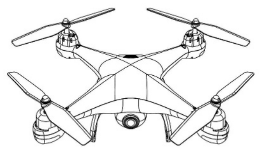
AGES 14+

NO. X7

USER USE INSTRUCTIONS



— GPS FUNCTION —

NOTE: 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.

CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

CONTENTS

Disclaimer and Safety notes .... 1 ~ 3
Accessories list 4
Introduction to Aircraft 5
Introduction to Remote control 6
Operation mode switching 6
Installation Operation Guide .... 8 ~ 9
1. Propeller 8
2. Horse 9
3. Camera 9
Battery Charging Guide 10
Flight operation instruction .... 11 ~ 16
1.APP Download/install the APP 11
2. Wi-Fi The wi-fi connection 11
3. Frequency 12
4. Geomagnetic calibration 13
5. Gyroscope calibration 14
6. GPS/ optical flow mode .... 15 ~ 16
7. The motor to unlock 17
8. Take off/land with one click 17
Product Function Analysis .... 18 ~ 25
1. APP application .... 18 ~ 19
2. New model 20
3. Speed switch 21
4. Emergency stop 21
5. The headless mode .... 22 ~ 23
6. One-key return .... 24 ~ 25
Basic Parameter Information .... 26 ~ 27

⚠ THE WARNING MESSAGE

In order to ensure the electromagnetic environment of aviation radio station, it is forbidden to use all kinds of model remote control in the area with the center of the airport runway and the radius of 5000 meters. During the period of radio control order issued by the relevant state department, the use of the model remote control shall be stopped as required in the area.

DISCLAIMER AND SAFETY NOTES

In order to make it easier and safer for you to use this product, please read all the contents of this manual carefully before using this product, and keep this manual for future reference.

DISCLAIMER AND SAFETY NOTES

1、To protect the legitimate rights and interests of users, please read carefully the instructions, disclaimers and safety instructions we provide with this product before using this product.

2、This product is not suitable for persons under the age of 14. Persons under the age of 14 must use it under the supervision and guidance of an adult with UAV flying experience.

3、Once you start using the product, it is deemed that you have read, understood, approved and accepted all the terms and contents of the instruction manual, disclaimer and safety notice of the product.

4、When using this product, please strictly comply with and follow the requirements in the instructions and safety instructions, including but not limited to. For all personal injury, accident, property loss, legal dispute and other adverse events resulting from the violation of the safety instructions or irresistible factors, the user shall bear the relevant responsibilities and losses, and our company and the agent shall not bear any responsibility.

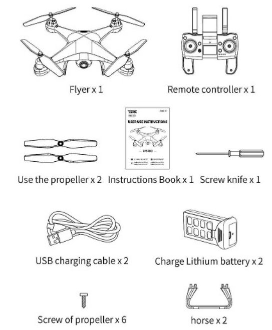
5、Our company and the agent shall not be responsible for any violation of laws and regulations directly or indirectly caused by users using this product.

SAFETY INSTRUCTIONS

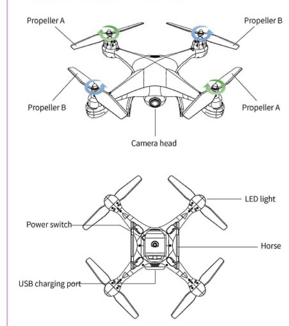
1、This product is not suitable for persons under the age of 14 and others who do not have full capacity for civil conduct.
2、This product has the high speed rotating propeller and the powerful flight power, has the certain danger in the operation. Do not approach or touch the product while it is in operation.
3、When using this product, please stay away from airports, railways, highways, high-rise buildings, power lines and other dangerous environment.
4、When using this product, please keep away from the mobile phone base station, high-power transmission equipment and other high electromagnetic interference environment.
5、When using this product, please stay away from all kinds of manned aircraft.
6、Do not use this product in rain, lightning, sand, fog, snow, wind, low temperature and other harsh environments.
7、This product is not waterproof design, do not operate this product near water.
8、When operating this product, always maintain a safe distance of about 10 meters between the drone and humans or animals.
9、Keep the drone within visual range of the operator at all times.
10、Do not hover or fly this product over people. Do not startle others for fun.
11、Do not operate this product near children's playing areas.
12、Do not use this product to chase vehicles or affect the normal operation of vehicles.
13、Do not turn off the motor when the product is flying in the air unless emergency.
14、This product can not be used in the case of alcohol, tobacco, fatigue, taking drugs, physical discomfort, etc.
15、Please check this product before each use, including but not limited to parts firmness, cracks and wear of the body and propeller, battery power, validity of the indicator light, etc. If an anomaly occurs, stop using the component and replace the component immediately.
16、Accidents may happen to drones in abnormal working conditions. Do not start the propeller or force the flight.
17、Do not attempt to prevent any moving part of the product from working.
18、Do not modify this product, or use this product for purposes other than the original design.
19、Do not operate this product in the no-fly zone of laws and regulations.

20、Due to the wide variety of materials used in aircraft, high temperatures can damage the internal structure of the UAV and lead to unpredictable consequences. Therefore, keep the UAV equipment away from heat sources and avoid exposing the UAV to direct sunlight for a long time.
21、Please operate according to the product instructions.
22、Use the original parts for maintenance and replacement.
23、Lend to other personnel, please ensure that the operator understand and follow the safety instructions.
24、Do not mix different types of batteries.
25、Do not use batteries that are swollen, leaked, or damaged.
26、Keep the battery away from flammable objects (such as carpets, solid wood furniture and wood floors) while charging.
27、Please use the original charging cable. Do not use other brands or damaged charging cables.
28、Please keep a safe distance from the high speed rotating propeller to avoid the risk of being twisted or cut.
29、Do not use the model near your ear! Misuse may cause hearing damage.
30、The aircraft should be used as far away as possible from other electrical equipment and magnetic objects, which may interfere with each other.
31、Please do not short circuit or squeeze the battery to avoid explosion.
32、The motor is a hot component. Please do not touch it to avoid the risk of scalding.

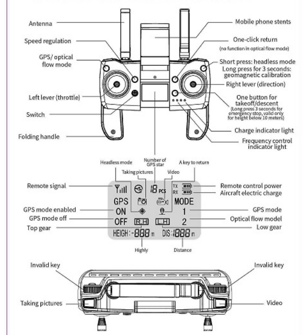
COMPONENTS COLUMN TABLE



INTRODUCTION TO FLYERS

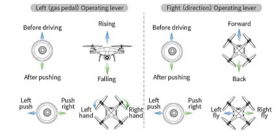


INTRODUCTION TO REMOTE CONTROL



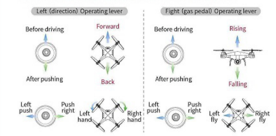
OPERATION MODE SWITCHING

- MODE 2 (DEFAULT MODE)



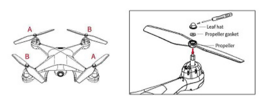
- MODE 1

YOU CAN ENTER MODE 1 BY HOLDING DOWN THE "PHOTO/FINE TUNING" BUTTON AND TURNING ON THE POWER OF THE REMOTE CONTROL.



INSTALLATION OPERATION GUIDE

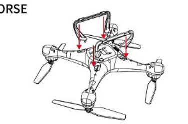
1 THE PROPELLER



As shown in the figure above, install the propeller, propeller gasket, leaf cap and screw onto the motor shaft in turn.

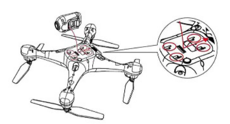
Tip: During installation, please pay attention to the difference between the letters "A" and "B" printed on the propeller. If the installation position is wrong, the aircraft will be unable to take off normally.

2 HORSE



As shown in the figure above, the landing frame is installed in the buttonhole at the bottom of the aircraft fuselage.

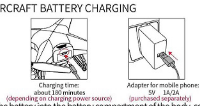
3 CAMERA



① As shown in the image above, the camera is mounted in the four camera grooves at the bottom of the body and then pulled back to secure the camera.
② Push the camera forward to remove it.

BATTERY CHARGING GUIDE

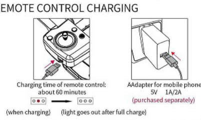
- AIRCRAFT BATTERY CHARGING



Put the battery into the battery compartment of the body, connect it to the charging port on the back of the body using USB charging cable, and then connect it to the computer USB port or USB adapter (5V/2A) for charging.

When charging, the body of the red indicator is steady on; When fully charged, the green light on the fuselage is steady on.

- REMOTE CONTROL CHARGING



As shown in the figure above, after connecting the remote control and USB charging cable, connect the USB charging cable to the computer USB interface or USB adapter (5V/2A) for charging.

Note: When the remote control is under low power, the "power indicator" on the remote control will start to blink, accompanied by "drip" "drip" sound, please stop flying as soon as possible to charge the remote control.

APP INSTALLATION AND OPERATION

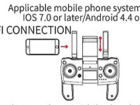
1 DOWNLOAD/INSTALL THE APP

Please scan the QR code below to download the "TSRC" application to use the relevant features.

IOS system, domestic/foreign Android system

Applicable mobile phone system version:
IOS 7.0 or later/Android 4.4 or later

2 WI-FI CONNECTION



As shown in the image above, stretch the phone holder until you can clamp the phone tightly for subsequent manipulation on the phone.
Then turn on the aircraft, then turn on your smartphone, and enter the Settings screen of your phone to start a search for available Wi-Fi networks:
——If you use an iPhone, choose Settings > WLAN.
——If you are using Android, choose Settings > Wireless and Networks > Wi-Fi.
Elect the Wi-Fi signal named "TSRC-****".
After the Wi-Fi signal is successfully connected, the connection between the aircraft and the phone will be automatically established. At this point, exit the setup menu and enter the installed "TSRC" APP application.
You can see the current state of the aircraft in the APP operation interface and carry out corresponding operations.

Note: All instructions below use mode 2(left hand throttle lever) as an example!

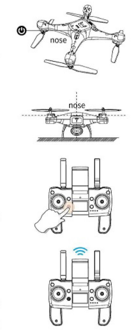
3 FREQUENCY

① After loading the battery into the aircraft, press the power switch at the bottom of the aircraft to open the aircraft.

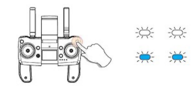
② Place the aircraft on a flat surface with the nose facing straight ahead and the tail facing straight behind (i.e. the operator);

③ As shown in the picture on the right, press the power switch button "⏻" to turn on the power of the remote control.

④ After turning on the power of the remote control, the indicator light of the remote control flickers, and after hearing the sound of "drip" and "drip", the indicator light is steady on, and the frequency is successful.

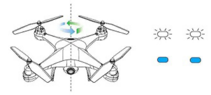


4 GEOMAGNETIC CALIBRATION



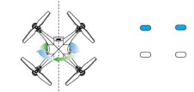
STEP 1:

As shown in the figure above, long press the " " button on the remote control. When the front indicator light of the aircraft shows white quick flash and the rear indicator light shows blue quick flash, step 2 can be performed.



STEP 2:

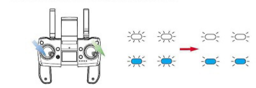
As shown in the figure above, rotate the fuselage of the aircraft horizontally (360°). When the "drip" sound from the remote control is heard, the rear indicator light of the aircraft turns blue, and step 3 can be carried out.



STEP 3:

As shown in the figure above, after making the aircraft nose down (or up), rotate the fuselage vertically (360°). When the remote control makes a "drip" sound and the front indicator light of the aircraft is on, the geomagnetic calibration is completed.

5 GYROSCOPE CALIBRATION



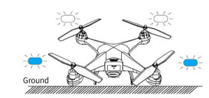
After frequency alignment, push the left and right operating rods to the direction of "5 o 'clock" at the same time as shown in the figure above. When the front and rear indicators of the aircraft turn from quick flashing to steady on, and make a "drip" sound, it means that the gyroscope calibration is completed.

⚠

- When performing gyroscope calibration, be sure to put the aircraft on the horizontal plane, otherwise it will affect the flight!
- Operators are advised to perform geomagnetic calibration before each flight!

6 GPS/ OPTICAL FLOW MODE

- GPS SIGNAL SEARCH



As shown in the figure above, after the geomagnetic calibration is completed, please place the aircraft on a flat horizontal surface without external signal interference sources. At this time, the rear blue indicator light on the aircraft flashes, indicating that the aircraft is searching for GPS signals;

The GPS signal search process takes about 3 minutes, when the four indicators on the aircraft turn to be steady on; The remote control issued a "drip" prompt tone, indicating that the GPS signal search is complete.

(In GPS mode, you need to wait for the GPS signal to complete the search before takeoff).

- GPS MODE (FIGURE 1)

It is suitable for outdoor open places without signal interference. After frequency matching between the UAV and the remote control and calibrating the geomagnetic and gyroscope, the upper display of the remote control changes from "Mode 0" to "Mode 1", and the UAV enters the GPS Mode at this time.

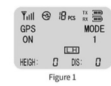


Figure 1

- OPTICAL FLOW MODE (FIGURE 2)

If the flight is in an indoor and open place, long press the " GPS " button on the remote control for 3 seconds, the remote control will emit a" drip "sound, the display screen of the remote control will change from" Mode 1 "to" Mode 2 ", indicating that the GPS Mode has been closed, and the optical flow Mode will be switched.

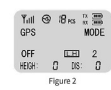
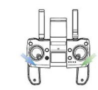


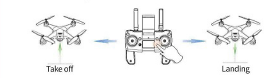
Figure 2

7 MOTOR TO UNLOCK

As shown in the picture on the right, push the left and right lever down at the same time to form the "inner eight". The motor starts, the propeller turns, and the aircraft is unlocked.



8 TAKE OFF/LAND WITH ONE CLICK



- A KEY TO TAKE OFF

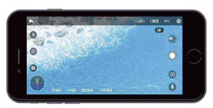
Press the one-button take off/land button "≑" on the remote control, and the aircraft will take off to a height of about 1.5 meters above the ground. At this time, the aircraft can be controlled by the left and right operating levers.

- A KEY TO LAND

During the flight, press the "≑" button on the remote control again, and the aircraft will land slowly until it touches the ground.

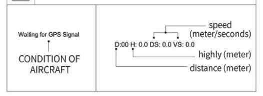
PRODUCT FUNCTION ANALYSIS

1 APP APPLICATION



RETURN:	Returns to the main screen
GPS SIGNAL:	Displays the current GPS signal strength
AIRCRAFT POWER:	Real-time display of the current remaining aircraft power
ONE-CLICK TAKEOFF:	The aircraft will automatically take off to an altitude of 1.5 meters
ONE-CLICK TURN BACK:	The aircraft will descend slowly to the ground
MENU:	There are many functions to choose from after opening
FLIGHT SETTINGS:	Click to enter the Settings interface, you can set the flight mode, flight altitude/distance, return altitude and view the flight path, etc
TAKE PHOTOS:	Click to take one photo at a time

VIDEO RECORDING:	Click once to start recording; Click again to stop the recording
MEDIA LIBRARY:	You can view or share photos or videos that have been taken
RECORDING:	The device can record the operator's voice while the camera is recording, and the audio is synchronized with the image
IMAGE FOLLOWING:	After locking the following target, the aircraft will automatically control the steering in place to make the camera always face the following target (this function is only available in GPS mode, and the following target should not move too fast to avoid losing the following)
GPS FOLLOWING:	The aircraft keeps a certain distance from the controller, and the follower moves with the GPS positioning on the mobile phone
VR SPLIT SCREEN:	Use with VR glasses (purchased separately) to view 3D images in real time
FLY AROUND:	After clicking this function, the aircraft will fly around one circle
GESTURE PHOTOGRAPHY:	This feature will be able to use gestures to take pictures
ROUTE PLANNING:	Able to plan your own route
ZOOM:	Click this feature to change the focal length of the camera
LENS REVERSAL:	Flip the APP interface 180°



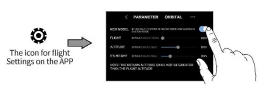
2 NEW MODEL

NOVICE MODE IS THE DEFAULT OPERATION MODE OF THIS PRODUCT. IN NOVICE MODE:

The flight distance is limited to:

Flight altitude is limited to:

Intelligent return at 20M.



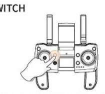
After entering the APP operation setting interface (as shown in the figure above), users can enter the advanced mode after closing the "novice mode" and modify the operation parameters.

Note:

The modification of operation parameters can only be performed in the APP operation setting interface after the geomagnetic calibration operation is completed.

The modification of operation parameters can only be performed in the APP operation setting interface after the aircraft is connected to the mobile phone.

3 SPEED SWITCH



The aircraft is equipped with two speed gears, namely low speed and high speed.
Press the speed adjustment button of the remote control " ", the remote control will emit a" drip "sound, and the" low speed "mode will open; Press again, "drip", "drip" sound, speed switches to "high speed".

Tip:
The boot is in low gear by default.

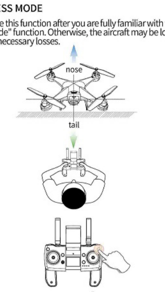
4 EMERGENCY STOP

⚠ This function is only applicable to the aircraft in the process of flight emergency, and the flight height within 10 meters to operate, otherwise it is easy to cause unnecessary damage!

If the " ≑ " button of the remote control is pressed for about 3 seconds, it will be" emergency stop ". At this time, all motors will stop rotating immediately and the aircraft will immediately fall.

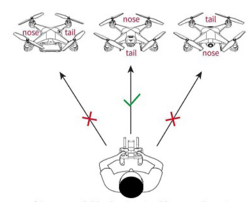
5 HEADLESS MODE

⚠ Please use this function after you are fully familiar with the "headless mode" function. Otherwise, the aircraft may be lost easily and cause unnecessary losses.



① Short press the headless mode button " ", the remote control" drops ", the "headless mode indicator" on the remote control lights up, the remote control continuously makes a "beep" sound, and the front and rear indicators of the aircraft flash, indicating that the aircraft has entered the "headless mode".

② Press the headless mode button " " again, the" beeping "sound of the remote control disappears, and the" headless mode indicator light "on the remote control goes out, indicating that the aircraft exits the" headless mode ".



(It is recommended that the orientation of the operator be consistent with the orientation of the head of the vehicle at the time of takeoff)

In headless mode, the forward direction of the aircraft is subject to the head orientation of the aircraft at the takeoff time. We recommend that the orientation of the operator be consistent with the orientation of the nose of the vehicle at takeoff. The flight direction of the aircraft is completely controlled by the right (directional) lever. Push the right (direction) lever forward/back/left/right and the aircraft will fly forward/back/left/right.

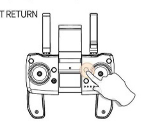
Since the operator's operation direction is very important to the realization of "headless mode" during takeoff, please keep your operation direction consistent with the head orientation of the aircraft at the takeoff time after entering the "headless mode", so as to avoid the confusion of operation direction and unnecessary loss and damage.

6 A KEY TO RETURN

IMPLEMENTED IN GPS MODE ONLY

The one-touch turn back (RTH) function returns the aircraft to the last recorded takeoff point.
There are three forms of return to flight (RTH) :
Intelligent return/low power return/lost contact return

- INTELLIGENT RETURN



Short press the one-key return button " Ⓗ " to start the intelligent return function, and the remote control will start to beep. The aircraft will automatically return to the vertical altitude of the take-off point and then slowly descend to the take-off point. Press the " Ⓗ " button again to exit the return program, and pull down the throttle lever to lower the aircraft to a safe area.

- LOW ELECTRICITY RETURN

When the battery is low, it will trigger a low charge return, and at this time, the front white indicator light and the rear blue indicator light of the aircraft will flash quickly.

When the low current return is activated, the aircraft will fly back to the sky more than 30 meters away from the operator, at this time, the operator can still operate and control the aircraft. At this point, pull down the throttle lever to land the aircraft in a positive and safe place. When the battery runs out, the aircraft will automatically return to the set take-off point.

Note: Please do not push the direction lever when entering the low-current return course. If you push it, the return course will take effect and there is a risk of the aircraft losing right.

- LOST IN RETURN

If the connection between the aircraft and the remote control is lost, the aircraft will automatically enter the return mode, and the four indicators on the aircraft will flash. The aircraft will automatically return to the take-off site. If the aircraft and the remote control are connected again during the process of return, the operator can regain control of the aircraft.

Note: This aircraft is not equipped with obstacle avoidance function.

BASIC PARAMETER INFORMATION

Aircraft
Type: X7
Weight: 189g
Operating temperature: 0° C~ 40° C

Flight vehicle battery
Capacity: 2000mAh
Voltage: 3.7V
Battery type: Lithium battery
Power: 5.55Wh
Charging time: about 180 minutes
(depending on the rechargeable power source and the amount of power left in the battery)
Charging temperature: 5° C~ 40° C

Remote control
Operating frequency: 2.4GHz
Capacity:500mAh
Voltage:3.7V
Battery type: Lithium battery
Operating temperature: 0° C~ 40° C

APP/ real-time image transfer
Application: TSRC
Real-time graph transmission frequency: 5GHz ISM
Real-time image transmission quality: 1080P @ 25fps
Latency: Low latency (depending on condition and mobile device)
Operating system: IOS 7.0 or later/Android 4.4 or later

Camera
Camera Angle: FOV 120° f / 2.0
Photo Format: JPEG
Photo resolution: HD1920 x 1080p (Stored in TF card/mobile phone)
Video Format: MP4
Video resolution: HD1920 x 1080p (Stored in TF card)
HD1280 x 720p (Stored on the mobile phone)
Maximum bit rate: 25Mbps
Supported file formats: FAT32
Operating temperature: 0° C~ 40° C

USB charging line
Voltage: 5V
Rated power: ≤10W