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# NANJING

## **NANJING SK03 Robotic Pool Surface Skimmer**



## Specifications

- **Model:** SK03
- **Charging Time:** 6-7 hours
- **Battery Life:** Up to 12 hours (solar + battery)
- **IP Grade:** IPX7 Waterproof
- **Battery Pack:** 7800mAh
- **Water Depth:** Above 7 inches (18cm)
- **Frequency Range:** 2412~2484 MHz
- **Maximum Radio Frequency Emission Power:** 20dBm

## Product Usage Instructions

### Power Button

- **Power on:** One button press turns on the device with a buzzer sound.
- **Power off:** Press and hold the power button for 2 seconds to turn off the device.

### LED Indicator

- **Green Light:**
  - **Always on** – Power ON/OFF Button
  - **Breathing** – Green Light Flash – Full power state

- **Green Light off** – Solar charging in progress or Type-C charging in progress
- **Blue Light:**
  - **One Flash** – Low speed model
  - **Two Flash** – Fast speed model
  - **Always On** – Device is operating normally
  - **Breathing** – Standby state
  - **Flashing Slowly** – Battery level below 50%
  - **Flashing Quickly** – Battery level below 25%
- **Red Light:**
  - **Flashing** – Battery is insufficient, the device automatically returns to the poolside
  - **Always on** – The device is too hot, needs to be placed in a cool place or objects from the propeller

## Working Conditions

This Pool Skimmer is best used in pools and pools made of glass, with a water depth above 7 inches (18cm).

## Packing List

NO	Name	Model	QTY (pc)
1	Skimmer	SK03	1
2	Cable	/	1
3	User Manual	/	1
4	Quick Guide	/	1

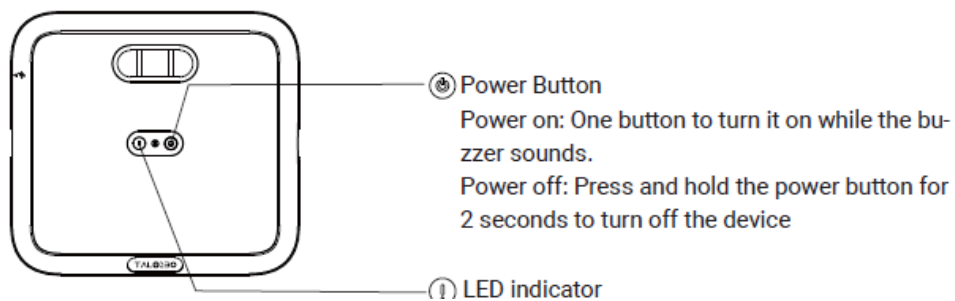
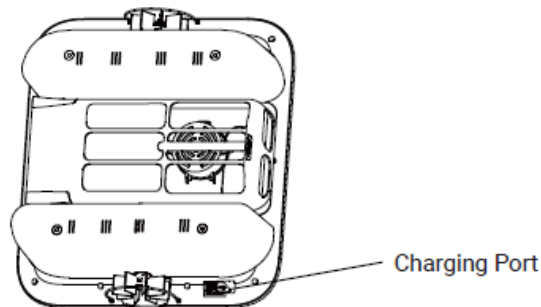
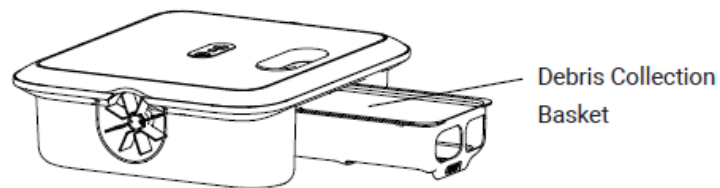
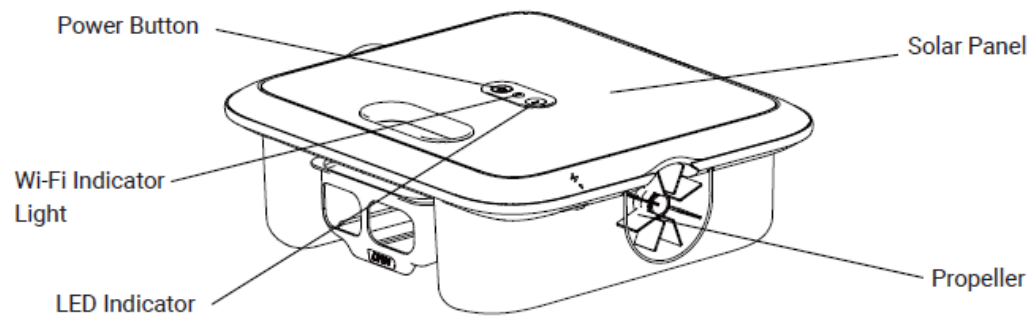
## Important Safety Precautions

Read this manual carefully and use your device in accordance with the instructions. Toua is not liable for any damages or injuries caused by improper use.

## Instructions:

1. Do not operate your Toua device while people or animals are in the pool.
2. Turn the device off when not in use or for maintenance.
3. Under no circumstances should children be allowed to ride on the device.
4. Use only authorized Toua power adapters.
5. The adapter cord should only be replaced by a qualified electrician or Toua customer care.
6. It's suggested to plug the power adapter into a power strip or surge protector and not directly into an electrical outlet.
7. Make sure your device is powered off and the charging port is dry before charging. Keep Toua in a cool, ventilated place while charging is in progress.
8. Please store the machine indoors or in a cool place when not in use.
9. Do not run your Toua out of the water as it may lead to over-heating.
10. Only certified professionals should disassemble the sealed driving kit of your Toua.
11. Do not operate the device and pool filter simultaneously.
12. Watch your steps and maintain balance when working near the poolside.
13. Do not drop, puncture the case, or in any way intentionally damage the device. Failure to do so may void the warranty.
14. When putting your device into the water, the front of the machine must face upwards and should never be placed upside down or thrown into the swimming pool.
15. Do not charge the device while the charging port is wet.
16. Do not use your Toua device and another pool skimmer simultane.
17. Do not rinse the solar panels with a high-pressure water gun as this may damage the panels.
18. When the device is running, do not put your hands into any part of the device as this may result in injury.
19. Do not vigorously turn over the top cover to avoid breakage of the top cover.
  - Please read this user manual carefully before using it.

## **Structure**



## Start Control Button & LED Indicator

Power ON/OFF Button	Green Light Always on	Full power state
	Green Light Breathing	Solar charging in progress
	Green Light Flash	Type-C charging in progress
Wi-Fi Indicator Light	Green Light Always on	WIFI connected
	Green Light Flash	Starting WIFI configuration / WIFI configuration in progress
	Green Light off	WIFI not connected
	Blue Light One Flash in a Second (Light Off after Setting)	Low speed model
	Blue Light Two Flash in a Second (Light Off after Setting)	Fast speed model
LED Indicator	Blue Light Always On	The device is operating normally
	Blue Light Breathing	Standby state
	Blue Light Flashing Slowly	Battery level below 50%
	Blue Light Flashing Quickly	Battery level below 25%
	Red Light Flash	Battery is insufficient, the device automatically returns to poolside
	Red Light Always on	The device too hot, needs to be placed in a cool place/ needs to remove the objects or hair from the propeller

## Specifications & Working Conditions

Pool Size	This device works in most household pools, with exception to infinity pools and pools made of glass.
Charging Time	6-7Hours
Battery Life	Up to 12Hours(solar+battery)
IP Grade	IPX7 Waterproof
Battery Pack	7800mAh
Water Depth	Above 7 Inches(18cm)
Frequency Range	2412~2484 MHz

Maximum Radio Frequency Emission Power	20dBm
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- **CAUTION:** Your Pool Skimmer is best used in the water conditions detailed below.

Temperature	50-95°F (10-35°C)
pH Value	7.0-7.4
Chlorine	Maximum 4 ppm
NaCl	Maximum 6500 ppm

## Operations

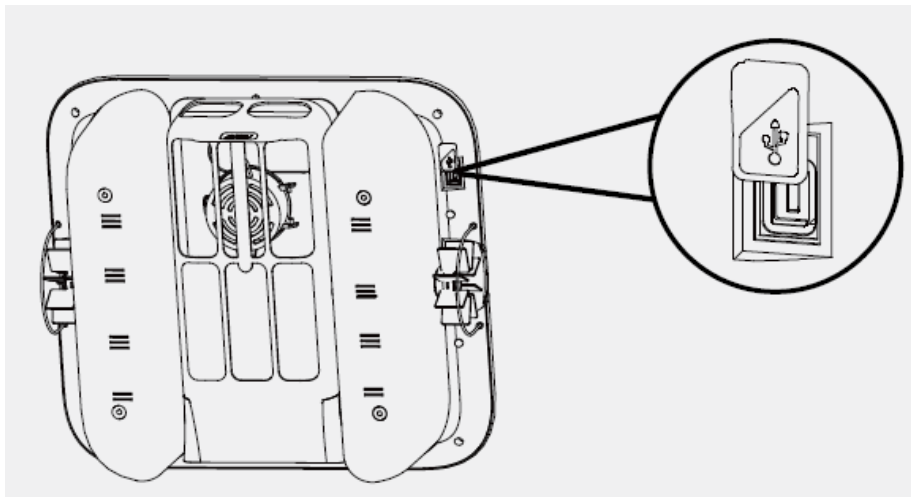
### A. Charging

There are two charging methods available.

1. **Solar Charging:** Place it in sunlight and the device will automatically charge.
2. **Charging by cable:** Without sufficient sunlight, your device's solar panel may not be efficient for charging. Charging port on device allows you to always be in control of your clean and gives you an alternative charging method.

### Notes:

- If the device does not turn on when the power button is pressed and held down for the first time, use the DC adapter to charge it first.
- Cable charging: The power LED indicator will automatically light up while using this method and will be turned off while unplugging the adapter.
- Once fully charged or before use, disconnect the power adapter and close the charging port cover to prevent water from entering the device.



## B. On/Off

- **Power On:** Press the button once to turn on the power while the buzzer sounds.  
Power Off: Press and hold the power button for 2 seconds while the buzzer sounds.
- **When on:** when there is enough sunlight, the solar panel will charge the device and the device will enter standby mode.
- **Turning off the device:** will disconnect the device from the network.
- **Notes:** Place the device on a level ground before turning it on. The LED blue light will stay on when the unit is switched on. Then immerse the machine in water.

## App Settings & Usage

- Remotely operate and monitor your device via the app (Wi-Fi required).
- **Note:** App functionality is optional — basic cleaning functions work independently.

### A. Setup Requirements

- Compatibility
- **OS:** iOS 12+ / Android 10.0+
- **Router:** 2.4GHz Wi-Fi support only Pre-Configuration
- **Keep phone** <3m from device
- **Enable** Bluetooth
- **Connect to** stable Wi-Fi

### B. App Installation



## 1. Download:

- **iOS:** Search “MowMate” in App Store Android: Find on Google Play

## 2. QR Code:

- Scan via phone camera (manual/website code)



ios

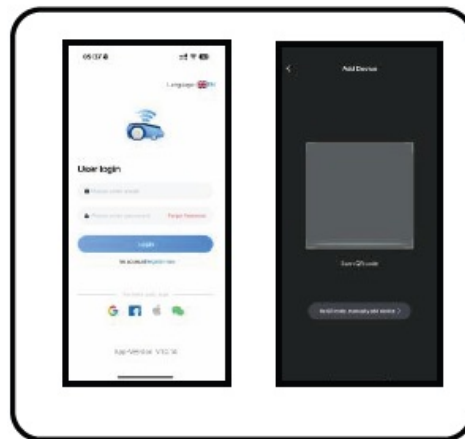


Android

## C. Account Setup

### Registration:

- Tap Register now
- Input valid email
- Set password
- Agree to Terms & Privacy Policy



### Login:

- Input email and password
- Complete email verification
- Tap Login

## D. Device Pairing

## Pre-Verification:

- Phone connected to 2.4GHz Wi-Fi
- Device in pairing mode (blue LED flashing)

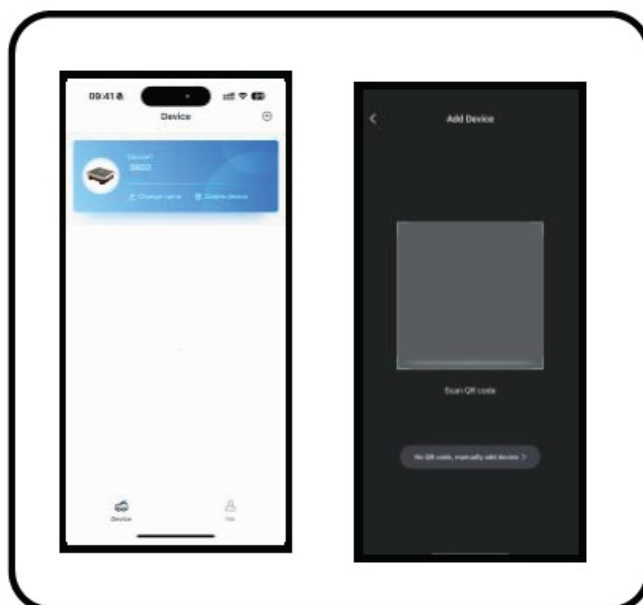
## Pairing Methods:

### QR Code:

- Tap Add device
- Scan device QR code
- Confirm Bluetooth pairing
- Configure Wi-Fi

### Manual Pairing:

- Tap Add device
- Manually add device
- Select model (e.g., SK03)
- Confirm Bluetooth pairing
- Configure Wi-Fi

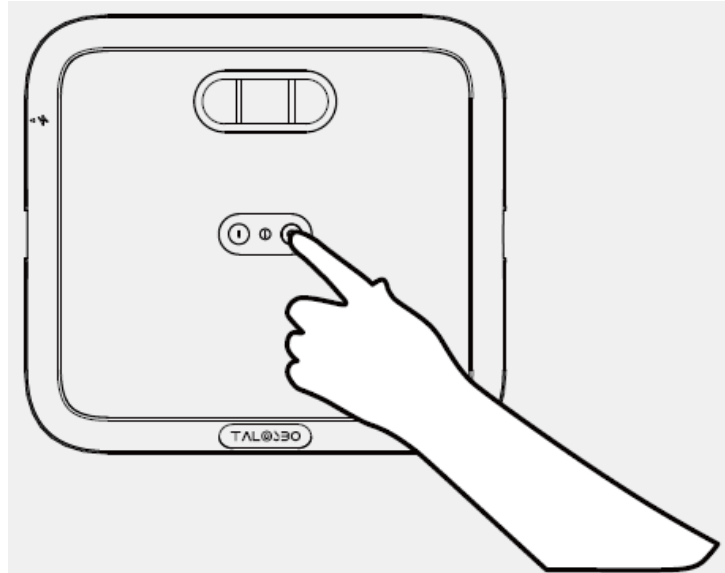


- **Critical Notice:** If pairing fails, restart both device and app before retrying.

## Operating Instructions

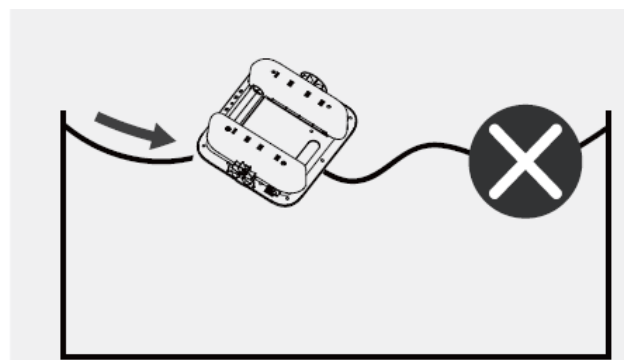
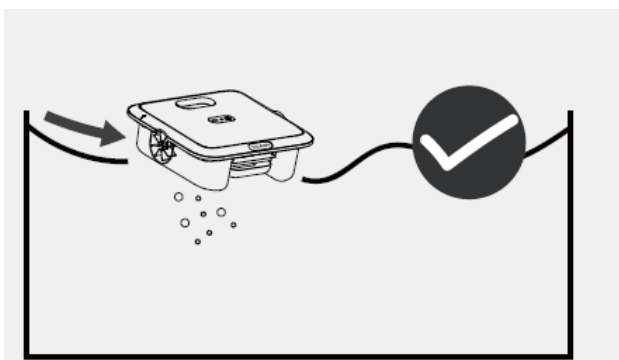
## A. Start Clean Mode

- When the device is on, press the Start Button once on the device or in the app to start clean.
- The device operates automatically and will be charged by the solar panel on sunny days.



## B. To remove the device from the water

- You can use the MowMate App to manually pilot the device to the edge of your pool for pickup or wait until the device reaches the edge of the pool and lift it out by holding the handle.



## C. Manual Mode (only supports operation within the App)

- You can manually maneuver the device forward, backward, left and right using the manual mode in the app.

## D. Detect Water Temperature (only available in the App)

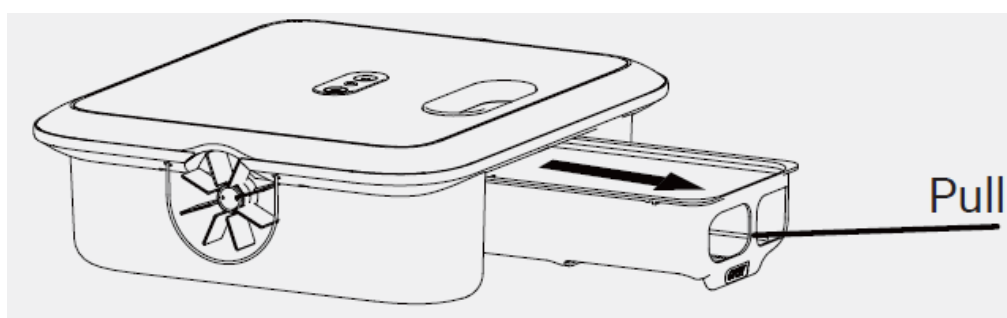
- When the device is connected to the app, you can access the pool water temperature in the app.

## Maintenance & storage

- It is recommended that the debris collection basket be cleaned once in a while to keep the unit running efficiently.

### A. Cleaning the Debris Collection Basket

1. Grasp the handle of the unit and lift it out of the pool onto a flat surface.
  - Hold the handle of the unit with one hand (to prevent injury during operation),



2. Empty the bin and rinse the debris collection basket with a hose until it is completely clean.



3. Place the debris collection basket back into the unit.

### B. Cleaning the Solar Panel

- You may see some white residue on the solar panel, which are chemicals and minerals from your pools water.
- Rinse the residue on the solar panel with clean water and wipe it clean with a soft, dry cloth.

- **Note:** Clean the propeller to prevent leaves, hair, and other debris from becoming entangled.

## Troubleshooting Solutions

- When the device malfunctions, a red LED indicator light on the device will flash with the buzzer alarming, and the app will display the fault.
- You can attempt to troubleshoot the fault following the instructions in the FAQ or the prompts in the App or contact after-sales service.

Error code	Error type
1	Chip IO initialization error
2	Chip IO communication error
3	Communication module initialization error
4	Gyroscope failure
5	Motor communication error
6	COVER error
7	Power supply communication error
8	Communication module error
9	Motor timing error
10	Lift motor error
11	Acquisition data error
12	Signal error
13	Trapped
14	Initialization error


15	Thermometer error
20	Walk error
25	Brush Roller Error
30	Left motor error
35	Right motor error

## Conventional Warranty

This product has passed quality control and safety test conducted by our technicians.

1. This product comes with a 12-month warranty that covers your item's battery and motor from the date of purchase.
2. This warranty is voided if the product has been altered, misused, or has been repaired by unauthorized persons.
3. This warranty extends only to manufacturing defects and does not cover damage resulting from the mishandling of the product by the owner.
4. The order number or record of purchase must be presented at the request of any repair claim during the warranty period.



-  This symbol indicates that this product shall not be treated as household waste.
- Instead it shall be handed over to the applicable collection for the recycling of electrical and electronic equipment.



## IMPORTANT SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following.

## 1. READ AND FOLLOW ALL INSTRUCTIONS

2. **(For all units) WARNING** – To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

- **a)** Prevent unintentional starting. Ensure the switch is in the off-position before connecting to battery pack, picking up or carrying the appliance.
- Carrying the appliance with your finger on the switch or energizing appliance that have the switch on invites accidents.
- **b)** Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- **c)** Use appliances only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- **d)** Under abusive conditions, liquid may be ejected from the battery; avoid contact.
- If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- (This advice is considered correct for conventional NiMh, NiCd, lead acid and lithium-ion cell types. If this advice is incorrect for a cell design that differs from these, then the correct advice may be substituted.)
- **e)** Do not use a battery pack or appliance that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- **e)** Do not expose a battery pack or appliance to fire or excessive temperature.
- Exposure to fire or temperature above 130°C may cause explosion. The temperature of 130°C can be replaced by the temperature of 265°F.
- **f)** Follow all charging instructions and do not charge the battery pack or appliance outside of the temperature range specified in the instructions.
- Charging improperly or at temperatures outside of the specified range may damage the battery and increase the risk of fire.
- **g)** Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
- **i)** Do not modify or attempt to repair the appliance or the battery pack (as applicable) except as indicated in the instructions for use and care.
- This appliance can be used by children aged from 8 years and above and

persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

- This appliance contains batteries that are non-replaceable. When the battery is at end of life, the appliance shall be properly disposed of.
- For Use with Swimming Pools Only.

### ENCLOSURE TYPE 3

- **WARNING:** To reduce the risk of electronic shock, do not use outdoors or on wet surface when charging.
- The pump must not be used when people are in the water.
- Switch off the pump from the supply mains before carrying out user maintenance such as cleaning the filter.
- **WARNING:** Only use the charger provided with this appliance.
- The instructions for battery-operated appliances shall contain the substance of the following: do not expose the appliance or battery to excessive temperatures be aware of the risk of terminals of the battery-operated appliance or battery being short circuited by metal objects.

### FCC Statement

**Note:** This equipment has been tested and found to comply with the limits according to Part 15 of the FCC Rules of a Class B digital device. 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 or persons. 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, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorientate or relocate the receiving antenna.



- Increase the separation between the equipment and receiver.
- Plug the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the manufacturer or an experienced radio/TV technician for help.

## **Warning**

Changes or modifications of this product are not expressly approved by the party responsible for compliance, and unauthorized modifications could void the user's authority to operate the equipment.

## **Compliance Declaration**

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

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

## **FCC Radiation Exposure Statement**

- This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.
- This compliance to FCC radiation exposure limits for an uncontrolled environment, and minimum of 20 cm separation between antenna and body.
- **Website:** [www.touarobot.com](http://www.touarobot.com)

## **FAQ and Troubleshooting**

What should I do if the device is not connecting to Wi-Fi?

If the Wi-Fi indicator light is not turning blue, ensure that the Wi-Fi network settings are correct and try restarting the device.

How do I know when the battery is low?

The LED indicator will show a flashing blue light when the battery level is below 50% and a flashing red light when it's below 25%.

Why is the device not cleaning for the full 12 hours?

The device runs up to 12 hours in optimal sunlight, 8 hours in winter, and 6 hours in low light. If the fully charged battery seems insufficient, contact customer service.

Why isn't my device picking up floating debris?

Please empty the debris basket regularly to prevent clogging and ensure optimal cleaning. Check for tangled thin, long objects between the roller shaft and basket.

Why has the speed of my device slowed down?

Before use, please check if the motor propellers are tangled with debris, as this may slow the device down. If there is excessive floating debris, consider manual cleaning first. Regular maintenance helps ensure optimal performance.

Does the device only clean the pool randomly?

Yes, this model uses a random cleaning pattern. If the pool isn't fully covered over time, please check for motor issues, tangled propellers, or blocked ultrasonic sensors. If none are the cause, the debris basket may need emptying.

Why can't I connect my phone to the device?


Please check whether the device's Bluetooth connection indicator light is functioning properly. If it is, but you still cannot connect, please contact customer

service for further assistance.

How can I prevent the charging pins from corroding?

Before charging, please wipe the charging pins inside the charging port with a tissue or cloth. After charging, make sure the charging port is securely sealed with the charging cap.

## Documents / Resources

	<a href="#">NANJING SK03 Robotic Pool Surface Skimmer [pdf]</a> User Manual SK03, SK03 Robotic Pool Surface Skimmer, Robotic Pool Surface Skimmer, Pool Surface Skimmer, Surface Skimmer
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## References

- [User Manual](#)

■ Nanjing

◆ Nanjing, Pool Surface Skimmer, Robotic Pool Surface Skimmer, SK03, SK03 Robotic Pool Surface Skimmer, Surface Skimmer

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