

Glass cleaning robot

User Manual



1. Important safety precautions and warnings

1.1 Before using this product, please read the manual carefully

1. If you are using this product for the first time or haven't used it for a long time, please fully charge the built-in backup battery until the green light is on (it is recommended to charge for 2 hours for the first time)
2. Before use, fasten the safety rope and check if there is any damage to the safety rope and if the knot is secure, ensuring that the safety rope is tied to a stable indoor device.
3. This product must be connected to a power cord in order to work.
4. Before wiping the glass, please remove all items from the surface of the glass. Do not clean broken glass, as some frosted glass may be scratched during cleaning. Please use with caution.
5. When working on the product, please keep hair, loose clothing, fingers, and other parts of the body at a certain distance from the moving parts of the product.
6. Please turn on the power first and then place the product on the glass to ensure that the machine is securely attached to the surface of the glass before letting go; Remove the product before turning off the power.
7. Ambient Temperature: 0°C-40°C (32°F-104°F)
8. Product storage temperature: -10°C-50°C (14°F-122°F)

1.2 warning ! ! !

1. Do not allow children to use this product, let alone use it as a toy.
2. Do not use in rainy, humid, water or other liquid environments to avoid water ingress that may cause machine malfunction or electric shock hazards.
3. Do not use in hazardous areas such as open flames, restrooms with nozzles running, swimming pools, etc.
4. Do not use in areas with flammable, explosive solids, and gases.
5. Do not place this product in strong magnetic environments.
6. Do not clean damaged or uneven glass. Uneven or damaged glass will not generate sufficient vacuum suction to adsorb, resulting in the product not working.
7. Please do not expose this product to sunlight and keep it away from heat sources such as radiators, heaters, microwaves, gas stoves, etc.
8. Do not wet this product or place it in a humid environment for a long time. Please keep the product away from liquids (beer, water, beverages, etc.).
9. Do not use water to clean the body and power adapter.
10. Do not spray water or cleaning solution on the body or bottom of the machine.

Water can only be sprayed on the cleaning cloth, and then attach the cleaning cloth.

11. Do not repair the product on your own. Product repairs must be carried out by an authorized after-sales center or dealer.

12. If the product or power adapter is damaged, please do not continue to use it and contact your local after-sales center or dealer for repair.

1.3 Product Safety Information

1. Before cleaning the body or maintaining the machine, make sure to cut off the power supply, unplug the transformer from the socket, and turn off the product power. Remember not to turn off the power by unscrewing the extension wire.

2. Do not drag the power adapter or plug through the extension cable. If the power is cut off, the power plug should be unplugged normally.

3. Please use the original power adapter. Using a non original adapter may cause product malfunction or damage.

4. Do not damage or twist the power cord. Do not press heavy objects on the power cord or adapter to avoid damage to the power cord, short circuit, fire, electric shock, etc.

5. Ensure that the adapter has sufficient space for ventilation and heat dissipation during use, and do not wrap the adapter with other objects, as it will increase the risk of heating.

6. Do not use damaged adapters, charging cables or plugs; Do not use the adapter in damp environments and prevent wet hands from touching the adapter.

7. Before powering on the power adapter, please carefully read the voltage label on the power adapter.

8. Do not disassemble the adapter. If the adapter fails, please replace the entire adapter. For assistance and repair, please contact local customer service or dealer.


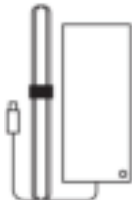

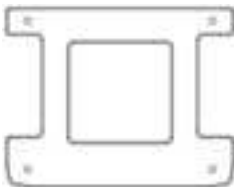





9. If the battery of this product is not handled properly, there may be a risk of burning or chemical damage to the body. Please do not disassemble the battery to avoid causing a short circuit, and do not throw the battery into a fire or place it in a temperature above 60 ° C (140 ° F). Do not incinerate this product.

10. The built-in battery of this product can only be replaced by the manufacturer or designated dealer/after-sales center to avoid danger. The disposal and recycling of waste batteries must comply with relevant national laws and regulations.

11. Strictly follow the instructions for operating this product, and the manufacturer will not be responsible for any property damage or personal injury caused by improper use.

2. Product description

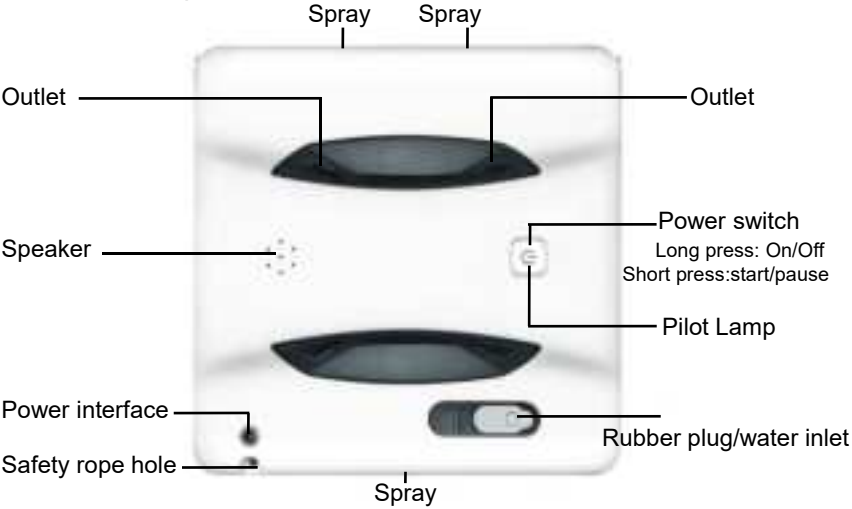
2.1 Packing List

		
Host	Adapter	AC Line
		
Duster Cloth	Safety Rope	Remote Control
		
Water Storage Bottle	Instructions	Screw*2

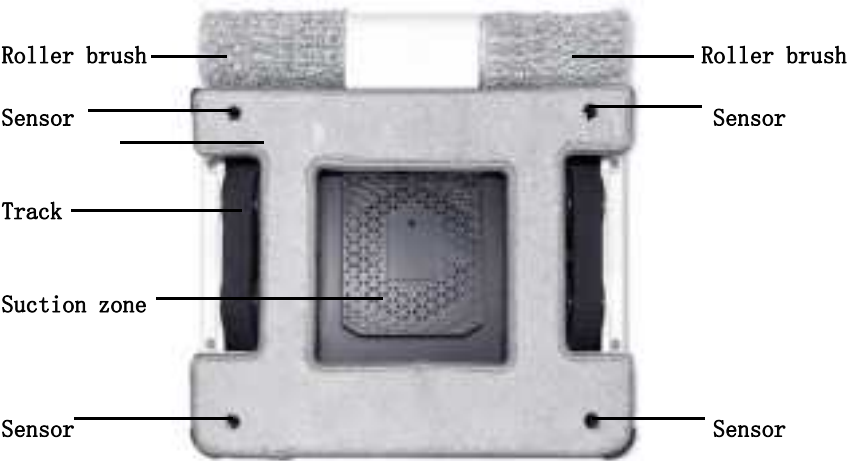
2.2 Technical Parameter

Product name	Glass cleaning robot	Rated voltage	DC: 24V
Rated power	About 75W	Noise	About 63dB
Battery capacity	650mAh	Charging time	About 2h
Dimensions	240* 223* 73mm	Package Dimensions	340* 255* 90mm
Power adapter input	AC 100-240V 50/60Hz 2.0A	Power adapter output	DC 24V/3A

2.3 Product diagram



Attention:
When using this product, it is necessary to connect the power adapter and the indicator light should be green before starting and working.



2.4 Pilot lamp explain

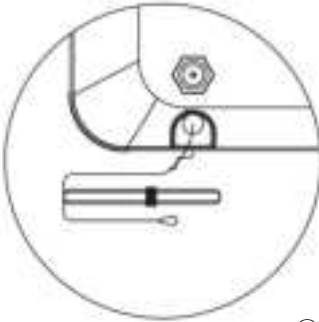
Green light flashing	Machine is normal or charging	
Green light always on	Battery full	
Yellow light flashing	Low battery	Please charge in a timely manner
Red light always on	Low battery	Please connect the adapter for charging and use
Flashing red light	Fault abnormality	Please check the machine or restart it

3. Installation instructions

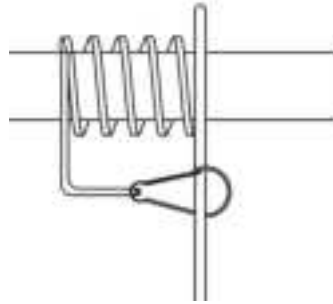
3.1 Connecting the safety rope

A. It is required to check the safety rope in the lower left corner of the machine, ensure that the knot is stable, and check whether the safety rope and hardware buckle are damaged. (Figure 1)

B. Secure the hardware buckle on the other end of the safety rope to other sturdy objects inside the room, ensuring that it is wrapped several times to prevent it from falling off. (Figure 2)



①



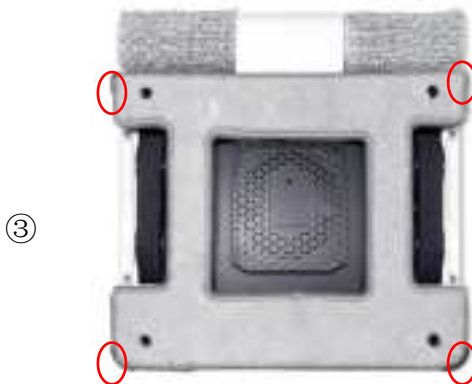
②

3.2 Install the wiping cloth

A. Properly apply the cloth to the bottom of the product body, paying attention to the direction, ensuring that it is not installed upside down, and not blocking the drive wheel and barometer sensor. (Figure 3)

B. It is required to press the cloth in all directions with your hand. The cloth must be tightly attached to the Velcro on the body, and the four corners of the cloth must be flattened. The cloth must be installed in the machine slot, kept flat, and the cloth must not be too wet.

C. Check if the belt is clean.



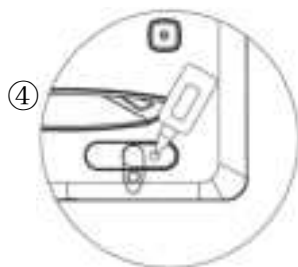
③

3.3 Water tank filling

A. Fill the randomly provided water storage bottle with tap water, align it with the water inlet of the product's water storage tank, squeeze the water storage bottle, and pour the water into the tank. (Figure 4)

(Note: It is recommended that users fill one bottle at a time and try not to let the water overflow)

B. After filling the water tank with water, cover it with a rubber stopper to ensure sealing.



3.4 Connect the product and power adapter

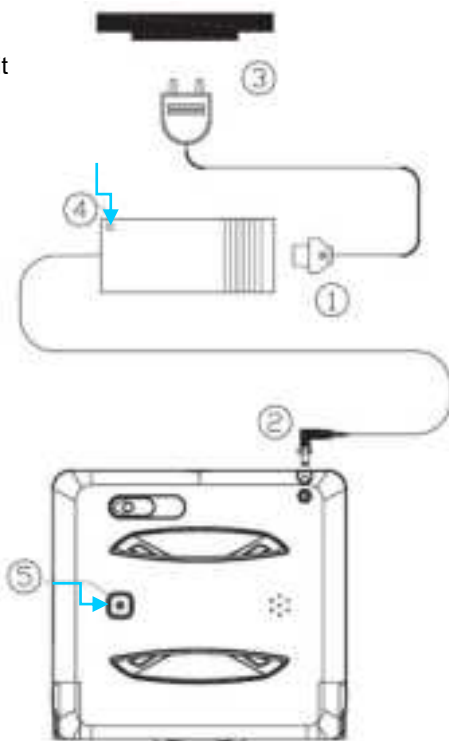
A. Connect the AC power cord to the adapter.①

C. Connect the adapter output end "L" plug, Insert into the DC power interface of the body and tighten it Outer ring hardware nut ②

D. Insert the AC power cord plug into the socket③

E. After connecting the machine, check the indicator light on the front of the power adapter. The normal state is green.④


F. Finally, check the Pilot Lamp of the machine's "on/off button", and the normal state is flashing green light ⑤




Important Note: Please ensure that the machine is continuously powered by AC power while working. The built-in backup battery is prepared to ensure that the machine will not fall off due to sudden power outage during operation, and the duration of the built-in battery is about 20 minutes. If the built-in battery is low, please fully charge the battery before working.

4. Operation

4.1 On/Off


A. Power switch - Press and hold the button  on the machine for 3 seconds to turn on/off the machine's power supply; After ensuring that the machine fan rotates, place the machine on the glass and ensure that it has been adsorbed onto the glass before releasing.


B. When placing the machine, it is required to be at least 8cm away from the frame.

C. At the beginning, it is required to place the machine flat (with the body facing up and the bottom facing down) or on its side (with the bottom facing the side glass), and long press "  " to start the machine normally.





4.2 Starting the machine

A. Press and hold the "  " button on the surface shell for 3 seconds to enter the boot state.

B. Place the machine on the surface of the glass to be cleaned, and briefly press the "  " button again to start the machine and enter the automatic cleaning mode.

4.3 Stop/Pause

When the machine is cleaning, short press the "  " button on the machine or the "  " button on the remote control to stop cleaning











4.4 Removing the machine

A. After the machine cleaning is completed and automatically stops, press and hold the power button to turn off the machine, and firmly grasp the handle to remove the machine;

B. If you cannot reach the machine with your hands, you can use the remote control to control the machine. After walking to a position where your hands can reach the frame, remove the machine.


4.5 Remote Control

*Adopting 2.4G wireless technology, it can operate 360 degrees in all directions and at a distance of 8 meters without obstruction.

		Automatic water spraying: on/off		Upward sweeping
		Manual water spraying		Sweep Down
	Z	Z-shaped path automatic cleaning		Sweep Right
	N	N-type path automatic cleaning		Sweep Left
	Z/N	Automatic cleaning of Z-type path before N-type path		Start/Pause
		Local fixed point cleaning		Cleaning along the edge
	The remote control uses battery number 7 (shipped without batteries)			

4.6 Introduction to Water Spray Operation

This machine supports separate water spraying on the left and right sides during operation; The rolling brush end is driven by a dual nozzle motor, and the other end is driven by a single nozzle atomizer.

- A. Before starting work, use the water storage bottle in the accessories and add appropriate tap water to the water tank.
- B. Every time the machine is turned on, it operates normally and the water spray function is turned on by default; Users can turn off/on the water spray function themselves.
- C. No matter which direction the machine moves forward, it can spray water and the rear water tank will automatically close.
- D. Water source: The water tank is suitable for tap water.
- E. The water tank has a capacity of 30ml.
- G. The delivered water storage bottle has a capacity of 35ml.

4.7 Belt cleaning mode

After the machine is connected to the power adapter, grip the handle tightly and place the body facing downwards with the bottom belt facing upwards. Press and hold the "on key" button, and the wheel belts on both sides will rotate in a circular manner; Use a clean cloth to gently apply the belt to remove stains; After cleaning the belt, press and hold the "On" button to turn off the machine.

5.Product Maintenance

5.1 Cleaning cloth

Please flip the machine body flat and remove the wiping cloth. Place the cloth in cold water, add a small amount of detergent for cleaning, clean with water, and then air dry. Figure ①

(Remember: Do not use bleach; do not dry; do not dry clean. Do not use a completely wet cloth to clean glass windows, as this may cause the machine to become stuck and slippery on the glass surface due to excessive moisture adsorption.)



Figure① Cleaning cloth



Figure② Cleaning fan

5.2 Fan maintenance

Please turn the machine body over and lay it flat, and use a clean and dry cloth to wipe away dust and other dirt from the bottom of the body. Figure ②

5.3 Rolling brush maintenance

After each cleaning of the machine, remove the rolling brush cloth on both sides, clean the surface cloth with tap water (do not flush water into the inside of the rolling brush), and finally air dry the rolling brush cloth

Disassembly method:

- Place the machine flat on the table and use a cross screwdriver to unscrew the screws counterclockwise.
- Gently break open the nearby buckle with your hand to remove it, and separate the roller brush and buckle separately.
- Install the clean roller brush onto the buckle, and connect the other end of the roller brush with the machine bearing through 6 holes. Gently push it inward and then swing the buckle to fix it in the machine slot. It is best to tighten the screws.
- The disassembly/assembly method for both roller brushes is the same.



5.4 Automatic cleaning belt maintenance

Figure ④
Cleaning the Drive Wheel



It is recommended that users clean and maintain the belt every time they use the window cleaner (before/after work) to prevent stains, dust, etc. from sticking to the surface of the belt, which may cause abnormal machine operation.

Step:

- A. Connect the machine to the power adapter
- B. Place the machine in the opposite direction (with the belt facing upwards) on the workbench.
- C. Then press and hold the "key" button by hand, and the wheel belts on both sides rotate in a circular motion.
- D. Use a clean towel and cloth to gently adhere to the surface of the belt. Figure ④
- E. After cleaning the belt, press and hold the power button to shut down the machine.

Attention:

When users use clean towels and cleaning cloths, they must be careful when slightly adhering to the surface of the belt. Due to the rotation of the wheel belt, they cannot use strong pressure to compress the belt to prevent the cloth from being drawn into the wheel together.

6. Tuya App User Manual

6.1 APP Download

A. Android system (domestic): Search for "Tuya Smart" or scan the QR code below in major application markets (Application treasure).

B. Android System (International): Search for "Tuya Smart" in the Google App Store.

C. IOS system: Search for "Tuya Smart" in the App Store or scan the QR code below.



6.2 Login/Registration

A. Open the app, click "Register", and the privacy policy page of the graffiti intelligent platform will pop up. After reading and agreeing, you will enter the account registration page.



B. You can register using email or phone number, and the country/region will follow the settings of the mobile system. You can also manually change the country/region (after registration is completed, the country/region cannot be changed). After entering your phone number or email, click on "Get Verification Code".

6.3 Add Device

A. Turn on WiFi and Bluetooth functions on your phone first.

B. Open the app and click on "Add Device" or "+" in the upper right corner to enter the Add Device page. There are two ways to add devices: "Manual Add" and "Auto Scan" (if you use "Auto Scan", you need to allow the application to use "Wi Fi and Bluetooth" permissions). Automatically scan for a few seconds, discover new devices, and click 'Add'.

C. Manually adding Wi Fi devices:

After clicking "Confirm", you will first enter the "Enter Wi Fi Password" page (only supports 2.4G band Wi Fi networks, not 5G band Wi Fi networks). If you do not know the frequency range of the network, please click on "Only supports 2.4G Wi Fi" for assistance.



6.4 "Wi Fi" successfully added

After successfully connecting to Wi Fi, click 'Next', add successfully, and then click 'Finish' in the upper right corner.

7. Troubleshooting

fault conditions	Possible causes	processing method
Machine slipping	The cloth is too wet or the belt is wet	A. Replace the sponge cloth equipped on the machine B. Wipe the water on the belt dry with a dry cloth
The machine does not move smoothly	The glass surface is too damp or sticky	Use the remote control to manually wipe the glass in all directions (up/down/left/right) before proceeding with further operations
Red light always on	Low battery level	Please charge the machine and it can function normally after being fully charged
Flashing red light	According to voice prompts	A. Please restart the machine B. Check if the machine cloth is installed correctly C. Please check if the power adapter connection is powered off
The machine cannot be started or does not follow the preset rules during operation	Barometer detects insufficient vacuum	A. Check if the cloth is installed correctly B. Replace with a brand new cloth.
The machine stops at the edge or corner, and a red light flashes to indicate that the barometer is too low	The corner or border adhesive strip is not smooth	When the machine is moving, it causes rapid air leakage for safety reasons; Stop cleaning, place the machine back in a safe area and then clean again
When the machine suddenly stops working, please connect to an external power source	Power adapter power down	Check if the power adapter is powered off or if there is poor contact at the machine power input interface/extension cable connection (re plug the DC plug by hand)
After placing the machine for a period of time, it was found that it did not start up	The built-in battery is out of charge	It is required to charge the machine first, and the normal charging time is generally around 2 hours

- Please be sure to follow the instructions and warnings related to the system.

8. Warranty Description

Thank you for purchasing and using this product! In order to protect your rights and interests, this product implements after-sales service on the basis of the national regulations (Regulations on the Responsibility for Repair, Replacement, and Return of Goods) (commonly known as "Three Guarantees"). In order to satisfy you with our service, please carefully read and understand the relevant content about the three guarantee card.

If your glass cleaning robot is found to have defects due to material, manufacturing, and functional issues during the purchase or warranty period, it can be repaired or replaced free of charge by the original purchasing merchant or local distributor

9. Non warranty coverage

1. Normal wear and tear (such as cleaning cloth, safety rope, etc.).
2. Reduced battery discharge due to battery life (2 years) or usage
3. Accidental falls, malfunctions, etc. caused by improper use, negligence, or failure to follow instructions.
4. Use this product for purposes other than general home and office use.
5. Consumers can open the bottom sticker of the product themselves.
6. Incorrect installation due to use of non original accessories or components.
7. Human factors causing product defects (such as operational errors, handling damage, improper input voltage, etc.).

* Kind reminder:

1. If the machine still cannot function properly after following the instructions, please contact our company's after-sales service department for assistance.
2. Please strictly follow this product manual and keep it for future use.

FCC Warning:

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 generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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