

X6 Intelligent Window Cleaning Robot

Owner's Manual



Welcome

Dear owner,

Welcome to the world of window cleaning robot. As an owner of the X6 Window cleaning robot, you join a growing group of people around the world who, just like you, are discovering an easier way to clean their Window.

X6 is a square shape, single sided Window cleaning robot. Its high-speed vacuum motor keeps it steadily stick on the surface of glasses and even walls. The 2 patented high-friction and anti-slippery silicone belts enable the robot to move freely on the surfaces. The fiber mopping clothes are specially designed for the robot for best cleaning results and they could be easily taken off for washing and reuse.

X6 has built in Uninterruptible Power System (UPS). In the case of power shutting off, the UPS will supply power to prevent the robot falling off from the glass. It is highly recommended to tie the safety rope which could hold up to 150kg weight to some fixture of your room whenever using the robot. Beyond that, the X6 has 2 types of built in intelligent sensors. One is the laser sensor that could detect the edges so the robot could work on those Window/glass doors without frames. The other one is the pressure sensor which will monitor the vacuum status in real time.

By just pressing one button, X6 could intelligently schedule the most effective cleaning route, detect the window edges and automatically clean the whole window. The owner could also manually control the robot using the remote controller.

Feature and Specification

Adhesive type	Vacuum, Square
Cleaning pattern	Linear clean
Glass thickness limitation	No limitation
Cleaning speed	2.4 min/meter^2
Auto-cleaning mode	3 modes
UPS(Un-interrupt Power System)	20 mins
Frameless window	v
Auto-finish	v
Safety rope	Strength:150 Kg
Dimension	> 40cm x 40cm
Allowed surface roughness	<1.5 mm
Machine size	24(L) x 24(W) x 10(H) cm
Weight	1.2 Kg 100-240V,
Power range	50-60Hz
Power consumption	65W
Certification	CE, FCC, RoHS
Available window	Medium & Large scale window

Packaging:

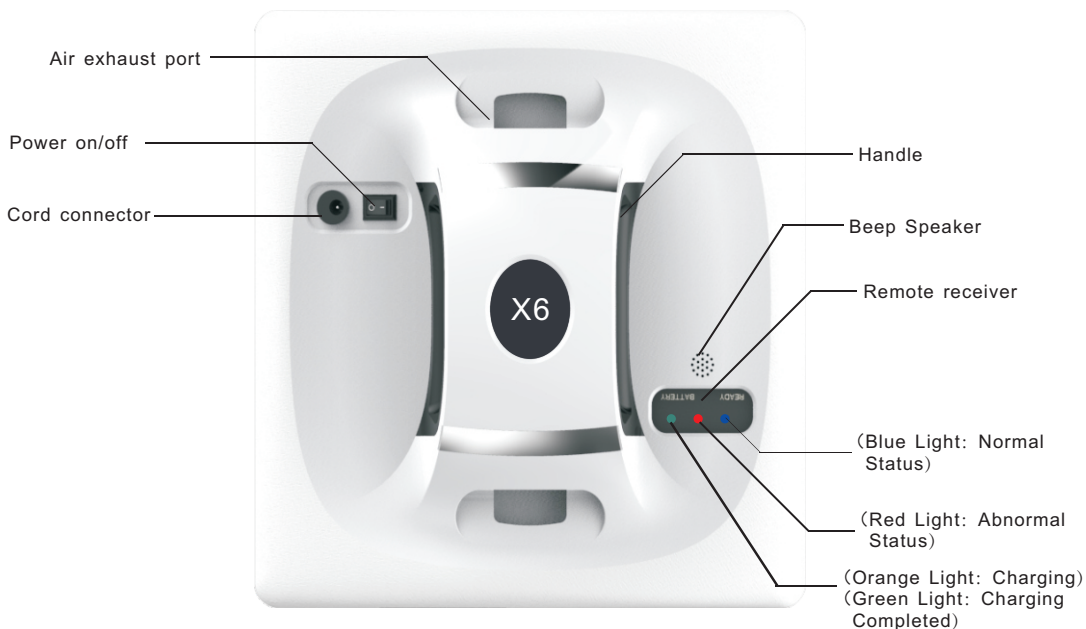
- X6 Window Cleaning Robot * 1
- Remote Controller * 1
- Adaptor * 1
- AC Power Cord * 1
- DC Extendable Cable * 1

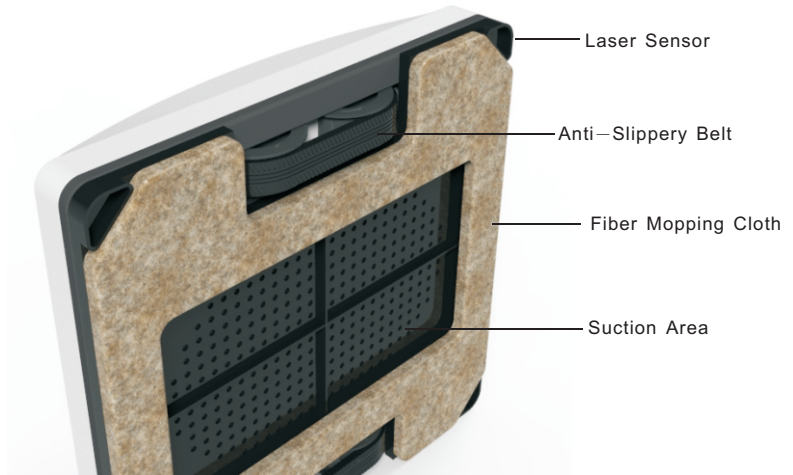
- Long Hair Fiber Mopping Cloth* 3
- Short Fair Fiber Mopping Cloth* 3
- Safety Rope* 1
- Owner's Manual* 1

Main Features

- Applicable on glass of any thickness
- Artificial Intelligent technology applied
- Long distance remote controller
- Can be used on frameless Window
- Auto stop after work completed
- Fast cleaning speed up to 2.4mins per square meter
- Specially designed fiber mopping cloth
- Built in Uninterruptible Power System (UPS)
- 3 Auto Cleaning modes
- Highly reliable Anti-falling algorithm
- Auto and Manual remote control
- High Strength safety rope holds up to 150kgf
- Low power consumption (65W, 100~240VAC, 50~60Hz)

Introduction





Operation Steps

Step 1. Preparation

- Do NOT use in raining or wet weather, the water on glass will affect the effectiveness of X6.
- When cleaning outside Window, it is a must to place "DANGER" warning board directly below the cleaning window to prevent people getting close to the area.
- Please check and ensure the safety rope is in perfect condition.
- Safety rope must be tightly attached to the fixtures indoor to prevent any potential hazards.

Step 2. Connect the power cord, adaptor, DC extendable cable and the Robot









Step 3. There is built in battery as part of the UPS system. Please ensure the battery is fully charged (Green Light) before usage.

Step 4. Attach the mopping cloth on the bottom of the robot correctly as shown in below chapter.

Step 5. Procedures of placing the robot on glass

- Power on the robot and make sure the vacuum motor is working
- Place the robot onto the glass and keep it a distance from the frames
- Make sure the robot stays on the glass steadily before release your hand.

Step 6. Auto cleaning Mode and Manual Mode

- Choose any of the 3 auto cleaning modes (  ) from the remote controller, and X6 will clean the whole window automatically
- Press Stop () button to stop the robot
- Press (   ) to control the robot manually.

Step 7: Procedures of take X6 off from the glass after finishing the cleaning

With one hand holding the safety rope, the other hand holds on the robot handle and presses the “on/off “ button.

How to attach the fiber mopping cloth to the robot?

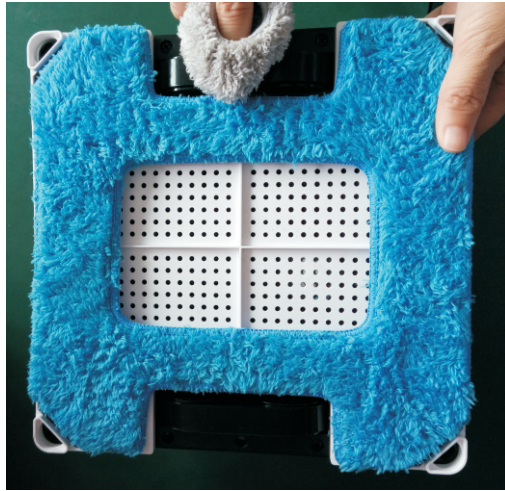
- As below picture, there are laser sensors on the corners to detect the glass edges. Do not cover the 4 corners when attaching the mop.
- Do not cover the belt when attaching the mop.
- Please make sure the mop is attached evenly to prevent any air leakage.



How to clean the anti-slippery belt?

When there is too much dust or water accumulated on the belt, it is possibly to make the robot unable to move smoothly. Please clean the belt before reuse the robot again. The procedures are as follows:

- Please the robot upside down
- Power on the robot and it will automatically enter belt-cleaning mode. The wheels will rotates for 3 minutes for cleaning the belt
- The user could use any clean cloth to wipe at the middle of the belt



Uninterruptible Power System (UPS)

- When there is power cut off, the built in battery will start supplying power to the robot and it can last for at least 20 minutes
- When there is power cut off, the robot will remain at the glass without moving. A beeping sound and flashing light will come out to warn the user. The user shall take off the robot as soon as possible to prevent the robot from falling after it consumes up the battery power.
- Can use the safety rope to pull the robot back when its position is hard for the user to reach. When pulling the safety rope, keep it close to the glass to preventing falling.
This power adapter is designed to increase the over-current point to lower VCC voltage, so no load will be slightly beating and produce "blah blah" sound, is a normal phenomenon please rest assured that use! Hereby declare!

How to clean the glass effectively

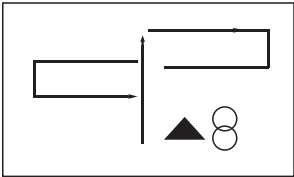
- Long Hair Fiber Mopping Cloth: the friction rate is relatively low and it is less absorptive to water. It is better to be used in dry condition, especially effective for glass with a lot of dust.
- Short Hair Fiber Mopping Cloth: the friction rate is relatively high and it is highly absorptive to water. It could be used for wet cleaning. The user could apply appropriate amount of detergent on the mopping cloth or onto the glass directly.
- Water and dust mixed together will become harder to clean. So for Window with a lot of dust, please dry clean it with long hair mopping cloth first.
- X6 is more effective when using in clear and dry weather.
- In raining or wet weather, the water on the glass makes it super slippery and glass cleaning will become harder.

Operation of Remote Controller

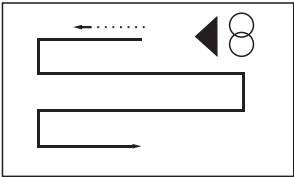
There are remote control signal receivers at both the upside and bottom side of the robot. To change the battery for remote controller, please take off the cover at the back of the controller.



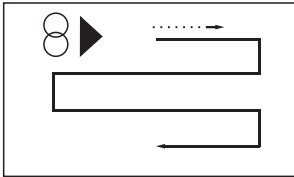
Robot Initial Position	Horizontal position	Vertical position
	Follow Z shape, then N shape to automatically clean the whole glass	Follow N Shape to automatically clean the whole glass
	Towards left to follow Z shape first, then N shape to automatically clean the whole glass	Go up first then follow N shape to clean the whole window automatically
	Towards right to follow Z shape first, then N shape to automatically clean the whole glass	Go down first then follow N shape to clean the whole window automatically
	Manually control the robot to move up, down, left and right	
STOP	OK	Stop
	resume/pause	



clean from up to down automatically



clean from left side then from up to down automatically

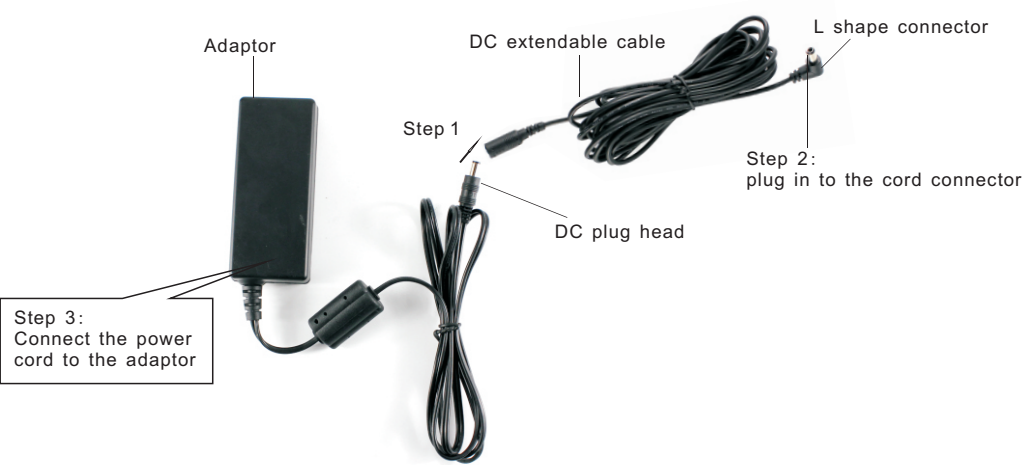


clean from right side then from up to down automatically

LED Indicating Light

Status	LED Indicating Light/sound
Battery charging	Orange light
Battery charged up	Green light
Power cut off	Red light flashes, continuous beeping sound
Malfunction of hardware	Red light flashes, blue light flashes with error code, periodic beeping sound
Vacuum pressure too low	Red light flashes once and beeps once
Air leakage in operation	Red light flashes once and beeps once

Adaptor/DC extendable cable



Important Safety Instructions

Warning: read and save these instructions

To avoid the risk of injury or damage, these basic precautions should always be followed:

- Read all safety and operating instructions before using X6.
 - Read and heed all warnings in this manual and on X6 and the adapter.
 - Only use X6 in accordance with the specifications outlined in this manual.
 - Do not expose the robot in the rain or wet environment. Keep it away from liquid.
 - Do not expose the robot in direct sunlight. Keep it away from hot radiator.
 - Do not place the robot in environment with strong magnetic fields
 - Keep the robot away from children's reach
 - Operation Temperature: 0 C ~ 40 C (32 F ~ 104 F)
 - Storage Temperature: -10 C ~ 50 C (14 F ~ 122 F)
 - Do not attempt to repair or adjust any electrical or mechanical functions on this device.
- Tampering with these functions may create a hazardous condition, and it will void your warranty.

Use restrictions

- Supervise children and pets when X6 is cleaning.
- X6 has electrical parts. Do not spray, rinse or submerge it in water.
- Do not use X6 near any objects that are burning or smoking.

FCC Notice: This device complies with Part 15 of the FCC rules.

Operation is subject to the following conditions:

1. The device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

产品介绍

X6擦窗机器人是单面的方形擦窗机器人,速度快、无死角。它运用一个真空马达保持机器人吸附在玻璃表面,并有两个高摩擦系数的矽胶腹带轮,可让机器自由行走于垂直的玻璃表面,甚至墙面。采用无棉絮的超细纤维清洁布,可轻易取下更换清洗,有极佳的清洁效果。超细纤维可有效地清除灰尘,不会留下棉絮于玻璃表面。

X6擦窗机器人有内建的内置电源保护系统 (UPS),断电时可防止断电而掉落。擦拭外窗时,可将抗拉强力达150公斤的安全绳绑在屋内的固定物上。此外特别新增两种智能感测器,使其安全防护更为周全,一为雷射感测器,可侦测玻璃边缘,机器人可使用于无框玻璃。另一为压力感测器,用以感测漏气状况。

擦窗机器人具有人工智能规划路径、侦测窗框,自动清洁全窗。此外,使用者亦可用遥控器上的手动模式,遥控机器。

产品规格

Feature & Specification

Adhesive type	Vacuum, Square
Cleaning pattern	Linear clean
Glass thickness limitation	No limitation
Cleaning speed	2.4 min/meter^2
Auto-cleaning mode	3 modes
UPS(Un-interrupt Power System)	20 mins
Frameless window	v
Auto-finish	v
Safety rope	Strength:150 Kg
Dimension	> 40cm x 40cm
Allowed surface roughness	<1.5 mm
Machine size	24(L) x 24(W) x 10(H) cm
Weight	1.2 Kg 100-240V,
Power range	50-60Hz
Power consumption	65W
Certification	CE, FCC, RoHS
Available window	Medium & Large scale window

产品主体及配件

- 产品主机 * 1
- 遥控器 * 1
- 电源适配器 * 1
- 交流电源线 * 1
- Dc延长线 * 1
- 长毛超细纤维清洁布 * 3
- 短毛超细纤维清洁布 * 3
- 安全绳 * 1
- 使用说明书 * 1

主要特点

适用于任何厚度的玻璃

应用人工智能技术

远距离遥控器

可在无框窗口上使用

工作完成后自动停止

快速清洁速度高达每平方米2.4分钟

特制设计的纤维拖布

内置电源保护系统（UPS）

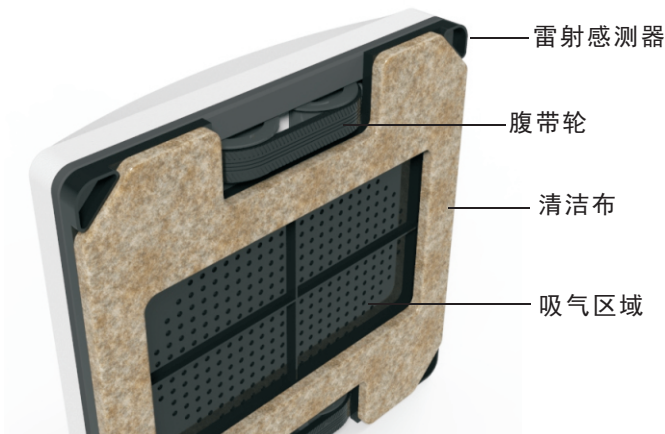
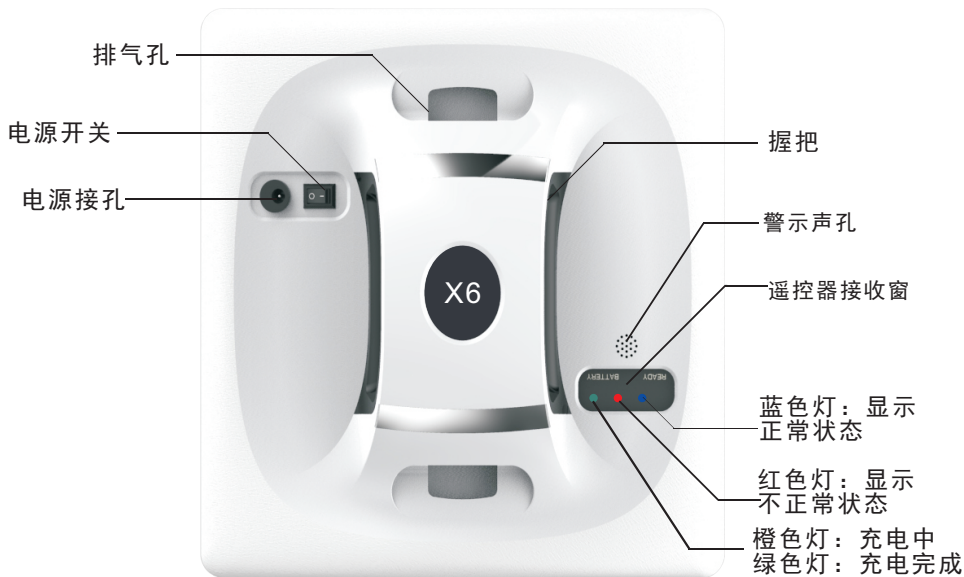
3种自动清洁模式

高可靠性抗坠落算法

自动和手动遥控

高强度安全绳最高可承受150kgf

低功耗（65W，100~240VAC，50~60Hz）



步骤 1. 使用前准备

- (1) 请勿在雨天或潮湿的天气使用，玻璃表面有水汽导致擦不干净。
- (2) 用于没有阳台的玻璃门窗，必须在楼下地面设置危险警示区，禁止人员靠近
- (3) 使用前请检查安全绳是否破损，绳结是否松脱
- (4) 使用前务必系好安全绳，并将安全绳绑住屋内的固定物，以免发生危险。

步骤 2. 连接好电源、变压器 DC延长线以及机器

步骤 3. 机器有内置电源，为断电时备用电源。使用前，请先确定电池充满电（绿灯亮）

步骤 4. 依照图示，确定将清洁布正确平整的粘贴在吸盘上，以防机器漏气

步骤 5. 将机器放置在玻璃上的步骤

- (1) 先开启机器电源，确认风扇转动
- (2) 将机器置放在玻璃上，并离窗框一段距离
- (3) 确认机器可吸附在玻璃上再放手

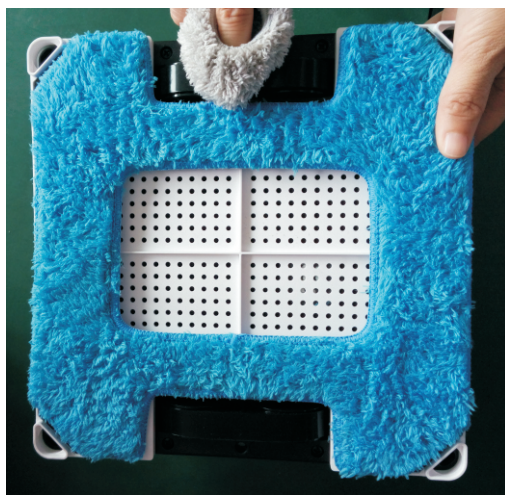
步骤 6. 清洁完成后，从玻璃上取下机器的步骤

- (1) 一手抓住安全绳，一手取下机器
- (2) 取下机器到安全区域，再关闭电源

如何正确的粘贴清洁布



- 1:擦窗机机身的4个角都有雷射感测器，用以侦测玻璃边缘。置放清洁布时，不可盖住雷射感测器孔
- 2:置放清洁布时，不可盖住腹带轮
- 3:注意清洁布的平整，以避免漏气



内置电源保护系统（UPS）

- 当电源切断时，内置电池将开始为机器供电，并且可以持续至少20分钟
 - 当有电源切断时，机器将保持在玻璃上而不动。将发出蜂鸣声和闪烁的灯光警告用户。用户应尽快取下机器，以防止机器在消耗完电池电量后掉落
 - 当使用者难以到达其位置时，可使用安全绳将机器拉回。拉动安全绳时，请将其保持靠近玻璃，以防止跌落
- 此电源适配器在设计时调高了過流點調低VCC电压,所以空載會有輕微跳動而產生"嗒嗒嗒"聲音,属正常现象请放心使用！特此声明！

如何有效清洁玻璃

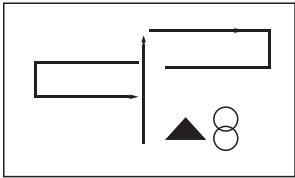
- 长发纤维擦拭布：摩擦率相对较低，对水的吸收力较小。最好是在干燥条件下使用，特别是对于有很多灰尘的玻璃有效
- 短发纤维擦拭布：摩擦率相对较高，对水具有高吸收性。它可以用于湿洗。用户可以在拖布上或玻璃上直接涂抹适当的清洁剂
- 混合在一起的水和灰尘将变得难以清洁。所以对于有很多灰尘的窗户，请首先用长发纤维擦拭布
- X6在晴朗干燥的天气中使用更有效
- 在下雨或潮湿的天气下，玻璃上的水使其超级光滑，玻璃清洁将变得更难

遥控器功能介绍

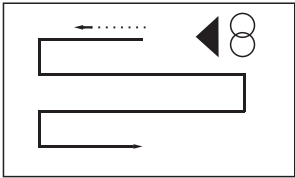
机器的正面、背面都可接收遥控器讯号。如果更换遥控器之电池，请您将遥控器背面下方的电池盖往下拉即可更换



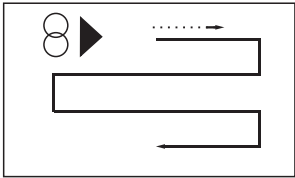
起始机器 放置方向	水平放置 	垂直放置 
	走Z字型，再走N字型自动擦完全窗	走N字型自动擦完全窗
	先向左走Z字型，再走N字型自动擦完全窗	先向上，再走N字型自动擦完全窗
	先向右走Z字型，再走N字型自动擦完全窗	先向下，再走N字型自动擦完全窗
	手动控制机器向上，下，左，右移动	
STOP OK	停止	
	启动/停止	



先向上再往下自动清洁



先向左再往下自动清洁

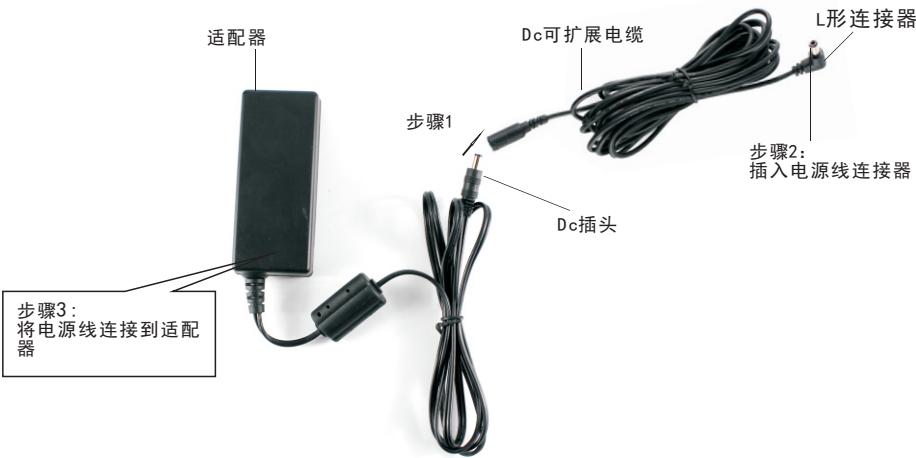


先向右再往下自动清洁

LED指示灯

状态	LED指示灯/声音
电池充电中	橙色灯
电池充电完成	绿色灯
电源切断	红灯闪烁，持续发出哔声
硬件故障	红灯闪烁，蓝灯闪烁，出现错误代码，周期性发出哔声
真空压力太低	红灯闪烁一次，并发出一次哔声
运行中漏气	红灯闪烁一次，并发出一次哔声

适配器/直流可扩展电缆



重要安全说明

警告：请阅读并保存这些说明

为避免受伤或损坏的危险，应始终遵守以下基本预防措施：

- 在使用X6之前，请阅读所有安全和操作说明
- 阅读并注意本手册和X6及适配器上的所有警告
- 只能根据本手册中列出的规格使用X6
- 请勿将机器暴露在雨中或潮湿的环境中, 远离液体
- 请勿将机器暴露在阳光直射的地方, 使其远离热辐射器
- 请勿将机器放置在强磁场环境中
- 保持机器远离儿童接触
- 工作温度：0°C ~ 40°C (32°F ~ 104°F)
- 储存温度：-10°C ~ 50°C (14°F ~ 122°F)
- 请勿尝试修理或调整本设备上的任何电气或机械功能

篡改这些功能可能会产生危险情况，并且会使您的保修失效

使用限制

- 在X6清洁时注意监督儿童和宠物
- X6有电气部件，不要喷水，冲洗或浸没在水中
- 不要在燃烧或吸烟的物体附近使用X6

FCC通知：本设备符合FCC规则的第15部分

操作须符合以下条件：

1. 设备不得造成有害干扰
2. 本设备无法避免可能收到的干扰，包括可能导致意外操作的干扰