FORCE1
WWW.FORCE1RC.COM

F111 PHOENIX
SMART FOLDABLE DRONE

USER MANUAL



F111 PHOENIX FOLDABLE DRONE

2.4Ghz Remote Control + 6-Axis Gyroscope
HD 720p Camera w/ Real-Time FPV
Unique Folding Body
Headless Mode + Altitude Hold
1-Key Takeoff & Landing
360° Flips & Tricks + Wind Resistant

FOR MORE INFORMATION

Visit us online at force1rc.com for info, replacement parts and flight tutorials.

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

https://youtu.be/tk3qzsUwoWs

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CONTENTS

Welcome & General Safety Precautions 3
Drone Battery Safety Notice 4
LI-PO Battery Care 5
Drone Battery Charging 6
Box Contents & Drone Overview 7
Transmitter Overview 8
Transmitter Battery Installation 9
Phone Clip Attachment & Use 9
Drone Assembly 10
Preflight Instructions 12
Basic Flight Controls 13
Trim Adjustments 14
Functions 15
App Instructions 18
Troubleshooting Guide 24
Spare Parts 25
FCC Information & Warning 26

IMPORTANT STATEMENT – WELCOME!

Welcome to the Force 1 RC 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.

DRONE BATTERY SAFETY NOTICE

* Keep LiPo batteries away from children and animals.
* Never use or charge a LiPo battery that has ballooned or swelled.
* Never use or charge a LiPo battery that has been punctured or damaged.
* After a crash, inspect the battery pack for signs of damage.
* Never overcharge a LiPo battery.
* Do not charge LiPo batteries near flammable materials or liquids.
* Do not put the battery in a high temperature place or in direct sunlight. Reduce risks of fire or explosion by storing LiPo batteries inside a LiPo safe bag.
* Do not put battery packs in pockets or bags where they can short circuit or can come into contact with sharp or metallic objects.
* Do not attempt to disassemble, modify or repair the LiPo battery.
* Do not use the battery to break or hit a hard surface.
* Do not put the battery in water and keep it stored at room temperature in a dry place.
* Do not leave the battery unsupervised when charging.
* Make sure that there is no short circuit of the power wire.
* Please use the recommended charger only. Do not charge on a gaming console. Only use your computer's USB port, power bank or phone wall charger to charge the battery.
* To avoid trickle charging, always unplug the battery from the USB charger when storing or leaving it unattended.
* Check the charger's wire, plug, and surface regularly. Do not use a broken charger.
* If you are going more than one week without using LiPo batteries, it is best to keep them stored at a 50% charge.

LI-PO BATTERY CARE

Avoid Overheating
Your batteries will sometimes be warm/hot to the touch after use. This is normal, but beware that battery components will fail it 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: Folly these tips when charging your battery

- Leave time between charging and using the battery.
- To extend the lifetime of the battery time your flights to leave about 20% power remaining in the batteries (rather than completely draining them)
- 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.

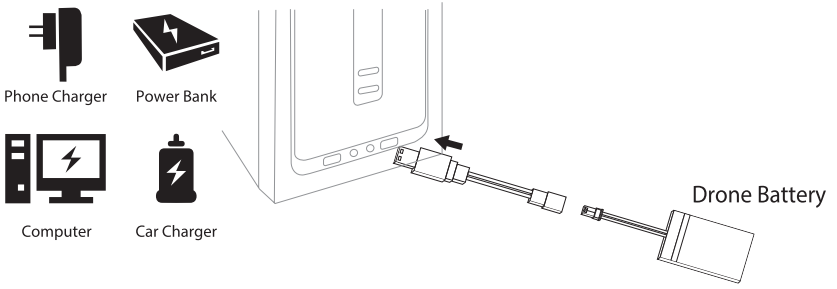
Charging:

- 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

WARNING:
DO NOT LEAVE BATTERY CHARGING UNSUPERVISED

DRONE BATTERY CHARGING

1. First, attach your USB cable to the drone battery, then connect it to your preferred charging source.
2. Watch the USB indicator light to know when your battery is charged; some lights will turn off when charged, and others will turn color (red to blue, red to green, etc.).



Charging the drone battery for 110 minutes will provide at least 7 minutes of flight time. This drone can fly up to 50 meters away from the transmitter (remote), and Wi-Fi outdoor control distance is about 25 meters.

LI-PO BATTERY DISPOSAL & RECYCLING

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

WARNING:
DO NOT LEAVE BATTERY CHARGING UNSUPERVISED

BOX CONTENTS



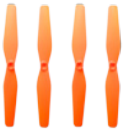
DRONE



TRANSMITTER



WIFI CAMERA



PROPELLERS (4)



USB CHARGER CABLE



PHONE CLIP



DRONE TOOLS

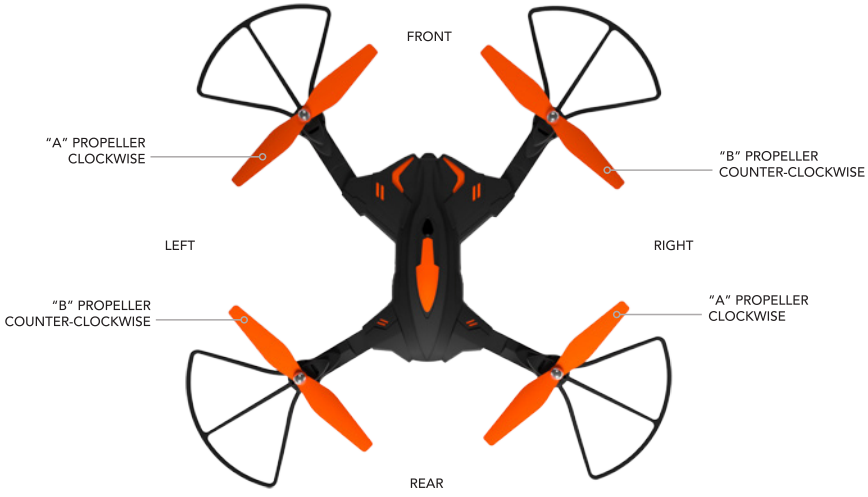


3.7v 850mAh LITHIUM BATTERY (2)



GUARDS (4)

DRONE OVERVIEW



TRANSMITTER OVERVIEW



HOW TO SWITCH THROTTLE MODES

The transmitter defaults to throttle on the left stick (Mode 1), as seen in the transmitter overview above. To switch your throttle to the right stick:

Turn the transmitter off

Hold down the Light Control/Mode Switch button (Fig. 1)

Turn the transmitter on

The transmitter will vibrate longer than usual to indicate a successful switch.



FIGURE 1

TRANSMITTER BATTERY INSTALLATION

Open the battery cover and insert 4 AA batteries as shown in Figures 2 and 3.

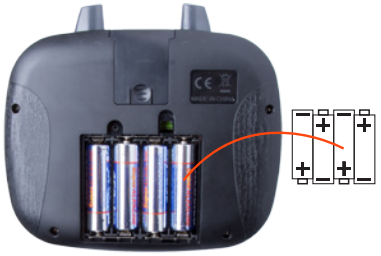


FIGURE 2



FIGURE 3

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

PHONE CLIP ATTACHMENT & USE

Insert the holder vertically, down into the transmitter (Fig. 4). Make sure the holder is firmly in place. Put the phone into the holder and then release the clamp; the clamp should hold your phone tightly (Fig. 5).



FIGURE 4



FIGURE 5

DRONE ASSEMBLY

HOW TO FOLD AND UNFOLD YOUR DRONE

- To unfold, hold the drone body and gently move the wing outward until it clicks into place.
- To fold, press the button under each wing on the drone and move the wing inward as shown in Figure 6.

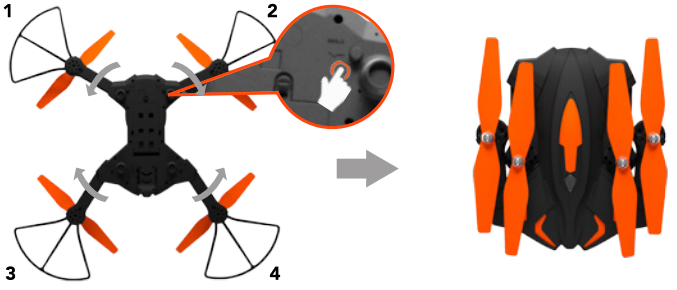


FIGURE 6

PROPELLER INSTALLATION/REMOVAL

- To remove propeller, remove the screw cap and use a screwdriver to remove the propeller screw (Fig 7.).
- Be sure to select a propeller with the same rotational direction; reinsert the screw and tighten (Fig. 8).

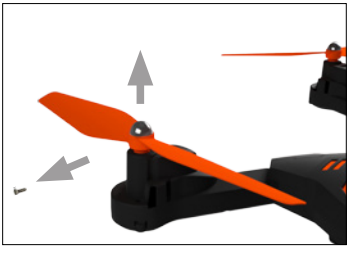


FIGURE 7

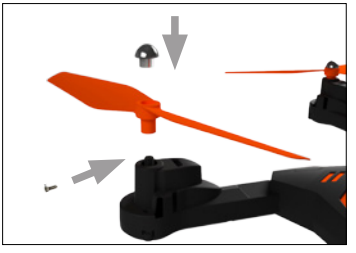


FIGURE 8

NOTE:

- **Please be sure to install the correct propellers (matching A and B)**
- **Be careful with propellers, as they can be sharp**
- **Purchase extra propellers at force1rc.com**

DRONE ASSEMBLY

PROPELLER GUARD INSTALLATION

Install the propeller guard as shown in figure 9, then tighten the screws.

NOTE:

The propeller-guard material is flexible for safety purposes. You may have to adjust the guards so the propellers don't scratch against them.

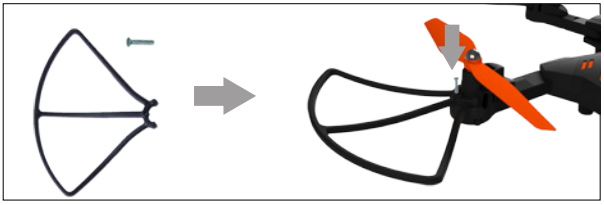


FIGURE 9

BATTERY INSTALLATION

Open the battery cover and insert the battery into the power port (Fig. 10).

Connect the wire of the 3.7v 850mAh lithium battery to the receiver wire in the power port (Fig. 11).

Press the power button for one second to turn on the power (Fig. 12).

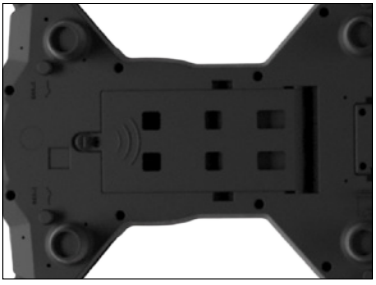


FIGURE 10

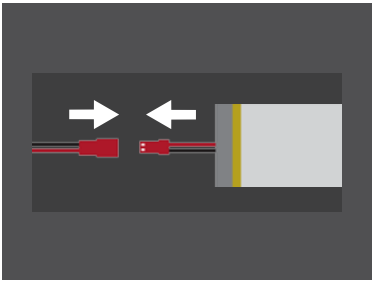


FIGURE 11



FIGURE 12

BATTERY PRECAUTIONS

Follow these battery precautions:

Never expose the charged battery to high temps, flames or electric heaters

Never use the battery to strike the surface of hard objects

Never place the battery in water, and always store it in a dry place

Never dismantle the battery

Never leave the battery unattended while charging

When charging, do not reversely connect the positive and negative poles of the battery terminal

Remove rechargeable batteries from the transmitter before charging

Always remove exhausted batteries from the drone

Make sure the battery stickers face outward when inserting them

PREFLIGHT OPERATING INSTRUCTIONS

FREQUENCY PAIRING

Put the drone on a flat surface.

Turn on the drone, then the transmitter (Fig. 13). Wait for the LED indicator on the drone to stop flashing. This indicates a successful pairing.

Pair the frequency within 5 meters to the drone to avoid interference.

NOTE:

Make sure the drone is upright and in flying position when powering on.

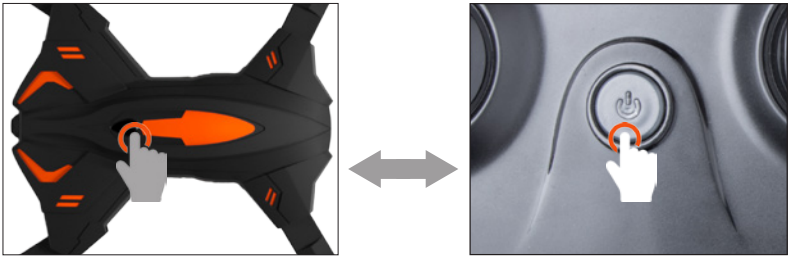


FIGURE 13

PREFLIGHT CHECKLIST

The camera is at the drone's front; start with it facing away from you.

Power the drone on and check propeller rotation. The left front and right rear propellers should rotate clockwise, while the right front and left rear propellers should rotate counterclockwise.

BASIC FLIGHT CONTROLS

FLY 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.



TRIMMING CONTROLS

FORWARD/BACKWARD TRIM

Press the LEFT CONTROL STICK down and adjust using the **RIGHT CONTROL STICK.** If the drone drifts forward when taking off, push backwards, or forwards if drone drifts backwards.





LEFT/RIGHT TRIM

Press the LEFT CONTROL STICK down and adjust using the **RIGHT CONTROL STICK.** If the drone drifts right when taking off, push left, or right if drone drifts to the left.





SPECIAL FUNCTIONS

Low-Voltage Protection:

The power supply will stop and the drone control system will automatically protect the battery when the voltage is not sufficient.

Restart Function:

Press the power switch to turn on the drone.

Press the power switch to turn on the transmitter; the drone LED will stop flashing once it pairs with the transmitter.

Put the drone in a horizontal position, then push the left and right control stick on the transmitter to the lower right corner for 2-3 seconds (Fig 14). The indicator lights on the drone will start flashing rapidly. After 2-3 seconds, the indicator lights will return to normal, and the drone is reset successfully.



FIGURE 14

360° Flips Button

Once you've learned the basics, you can move on to more advanced tricks and stunts! First, fly the drone to a height of more than 3 meters, then:

Press the "360°" button on the top-left side of the transmitter.

Push the rudder stick in any direction to make 360° flips.

TIP: The best time to do flips is within the first four minutes of battery life for max power.

AERIAL PHOTOGRAPHY & VIDEO

ACCESSING MEDIA:

All photos/videos are automatically stored on a memory card when installed in the drone camera (see INSTALLATION below). To save media directly to your mobile device, download the Force1-111 app and do not install a memory card.

See page 18 for app download instructions and use.
See page 20 for media capture instructions.

MEMORY CARD INSTALLATION:

Insert a memory card into the slot on the back of the camera. To install the camera, slide it into the camera bay on the bottom of the drone so the camera is facing forward and the memory card slot is to the rear. Snap the antenna into the clasp next to the camera bay. A red camera light will flash. When it turns blue, the camera is installed successfully.

TIP: The red LED indicator will flash when there isn't a memory card inserted or the memory card is full.

SPECIAL FUNCTIONS CONT.

HEADLESS MODE

Drones have a front and back indicated by LED lights or colored propellers. Before takeoff, position the front of your drone away from you. Now, when you fly in Headless Mode, if you push the right stick forward/backward/left/right the drone will fly accordingly.

Prerequisite: Position the drone in such a way that its front is your front (Fig. 15).
Tip: Don't change the orientation of the transmitter (Fig. 16) after entering Headless Mode.



FIGURE 15



FIGURE 16

Press and hold the Headless Mode button (Fig. 17). The transmitter will beep once and the drone LED will start to flash to indicate that Headless Mode has been enabled. To turn off Headless Mode, press and hold the Headless Hode button again; the transmitter will beep once and the drone LED will stay constant.



FIGURE 17

SPECIAL FUNCTIONS CONT.

TAKEOFF METHODS



FIGURE 18

Method 1 (Start): After successfully pairing the frequency, push the throttle stick up, or move the left and right "stick" down and inward at the same time (Fig. 18). The motor of the aircraft will start to rotate slowly. Push the throttle stick up and the drone will take off.

Method 2 (One-Key Takeoff): For one-key take off, press the right stick once. The drone will slowly rise to a height of 1 meter.

ALTITUDE HOLD MODE

Altitude Hold Mode indicates the drone maintains a consistent altitude while allowing roll, pitch and yaw to be controlled normally. It makes it easier to control the drone for beginners and more stable for aerial photography.

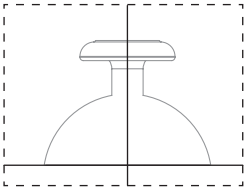


FIGURE 19

Push the THROTTLE/RUDDER STICK up/down to fly the drone up/down at certain altitude and then release the stick. The stick will return to the center position (Altitude Hold Center) as shown in Figure 19 and the drone will keep flying at its current altitude. Repeat the above steps if you want to change the drone altitude (default mode).

NOTE:

Altitude Hold Mode can't be used when the blades are deformed or damaged. Also, the drone may be unbalanced within one minute of flying due to temperature variation. This will cause it to slowly ascend or descend. When this happens, correct the drone's elevation using the throttle stick.

LANDING METHODS

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.

Method 2 (One-Key Landing): When flying, press the right stick once and the drone will land on the ground automatically (Fig. 20). When using this function, don't touch the left stick; moving it will cancel the auto landing.

Emergency Stop: When you need to land the drone immediately, move the left and right sticks down and inward at the same time (Fig. 18). The propellers will stop and the drone will drop down to the ground.

NOTE:

Only use the Emergency Stop function for emergencies. The drone will fall immediately.



FIGURE 20

GETTING TO KNOW YOUR APP

1. DOWNLOAD & INSTALL THE "FORCE1-111" APP

The Force1-111 app is compatible with mobile phones running iOS or Android. Please download the app from the App Store or Google Play:

Scan the QR code on the product box to download the app.

iOS system: Search Force1-111 in the App Store.

Android system: Search Force1-111 in Google Play.

Force1-111

Available on the App Store

GET IT ON Google Play

2. FREQUENCY PAIRING BETWEEN MOBILE PHONE AND DRONE WI-FI

Put the drone on a flat surface in a horizontal position.

Check your batteries and power on the drone.

Make sure your mobile device Wi-Fi settings are on and connect to the Wi-Fi name FORCE1-111_****.

Return to your home screen after successful connection. The drone's LED will stop flashing.

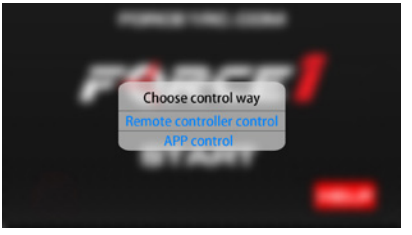
Tap the Force1-111 app and click START to enter transmitter interface for real-time transmission.

After clicking START, you'll be prompted to choose to control the drone via the transmitter or the app. When using the transmitter to fly the drone, the app will show only image transmission. Using the app to fly the drone allows for image transmission and manipulation.

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



HOME PAGE



CONTROL METHOD PROMPT

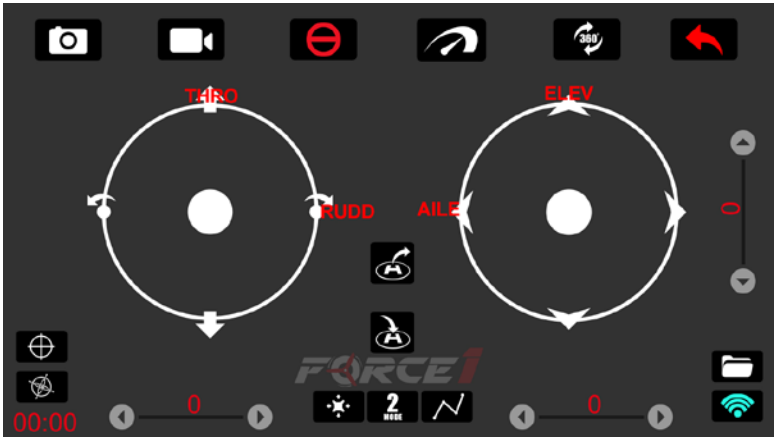
SWITCHING CONTROL METHODS

If you wish to switch to controlling the drone with the transmitter rather than a mobile device (or vice versa), you must land the drone first, then return to the main screen on the app (the drone LED will start to flash). Turn the transmitter on (or off) and the drone LED will stop flashing and remain constant. Click START in the app and choose the transmitter option (or app control option).



REAL TIME TRANSMISSION INTERFACE

3. KNOW YOUR APP ICONS



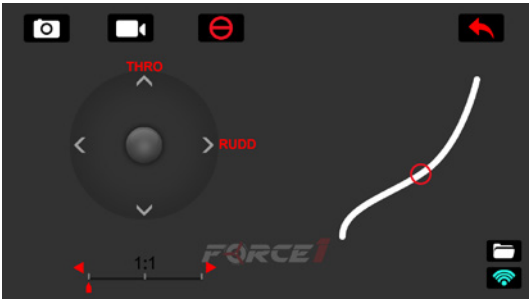
APP TRANSMITTER INTERFACE



Home Page Icon: Click on the icon to go back to the home page.



Flight Route Mode: When you click on this icon, the right side of the interface will turn into a track interface. Draw a flight route in the right area. The drone will fly according to the flight route. The proportion adjustment below the throttle controls the proportion of the line length and drone flight distance. The higher the proportion, the farther the flying distance. Click on the icon again to exit from Flight Route Mode.



FLIGHT ROUTE INTERFACE



Emergency Stop: Click this icon and the propellers will stop immediately, grounding the drone. Hold this icon for 3 seconds when the drone is off to turn it on.

NOTE:

Only use this function in emergency situation.



Mobile Transmitter Signal: Shows the drone's Wi-Fi signal strength.

3. APP ICONS CONT.

Change Mode: Reverses left and right controls.

Photo: Click on this icon to take photo.

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.

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





Tilting the phone left or right will cause the drone to fly left/right.





Tilting the phone forward or backward will cause the drone to fly forward/backward.

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

High/Low Speed Mode: By default, the drone is in Low Speed Mode “L”. Click on “H” to enter High Speed Mode.

360° Flips: Click this icon to do 360° flips.

One-Key Take Off: Click this icon to take off automatically hover at an altitude of 3.9 ft.

3. APP ICONS CONT.

One-Key Landing: Click this icon to land your drone and stop the propellers.

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

Your drone may need calibration after a crash. Set the drone down on a flat surface and activate Calibration. This will check all drone sensors, and the button will turn red until calibration is complete.

5. APP FLYING CONTROLS

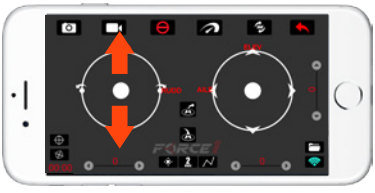
STARTING THE DRONE

Move the left "stick"upwards to start the drone. You can also start the drone by holding the Emergency Stop button for 3 seconds.



FLY UP AND DOWN

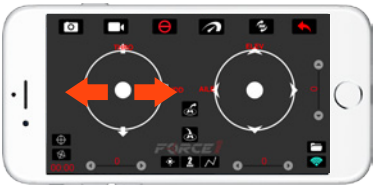
Move the left "stick" up to fly the drone up, and move it down to fly the drone down. The drone will stay flying at the altitude you choose.





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.





5. APP FLYING CONTROL CONTINUED...

FLY LEFT OR RIGHT

Move the right "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.

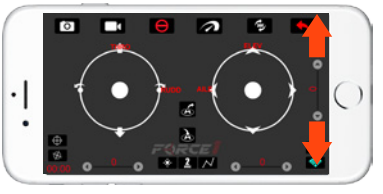




6. APP TRIMMING ADJUSTMENTS

FORWARD/BACKWARD TRIM

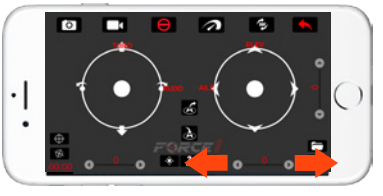
Click the "-" of the Forward / Backward Trimmer to adjust the drone until balance of the drone tilts forward. Click the "+" to adjust the drone until balance of the drone tilts backward.

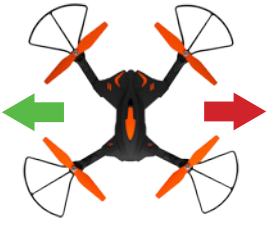




LEFT/RIGHT TRIM

Click the "+" of the Left / Right Trimmer until balance of the drone tilts to the left. Click the "-" to adjust the drone until balance of the drone tilts to the 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 30 meters, so be sure to keep the drone in range. Exit the app when you're changing control method from mobile phone to transmitter.

7. MEDIA



Tap the photo folder on the left to view all captured images or edit a photo. Tap the video folder on the right to view all captured video or edit the video.



MEDIA INTERFACE

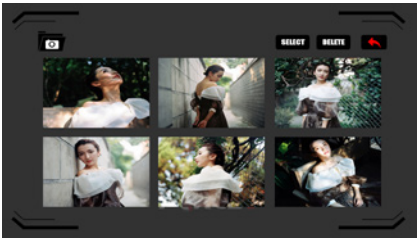


PHOTO GALLERY

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

CAUTION:

The mobile app can be disrupted by magnetic fields, other Wi-Fi signals and communication signals. To ensure max control and image transmission, don't use the app where there's heavy interference

It's possible the Force1-111 app download will fail if the device and app version are incompatible. In this case, use a different mobile device or browser

For safety reasons, your drone will slowly descend when a call interrupts the app

The mobile device control function is only applicable on the F111 Phoenix drone; app functions and interface may change with app software updates and upgrades

CARE AND MAINTENANCE

Regularly clean the drone with a clean cloth.

Don't expose the drone to direct sunlight or high temps.

Don't expose the drone to water.

Regularly inspect the charging plug and other parts for damage. If there are signs of damage, discontinue use immediately until the part has been repaired.

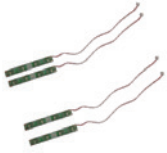
TROUBLESHOOTING GUIDE

Problem	Problem Cause	Solution
The drone is not responding.	1. Low batteries.	1. Charge the drone batteries.
	2. The transmitter battery level is low (the battery indicator will flash).	2. Replace the transmitter batteries.
	3. The drone did not pair correctly with the transmitter.	3. Try pairing the transmitter and drone again.
The drone does not respond well.	1. The transmitter battery is low.	1. Replace the transmitter batteries.
The drone does not take off.	1. The drone propellers are damaged.	1. Replace the damaged propeller(s).
	2. The drone battery is low.	2. Charge the drone battery, plug the charged battery into the drone, and power on.

For technical support, contact support@force1rc.com

SPARE PARTS

All the spare parts below can be purchased from a local distributer.

			
Body Cover 0001	Lower Body 0002	Propellers 0003	Propeller Guard 0004
			
Motor Shaft Upper Cover 0005	Motor Shaft Lower Cover 0006	Lampshades 0007	MotorA 0008
			
MotorB 0009	LED 0010	Receiver Board 0011	Drone Battery 0012
			
USB Charging Cable 0013	Camera 0014	Battery Cover 0015	Clip 0016
			
Motor Holder 0017			

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. 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 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. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

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