4DRC
Just Four Dreams

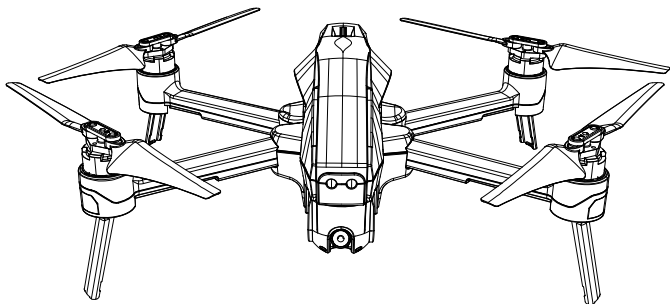## 4D-M1

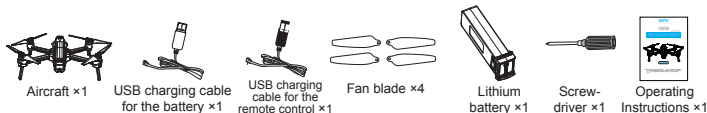Suitable for ages over 14

Quadcopter operating instructions

GPS

English

● In order to meet the requirements of the aeronautical radio station's electromagnetic environment (various of aero models and UAV are not allowed to fly within the range of 10 km on each side of center line and 20km on both ends of the airport runway and in the) and civil aviation routes and airlines. Using various models and drones in the no-fly zone issued by the relevant state departments is prohibited.
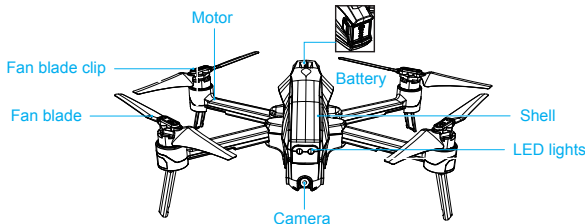
Warning

1. The packaging and instructions contain important information and should be kept.
2. With this aircraft, you are responsible for ensuring that no harm will be caused to the personal and property of others.
3. Commissioning and installing of aircraft must be strictly in accordance with the operating instructions, and attention shall be paid to the distance between the aircraft and the user or other people shall be 2 to 3m to prevent the aircraft from bumping into the head, face and body of people and causing injury in flying and landing, etc.
4. Our company and distributors are not responsible for any loss and damage, as well as injury to people caused by improper use or operation.
5. Children should be guided by adults when operating the aircraft. This product is prohibited to be operated by children under 14 years old.
6. Please follow the instructions or packaging instructions to install and use correctly, and some parts should be assembled by adults.
7. The product contains small parts, please place it out of the reach of children to prevent the risk of accidental eating or suffocation.
8. It is strictly forbidden to play on the road or in the place where water is accumulated to avoid accidents.
9. Please put away the packing materials in time to avoid harm to children.
10. Do not disassemble or modify the aircraft. Disassembly or modification may cause malfunction to the aircraft.
11. The charging cable needs to be inserted into the designated power supply 5V $=$ 2A that is the same as the product label.
12. Only use the charging cable configured by the factory.
13. The charging cable is not a toy.
14. When charging the rechargeable battery, it must be under the supervision of an adult. When charging, it must be far away from flammable materials. During charging, the guardian should not leave the monitoring range.
15. Please do not short circuit or squeeze the battery to avoid explosion.
16. Do not mix different types of batteries
17. The aircraft uses 11.1V rechargeable lithium battery, which needs to be pulled out for charging.
18. Do not short-circuit, decompose or throw the battery into fire; do not put the battery in a place with high temperature and heat (such as in fire or near electric heating device).
19. The aircraft should be used as far away from other electrical equipment and magnetic objects as possible, they may cause mutual interference.
20. Please keep a safe distance from the high-speed rotating propeller to avoid the risk of scalp or cut
21. The motor is a hot part; please do not touch it to avoid burns.
22. LED has laser radiation; please do not give direct light beam to others.
23. Do not use the model near your ears! Misuse may cause hearing damage.
24. As for the USB charging cable, the data cable provided by our company must be used to charge the battery, otherwise it will cause damage to the battery.
25. To meet the magnetic environment requirements of aeronautical radio stations. During the radio control order issued by the relevant state departments, the model remote control should be stopped within the city area as required.
26. Turn off the switch and unplug the battery when the battery of the aircraft is used up, and charge after 30 minutes of rest, otherwise the battery will be easily damaged.
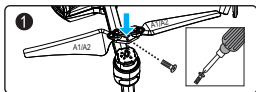
1. List of accessories included:

Aircraft ×1	USB charging cable for the battery ×1	USB charging cable for the remote control ×1	Fan blade ×4	Lithium battery ×1	Screw-driver ×1	Operating Instructions ×1

2. Name of each part of aircraft:

- Motor
- Battery
- Fan blade clip
- Fan blade
- Shell
- LED lights
- Camera

3. Wind blade installation diagram:

❶ A1/A2

3.1 Unscrew the screw and remove the fan blade.
⚠ Note: The fan blade is printed with A1/A2 B1/B2. Please install it correctly according to the instruction, otherwise it cannot take off.

❷ A1/A2
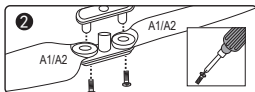
3.2 Loosen the screw, open the two fan blades and the connecting parts, and remove the fan blades for replacement. (when A1/A2 fan blade is broken, replace A1/A2, and so do to B1/B2 fan blade, error in replacement will cause that it can't take off.)

## 4. Camera installation / removal:
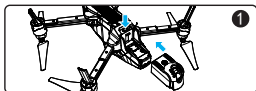
4.1 Press the buckle on bottom of the camera and take out the camera in the direction indicated by the arrow.
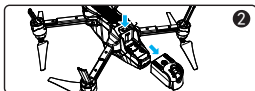
4.2 As shown in the figure below, press the buckle on the bottom of the camera, install it in the direction of the arrow, and pay attention to fasten the buckle.

⚠ Tips: The camera needs to be used with the real-time transmission APP. For the download process, please refer to the APP manual. For the camera function description, please refer to the APP content.
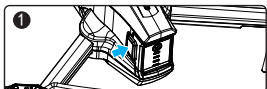
5. Lithium battery installation:
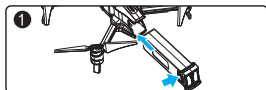
5.1 Press the left and right buckles of the battery, and push the battery into the battery holder.
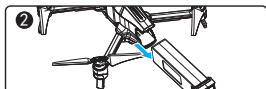
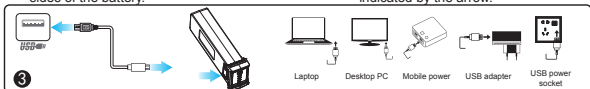5.2 Check after installation to ensure that the battery is installed in place.

6. Lithium battery charging instructions:

6.1 Press the buckles on the left and right sides of the battery.

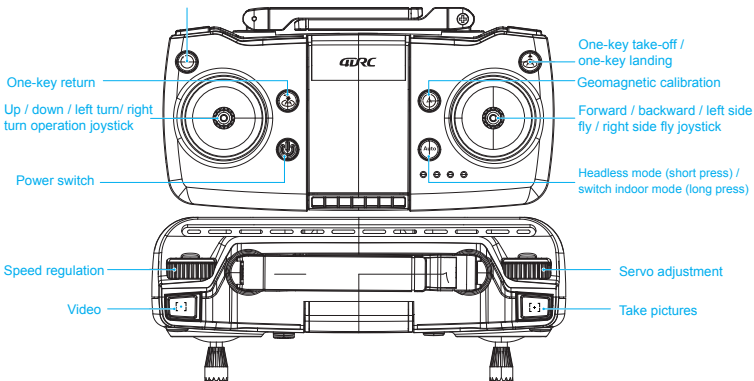6.2 Take out the battery in the direction indicated by the arrow.

| Laptop | Desktop PC | Mobile power | USB adapter | USB power socket |

6.3 Charging: Insert the USB port of the white USB charging cable into the USB port of the computer (or use the output: 5V⎓ 2A power adapter), and connect the other end of the USB charging cable to the battery socket. When the battery is charging, the green light of the battery flashes from up to down in sequence, and the battery power indicator is constantly on when the battery is fully charged. The battery is fully charged in about 10 hours.

Tips: When the transmitter emits a sound of "Di Di" and there is one light left in the battery, the battery needs to be charged.

7. Name of each part of the remote control:

One-key recycling / switch between left and right hand mode (long press)

One-key return

Up / down / left turn/ right turn operation joystick

Power switch

Speed regulation

Video

One-key take-off / one-key landing

Geomagnetic calibration

Forward / backward / left side fly / right side fly joystick

Headless mode (short press) / switch indoor mode (long press)

Servo adjustment

Take pictures

Headless mode button: Press this button to enter the headless mode, the indicator light on the rear arm of the aircraft flashes, and press again to exit.

Return button: Press this button to return the flight, and press it again to cancel.

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8. Charging the remote control:

Insert the USB port of the black USB charging cable into the USB port of computer (or power adapter with an output: 5V = 2A), and connect the socket of the other end of the USB charging cable to the remote control socket. When charging, the USB light will be always on, and when the battery is fully charged, the USB light will go out.
Tips: When the transmitter is in a low power state, the transmitter emits a sound of "Di Di" and the remote control only has one light. At this time, the transmitter needs to be charged.
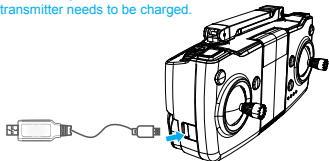
9. APP download and installation instructions:

9.1 Download and install the software
For Android mobile phone, after scanning the code, choose to open and download in the browser.

Download on the **4DRC PRO**	Download on the **App Store**
Android system: Please scan this QR code to install	Apple system: please scan this QR code to install

9.2 Link description
① Turn on the power of aircraft, enter the (Settings) option (of mobile phone or IPAD), and open the wireless network; find the device name of "4DRC_4K_GPS" in the wireless network search list and connect; after connection, exit the setting option.
② Open the software icon "4DRC PRO" in mobile phone to enter the control interface. (Try to stay away from other signal source environments when flying).

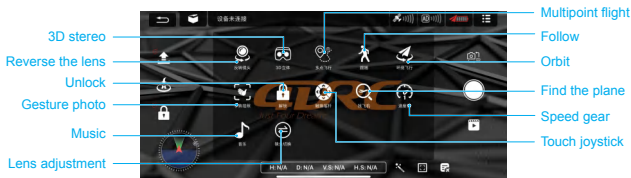Open the "4DRC PRO" software → Select Go to enter the control interface → Select and click "More Features" → Enter the function menu

10. APP control interface function introduction:

- Satellite signal
- Flight status
- More features
- Return
- Takeoff / landing
- One-key return
- Unlock
- Map
- Flight distance

- WIFI signal
- Aircraft battery power
- parameter settings
- Photo / Video
- Shutter
- Media library
- Flight record
- Zoom
- Filter

H:N/A   D:N/A   V:S:N/A   H.S:N/A

04

3D stereo

Reverse the lens

Unlock

Gesture photo

Music

Lens adjustment

Multipoint flight

Follow

Orbit

Find the plane

Speed gear

Touch joystick

Novice mode

On/Off

Flight distance
default 30m. (20m-2000m)

Flight altitude
default 30m, (10m-120m)

Save

⚠ Note: After being proficient in flight operation, it is necessary to close the novice mode and set the flight distance and altitude before the aircraft can fly further!

11. Environmental requirements before flight:
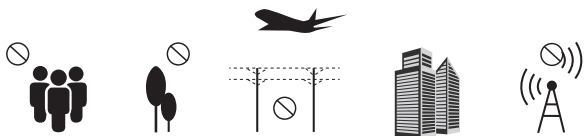
Please choose to fly in an outdoor open environment without rain and snow, and the wind power of less than level 3. When flying, please stay away from people, trees, wires, tall buildings, airports and signal transmission towers. Do not fly indoors or in environments with weak GPS signals.

12. Preparation instructions before flight:

⚠ Warning **The aircraft/remote control must ensure sufficient power or it cannot take off!**

12.1 Aircraft code matching. Turn on the power of the aircraft and place it on a horizontal plane. At this time, the aircraft placed on the horizontal plane will automatically enter the state of code-matching. The light of fuselage will flash from fast to slow (battery indicator is always on).
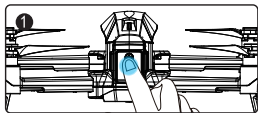
⚠ Note: Set the aircraft in a correct direction, and the nose shall face forward. It must be placed on the horizontal plane.

12.2 Turn on the WiFi function in the mobile device, select "4DRC_4K_GPS" in the WiFi list, and open the APP after it connected successfully.

12.3 Turn on the remote control (default mode)-press the power switch button ⏻ of the remote control (step 1) and turn on the remote control, the power indicator will flash. The throttle lever is pushed up to the top (step 2) and then to the bottom (step 3), the code matching will complete and the indicator of the remote control will be always on.
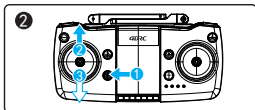
12.4 Horizontal calibration operation:

Push the left and right joysticks on the remote control to the lower right corner at the same time, and the lights on the aircraft will flash quickly. When the lights on the aircraft flash slowly, it means the calibration is complete, when the remote control will emit a sound of beep (Figure 1).

APP operation: Click the "Set more" icon in the APP interface, and operate following the text prompt after entering, and it can also be horizontally calibrated. When the APP indicates that the calibration is complete, it will automatically proceed to the next step (Figure 2).

⚠ Note: The calibration must be completed only when the aircraft is placed on a horizontal plane.

Figure 1

Figure 2

12.5 Geomagnetic calibration operation
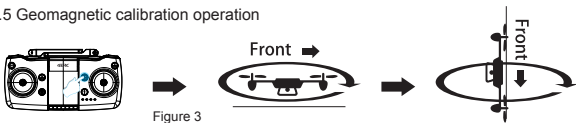

Figure 3

1. Short press the geomagnetic calibration button Ⓐ until the light on the aircraft flashes quickly.

2. Horizontal clockwise rotation - Pick up the aircraft horizontally and rotate clockwise until the device emits a sound of "beep", and the horizontal calibration is completed.

3. Rotate the aircraft clockwise with the tail upwards: pick up the aircraft with the nose being vertically downwards and rotate clockwise until the remote control emits a sound of "beep" when the light flashes slowly, which means the guide calibration is completed.

APP operation: In the interface of "Set more", according to the text prompt and operation steps, the guide calibration can also be done (Figure 4). When the APP prompts that the guide calibration is complete, it will automatically enter the start to fly interface.

Figure 4

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12.6 Star search status

After the code matching is completed, the remote control is turned on. The remote control displays Mode-1, and Mode-1 is optical flow mode. At this time, the aircraft will automatically enter the star search mode. If the star search is successful, the remote controller will emit a "beep" as a prompt. Mode-1 changes to Mode-2, which means it is unlocked and can take off.

⚠ Note: The first time of star search needs to wait at least a few minutes, and the search signal reaches about 10 stars before it can take off.Note: The calibration must be completed only when the aircraft is placed on a horizontal plane.

12.7 Start/stop (GPS mode)

Push the left and right joysticks on the remote control outward to unlock, (if the star search is unsuccessful, it cannot be unlocked and started) (Figure 5). At this time, the aircraft can take off normally. After taking off, all the indicators of the aircraft are always on.

APP operation: Click "One Key Unlock" icon (Figure 6) in APP control interface, the one-key unlock function can also be achieved.
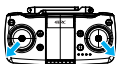

Figure 5   Figure 6

12.8 One-key take-off and landing

When unlocking is complete, gently press the ⊛ "One Key Takeoff/Landing" key on the remote control (Figure 7), the aircraft will automatically rise to a height of about 1 meter to maintain a stable flight; when you press this function key gently again, the aircraft will automatically land slowly.

APP operation: Click "one-key take-off" icon (Figure 8) in APP control interface, the one-key take-off function can also be achieved; during flight, click this icon again, the aircraft will automatically land slowly.
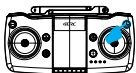

Figure 7   Figure 8

12.9 Normal mode (Optical flow assisted positioning)

The aircraft enters the normal mode: when flying above a good ground, optical flow will assist the aircraft. When hovering in a place, it will be normal to drift about 1 meter depending on the ground and altitude conditions.

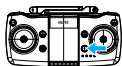## 12.10 Start / stop (common mode needs to be turned on for indoor operation)
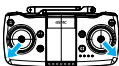

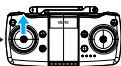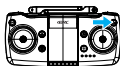Figure 9   Figure 10   Figure 11   Figure 12

1. Press and hold this button on the remote control, the remote control will emit a sound of beep, the fuselage light will be always on and enter the normal mode (Figure 9).

2. Push the left and right joysticks on the remote control outward to unlock (Figure 10).

3. Then push up the left joysticks (Figure 11).

4. Or press one key take off button ⊙ to take off (Figure 12).

> Before the aircraft takes off, please operate following the steps in the above sequence: code-matching (refer to 12.1) → link WIFI (refer to 12.2) → start code-matching with remote control(refer to 12.3) → horizontal calibration (refer to 12.4) → geomagnetic calibration (refer to 12.5)) → Star Search Status (Refer to 12.6) → Start / Stop (GPS Mode) → (Refer to 12.7) One-key Takeoff and Landing → (Refer to 12.8) Normal mode (Optical flow positioning) (Refer to 12.9) → Start / stop (the normal mode needs to be turned on for the indoor operation) (refer to 12.10).

13. Control method:

APP operation: Enter the APP control interface, and click the "joystick on / off" icon; the operation joystick will be seen on the interface and the operation method is as follows:
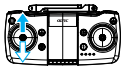

When the left joystick (throttle) is pushed up, the rotation rate of the main blade increases and the aircraft rises.
When the left joystick (throttle) is pushed down, the rotation rate of the main blade slows down and the aircraft descends.
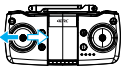
When the left joystick (rudder) is pushed to the left, the aircraft nose turns to the left. When the left joystick (rudder) is pushed to the right and the nose of the aircraft will turn to the right.

When the right joystick (rudder) is pushed up, the aircraft moves forward.
When the right joystick (rudder) is pushed down, the aircraft moves backward.
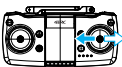
When the right joystick (rudder) is pushed to the right, the aircraft fuselage deviates to the right.
When the right joystick (rudder) is pushed to the left, the aircraft fuselage deviates to the left.

14. Introduction to the APP application and remote control function operation:

14.1 Headless mode

The front of the aircraft when the code-matching is turned on is by default the front in headless mode; if it is necessary to adjust the direction, please turn on the code-matching again, and short press the remote controller "headless mode" function key (Figure 14). When exiting, please tap gently press this function key again.

⚠ Special prompt: Please make sure the aircraft is aligned with the straight line and let the gyroscope automatically detect the straight line, and the headless mode of straight line flight can be realized.
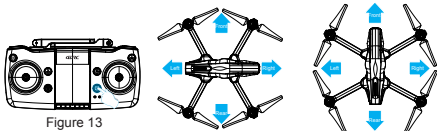
Figure 13

14.2 One key return

Press the one-key return button 🔄 , the aircraft will return to the place above the geomagnetic calibration position (Figure 14). (The aircraft will automatically rise to a safe altitude when it is flying below the safe altitude) and then land slowly. If there are obstacles during the landing, press the one-key return button again to turn off the return operation and avoid by the manual control joystick, pull down the throttle lever to land.

APP operation: Click the "one-key return" icon (Figure 15) in the APP control interface, you can also return the aircraft; during the return flight, click this icon again to cancel the return.
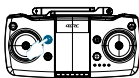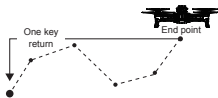
Figure 14   Figure 15

14.3 Speed switching

Speed adjustment wheel: when it turns right, the remote control will "beep" twice to enter the high speed mode, and when it turns left, the remote control will "beep" once to enter the low speed mode (Figure 16).

APP operation: Click the "More Functions" icon (Figure 17) in the APP control interface, and the flight speed can also be switched (Figure 18).
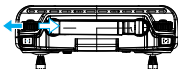
Figure 16   Figure 17   Figure 18

14.4 Steering engine adjustment

When using a UAV, the steering engine adjustment wheel can be used to adjust the direction of the camera:

During flight of the UAV, when the steering engine adjustment wheel turns to the left, the camera will be adjusted upward. (Figure 19).

During flight of the UAV, when the steering engine adjustment wheel turns to the right, the camera will be adjusted downward. (Figure 20).

APP operation: Click on "More functions" icon (Figure 21) in the APP control interface, it can also switch the aircraft lens adjustment (Figure 22).

Figure 19

Figure 20

Figure 21

Figure 22

14.5 Waypoint flight mode

① In GPS mode, click "More Functions" icon (Figure 23) in the APP control interface to enter waypoint flight (Figure 24). At this time, the interface changes from the image transmission page to the map page. On the map page, click to set the track range of a single waypoint or continuous waypoints (Figure 25). During the setting process, if the track waypoints are too dense, you can click the delete icon to delete all waypoints (Figure 26).

② After setting of the waypoint, click the send icon (Figure 27), the aircraft will fly to all waypoints from the initial point to complete the preset flight trajectory. The direction of the aircraft can be controlled by the joystick during the flight.
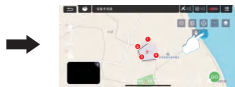

Figure 23

Figure 24

Figure 25

Figure 26

Figure 27

14.6 Orbital flight mode

In GPS mode, click "More Features" icon in the APP control interface (Figure 28) to enter the orbit flight mode (Figure 29), the aircraft will automatically orbit in a radius (Figure 30), and the radius can be adjusted on the APP (Figure 31). At this time, push the right direction joystick to fly left or right (Figure 32) at the default speed, the orbital speed can be adjusted. Push the right direction joystick front or rear, the orbit radius can be adjusted, and when the orbit button is pressed again, the orbit flight will end(Figure 33).

Figure 28

Figure 29

Figure 30

Figure 31

Figure 32

Figure 33

14.7 GPS follow mode

In GPS mode, click the "More Features" icon (Figure 34) in the APP control interface to enter the follow mode(Figure 35), the aircraft will automatically move by tracking changes in the location of the mobile device (mobile phone or IPAD) of the controller based on the distance from the current position to the device. During the following, press the GPS follow button lightly to cancel the follow.

Figure 34   Figure 35

14.8 Gesture recognition

When facing the camera's front lens, click the gesture photo button on the APP, and use any of the following gestures to trigger the aircraft's photo or camera function.

⚠ Special prompt: Please make gesture recognition facing the lens at a position about 2-3m away and in a well-lit environment.

Yeah gesture photo
In about 3m front of the aircraft lens, make Yeah gesture with one hand in horizontal position; after the aircraft successfully recognizes the gesture, count down 3 seconds and take photos.

Palm gesture video-recording
In about 3m front of the aircraft lens, put five fingers together and lift one hand to horizontal position; after the aircraft successfully recognizes the gesture, it will start recording. The recording will end when the gesture is re-recognized (the time difference between the two recognitions shall be greater than 3s).

14.9 MV interface

Click the "filter interface" icon (Figure 36) in the APP control interface, after entering the filter interface, you can choose to match your favorite filter effect, click the recording icon to start recording (Figure 37). After the recording is completed, the synthesized short video or picture will be saved to the media library (Figure 38).

⚠ Special prompt: During the recording process, you can rotate the screen or switch the filter effect, and you can also turn the joystick on / off to control the direction and altitude of the aircraft.

Figure 36   Figure 37   Figure 38

15. FAQ and solving guidelines:

Question	Reason	Solution
The aircraft indicator flashes without any response	1. The GPS of the aircraft doesn't search star successfully 2. The aircraft has insufficient power	1. Move the aircraft to an open place and search for stars again 2. Charge the battery
The blades of the aircraft rotate but cannot fly	1. Low battery 2. Blade deformation	1. Charge the battery 2. Replace the blade
The aircraft vibrates badly	Blade deformation	Replace the blade
After the impact, start the aircraft again and it fly uncontrollably	The three-axis acceleration sensor loses its balance due to impact	After leaving the aircraft for 5-10 seconds, or by the horizontal calibration, it will be ok.