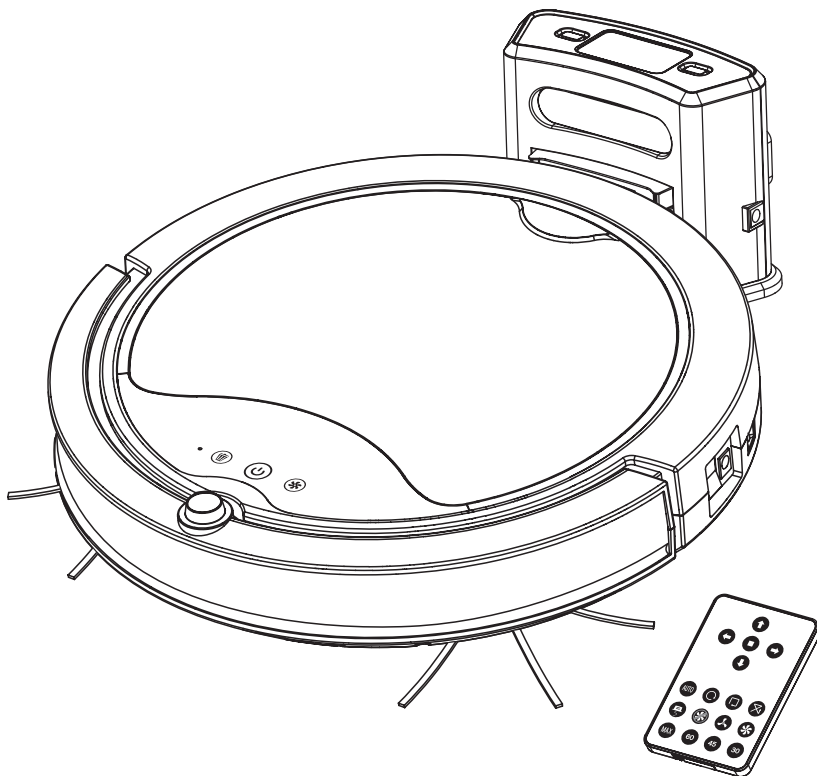


MIRAVAC



# LOOP

Robotic Vacuum Cleaner with Docking Station

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OPERATION MANUAL



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## IMPORTANT SAFETY INSTRUCTIONS

### READ ALL INSTRUCTIONS BEFORE OPERATING LOOP.

#### **Keep this manual handy for your future reference.**

When using an electrical appliance basic precautions should always be followed. Observe basic safety rules to prevent any occurrence of fire, electric shock, and personal injury.

This model is for home and office use only.



### WARNING

---

Plastic film can be dangerous. To avoid danger of suffocation, keep away from children.

Do not plug in your vacuum cleaner until you are familiar with all instructions and operating procedures.

To reduce the risk of electrical shock, turn power switch off and disconnect polarized plug from electrical outlet before performing maintenance or troubleshooting checks.

---

Certain objects and materials are hazardous to LOOP and can cause accidents and/or serious bodily injury. LOOP vacuum cleaner should not be used to clean up the following objects and materials:

- Sharp broken pieces such as metal and glass.
- Harmful and erodent liquids such as solvents, corrosives, or detergents.
- Inflammable or explosive substance such as gasoline or alcohol.
- Burning or hot objects such as cigarettes, matches, or hot ashes.

# IMPORTANT SAFETY INSTRUCTIONS

## General Safety Instructions

1. Please read the Operation Manual before operating LOOP.
2. Do not operate LOOP outdoors. For indoor use only.
3. Before operating LOOP, be sure to properly install the LOOP dust bin filter to avoid any malfunction or damage.
4. Do not operate LOOP on wet floors or in moist conditions (e.g. bathroom). Water and moisture can damage the circuit board in LOOP.
5. Prior to operating LOOP, remove any loose articles on the floor such as clothing, paper, loose cables, extension cords, etc. Be sure to also move or lift curtains, blinds, and drapes off the floor to avoid any possible accidents. In the event a loose article or cord gets tangled with LOOP during operation, it may cause damage to both LOOP and household property.
6. Never stand or sit on LOOP. Take caution and be alert when children or pets are present.
7. Never use LOOP to clean up anything flammable or burning (e.g. lit cigarette butts or burning ashes from fireplace.)
8. Never use LOOP to clean up combustible or highly volatile liquids (e.g. gasoline, chemicals, etc.).
9. While LOOP is in operation, be sure to keep all doors leading outside closed. If there are no doors, please use a physical object to block its pathway or use the room containment sensor.
10. During operation, the heat vent should always be unclogged. Be sure to always check and avoid having the heat vent clogged and obstructed, as it will cause damage to LOOP.
11. If damage or malfunction occurs, discontinue using LOOP and call your local dealer for assistance.
12. In the event LOOP will not be in use for a long period of time, we recommend that you remove the battery from the unit and store it separately.
13. This appliance can be used and operated by anyone aged 8 years and older. Anyone (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge should be supervised and/or educated with instructions on how to properly and safely use the appliance including the potential hazards before use.  
-Children should not clean or provide maintenance to the appliance without adult supervision. Children should not play with the appliance as it is not a toy.-
14. **WARNING! All power on the unit must be off and all adapters and plugs must be disconnected from the unit and power outlet when cleaning or maintaining LOOP.**
15. Automatic battery-operated cleaners shall also be provided with cautionary instructions for operation and constant care.

## SAFETY INSTRUCTIONS

16. Before operating LOOP, check and be sure to take the necessary steps to ensure that the unit can operate freely within the vicinity where it will vacuum. There should not be any objects blocking its pathway. Also make sure that there is nothing the unit can overturn and cause hazard (e.g. candles, wires connected to electronics/appliances, fragile stands, etc.).



### BATTERY & ADAPTER USAGE WARNING

**This product contains a Lithium Ion rechargeable battery. According to Federal and State regulations, removal and proper disposal of Lithium Ion batteries is required.**

1. The protective devices cannot be reset or replaced after a short circuit or an overload.
2. Please follow the voltage and current specified and printed on the packing labels. Check with your local power company if this is uncertain.
3. To avoid short circuiting the battery, please follow the instructions for installing battery exactly.
4. The adapter is for indoor use only.
5. Discontinue using the provided battery if it is damaged or leaking.
6. If battery is leaking, take caution and handle carefully using rubber gloves to avoid making contact with skin.
7. Never touch the adapter, plug or cable with wet hands.
8. Before cleaning the unit, make sure the power switch is off, all cords are disconnected, and the battery is removed.
9. If the unit needs to be disposed, remove the battery before doing so.
10. Anytime the battery needs to be removed, turn off the power switch and disconnect any cords before doing so.
11. Recycle the disused battery properly.
12. Keep battery away from any flammable area.
13. Do not get the battery wet.
14. Do not try to disassemble, modify, or repair the battery.
15. Keep battery away from children.
16. If battery leakage occurs and gets on skin, wash thoroughly right away. If it comes in contact with eye, flush out with water and seek medical attention immediately.

# SAFETY INSTRUCTIONS

## Battery and Recharging Instructions

1. Only use the battery (D.C. Lithium-Ion 14.8V 2900mAh) and adapter (24V 1000mA) provided with the LOOP unit. If replacing, must replace with same identical battery that is provided or contact your local dealer.
2. All power supply and adapters provided with LOOP Robotic Vacuum Cleaner are specifically designed and manufactured for use with LOOP ONLY. If the cords and/or adapters get damaged, please contact your local dealer or customer service to get them replaced.
3. When placing the batteries into the reservoir, please be sure that the polarity (+/- sign) of the batteries match with the indication marked inside the battery reservoir. Otherwise, the power cannot be switched on and/or damage may occur.
4. Only use the provided battery of the same type and model. Using any non-rechargeable battery other than the rechargeable D.C. Lithium-Ion 14.8V 2900mAh battery required will cause malfunction and may damage the unit.
5. The battery is rechargeable. Please use the voltage and current specifications on the packaging. If you are not sure of the voltage and current specifications of your household, please contact your local power company or a licensed electrician.
6. Charging adapter is for indoor use only.
7. LOOP Robotic Vacuum Cleaner is only to be used with the power supply and adapters provided with the unit. Do not use or replace with any other substitute.
8. Do not recharge the battery if the cable or plug of the battery charger is damaged.
9. Never touch the charger, plug or cable with wet or damp hands.
10. If LOOP unit requires cleaning, be sure to follow all the following steps before cleaning: 1. Turn off the power switch, 2. Unplug the power adapter, 3. Remove the battery.
11. The battery must be removed from the appliance before it is discarded.
12. The unit must be disconnected from all power supplies and turned off before removing the battery.
13. If the battery needs to be discarded, please take caution and dispose of it safely. Batteries should never be disposed in regular trash. Follow local rules and regulations and dispose of battery at a hazardous waste center or recycling facility.
14. Leakage from battery pack can occur under extreme usage or temperature conditions. If the leakage gets on skin, wash with water right away. If the leakage gets into the eyes, flush them immediately with clean water for a minimum of 15 minutes. If contact lenses are used and they do not come out during flushing, remove them manually. Seek medical attention.
15. Never repair or modify the battery pack. Should there be any issues, contact your local dealer or customer service to have it replaced.

## LOOP OVERVIEW

**Congratulations on your new purchase  
of the LOOP Robotic Vacuum Cleaner  
with Docking Station.**

This revolutionary vacuum cleaner is equipped  
with functions suitable for cleaning floors in  
homes and offices whether the surface  
is wood, tile, or linoleum.

LOOP is a household essential!



# LOOP OVERVIEW

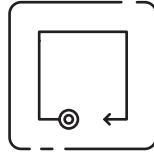
## Working Patterns



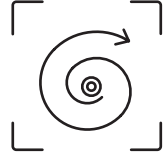
Z-Type



Random



Along the Wall

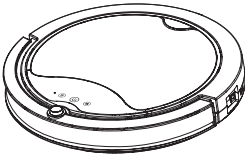


Spiral

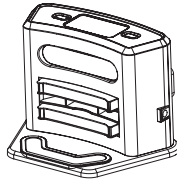
LOOP is designed to analyze real-time surroundings to create and navigate the best working patterns to reach every angle and corners of your home.

\*Only available in Auto mode

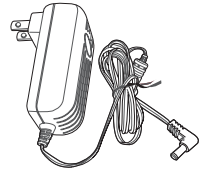
## Major Components and Attachments



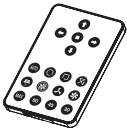
LOOP Cleaner x 1



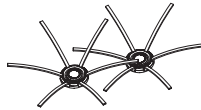
Docking Station x 1



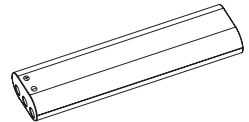
Adapter x 1



Remote Control x 1



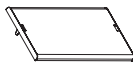
Side Brush x 2



Rechargeable Battery x 1



Dust Bin Filter x 2  
(1 pc pre-installed in the  
dust bin)



Dusting Paper  
Holder x 1



Dusting Paper x 3



Operation  
Manual

# LOOP OVERVIEW

IR Receiver  
(for Remote Control and Docking Station)

Control Panel  
and LED Display

Top Cover  
(Dust Bin inside)

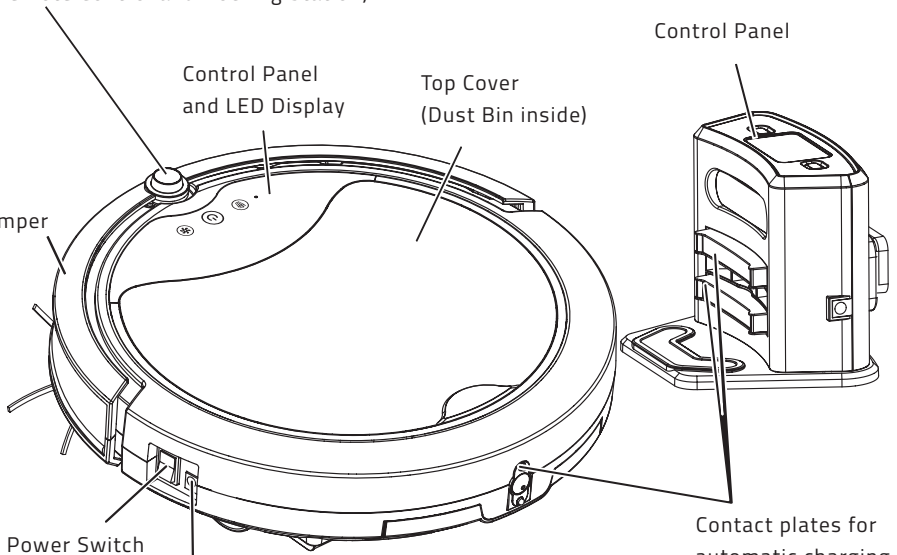
Bumper

Control Panel

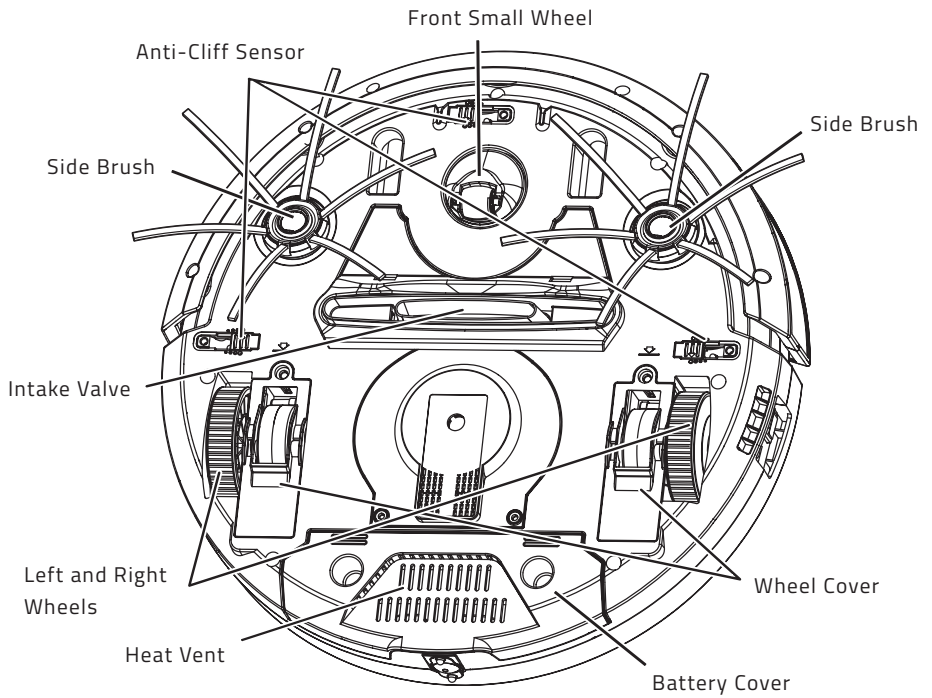
Power Switch

D.C. Jack

Contact plates for  
automatic charging



# LOOP OVERVIEW

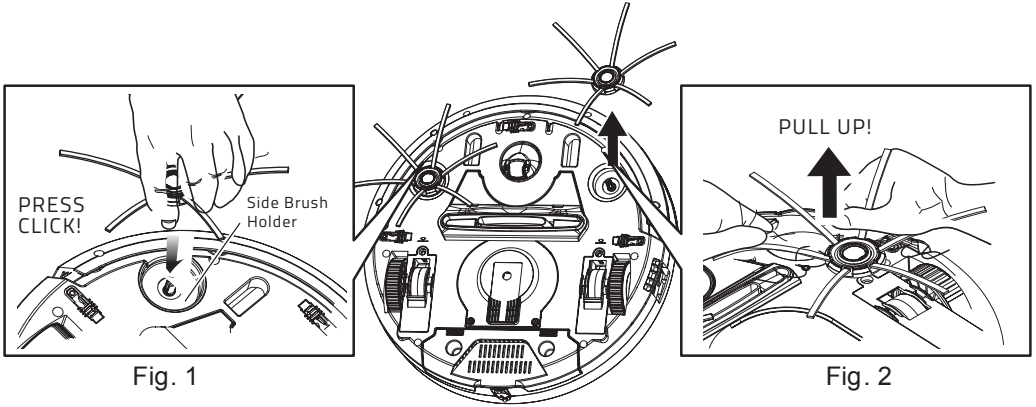


# INSTALLATION GUIDE

## Installing and Removing Side Brushes

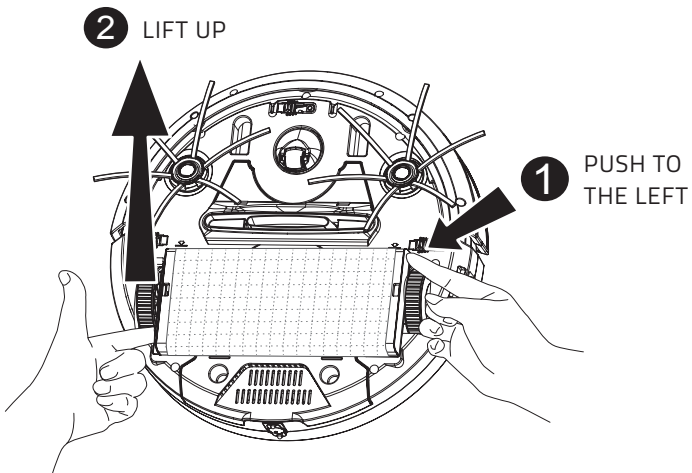
**To install:** Insert the brush directly onto the holder as shown in Fig. 1.

**To remove:** Hold two opposite sides of the brush as shown in Fig. 2, and evenly pull upward to remove the brush.



## Removing Paper Holder

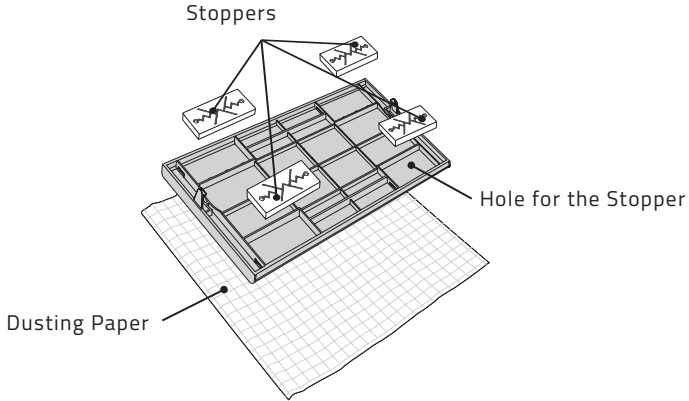
Remove the dusting paper holder by following the instruction in the below diagram.



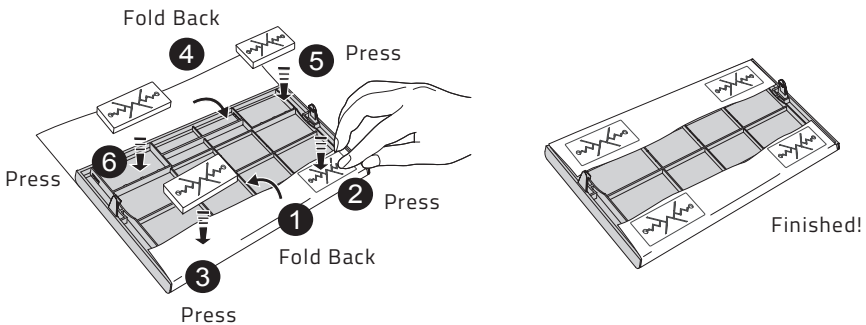
# INSTALLATION GUIDE

## Installing Dusting Paper and Holder

1. Flatten the dusting paper and put it on the floor or table. Then place the holder (the side with 4 stoppers face up) on the paper at the midpoint as shown in the diagram.

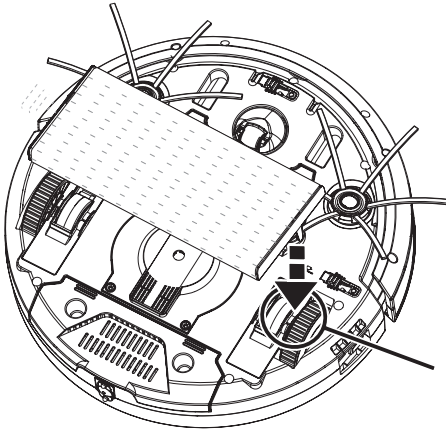


2. Remove 4 stoppers from the holder, fold the hem of dusting paper on two sides back to the holder, and place back 4 stoppers on top of the paper then press firmly to fix the paper onto holder as below diagram.



## INSTALLATION GUIDE

3. Position the dusting paper holder at the bottom of unit by aiming one bolt of the holder at the hole (near the big wheel) on the cleaner, click the holder on the cleaner, and then do it again for the other side.



Press the two bolts on the dusting paper holder into the two holes on the bottom of the cleaner.

### NOTE:

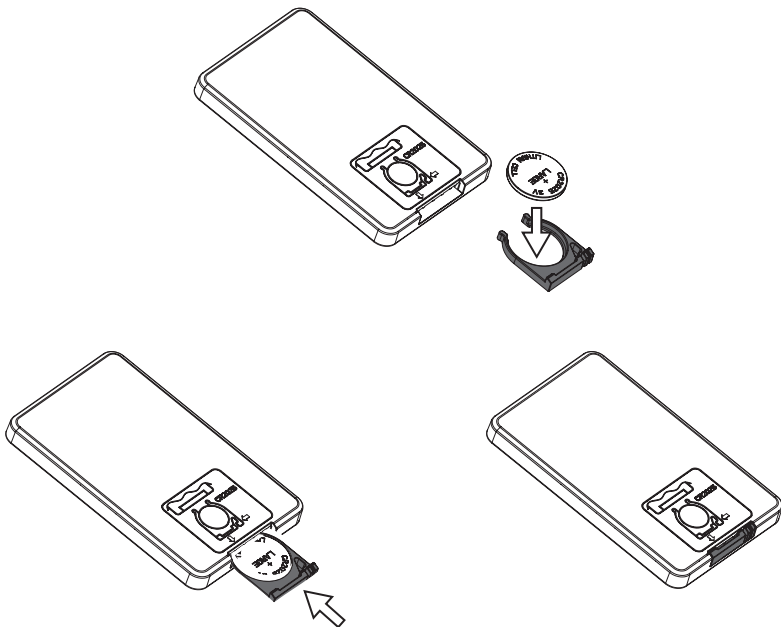
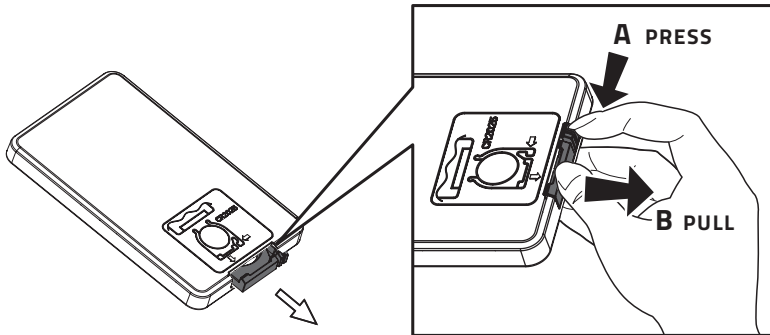
1. Do not use mopping function on the carpet. At the same time you should remove the side brushes to prevent it from damaging the brushes.
2. If you don't need to use mopping function, please remove the dusting paper holder from the cleaner before you turn it on for cleaning.

# INSTALLATION GUIDE

## Installing and Removing Remote Control Battery

\* **Remove insulation sheet before use of remote control.**

1. On the backside of the remote control, press position A (shown below) and pull out position B of the battery slot at the same time.
2. Place the battery with the (+) positive side facing up.
3. Slide in the battery slot as shown in the diagram below.



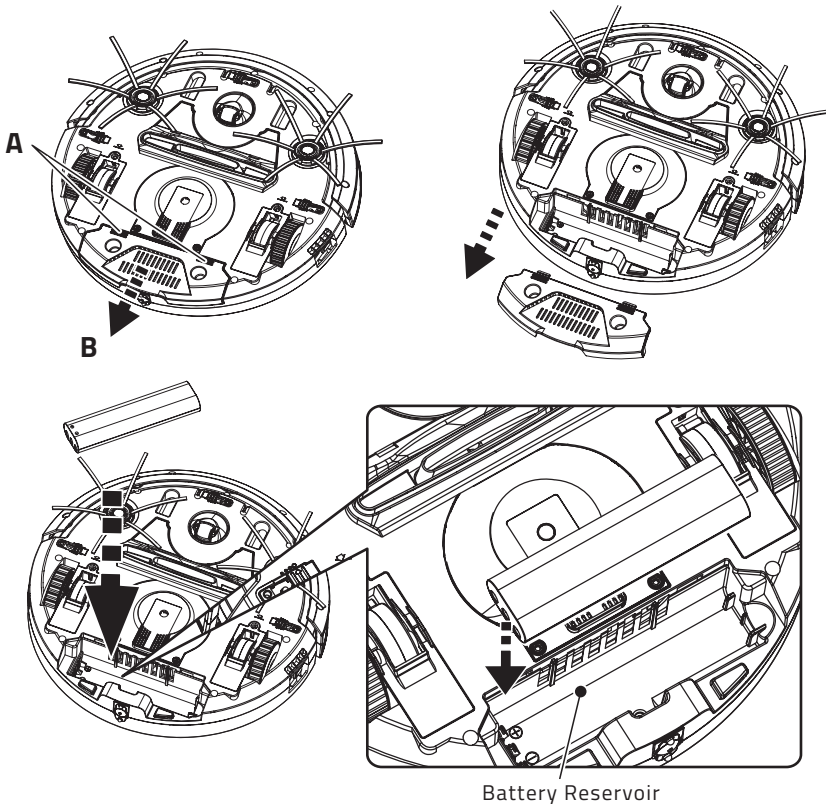
# INSTALLATION GUIDE

## Battery Installation and Removal

\* **Make sure to turn off power switch when installing or removing battery.**

**Removing the battery:** Open the battery cover by pressing the two points "A" (marked in the below diagram) and slide the battery cover in the direction of arrow "B". Then push the battery toward the springs' side in order to easily remove the battery.

**Installing the battery:** Insert the new battery in the battery compartment with the (+) positive and (-) negative signs matching those marked on the battery compartment. Slide back the battery cover to close. Put the battery's connecting dots face down close to the springs mounted on the battery compartment, then push toward springs. Be sure to orient the battery contacts with those of the unit. Slide the battery cover back into place to close it.

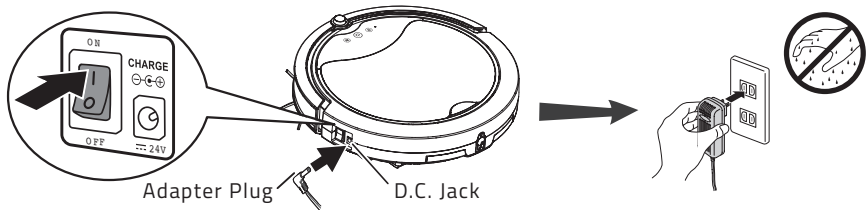




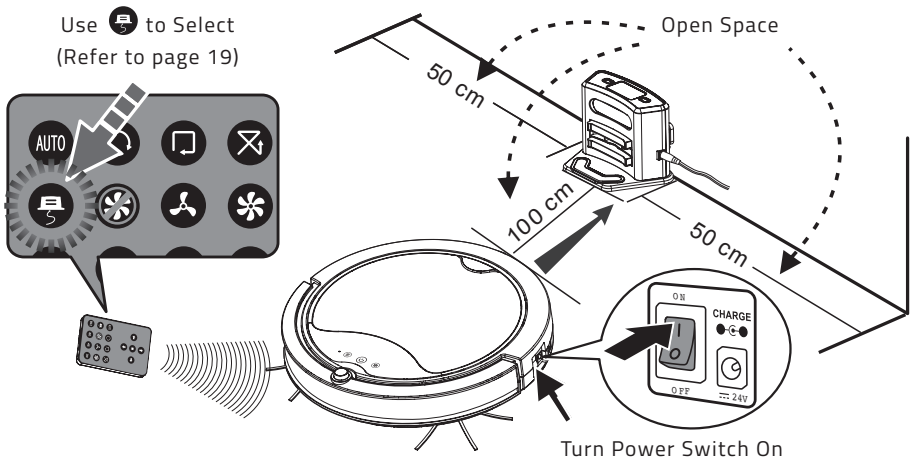
# INSTALLATION GUIDE

## Recharging Battery

1. Before charging, please check if the battery is properly mounted and turn on the switch. **The power switch must be turned on to charge.**
2. Two ways to charge the battery:
  - A. One way is to connect the charger adapter directly to LOOP. Insert the adapter's plug into the D.C. Jack on the side of the unit, then connect the A.C. end of the adapter to a power outlet. **Please connect the adapter to the unit first before connecting to a power outlet.**



- B. The second way is by using the docking station that is included. Make sure the docking station is placed evenly on hard surface as shown in figure below. Connect the contact points on the back of the unit with the contact plate on the docking station.




# INSTALLATION GUIDE

3. When charging, the LED indicator below the “⏻” (Power) on LOOP will flash green. When fully charged, the LED power indicator will stay solid green. It will take 4~5 hours for the battery to fully charge.
4. If the LED indicator below the “⏻” (Power) flashes RED, it means the power switch is NOT turned on.
5. When battery is low, the LED power indicator “⏻” (Power) will stay solid RED.

**Note:** Please turn on the power switch when charging.

## Testing the Docking Station

### Testing by Remote Control

Turn on the power on LOOP. Press the “find docking station” button “

### Testing by Unit

Press and hold the “⏻” for 3 seconds, this will activate docking mode and the unit will return to the docking station. The LED power indicator “⏻” will turn red.

If the unit does not go back to the docking station and charge successfully, please adjust the docking station to the proper height.

# INSTALLATION GUIDE

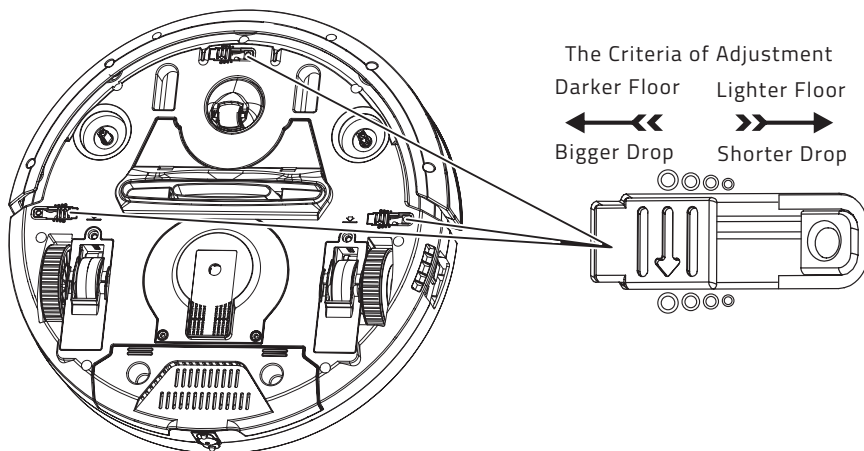
## Adjustment of Anti-Cliff Sensors

There are 3 "Anti-Cliff" sensors at the bottom of LOOP to prevent the unit from falling down stairs. If the distance between the stair and the ground is shorter than usual, please adjust all windows of "Anti-cliff" sensors to "○", "○", "○", or "○" position to prevent the cleaner from falling down stairs.

**Please test before the unit starts to clean.**

\***ATTENTION:** If the color of the floor is dark (e.g. black), it means that reflectivity of the floor is bad, at this time, you have to open the window to a larger scale.

**Please refer to the criteria of adjustment (see below) for adjusting the sensor windows.**

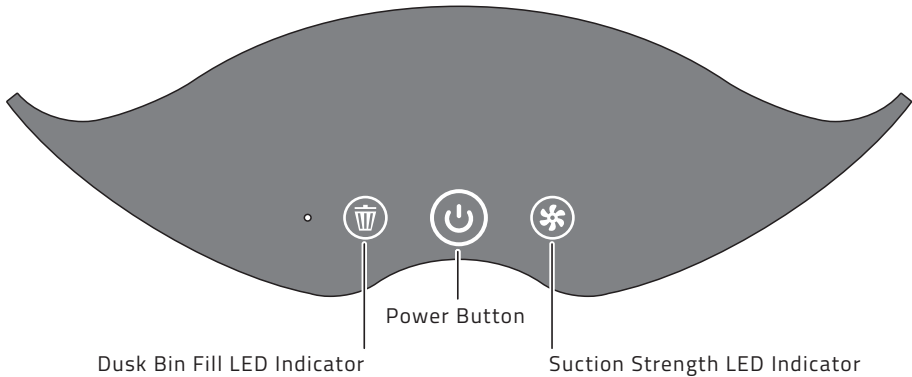


# GENERAL OPERATION

## Getting Started with LOOP

1. Make sure the power switch is off. Install the side brushes and battery as described in the manual.
2. When charging for the first time, use the D.C. Jack and connect it directly to the unit. **Charge the battery for 4~5 hours prior to first use.**
3. To ensure the best efficiency of the unit, check and make sure there is nothing blocking the pathway of the area being vacuumed as described in the safety instructions of the manual.

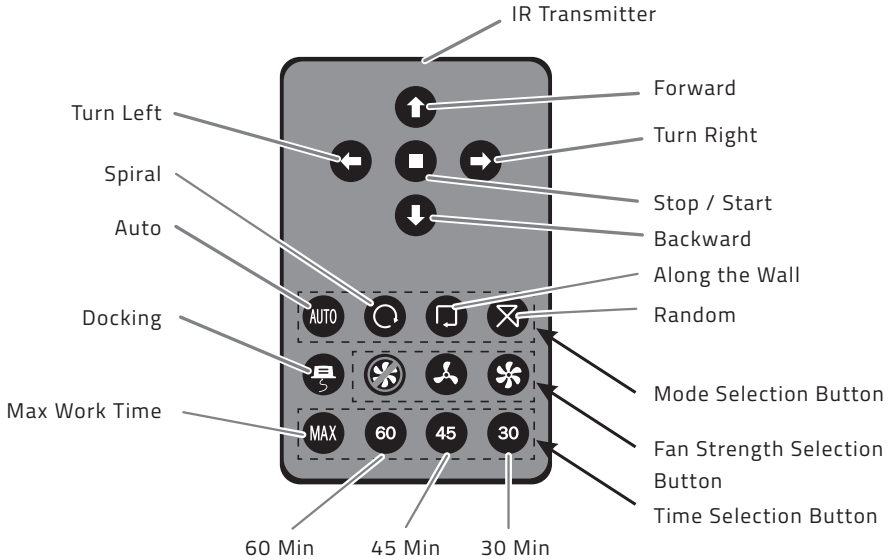
## Control Panel



# GENERAL OPERATION






## Remote Control













\*Remove insulation sheet before using remote control.



1. "CR2025 3V" battery required.
2. After selecting a command, the unit will start after 3 seconds.
3. When the unit is docked on the docking station charging or in stand-by mode, press the "■" button for the unit to start cleaning.
4. While LOOP is in operation, press any key on remote control to change its settings or action immediately.
5. Function of buttons: See table on the next page.

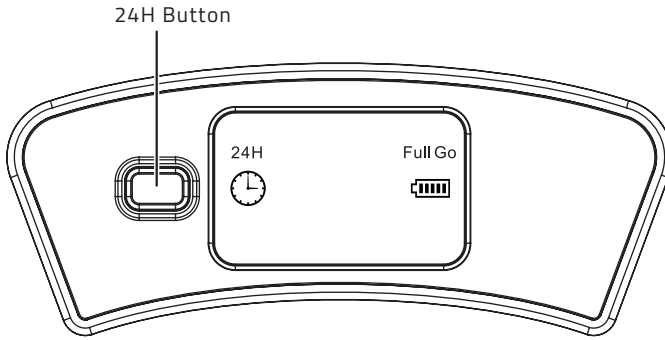
# GENERAL OPERATION

Key Pressed Control Keys	Action
 FORWARD	Move forward until bumper encounters any obstacles or by pressing "STOP" button.
 LEFT	Turn left. Pressing and holding the left button makes it turn left continuously.
 RIGHT	Turn right. Pressing and holding the right button makes it turn right continuously.
 STOP/START	Stop/Start LOOP immediately.
 BACKWARD	Move backward. <b>NOTE:</b> The unit does not have any anti-cliff sensor in the rear to prevent it from falling down stairs.

Key Pressed Control Keys	Action
	Fan: Off
	Adjust fan speed: Low
	Adjust fan speed: High
 AUTO	Set the unit in Auto Clean Mode. (Please refer to page 22).
 SPIRAL	Set the unit in Spiral Single Mode. Unit will move in a spiral pattern until the bumper encounters an obstacle or stairs, then it will continue to operate in "AUTO" mode until battery is low.
 RANDOM	Set the unit in Random Single Mode. Unit will continue to operate in Random Mode continuously until battery is low.
 ALONG THE WALL	Set the unit in Along-the-Wall Single Mode. Unit will continue to operate in Along-the-Wall Mode continuously until the battery is low.
 MAX	Maximum working time with docking function.
 60	60-minute working time with docking function.
 45	45-minute working time with docking function.
 30	30-minute working time with docking function.
 Docking	Return to docking station to recharge battery.

# GENERAL OPERATION

## Docking Station Control Panel



## Indication on the Panel

State	Signal	Function
Starting Time Set	24H with green light on	LOOP is programmed to clean at the same time every 24 hours

# GENERAL OPERATION













## Basic Operation

### → Manual Work

\* When  LED Indicator light is on -

→ Check:

- ❶ Dust bin is full.
- ❷ Intake Valve is stuck with dirt.
- ❸ Inside and outside of Intake Valve area needs to be cleaned.

1. Press () power key to start.
2. After work is completed, the unit will sound warning buzz. The unit will stop or return to docking station for charging.
3. During working time:
  - (1) The unit will stop if you press and hold () power key for more than 0.5 seconds on the control panel or press the () stop key on the remote control.
  - (2) Press and hold the "" for 3 seconds, the unit will enter docking mode, LED power indicator "" will turn red.
  - (3) If "" stays solid red, it indicates the unit is low on battery and will sound a buzz warning. The unit will stop or return to docking station for charging depending on settings.
4. When the unit is connected to the power adapter or docked at the docking station:
  - (1) Charging: The () power LED will flash green when charging.  
Battery full: The () power LED will be solid green.
  - (2) Use the setting keys and/or remote control to adjust/change settings.
  - (3) On the dock station:
    - Press () more than 3 seconds (you will hear a beep sound) to activate the unit to begin cleaning.
    - Use the "" key on the remote control to activate the unit to begin cleaning out of the dock station.
    - Or use the () on the remote control to activate the unit out of the dock station and use () Auto key to begin cleaning.
    - If the unit is accidentally kicked or moved while docked on the docking station, it will try to find its way back to the docking station but will stop if it is not properly set. Please make sure to always have the docking station placed properly.



# GENERAL OPERATION

## Schedule Work

1. Set the schedule according to the manual of Docking Station Control Panel. (Please refer to page 21.)
2. The unit will work according to the schedule set.

## Stop Operation

To stop the operation of the unit immediately: (1) turn off the power switch on the right of the unit, or (2) press the "■" key on the unit control panel for more than 0.5 seconds, or (3) lift the unit off the floor and the unit will stop 1 second later.

## Unit Stoppage

1. The unit will stop after 1 second after being lifted up from the floor.
2. The unit will stop when the wheels are jammed for more than 20~30 seconds.

## Other Function

If LOOP is not visible nearby:

Clap loudly 3 times and LOOP will Beep 3 times in response. If no beep response, please walk around and clap again until the beep sound response is heard.

## Sleep Mode

When the unit is stopped and no key is pressed within 3 minutes, it will enter sleep mode. Press (☺) or (■) to activate unit from sleep mode.

To activate low power mode (sleep mode), put your robot on the docking station with the power switch in the off (O) position. Turn the power switch from off to on (I) six times consecutively, leaving the robot in the on (I) position. The robot will not function while in sleep mode. To turn sleep mode off, turn the power switch off and then back on.


## **By Remote Control**

1. Press "Stop" button to start or stop cleaning.
2. Other functions please refer to the table listed on page 20.

# GENERAL OPERATION

## Understanding LOOP's Displays

**Table A: Red LED flashing on screen.**

Display on Screen	Possible Cause	Solution
 Red LED Flashing	The wheel is stuck.	Remove the unit from the obstacles, and re-start the power switch.
	The top cover or dust bin is not installed properly.	Install the top cover and dust bin properly. The unit will detect the error and fix automatically.
	The bumper is stuck.	Remove the unit from obstacles. The unit will detect the error and fix automatically.
	The unit was lifted up from the floor or the color of the floor is too dark.	Put the unit back on the floor. Please refer to page 17 to adjust the window of anti-cliff sensor. The unit will detect the error and fix automatically.
	The battery is not installed properly. Charging error. (Power switch is off).	To install the battery properly, please refer to page 14 for battery installation, and re-start the power switch.

**Table B: Buzz**



Buzz	Indicator
Beep 1 Time	Normal
Beep 2 Times	Invalid
Beep 3 Times	Error

# GENERAL OPERATION

**Table C: LED Display on Screen**

Display on Screen	Indication
Power LED is solid green	Battery is fully charged
Power LED is flashing green	Charging
Power LED is red	Battery is low
No Signal	Unit entered sleep mode when untouched for over 3 minutes
Power LED is flashing red	Unit has an error. Please trouble shoot (see page 31).

**Table D: (  ) and (  ) LED on screen**

Display on Screen	Indication
 Red On	Dust bin is full
 Red On	Fan turbo mode is on

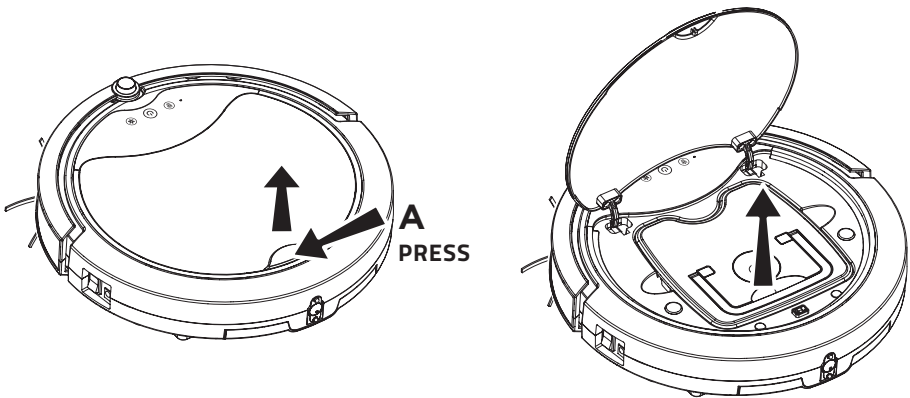
# CLEANING AND MAINTENANCE

## Maintaining LOOP

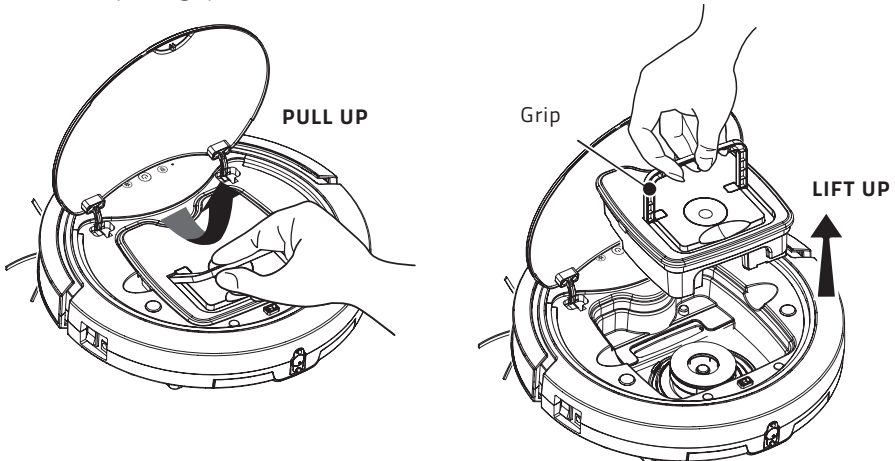
The operation and maintenance of the LOOP is very simple. After each use, clean any dirt left behind on the dust bin and filter. It is not necessary to clean the intake after every use.

### Dust Bin

1. Press and hold the cover at point "A" in the direction the arrow is pointing as shown in diagram below to open the top cover from the cleaner.

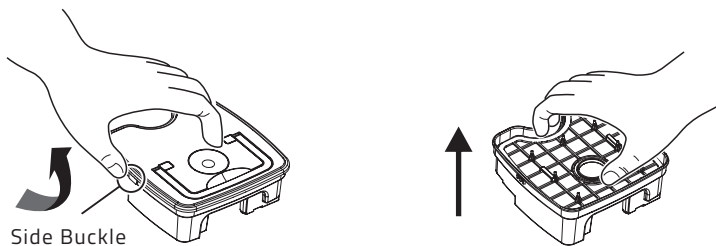


2. Pull up the grip and take out the dust bin from the cleaner.

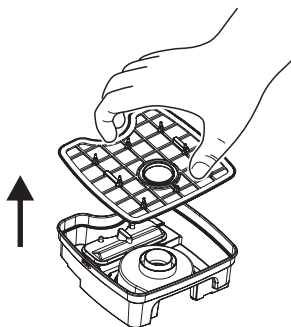


## CLEANING AND MAINTENANCE

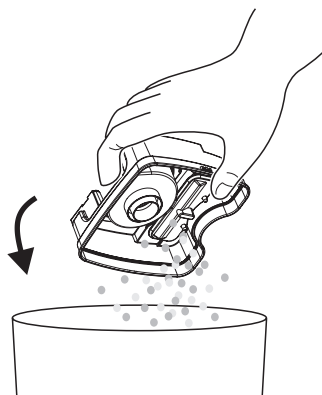
3. Open the upper cover of the dust bin.



4. Lift up and take out the filter.



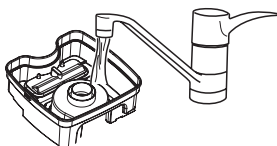
5. Throw away the dust and dirt from the dust bin.



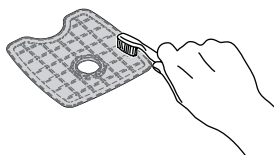
## CLEANING AND MAINTENANCE

6. Rinse the dust bin with tap water. It is not necessary to wash every time.

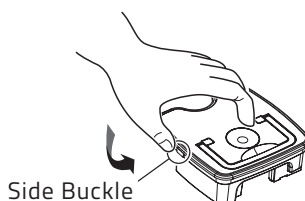
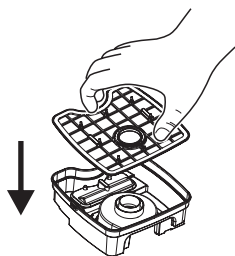
**Do not put it into the dishwasher.**



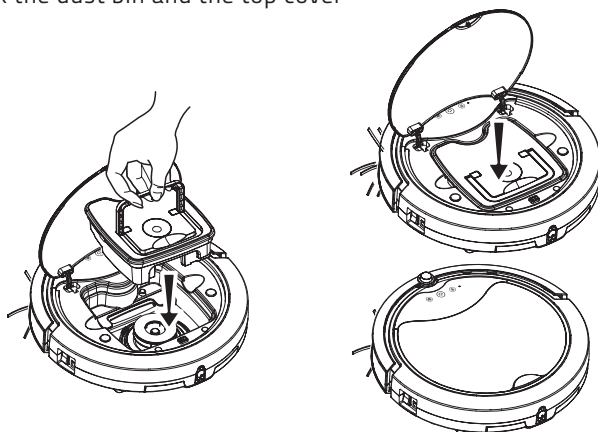
7. Periodically clean the filter with a soft bristle brush.



8. Once dry, reinstall the filter and the dust bin lid.



9. Place back the dust bin and the top cover

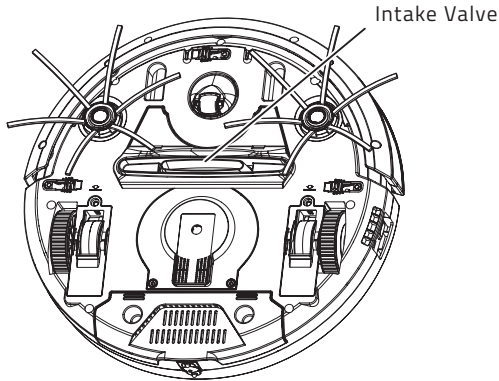


**ATTENTION!** Before starting the cleaner, please be sure the dust bin filter has properly installed and to avoid risk of damage.

# CLEANING AND MAINTENANCE

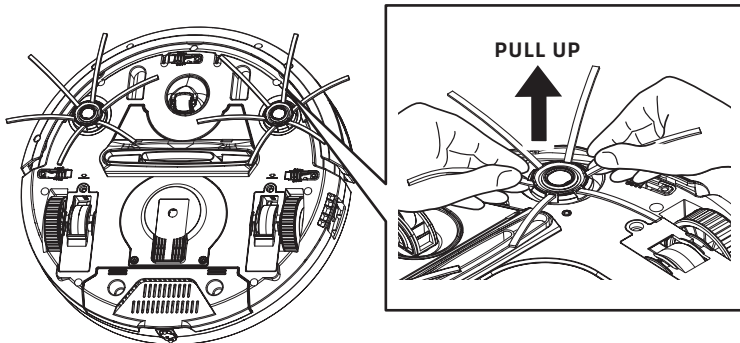
## Intake Valve

After repeated use, dirt and dust can accumulate around the intake of LOOP and the work efficiency can be reduced. To ensure the best efficiency and constant airflow, the intake should be cleaned periodically.



## Side Brushes

1. After being used for a long period of time, the brushes need to be replaced for maximum efficiency.
2. Turn off the power, place the bottom of the cleaner upward on a flat surface. Hold two opposite sides of the brush (see diagram below), and evenly pull upward to remove the brush.
3. After removing the brushes from the unit, they can be rinsed with water to clean. If the brushes become bent or wrinkled after continuous use, soak them in hot water to return to their original shape. Install the brushes back after cleaning.

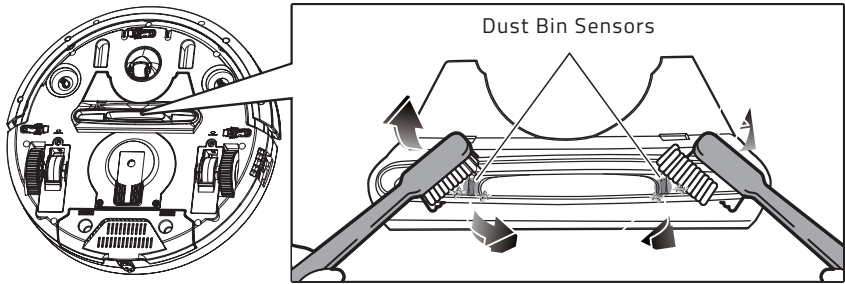


# CLEANING AND MAINTENANCE

## Dust Bin Sensors

Over a long period time of use, dust and debris will accumulate around the intake valve blocking the dust bin's sensors and causing the dust bin full LED indicator to light up even when it is empty. When this happens please check and clean around the intake valve.

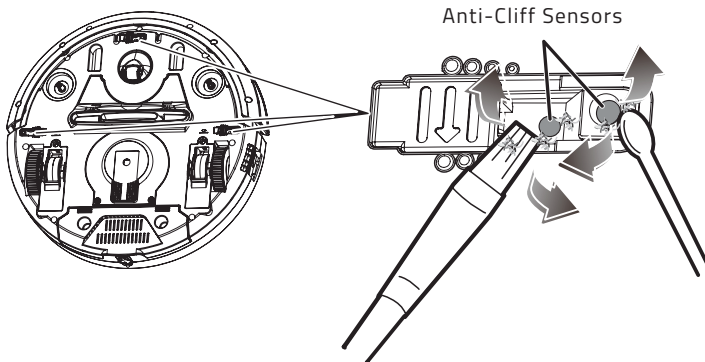
1. Turn off LOOP.
2. Remove the dust bin (refer to Page 26).
3. Use a soft-bristle brush to lightly clean away any dust build up.



## Anti-Cliff Sensors

Over a long period time of use, dust and debris will accumulate around the anti-cliff sensors causing LOOP's control panel LED "⏻" to flash red and stop operating. When this happens please check and clean around the anti-cliff sensors.

1. Turn off LOOP.
2. Use a thin brush or q-tip to clean away any dust build up around all 3 sensors.





## TROUBLESHOOTING

	<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
<b>1</b>	When power switch is turned on, and no LED display appears.	<ol style="list-style-type: none"> <li>1. Battery is not installed correctly.</li> <li>2. Very low battery.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install the battery according to the manual.</li> <li>2. Charge the battery according to the manual.</li> </ol>
<b>2</b>	Remote control does not work.	<ol style="list-style-type: none"> <li>1. Remote control is out of battery.</li> <li>2. The unit and remote control are exposed to sunlight or strong light.</li> <li>3. Remote control will not function if LOOP is near the docking station.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace battery.</li> <li>2. Avoid direct exposure to sunlight.</li> <li>3. Move LOOP at least 2 meters away from the docking station.</li> </ol>
<b>3</b>	Vacuum on but can not collect dirt or hair.	<ol style="list-style-type: none"> <li>1. The dust bin is full.</li> <li>2. The filter is not installed correctly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean the dust bin.</li> <li>2. Re-install the filter correctly.</li> </ol>
<b>4</b>	The side brush becomes crooked, or does not sweep well.	Worn out.	If crooked, soak brushes in hot water to recover their original shape.
<b>5</b>	LOOP circles around only.	One of the wires connected to the wheels is loose.	Open the wheel cover and connect the loose wire of the wheel, set properly, or contact your local dealer for service.
<b>6</b>	Cannot start the LOOP.	<ol style="list-style-type: none"> <li>1. The battery is not installed properly.</li> <li>2. Battery power is low.</li> <li>3. The Top Cover is not installed properly.</li> </ol>	<ol style="list-style-type: none"> <li>1. To install the battery properly, please refer to page 14 for battery installation.</li> <li>2. Have the battery fully charged.</li> <li>3. Place the top cover back and turn it on again.</li> </ol>

## TROUBLESHOOTING

	<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
<b>7</b>	LOOP can not vacuum effectively when it is turned on.	The dust bin filter is not properly installed.	Install the dust bin filter properly.
<b>8</b>	The LED display shows error.	Red LED on and Beep 2 times or 3 times.	Please refer to page 24-25 (Table A to Table D).

\*\*\* If the above solutions can not solve the problem, please contact Miravac at [service@miravac.com](mailto:service@miravac.com) or (833) 647-2822 for service. \*\*\*



