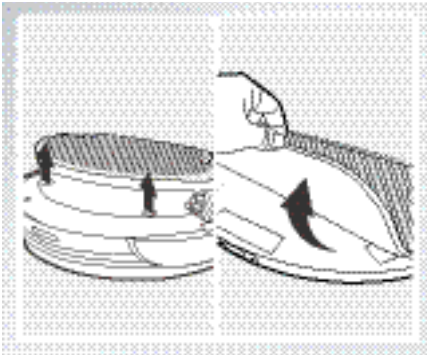
4.2 Washable/Reusable Microfiber Cleaning Cloth and Water Reservoir

Cleaning the Washable/Reusable Microfiber Cleaning Cloth

If the mopping system was used, remove the Water Reservoir from the bottom of DEEBOT and remove the Cleaning Cloth.

Empty any remaining water from the Reservoir.

Wash the Cleaning Cloth by hand, and lay flat to dry.

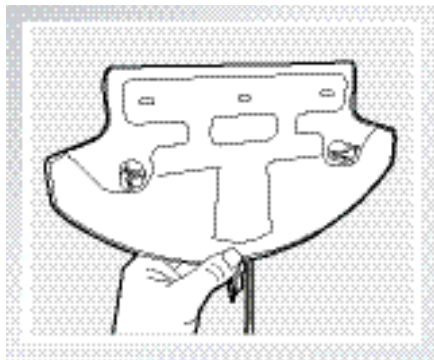


4. Maintenance

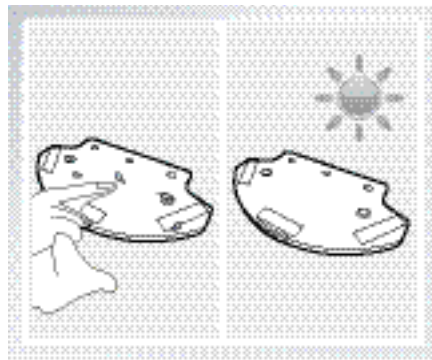
Cleaning the Water Reservoir

If the mopping system was used, remove the Water Reservoir from the bottom of DEEBOT.

Empty any remaining water from the Reservoir, and set out to dry.



Wipe the outside of the Water Reservoir with a dry cloth.



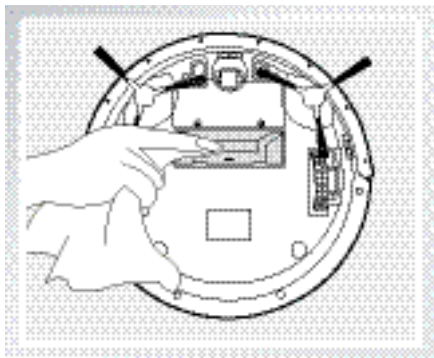
- * If the Water Reservoir does not run out of water after DEEBOT cleans for 60 minutes, the water outlets on the Reservoir are clogged. Clean the Reservoir with the provided ECOVACS Reservoir Cleaning Solution according to the instructions on the bottle of the solution.

4.3 Suction Intake and Side Brushes

- * A Multi-Function Cleaning Tool is provided for easy maintenance. Handle with care, this cleaning tool has sharp edges.

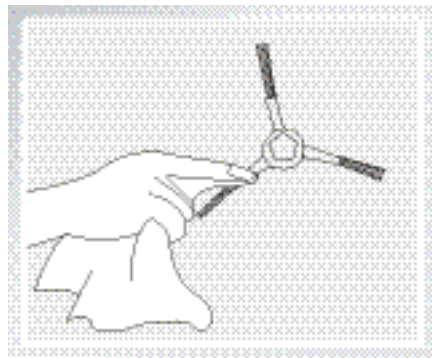
Cleaning Suction Intake

Wipe the Suction Intake with a dry cloth.



Cleaning the Side Brushes

Remove any hair or debris tangled around the Side Brushes with the provided Multi-Function Cleaning Tool. Remove the Side Brushes and wipe the Side Brushes and their slots with a clean cloth.

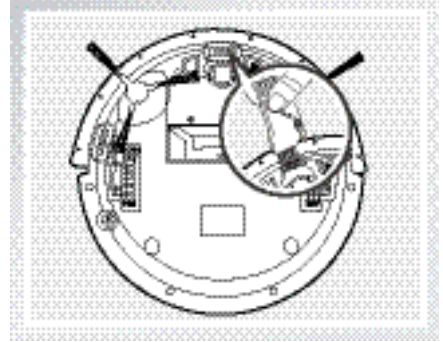
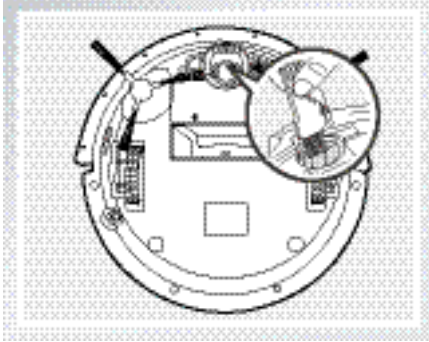


4. Maintenance

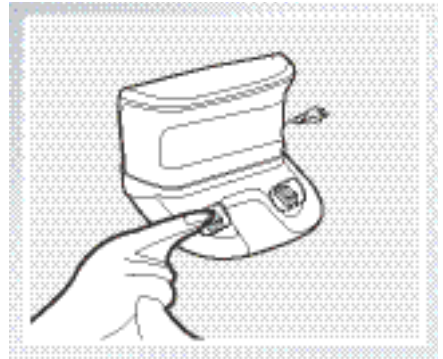
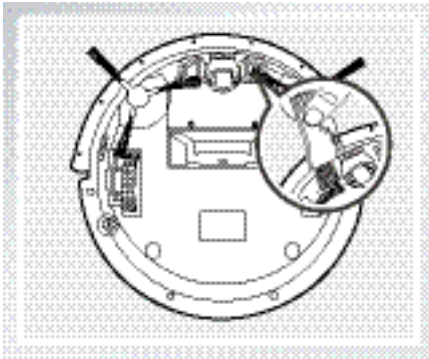
4.4 Other Components

Use the Multi-Function Cleaning Tool to cut off and remove any hair tangled around the Universal Wheel.

Wipe the Anti-Drop Sensors with the brush or felt side of the Multi-Function Cleaning Tool to maintain their effectiveness.



Wipe the robot's Charging Contacts and Charging Docks Pins with the brush of the Multi-Function Cleaning Tool or with a dry cloth to maintain their effectiveness.



5. Troubleshooting

Please use this chart to troubleshoot common problems using DEEBOT.

No.	Malfunction	Possible Causes	Solutions
1	DEEBOT will not charge.	DEEBOT is not powered ON. DEEBOT will not charge unless it is powered ON while on the Charging Dock, even if the AUTO Mode Button is flashing.	Move the robot's Bottom Power Switch to the ON position.
		DEEBOT has not made a connection with the Charging Dock.	Be sure that the robot's Charging Contacts have made a connection with the Charging Dock Pins. You may move the robot manually to make the connection if necessary.
		The Charging Dock is unplugged while DEEBOT is powered ON, which causes battery consumption.	Plug in the Charging Dock and ensure DEEBOT is powered ON. Keep DEEBOT on the Charging Dock to make sure it has full battery to work at any time.
		The battery is completely discharged.	Reactivate the battery. Place DEEBOT on the Charging Dock by hand, remove after charging for 3 minutes, repeat 3 times; then charge normally.
2	DEEBOT will not return to the Charging Dock.	The Charging Dock is placed incorrectly.	Please refer to section 3.2 Quick Start for details on proper Charging Dock placement.
3	DEEBOT gets into trouble while working and stops.	DEEBOT is tangled with something on the floor (electrical cords, drooping curtains, area rug fringe etc.).	DEEBOT will try various ways to get itself out of trouble. If it is unsuccessful, manually remove the obstacles and restart.
		The Side Brushes are tangled with hair or debris, and low rotation speed causes DEEBOT to Pause and triggers an alarm.	Check Side Brushes for tangled hair or debris, clean as described in section 4 Maintenance and restart. If the Side Brushes still rotate slowly, please contact Customer Service.

5. Troubleshooting

No.	Malfunction	Possible Causes	Solutions
4	DEEBOT returns to the Charging Dock before it finishes cleaning.	When battery power gets low, DEEBOT automatically switches to Return to Charger Mode and returns to the Charging Dock to recharge itself.	This is normal. No solution necessary.
		Working time varies according to floor surface, room complexity and the selected Cleaning Mode.	This is normal. No solution necessary.
5	DEEBOT will not clean automatically at scheduled time.	Intelligent Scheduling function is cancelled.	Set Intelligent Scheduling. Please refer to section 3.4 Intelligent Scheduling for details.
		DEEBOT is powered OFF.	Power ON DEEBOT.
		the robot's battery is low.	Keep DEEBOT powered ON and on the Charging Dock to make sure it has full battery to work at any time.
		the robot's Suction Intake is blocked and/or its components are tangled with debris.	Power OFF DEEBOT, clean the Dust Bin and invert the robot. Clean the Suction Intake and Side Brushes as described in section 4 Maintenance.
6	Remote Control failure (effective control range of Remote Control is 5m/16').	The battery in the Remote Control need to be replaced.	Replace with a new battery making sure it is installed correctly.
		DEEBOT is powered OFF or the robot's battery is low.	Make sure DEEBOT is powered ON and fully charged.
		The infrared signal cannot be transmitted because the Infrared Emitter on Remote Control or the Infrared Receiver on DEEBOT is dirty.	Use clean dry cloth or the brush side of the provided Multi-Function Cleaning Tool to wipe the Infrared Emitter on Remote Control and the Infrared Receiver on DEEBOT.
		There is other equipment interfering with the infrared signal to DEEBOT.	Avoid using the Remote Control near other equipment using infrared signals.



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