





# **INSTRUCTION MANUAL**



# FOR MORE INFORMATION

Visit us online at force1rc.com or our YouTube channel at youtube.com/usatoyz for product information, replacement parts and flight tutorials.

# ATTENTION: PLEASE WATCH THIS FLIGHT INSTRUCTION VIDEO BEFORE FLYING YOUR DRONE.



https://youtu.be/tk3qzsUwoWs



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#### WELCOME!

Welcome to the Force1 Team, and thank you for your Force1 drone purchase. Please read this manual carefully before drone operation.

- (1) This drone is not a toy! It's a pro-level drone suitable for experienced RC drone users aged 14 years and older. You accept all liability for operation.
- (2) This drone does not require FAA registration or permitting, but FAA rules still apply. Please download the B4UFLY mobile app for the most up-to-date zoning info, and heed all local government ordinances.
- (3) The flying field must be legally approved by your local government.

Any questions? We'd love to hear from you! Please contact us at support@force1rc.com any time and we'll be happy to help.

#### \*Please use only original Force1 parts and accessories.

\*Please keep the packaging and this user manual for future reference.

#### SAFETY PRECAUTIONS

This drone is suitable for experienced RC drone operators aged 14 years and older. It contains small parts, and should be kept out of reach of small children.

Please follow these safety procedures:

#### (1) Flight Zone

This drone does not require FAA registration or permitting, but FAA rules still apply. Please download the B4UFLY mobile app for the most up-to-date zoning info, and heed all local government ordinances.

#### (2) Avoid Moisture

Humidity and water can damage your drone, which in turn may cause accidents.

#### (3) Fly Safely

Please operate your drone as your skill level allows. User fatigue, impairment and improper operation can cause accidents.

#### (4) Avoid Moving Parts & Hot Motors

Do not touch propellers, motors or other moving parts while your drone is on.

#### (5) Avoid Heat

Keep your drone away from heat and prolonged exposure to direct sunlight to avoid damage.

#### LI-PO BATTERY CARE INSTRUCTIONS

#### **Avoid Overheating**

Your batteries will sometimes be warm/hot to the touch after use. This is normal, but beware that battery components will fail if not allowed to cool down between uses. Also, do not leave batteries exposed to direct sunlight.

#### **Store Properly**

Store batteries at room temperature, between 5C°/40°F and 27°C/80°F.

#### **Use Carefully**

- Leave time between charging and using the battery
- To extend the lifetime of the battery, always keep about 20% of the power remaining in the drone battery (rather than completely draining it)
- If the battery is pushed beyond its limits, the battery could get hot and the performance will drop
- When using the battery for a long time, the battery will increase in temperature. If it is sealed, the air inside will inflate rapidly causing further heating

#### Charging

- DO NOT overcharge the battery; never charge batteries unattended, and stop charging as soon as your batteries indicate they are charged
- DO NOT attempt to charge batteries that appear damaged in any way (cracking, swelling, discoloration, etc.)
- If you feel a battery isn't charging properly, try using another charger if possible. If you find your battery or charger is defective, please visit force1rc.com for a replacement, or email us at support@force1rc.com
- To inspect a battery, remove it from the device and examine the battery, battery pins and contacts. If you notice damage, please visit force1rc.com for a replacement, or email us at support@force1rc.com
- Check your battery and connections after every crash
- Please use genuine factory parts and replacements from force1rc.com

#### 3 x 3.7V 500mAh Li-PO Batteries



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### **DRONE BATTERY CHARGING**

- 1. First, attach your USB cable to the drone battery, then connect it to your preferred charging source.
- 2. When the battery is charging, a red indicator light on the USB appears. When the battery is fully charged, a green indicator light appears. The battery charging time is around 70-85 minutes.
- 3. Average charging time: 50 minutes.





#### LI-PO BATTERY DISPOSAL & RECYCLING

Wasted Lithium-Polymer batteries must not be placed with household trash. Please contact local environmental or waste agency or the supplier of your model or your nearest Li-Po battery recycling center.



### **BOX CONTENTS**



DRONE



TRANSMITTER

3.7V 500MAH LI-PO BATTERIES (3)



PROPELLERS (4)



4GB SANDISK MICRO SD CARD + SD CARD READER





PROPELLER GUARDS (4)

USB BATTERY CHARGER

SCREWDRIVER



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### TRANSMITTER OVERVIEW



LCD DISPLAY

### LCD DISPLAY OVERVIEW



#### TRANSMITTER BATTERY INSTALLATION

Open the battery cover and insert 4 AA batteries as shown in Figure 1 (not included).



## **CAUTION:**

- The transmitter needs 4 AA batteries to work
- Insert batteries in correct polarity (+) and (-)
- Don't mix old and new batteries
- Don't mix alkaline, standard (carbon-zinc) and rechargeable (nickel-cadmium) batteries
- Remove rechargeable batteries before charging
- Only charge batteries under adult supervision
- Remove spent batteries from the transmitter
- Regularly inspect the charging cable, cord, plug, enclose and other parts; if you notice damage, please visit Force1rc.com for a replacement, or email us at support@ force1rc.com

### ATTACHING MOBILE PHONE TO TRANSMITTER

- 1. Press the self-locking switch on the top right side of the phone clip and push the holder to a fully open position (Fig. 2).
- 2. Place the phone facing front, pull the phone clip down, and press tightly as possible to secure the phone and transmitter (Fig. 3).
- 3. Insert the lens hood into the slot and make sure the lower edge of the lens hood is as close to the phone as possible (Fig. 4).



FIGURE 2



FIGURE 3



FIGURE 4

### **PREFLIGHT CHECKLIST**

- 1. Fly in an open area and abide by all local and federal guidelines. Check the FAA's B4UFLY mobile app for up-to-date drone flight info.
- 2. Make sure your drone and transmitter batteries are fully charged.
- 3. Put the left stick of the transmitter in the middle position.
- 4. Follow power off/on instructions closely. Always turn ON your transmitter first before flying, and turn OFF the drone first when you're finished.
- 5. Make sure the connection is solid between your battery and motor; vibration may cause loosening.

### PARTS INSTALLATION

#### PROPELLER INSTALLATION

- 1. Remove the old propeller by removing the screw using a counterclockwise rotation (Fig 18).
- 2. Attach the new propeller with the screw and tighten using a clockwise rotation.



FIGURE 18

#### PROPELLER GUARD INSTALLATION

- 1. Remove the old propeller guard by removing the screw using a counterclockwise rotation (Fig 19).
- 2. Attach the new propeller guard with the screw and tighten using a clockwise rotation.

#### NOTE:

Flying the drone without the propeller guard can improve power and flight time.



FIGURE 19

#### CAMERA INSTALLATION

- 1. To install the camera, match the upper flat portion of the camera with the notches on the bottom of the drone and gently clip into place by applying moderate pressure (Fig. 20)
- 2. To remove the camera, securely hold the camera and gently slide out from the drone body while applying moderate pressure.

#### LANDING GEAR INSTALLATION

- 1. Insert landing gear pillars into the drone body holes as shown in Figure 21.
- 2. Tighten screws using a clockwise rotation.
- 3. Remove landing gear by removing the screws using a counterclockwise rotation.

#### NOTE:

Always place your drone on level ground.





### PREFLIGHT OPERATIONS

### FREQUENCY PAIRING

- 1. Turn on the transmitter switch (Fig. 5) and the power indicator light flashes rapidly. Push the left stick all the way down to the lowest position and then release. It will return to the middle position automatically (Fig. 6 / 7). The power indicator light flashes slowly, which indicates the transmitter is ready for frequency pairing.
- 2. Install the battery and power on the drone.
- 3. Place the drone on a flat surface. Lights should go from flashing to solid, which indicates successful frequency pairing.

### IMPORTANT NOTICE: PLEASE MAKE SURE THE DRONE IS PLACED ON THE HORIZONTAL POSITION AFTER POWERING ON THE DRONE, SO THAT THE DRONE CAN WORK WELL.



FIGURE 5

FIGURE 6

FIGURE 7

### **SET ORIENTATION & START MOTOR**

- 1. Keep drone front (camera) pointed away from you.
- 2. Power on the drone and check propeller rotation. The left front and right rear props (A) should rotate clockwise, while the right front and left rear props (B) rotate counterclockwise.
- 3. Move the left and right stick down and in (Fig. 8) to start the motor and then release.
- 4. Push the left stick up to take off, then release.
- 5. Push the left stick all the way down to land.
- 6. Practice this several times, and adjust the trim and rudder if you the drone tilts during takeoff/ landing.



### CALIBRATION INSTRUCTION

Always calibrate your drone with your transmitter before flying, and recalibrate after takeoff if you experience difficult operation.

- 1. Turn off the drone and transmitter.
- 2. Turn on the transmitter; push the left stick all the way up, then all the way down (Fig. 9, 10). The transmitter is now paired.



FIGURE 10

- 3. Place the drone on a flat surface facing away from you and turn it on three beeps and unblinking lights indicate successful pairing.
- 4. DO NOT move the left stick before calibration. Push the right stick to the bottom right (Fig. 11); drone lights will flash to indicate the drone is pairing. When the drone lights stay on the drone is ready to fly.



FIGURE 11

### **FUNCTIONS**

### TAKEOFF METHODS

- 1. Method 1 (Start): Make the two sticks "toe in" to start the motor (Fig. 12), then push the throttle stick up and release, and the drone will take off.
- 2. Method 2 (1-Key Lift): Press the Lift/Land/Emergency Shutdown button, and the drone will slowly rise to a height of 1 meter (Fig. 13).







#### **FUNCTIONS**

### LANDING METHODS

- 1. **Method 1 (Landing):** When flying, pull the left stick all the way down to the lowest position and hold it until the motors stop and the drone will slowly land.
- 2. Method 2 (1-Key Landing): When flying, press the Lift/Land/Emergency Shutdown button and the drone will land on the ground automatically (Fig. 13).
- 3. **Emergency Stop:** When you need to land the drone immediately, make the two rockers "toe-in" (Fig. 12). The propellers will stop and the drone will drop down to the ground.

### ALTITUDE HOLD MODE

Altitude hold mode allows the drone to maintain a consistent altitude while still allowing the operator to use normal flying functions. This function makes flying the drone much easier for beginners and allows for better aerial photography.

To activate Altitude Hold, push the left stick up or down to reach a preferred altitude, then release the stick. The drone will continue to fly at the current altitude. Repeat the steps below if you want to change the drone altitude.

### **HIGH/LOW SPEED MODE**

By default, the drone is in Low Speed Mode. Press the High / Low Speed Mode button and the transmitter will beep and enter High Speed Mode (Fig. 14).

MODE 1: Low Speed Mode is suitable for beginners. MODE 2: High Speed Mode is suitable for experts.



FIGURE 14

#### 360° FLIP

To do flips, first press the Flip Mode button (Fig. 15). You'll hear a constant beep indicating the drone is ready to flip. Push the right stick to the utmost direction of your choice and the drone will flip accordingly. Your drone will automatically exit Flip Mode after one flip.

#### NOTE:

The flip function is unavailable when the drone battery is low, and also during Headless Mode. Only perform flips when flying in a spacious area.



FIGURE 15

#### **FUNCTIONS**

### HEADLESS MODE

Drones have a front and back indicated by LED lights or colored propellers. Before takeoff, position the head of the drone away from you. When in Headless Mode, push the right stick in any direction and the drone will fly accordingly.

You must verify your drone's flight direction before entering Headless Mode. Position the drone so it's facing directly away from you (Fig.16).



FIGURE 16

**Activate Headless Mode:** Press the Headless Mode button (Fig. 17). Drone lights will flash indicating the drone is in Headless Mode.

**Turn Off Headless Mode:** Press the Headless Mode button. Drone lights will remain on, indicating Headless Mode is off.

**DO NOT** change the transmitter orientation after entering Headless Mode. Otherwise, you will lose track of the set orientation (i.e., that you and your transmitter are facing "forward.")



FIGURE 17

#### LOW BATTERY ALARM

When the drone battery is low, the transmitter will constantly beep to remind the user to land the drone as soon as possible. The flip function will turn off automatically when the drone battery is low.

#### OUT OF RANGE ALARM

When the drone flies out of the the max transmitter distance (300 ft.), the transmitter will beep to alarm the user to fly the drone back immediately. If ignored, the drone may lose control and fly away.

#### MOTOR PROTECTION FUNCTION

- 1. When the propeller is stuck, the drone body lights will flash rapidly and the Motor Protection Function will automatically turn on. The motor will then stop.
- 2. To turn off the Motor Protection Function, move the left stick to the lowest position. The drone body lights will turn to a solid light to signal that the drone is ready to fly.

### **BASIC FLIGHT CONTROLS**

#### HOVER UP AND DOWN

Push the THROTTLE/RUDDER STICK up to fly the drone up, and pull the THROTTLE/RUDDER STICK down to fly the drone down.



#### FLY FORWARD OR BACKWARD

Push the DIRECTION CONTROL STICK up to fly the drone forward, and pull the DIRECTION CONTROL STICK down to fly the drone backward.





#### FLY LEFT OR RIGHT

Move the DIRECTION CONTROL STICK to the left to fly the drone to the left, and move the DIRECTION CONTROL STICK to the right to fly the drone to the right.



#### ROTATE LEFT OR RIGHT

Move the THROTTLE/RUDDER STICK to the left to rotate the drone to the left, and move the THROTTLE/RUDDER STICK to the right to rotate the drone to the right.





### TRIM ADJUSTMENTS

#### FORWARD/BACKWARD TRIM

Adjust the FORWARD/BACKWARD TRIMMER backwards if the drone drifts forward when taking off, and adjust the FORWARD/BACKWARD TRIMMER forwards if drone drifts backwards





#### LEFT/RIGHT TRIM

Adjust the LEFT/RIGHT FLYING TRIMMER to the right if the drone drifts to the left when taking off, and adjust the LEFT/RIGHT FLYING TRIMMER to the left if drone drifts to the right





#### LEFT OR RIGHT ROTATION TRIM

Adjust the LEFT/RIGHT RUDDER TRIMMER to the right if the drone rotates to the left when taking off, and adjust the LEFT/RIGHT RUDDER TRIMMER to the left if drone rotates to the right.





# **APP INSTRUCTIONS**

#### **1. DOWNLOAD AND INSTALL THE "FLYINGSEE" APP**

This app is compatible with mobile phones running iOS or Android. To download the app:

- 1. Scan the QR code on the product box to download the App.
- 2. iOS system: search Flyingsee in APP Store.
- 3. Android system: search Flyingsee in Google Play.

#### 2. FREQUENCY PAIRING BETWEEN MOBILE PHONE & DRONE WI-FI

- 1. Put the drone on a flat surface in a horizontal position.
- 2. Check your batteries and power on the drone.
- 3. Make sure your mobile device Wi-Fi settings are on and connect to the Wi-Fi name udirc\_XXXX.
- 4. Return to your home screen after successful connection.
- 5. 5. Tap the FLYINGSEE app and click **(**) to enter the transmitter interface for real-time transmission.



6. Click on 🛞 🐵 🕩 to enter the Virtual Control Interface. Drone lights will stop flashing, which indicates successful frequency pairing. You can now use the app to control the drone.



#### NOTE:

Ensure the drone is on a flat surface in a horizontal position when pairing or the drone may not pair properly.

## 3. KNOW YOUR APP ICONS 1. HOME PAGE ICONS Explore UDIRC Drone





#### 2. REMOTE CONTROL INTERFACE



Virtual Reality Mode: Click on the icon to enter VR Mode to experience first-person view (only available when using with a VR headset). Click on the icon again to exit VR Mode.



**Custom Route Mode:** When you click on this icon, it will turn red. Draw a flight route in the right screen. The drone will fly the route. Click on the icon again to exit from Custom Route Mode. The icon will turn white.

#### EMERGENCY

Emergency Stop: This icon is red by default. Click this icon and the propellers will stop immediately, grounding the drone. **Only use this function in emergency situations.** 



**SD Card:** If there is no SD Card in the drone, the icon shows as **EXA**. If there is an SD Card in the drone, the icon shows as **EXA**.

#### 

Remote Control Signal: To show the drone's Wi-Fi signal strength.



Setting: Click on this icon to set some parameters, and click again to exit.



Click on "Save" to save trimming setting. Choose "Reset" for factory reset.

Click on "720P" or "480P" to choose real-time transmission resolution.



Virtual Control Stick: The virtual control stick is hidden by default. Click on the icon to turn on the virtual control stick.

**Gyroscope Mode (aka Gravity Induction Mode):** Use the orientation of your mobile phone to control your drone. The throttle remains in place. The drone will change the flying direction according to the incline direction of the phone. Click on the icon again to exit this mode.





If the mobile phone tilts to the left / right, the Right Ball will move accordingly, causing the drone to fly left / right.



If the mobile phone tilts to forward / backward, the Right Ball will roll forward / backward, causing the drone to fly forward / backward.

**Video:** Click on this icon to record video. The recording time will show at the bottom of the screen. Click on this icon again to finish recording.



Photo: Click on this icon to take photo.



Headless Mode: Click this icon to fly without having to know the orientation of your drone.



Media: Click this icon to view or delete aerial video/photos. Click the arrow to exit.



**High/Low Speed Mode:** Your drone starts in Low. Click on "H" to enter High-Speed Mode.



 $360^\circ$  Flips: Click this icon to do  $360^\circ$  flips.



1-Key Lift: Click this icon to take off automatically hover at an altitude of 3.9 ft.



1-Key Land: Click this icon to land your drone and stop the propellers.

#### 4. CALIBRATION

Always calibrate your drone with your transmitter before flying, and recalibrate after takeoff if you experience difficult operation.

- 1. Please refer to the Calibration section (p. 12) for instructions and apply them to the app controls.
- 2. Do not push the Left Ball before successful calibration. Move the Right Ball as the picture shown on the right. The drone body lights flash, which indicates that the drone is calibrating. When the drone body lights get solid, which indicates successful calibration and the drone is ready to be controlled.



#### **5. APP FLYING CONTROL**

#### START THE DRONE

Move the left and right "stick" down and inward at the same time to start the drone as shown at right, or click the 1-Button Takeoff icon to start the drone.



#### 5. APP FLYING CONTROL CONTINUED...

#### FLY UP AND DOWN

Move the left "stick" up to fly the drone up, and move it down to fly the drone down. The drone will stay flying at the altitude you choose.





#### ROTATE LEFT OR RIGHT

Move the left "stick" to the left to rotate the drone to the left. Move the left "stick" to the right to rotate the drone to the right.

•  $\bigcirc$ 



#### FLY LEFT OR RIGHT

Move the left "stick" to the left to fly the drone to the left, and move the right "stick" to the right to fly the drone to the right.





#### FLY FORWARD OR BACKWARD

Move the right "stick" up to fly the drone forward, and move the right "stick" down to fly the drone backward.





#### 6. APP TRIMMING ADJUSTMENTS

#### FORWARD/BACKWARD TRIM

Click the "-" of the Forward / Backward Trimmer to adjust the drone till balance if the drone tilts forward. Click the "+" to adjust the drone till balance if the drone tills backward.





#### LEFT/RIGHT TRIM

Click the "+" of the Left / Right Flying Trimmer till balance if the drone tilts to the left. Click the "-" to adjust the drone till balance if the drone tilts to the right.





#### LEFT OR RIGHT ROTATION TRIM

Click the "+" of the Left / Right Rudder Trimmer till balance if the drone rotates left. Click the "-" to adjust the drone till balance if the drone rotates right.





#### NOTE:

If you can't find the Wi-Fi signal, turn it off and then on again to search and connect. The available Wi-Fi control radius/distance is 40 meters, so be sure to keep the drone in range. Exit the app when you're changing control method from mobile phone to transmitter.



MAIN MENU

MEDIA INTERFACE

#### NOTE:

You'll need to authorize the app to read your phone's media data. If you don't, you may be unable to view aerial photography.

#### 8. CAPTURE VIDEO/PHOTOS

- 1. Insert the SD card as shown (Fig. 22), making sure the metal side is facing up.
- 2. Photos will be saved to your mobile device and the SD card, while video will only be saved to the card. You can download the video to your device only when it's connected to the drone via Wi-Fi.

#### NOTE:

Click on the video icon to save a video when you end recording or the video won't be saved.

3. Power off the drone after capturing aerial photography. Take out the SD card and insert it into a card reader or computer. View the media from "my computer" / "mobile disk."

#### NOTE:

Please view media after transferring it to your device to ensure your software supports the AVI format.

Camera video / photo quality: 1280p x 720p.



# **TROUBLESHOOTING GUIDE**

No.	Problem	Problem Cause	Solution
1	The transmitter indicator light is off.	1. Low battery.	1. Replace the transmitter battery.
		2. Batteries are inserted improperly.	2. Reinsert the batteries.
		3. Poor contact.	3. Clean the battery housing/contacts.
2	Drone and transmitter fail to pair.	1. The indicator light is off.	1. See above.
		2. Signal interference.	2. Restart the drone and power on the transmitter.
		3. User error.	3. Operate the drone step by step in accordance with the user manual.
		4. Damaged components.	<ol> <li>Buy spare parts from force1rc.com and replace damaged parts.</li> </ol>
3	The drone is underpowered or won't fly.	1. Damaged propeller.	1. Replace the propeller.
		2. Low battery.	2. Recharge the drone battery.
		3. Incorrect installation of propeller.	3. Install the propeller in accordance with the user manual.
4	The drone can't hover or tilts to one side.	1. No calibration.	1. Recalibrate the drone.
		2. Damaged propeller.	2. Replace the propeller.
		3. Motor casing damaged.	3. Replace the motor casing.
		4. The gyro did not reset after violent crash.	4. Place drone on level ground to recalibrate.
		5. The motor is damaged.	5. Replace motor.
5		1. Low battery.	1. Recharge the drone battery.
	The drone indicator light is off.	2. The battery is expired or old.	<ol><li>Buy a new battery from force1rc. com to replace the battery.</li></ol>
		3. Poor contact.	3. Disconnect the battery and then connect it with the plug again.
6	Can't see an image.	1. Camera not connected, or has poor contact.	1. Check the wire and connect well.
		2. Signal interference.	2. Disconnect and reconnect.
		3. Damaged camera.	<ol><li>Buy a new camera from force1rc.com.</li></ol>
7	Can't control by mobile device.	1. User error.	1. Consult instructions.

Questions or comments? Contact support@force1rc.com for technical support.

# FCC INFORMATION

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 residential 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. If this device causes radio or TV interference, which can be determined by turning the device off and on, try to correct the interference using the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on the circuit different from that to which the receiver is connected
- Consult the dealer or an experienced technician for help

# FCC WARNING

The equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. Modifications not authorized by the manufacturer may void user's authority to operate this device.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: 1. The device does not cause harmful interference, and

- 2. The device accepts interference, including interference that may cause undesired operation.



force1rc.com

#### **SPECIFICATIONS**

Drone Size Drone Weight Propeller Diameter Flying Time Drone Battery Charging Time for Drone Battery Max Flying Distance/Radius Max Image Transmission Distance/Radius Camera Resolution 14.21" x 13.97" x 4.21" 0.21lbs (4.48oz) 5.75" 7~8mins 3.7V 500mAh 60~80mins 300ft. 300ft. 1280x720P