

# TK110

2.4 G controlling system, 6 axis gyroscope.  
Brand new headless, altitude-hold modes, one key return function.  
New One-key take off/landing function.  
Unique foldable structure.



Item No: TK110/TK110W

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## Highlights

- Shaft body of motor unfolding/folding function.
- 3.7V 850mAh lithium battery.
- Newest One Key Return function ,very easy to control,press the key of headless mode,the controller will "di-di",the drone will return according to the open or correction defined by the rear back,pls press the key or poke the direction rocker again,then will stop return.
- Brand new medium throttle altitude-hold mode , Simply pair the quadcopter with the remote control, engage the throttle and the quadcopter will stay at the same altitude. The quadcopter also features a high-resolution on-board camera for better quality images and video.
- Better designed structure makes the quadcopter more flexible and faster.
- The wind-resistance feature allows to flight stability and suitable for indoor & outdoor flight.
- 6 axis gyroscope for precise hovering in the sky.
- Simple design makes the parts replacing easy.
- Easy to disassemble and packed with a whole range of features, such as flip manoeuvres and an on-board camera.

## Safety&Cautions

1. Please keep small parts out of the reach of children to prevent the risk of an accident.
2. The quadcopter is very powerful, therefore engage the throttle slowly when you fly it for the first time in order to prevent it from ascending too rapidly, which could damage the quadcopter due to a collision.
3. When you have finished using the quadcopter, turn off the remote control and then switch off the quadcopter.
4. Do not expose batteries to heat or high temperatures (such as naked flames or near to electric heaters).
5. Make sure that the quadcopter is kept at a distance of 2-3 m from the pilot or other people to ensure that the quadcopter does not hit anyone during take-off or landing.
6. Children must only operate the quadcopter when supervised by an adult. The quadcopter must be kept within the pilot's (and supervisor's) field of view in order to keep the quadcopter under control.
7. Do not charge disposable batteries. Pay attention to the polarity when inserting or replacing batteries and do not mix old and new batteries or batteries of different types.
8. Turn off the remote control and quadcopter when you are not using the product and remove the batteries in the remote control.
9. Short circuit and reversed connection are not allowed for the power terminal.

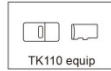
The materials, specifications and components stated or illustrated in these instructions are for reference purposes only. We shall not be responsible for any changes to this publication, nor are we able to inform customers of any updates or changes.

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## Contents

### TK110 packaging includes these items as follows:

- Quadcopter
- Transmitter
- Propellers
- Screws(6pcs)
- USB Charging Cable
- Screwdriver
- Instruction manual
- Memory card
- Card reader
- Camera(2MP)
- Covers



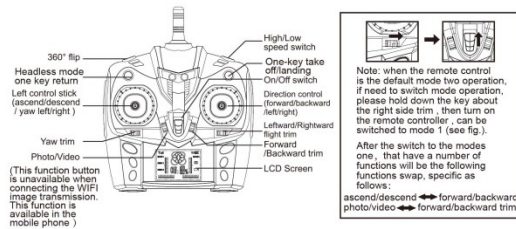
### TK110W packaging includes these items as follows:

- Quadcopter
- Transmitter
- Propellers
- Screws(6pcs)
- USB Charging Cable
- Screwdriver
- Instruction manual
- Clips,use for phone
- WIFI Camera (0.3MP)
- Covers

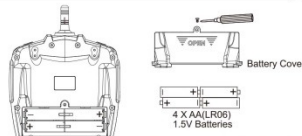


## Remote control

### Overview of remote control buttons (Mode 2)



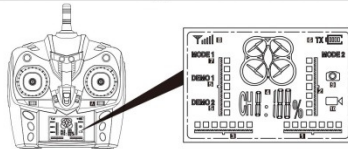
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Inserting batteries: Remove the battery compartment on the back of the remote control and insert 4 AA alkaline batteries, paying attention to the polarity markings in the battery compartment (batteries must be purchased separately).

- 1. Install batteries in correct polarity.
- 2. Do not mix old and new batteries.
- 3. Do not mix different types of batteries.

## Remote control keypad and LCD manual



1. Right/Left roll Trim: The corresponding value is shown when the quadcopter is turned on.
2. Forward/Backward Trim: The corresponding value is shown when the quadcopter is turned on.
3. Yaw trim: The corresponding value is shown when the quadcopter is turned on.
4. Corresponding Value Display: LCD screen display CH1, is the accelerator corresponding value, LCD screen display CH2, is the right/left diversion corresponding value, LCD screen display CH3, is the forward/backward corresponding value, LCD screen display CH4, is the right/left roll trim corresponding value.
5. High/Low Speed display: Press the high/low speed switch to switch between high speed and low speed modes.
6. Battery level: displays the remote control battery level.
7. MODE display to MODE 2 by default. Move the A wheel to the right and hold down the power button to switch to MODE 1.
8. Signal display: Indicates the signal strength.
9. Photo display: press the key of photo, the LCD displays the photo icon.
10. Video display: press the key of video, the LCD displays the video icon.

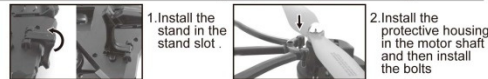
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## Shaft body of motor unfolding/folding function



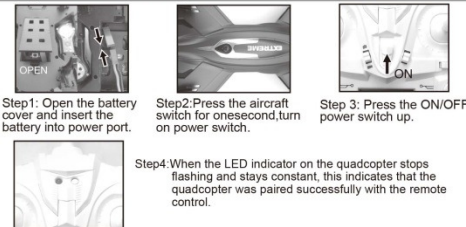
Press on the button of quadcopter's bottom, in the meantime move the shaft body, then it can unfold/fold.

## Install landing skids & propeller protecting frame



Note: The material of leaf protective housing is soft for the safety, which may easily distort and the leaf may scratch the protective housing, under this condition, please open the protective housing till it is not scratched by the leaf.

## Preparation for flight



NB: (1) To pair the quadcopter with the remote control, turn on the quadcopter and the remote control, then wait for the LED indicator on the quadcopter to stop flashing and stay constant.  
(2) Please pair the frequency within 5m to the aircraft for avoiding interference from other signals.  
(3) When connecting the battery terminal with the power plug of the aircraft, avoid reversely connecting the positive and negative poles.

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## Change battery of quadcopter



1. Press power switch for one second, turn off power, open battery cover.



2. Pull out the battery wire from the power port.



3. Connect the USB plug to your computer, then connect the battery cable to the USB connector (the LED indicator stays off when charging and turns on when charging is complete).



4. Reconnect the battery wire to power port, close the battery cover.

Charging the quadcopter for 10 minutes will provide at least 7 minutes of flight time. The quadcopter can fly to a distance of up to 50 m when flown outside with the remote control. WiFi outdoor control distant about 25m.

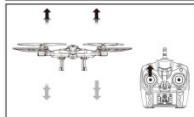
### Pay attention to the following when charging the battery:

Never expose the charged battery to high temperatures such as naked flames or electric heaters, as this may damage the battery or cause an explosion.  
Never use the battery to hit or strike the surface of hard objects.  
Never place the battery in water and ensure that it is stored in a dry place.  
Never dismantle the battery.  
Never leave the battery unattended whilst charging.  
When it is charging, please do not reversely connect the positive and negative poles of the battery terminal.

## Model-control

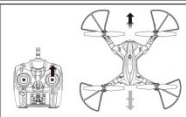
### Flight Controls

#### Up and down



Push the left control stick up and down, quadcopter will up and down.

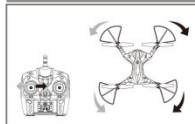
#### Forward and backward



Push the right direction control rudder up and down to fly forward and backward.

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#### Rotation



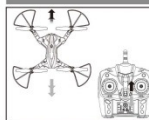
Push the left control stick left and right to control the left/right rotation.

#### Leftward/Rightward flight



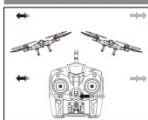
Push the right direction control rudder left and right, quadcopter move to the leftward and rightward.

#### Trim Forward/Backward



When the quadcopter is hovering in place, if it drifts forward or back, press the forward/backward trim button in the direction you want it to go until it's stable.

#### Trim Leftward/Rightward flight



When the quadcopter is hovering in place, if it drifts to the side, press the leftward/rightward flight trim button in the direction you want it to go until it's stable.

#### Left/Right trim



When the quadcopter keeps rotating to left/right, you can correct it by pressing the right/left trim.

## Introduction of quadcopter function

### Low-voltage protection:

When the quadcopter battery is not enough, the rotors will be stopped from power supply. As the quadcopter control system will protect the battery automatically.

### Restart function:

In case of flight disorder or sideward flight, restore factory default settings by the following methods:



1. Put battery into the aircraft, then turn on switch.



2. Turn on the remote controller. The quadcopter LED will stop flashing and stay constant once it has paired with the remote control.

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3. Put the quadcopter in a horizontal condition, then push transmitter both left and right lever to the lowest right corner for about 2-3 seconds. Indicator on the quadcopter changes from normal lights to quick flashing. After 2-3 seconds, the indicator changes to normal lights, the quadcopter restarted /reset successfully.



### 3D 360 degree flips

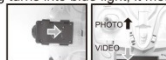
When you are familiar with the basic operation, you can do some awesome & exciting tricks and stunts! First of all, fly the aircraft to a height of more than 3 meters, press the 3D Flips switch on the rear left side of the transmitter, then push the right rudder (in any direction) to make 360 degree flips.



**Tips:** The first four min 3D flips fly better when battery power is enough.

### Aerial photography function

1. Method: Install the memory card in the camera, and then aim the camera box at the card position and install it in the aircraft. Then turn on quadcopter, when camera red light flashing turns into blue light, it means that camera works, when red light flashes then off, blue light off also, it means that it doesn't insert SD card into the camera.



### Camera/video features

**Camera:** When the camera is on, move the camera/video button upwards. The remote control will beep once and the red LED indicator on the camera will flash to indicate that a photo was taken.

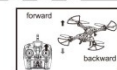
**Video:** When the camera is on, move the camera/video button downwards. The remote control will beep twice and the red LED indicator on the camera will keep flashing to indicate that a video is being recorded. Move the button again to stop recording; the red LED will stop flashing and the blue LED will stay constant.

**Tips:** 1. When there isn't a card or the memory card is full, the red indicator of the camera will flash.  
2. To finish the video recording, please press the Record button to save the video.  
3. If the player can't play the video, please download other players.

### Headless

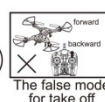
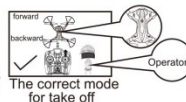


1. Press the headless mode button (as shown in diagram). The remote control will beep once and the quadcopter LED will start to flash to indicate that headless mode has been enabled. To turn off headless mode, press the headless mode button again; the remote control will beep once and the quadcopter LED will stay constant.



2. When headless mode is enabled, the quadcopter will move in the direction of the remote control levers, regardless of its orientation. This makes it easy to bring the quadcopter home when it is far away from you.

3. When using headless mode, the front of the quadcopter must point in the direction of flight; the back of the quadcopter should be facing the pilot. (See the diagrams above for the correct position.)



### One key return

During the flight, press the key of headless mode, the controller will "di-di", the drone will return according to the open or correction defined by the rear back, pls press the key or poke the direction rocker, then will stop return.



**NB:** One key return requires that the back of the quadcopter should be facing the pilot until it is in a straight line, as shown in figure above that take off under headless mode. In the headless mode turn back into one key return mode, relieve one key return will into a headless mode.

### Medium throttle altitude-hold:

Brand new medium throttle altitude-hold mode makes operation easier. Simply pair the quadcopter with the remote control, engage the throttle and the quadcopter will stay at the same altitude. The quadcopter also features a high-resolution on-board camera for better quality images and video.

**NB:** 1. The aircraft may possibly be unbalanced within 1min after starting flying due to the temperature change, it is normal that the aircraft may slowly ascend/descend occasionally.  
2. When the aircraft ascend/descend suddenly as a result of shock, please correct the horizontal level of the aircraft. Refer to P7 Restart Function for detailed operation.

### One-key take off/landing:

Brand new one-key take off/one-key landing technology, after ready to fly, tap the button of one-key take off/one-key landing. Blades will begin to rotate slowly, after about one second the quadcopter will rise to one meter height slowly; Tap the button of one-key take off/one-key landing when landing, the quadcopter will land on the ground slowly, then blades will stop rotating slowly. During landing, push the throttle rocker upward so it can cancel one-key landing function.





#### Start/Emergency stop:

Start: After successfully pairing the frequency, turn the throttle rocker upwards or make two rockers as "toe-in" (as shown in the right figure). Then the motor of the aircraft will start rotate slowly, turn the throttle rocker upwards again, the aircraft takes off.

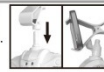
Emergency stop: when the aircraft is working, make two rockers as "toe-in" (operation as shown in the right figure). The motor of the aircraft will directly stop working. Since the motor of the aircraft will directly stop working, the aircraft may directly fall towards the earth, which may possibly cause safety trouble. Therefore, this functions is only used under emergency circumstance.

For mobile phone WIFI operation, please directly click the start/emergency stop button.



#### Install the mobile phone clamp

Insert the mobile phone clamp vertically downwards into the remote controller (as shown in the right figure). Make sure that the mobile phone clamp has reached the position. Install the mobile phone in the mobile phone clamp.



#### WIFI feature

##### \*ISO user download step:

1. Scan the ISO QR code or search WIFI GO directly on macshop.
2. Access the WIFI GO download page in the APP store. Tap the download icon in the top right to download and install the WIFI GO app.



##### \*Android user download step:

1. Scan the Android QR code.
2. Access the APP download page in the Android APP store, Tap the icon in the top.
3. Download and install according to the reminder select the browser.



##### \*Android user download step(Google):

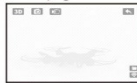
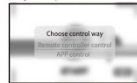
1. Scan the Google QR code.
2. Access the APP download page in the Google mail, Tap the download icon to download and install the WIFI GO APP.



#### \*App interface introduce:



1. After you have installed the APP app, you must first connect to FPV's WIFI network "SKY\_WIFI\_XXXX", launch the "WIFI GO" on your phone, enter APP home page.
2. Tap "HELP" to view a description of the app's controls.



3. Tap "START" to view a description of the app's controls.
4. Manipulation with a remote controlling device: only image transmission, but without any manipulation.
5. Manipulation by means of mobile phone APP: have image transmission and manipulation.



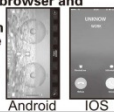
6. Tap the folder icon on the bottom right to access captured images and videos.
7. Tap the phot folder on the left to view all captured images, or edit the photo. Tap the video folder on the right to view all captured video or edit the video. (If it cannot play video, please try to download another player)

#### Note:

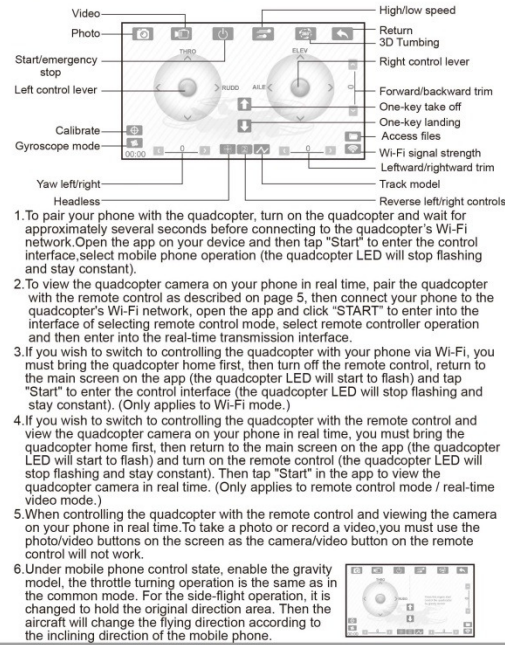
(1). The mobile phone APP function will be interfered by the magnetic field, WIFI signal and communication signal, in order to ensure the ideal state of mobile phone APP control and image transmission, please do not use the mobile phone APP function in the environment with serious interference.

(2). It is possible that the APP download will be failure since the mobile phone model and mobile phone system version are difference, under this condition, please use other mobile phone or browser and then download it again.

(3). Due to the restraint of the mobile phone version authorization, when controlling the aircraft with mobile phone APP, it may possibly cause full screen display when there's incoming call, for the sake of safety, the aircraft will slowly descend about 20s later under this condition. (as shown in the right figure)

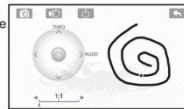


## \*Overview of phone controls



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7. Under mobile phone control state, enable the track mode, the throttle turning operation is the same as the common mode, the side flight operation is changed that it draws the side flight track at the right of the interface, the aircraft will fly according to the track. The proportion adjustment below the ascending and descending direction control lever can control the proportion of the line length and actual aircraft flight distance, the higher the proportion, the farther the flying distance.



**This feature must be used in an open area in order to avoid the risk of collision.**

**NB: This mobile phone control function is only applicable to TK110W, the APP software of the product may change the interface and add the functions according to the upgrading and updating of the software, it is possible that the interface and functions of the software may be a little different, thanks for your understanding.**

## Care and maintenance

1. Regularly clean the product using a clean cloth.
2. Avoid exposing the product to direct sunlight or high temperatures.
3. Do not place the product in water as this will damage the electrical components.
4. Regularly inspect the charging plug and other parts for damage. If there are any signs of damage, discontinue use immediately until the product has been fully repaired.

## Troubleshooting

Problem	Reason	Solution
The quadcopter is not responding.	1. The quadcopter battery is low. 2. The remote control battery level is low (the battery indicator will flash). 3. The quadcopter did not pair successfully with the remote control.	1. Charge the quadcopter. 2. Replace the remote control batteries. 3. Try pairing the remote control with the quadcopter again.
The quadcopter does not respond well.	The remote control battery level is low	Replace the batteries.
The quadcopter does not take off	1. The quadcopter propellers are damaged. 2. The quadcopter battery is low.	1. Replace the quadcopter propellers. 2. Charge the quadcopter.
The camera does not take photos / record videos.	1. The memory card is not inserted properly. 2. The memory card is full.	1. Reinsert the memory card. 2. Free up some memory or use another memory card.

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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## Spare parts

All the spare parts below can be bought from local distributor.



TK110-01  
Body cover



TK110-02  
Lower body



TK110-03  
Propellor



TK110-04  
Propellor guard



TK110-05  
Landing skids



TK110-06  
Motor holder



TK110-07  
Lampshades



TK110-08  
Motor A



TK110-09  
Motor B



TK110-10  
LED



TK110-11  
Receiver board



TK110-12  
Battery



TK110-13  
USB charging cable



TK110-14  
Camera



TK110-15  
The cover of battery



TK110-16  
Clip



TK110-17  
Motor shaft upper cover



TK110-18  
Motor shaft lower cover



ISO QR code



Android QR code



Google QR code