

Mobile surveillance robot

User Manual



Magic S1

To ensure the best user experience, please read the user manual carefully. Please keep this manual for future reference.

Preface

- 一、 Thank you for purchasing the mobile surveillance robot Magic S1. Before using this product, please read the user manual carefully. When you start using this product, the company assumes that you have carefully read this user manual.
- 二、 This user manual is compiled based on the latest information when the product leaves the factory. If there are any changes to the product, no further notice will be given.
- 三、 The power interface of this product is designed for charging the built-in battery. Please use the computer USB port or a 5V DC/2A power adapter that complies with national standards and has passed CCC certification to charge this unit. Do not connect to other power supply devices, otherwise it may cause irreversible consequences such as failure to charge or data and hardware damage, and the company does not assume any responsibility for this.
- 四、 Please do not repair or disassemble the product by yourself, otherwise we will not be able to provide you with normal after-sales service.

The Company is not responsible for any editing errors or omissions in this document. In view of the continuous improvement of products, the Company reserves the right to modify product specifications without prior notice. No content of this user manual may be copied, reproduced or disseminated for any purpose or in any way without the prior written permission of the Company.

Safety Tips

- 1、Please keep the product away from electromagnetic environment, excessive humidity, smoke and other harsh environments;
- 2、The device is prohibited from being immersed in water, and do not use any corrosive or abrasive cleaning agents to clean the machine;
- 3、Please do not squeeze the product with excessive force;
- 4、Please do not violently vibrate or impact the product;
- 5、Make sure this product is placed safely to prevent children from touching it and causing accidents or falling;
- 6、Under normal circumstances, the machine can be fully charged in about 3-4 hours. It is recommended to unplug it from the USB port after charging is completed. Do not connect it to the power supply for a long time;
- 7、Battery charging precautions:
 - 1) The battery of this machine uses a polymer lithium battery, which can be recharged and used repeatedly;
 - 2) The polymer lithium battery must be replaced by a professional and cannot be replaced by the user;
(Note: If the battery is replaced improperly, there is a risk of explosion. It can only be replaced with the same or equivalent type of battery); To protect the environment, please hand over the discarded batteries to professional organizations for recycling;
 - 3) The battery life may vary depending on the use

conditions and production time;

4) The battery cannot be exposed to sunlight, fire or similar overheating environments;

8、 This product may cause differences between actual use and the content of the user manual due to software updates. Please refer to the purchased product. The user manual is for reference only.

Precautions

To ensure safe use and avoid personal injury and property loss, please be sure to observe the following safety precautions.

Charging maintenance:

- Please put it back into the charging station when not in use (the indicator light is always on).
- Clean the wheels every week: use a toothpick to pick out the hair in the wheel gap (focus on cleaning the groove of the universal wheel).

Safety restricted area:

- Keep away from wet areas such as kitchens/bathrooms.
- Do not place it on high places such as desks/coffee tables (it will break!).
- Do not let children touch the charger while charging.

Networking Tips:

- Place it near the router for use (it is recommended to turn on the "through-wall mode" when there are many walls).

Daily Operations:

- Before pressing the function key, make sure that the ground is flat and free of debris, and the robot is at least 50 cm away from the edge.

Emergency:

- In case of abnormal freeze/continuous error: Press and hold the power button for 10 seconds to restart.

Equipment safety operation specifications

[Electrical Safety Specifications]

- This equipment must be powered by AC power.
- The main power must be cut off before installation/maintenance. It is recommended to wear rubber insulating shoes during operation.
- Wiring work must be completed by a certified electrician. Non-professionals are strictly prohibited from operating electrical components.

[Laser protection requirements]

- It is strictly forbidden to look directly at the laser emission port when the equipment is in operation (safety level: Class 1).
- Light source maintenance must be performed by a certified technician from the manufacturer.
- During operation, a safe distance of more than 20 cm must be maintained between the light source and the operator.

[Installation Operation Guide]

- The equipment should be kept away from heat sources (ambient temperature $\leq 40^{\circ}\text{C}$) and flammable and explosive items.
- Do not turn on the lighting source during assembly/maintenance, and wear EN 166 standard protective glasses when necessary.
- Wear cut-resistant gloves when operating machinery (in accordance with ANSI/ISEA 105 standards).

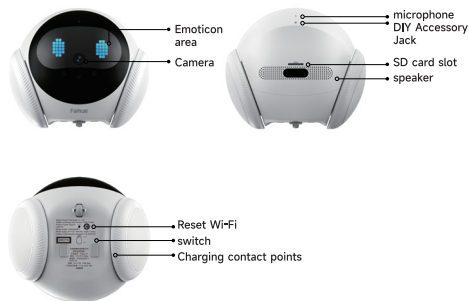
[Special Risk Warning]

- This device complies with Class A radiation standards and may cause radio interference when used in residential environments.
- The light source contains RG0-level blue light hazards (IEC 62471 standard), and close visual observation is prohibited.
- Unauthorized modification of the optical module will cause the laser radiation to exceed the standard, posing a major safety risk.

[Maintenance precautions]

- Before removing the casing, make sure that the device is completely powered off and the energy storage element is discharged.
- After the maintenance work is completed, a safety self-check must be performed to confirm that the protective device is reset.
- If any abnormalities such as cable damage or component deformation are found, stop using it immediately.

Product Introduction



How to reset Wi-Fi and turn the machine on and off?

Reset Wi-Fi:

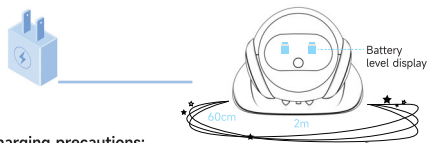
Use the tip of the card pin to press the reset hole until the robot makes a voice prompt: "Reset Wi-Fi".

Turn on:

Press and hold the switch for about 5 seconds, and confirm the power on after hearing the prompt tone.

Turn off:

Press and hold the switch for about 5 seconds, and confirm the power off after hearing the prompt tone.



Charging precautions:

- Please try to keep the back of the charging pile close to the wall.
- There is no obstacle within 0.6 meters on the left and right of the charging pile and 2 meters in front, which is convenient for the robot to recharge. Do not pick up the robot or the charging pile at will during charging.
- When setting up cruising, the robot needs to be on the charging pile.
- When upgrading the machine, the robot needs to be on the charging pile.



Automatic recharging at short distance:

- This machine has an automatic recharge function. Please use the APP to operate the robot back to the charging station and then click the "recharge" button.
- When the machine's power is less than 25%, it will automatically find a charging station.

Operation Guide

Connecting devices

1. Please use your mobile phone to scan the QR code and download the Tuya application software.



2. After completing the registration of Tuya App, please make sure that your phone is connected to the wireless network and the Bluetooth of the phone is turned on.
3. After booting up, the APP interface will display a pop-up window of device discovery, click the "Add" button.



4. Select the correct WiFi name, enter the WiFi password, and click "Next"



5. After adding successfully, click "Finish" and you can use it.



Connecting a device (manually adding)

1. Click "+" on the APP interface and click "Add device".



2. Select "Camera/Lock" in the left category and "Mobile Camera" in the right category



3. Follow the instructions on the APP



4. Enter the current WiFi name and password.

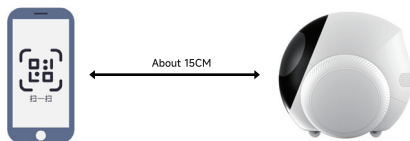


5. After hearing the network configuration prompt tone, point the QR code directly in front of the machine camera to scan the code for network configuration.



6. After scanning the code, the APP will jump to the adding interface. After adding successfully, click "Done" and you can use it.





Use the robot to scan the QR code displayed on the Tuya app.
When you hear "Network connection successful", click "Add" to complete the network configuration.

Accessories List

Product Host	1 unit
Charging station and charging cable	1
Cat teaser	1
User manual/warranty card/product certificate	1 serving

Basic parameters

Product Name	Mobile surveillance robot
Product Model	Magic S1
Product size	W110mm×H100mm×L95mm
Screen	Dot-matrix expression display, 12 types
Camera Angle	H(horizontal)121°V(vertical)60°D(diagonal)154°
Inspection speed	0cm/s~40cm/s
weight	About 330g
TF Extension	<512GB
Photo specifications	HD 1920×1080, SD 640×36
Video Specifications	1920×1080, 15FPS, H.265
Video playback	HD 1920×1080
Battery Specifications	2600mAh
Charging time	3~4h
Time of use	2~3h
Automatic recharge	support
Function	Remote control, voice, photo, video, laser, security, electronic pet

Note: Product design specifications are based on the latest information at the time of writing this manual. They are subject to change without prior notice. Please refer to the actual product.

Wireless function parameters

Device type	5.8GHz/5.1GHz/2.4GHz wireless LAN/Bluetooth device
CMIT ID	XXXXXXXXXX
Wireless protocol Bluetooth	Bluetooth, 2.4G WiFi, 5G WiFi
Frequency range	WiFi: 5725-5850MHz 5150-5350MHz 2400-2483.5MHz Bluetooth: 2400-2483.5MHz
Bandwidth occupied	WiFi: ≤40MHz 400MHz ≤40MHz Bluetooth: ≤2MHz
Transmit power	≤-2dBm ≤15dBm ≤13dBm (TPC not supported)
Key Features	Data Transfer
Modulation	BPSK/QPSK/16QAM/64QAM/256QAM/1024 QAM/DBPSK/DQPSK/CCK/GFSK、 π/4-DQPSK、8DPSK
Implementation Standards	Ministry of Industry and Information Technology No. [2021]129 9

Recharge	This machine has an automatic recharge function. Please use the APP to operate it. The robot returns to the charging station and then clicks the "recharge" button. When the machine's power is less than 25%, it will automatically find a charging station.
cruise	Create a path: 1. Place the machine on the charging station and click "Create Path"; 2. The machine will automatically exit the charging station. After exiting, use the "Forward", "Left Turn", and "Right Turn" direction keys of the four-way remote control to remotely control the machine to move along the expected cruise trajectory; 3. After reaching the target point, click "Record Current Position" to save the node; 4. After the path is created, click "Save". The machine will wait for a while. If there is no other operation, it will automatically return to the charging station along the created path. Path Cruise: Place the machine on the charging station, Method 1: Click the "Play" button of a certain path, the machine will exit the charging station, and then cruise along the created path. After reaching the last node, the machine will wait for a while. If there is no other operation, it will return to the charging station by the original route; Method 2: Click a certain path to enter the path page, click any "node", the machine will exit the charging station and then go to the target node along the created path. After reaching the node, the machine will wait for a while. If there is no other operation, it will automatically return to the charging station by the original route.

Low Battery/Low Power Mode Instructions

一、Low Battery Mode

Users can manually set the low battery alarm percentage. Once the set threshold is reached, the app will be notified, the device will prompt "low battery," and the device will enter automatic recharge mode.

If the device needs to continue operating without entering the charging state or seat-finding state, the low battery mode will automatically activate when the battery level is below 25% by default.

二、Low Power Mode

1. After the user enables low power mode, the lighting effects will enter hibernation.
2. The video stream will turn off when the app runs in the background or is closed.
3. When the device enters the charging state, the charging indicator will flash normally, and the low power mode will automatically be disabled.
4. In low power mode, sound detection is retained, while image detection is turned off. The tracking function can be manually enabled by the user.
5. Cruise function can be used in low power state.
6. In low power mode, the loop recording function and fixed-frame detection will be affected.

Environmental protection

According to the Electronic Product Pollution Prevention and Control Management Measures and related standards (SJ/T11363-2006), the names and contents of toxic and hazardous substances or elements in the product are stated.

Part Name	Toxic and hazardous substances or elements					
	Pb	Hg	Cd	Cr ⁶⁺	PBB	PBDE
PCBA	x	○	○	○	○	○
Structural parts	○	○	○	x	○	○
Display	○	○	○	○	○	○
Battery	○	○	○	○	○	○
Package Materials	○	○	○	○	○	○

○ : Indicates that the content of the toxic and hazardous substance in all materials of the component is below the limit requirements specified in SJ/T11363-2006. According to the [Electronic Information Product Pollution Control Management Measures] and SJ/T11364-2006 [Electronic Information Product Pollution Control Labeling Requirements], electronic information products should be labeled. The period during which the toxic and hazardous substances or elements contained in the product will not leak or mutate to pollute the environment or cause serious damage to people and property, that is, "10", indicating 10 years.

x: Indicates that the content of the toxic and hazardous substance in at least one homogeneous material of the component exceeds the limit requirements specified in SJ/T11363-2006.

Note: Most of the components of this product are made of non-toxic and harmless environmentally friendly materials. The components containing toxic and harmful substances or elements cannot be replaced due to the limitations of the global development level.

Product Three Guarantees Service Regulations

1. The three-guarantee service period starts from the date of purchase and is subject to the date of invoice issuance.
2. Product three-guarantee service period: the host is guaranteed to be replaced within 15 days, the warranty period is 12 months, the cable accessories are guaranteed to be replaced within one month, and the accessories included with the product are not within the warranty period.
3. Under normal use and maintenance of the product during the three-guarantee period, the fault caused by the components of the machine can be repaired and replaced free of charge after inspection and confirmation by the dealer's technicians.
4. The above warranty content is limited to the services provided during the three-guarantee period written in the three-guarantee service regulations. If you have any questions, please contact the dealer within the corresponding time.
5. The following situations are not covered by the three guarantees:
 - ① Non-genuine products;
 - ② Products that have exceeded the validity period of the three guarantees, the three guarantee certificates have been altered, the serial number does not match the product number, and the product itself has no serial number;
 - ③ All damage caused by human factors, including damage caused by abnormal use, failure to use and keep according to the instructions, etc.;
 - ④ Users privately disassemble, repair, modify or repair the machine by themselves, or repaired by units not authorized by the manufacturer, without warranty cards and valid docu-

ments;

- ⑤ Damage caused by force majeure;
 - ⑥ Failures caused by self-transportation after purchase or use in harsh environments (oil smoke, heat, dust, liquids, etc.);
6. The manufacturer is not responsible for special, accidental or indirect losses of users;
 7. Products that have been discontinued may not be repaired due to insufficient accessories. In this case, products within the warranty scope are allowed to be replaced with other products of equal value, and products outside the warranty scope will not be provided with maintenance services;
 8. The manufacturer shall not be legally responsible for accidental or consequential damage; loss of expected benefits or profits; work stoppage or loss or damage of data caused by the use or inability to use the product. At the same time, the repair process of the faulty product will cause the content stored in the product to be lost. Please back up in advance. The manufacturer is not responsible for any losses caused by data loss during use or repair, nor is it responsible for other indirect losses caused by this.
 9. The manufacturer reserves the right to interpret all regulations of this three-guarantee service regulation;
 10. When the product and its packaging box need to be sent for repair, together with the completed warranty card and proof of purchase (such as invoice, receipt), send or mail it to the manufacturer's designated area for repair service, and the transportation fee shall be borne by the user;
 11. This warranty regulation only applies to mainland China.

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.