

Age: 14+

# INSTRUCTIONS MANUAL

**Drone-Clone**  **perts**

## X Pro AIR



Thank you for purchasing from Drone-Clone Xperts

To use it correctly and to ensure your own safety, please read the instruction manual carefully before you start using it and keep it for future reference.

Visit **[DroneCloneXperts.com](https://DroneCloneXperts.com)** for further instructional resources(VIDEO and PDF)  
or to purchase additional accessories for your X Pro Air Quadcopter

## IMPORTANT NOTICE

1. This aircraft is not a toy. This piece of equipment integrates precise electrical and mechanical components, has an aerodynamic design, and emits high-frequency signals which allows for optimal communication between the aircraft and transmitter. It is necessary to manipulate it (assembly and dismantling) correctly, in order to avoid any accidents. The owner must fly it and control it with due regard to all safety standards.
2. DRONE-CLONE XPERTS is not liable for any damages that may be caused to the owner arising from misuse or mishandling.
3. This aircraft requires certain knowledge in piloting and flying experience. The pilot of this aircraft must be 14 years of age or older.
4. Once the product is purchased, DRONE-CLONE XPERTS is not responsible for its safety or the safety of its environment while being flown by its owner.
5. If you detect any malfunction, get in touch with the establishment where the drone was purchased.

## SAFETY CAUTION AND WARNINGS

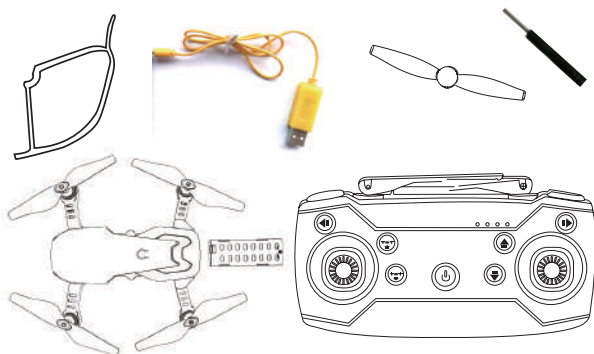
This drone includes dangerous parts. Therefore, it is important that you consider the following recommendations:

- Always have visual contact with your drone and never exceed 120m in altitude. The image signal that reaches the smartphone is lost at 25-50 meter altitude.
- Although it is not necessary to be an official pilot, you must always fly safely.
- You can only fly your drone in suitable areas for this, such as airfields or depopulated areas.
- Damage caused by the drone is the responsibility of the operator.

This drone weighs 100 grams, so comply with the following for outdoor flights:

- Fly at a minimum distance of 8 km away from any airport or aerodrome (For information about flight restrictions and rules/regulations regarding controlled airspace, see [knowbeforeyoufly.org](http://knowbeforeyoufly.org))
- Do not exceed 120m altitude above the ground.
- Fly during the day and in good weather conditions.
- The drone must always remain within the pilot's sight (VLOS)
- Aircraft weighing less than 250 grams may fly in cities and over agglomerations of people and buildings as long as they do not exceed a 20-metre altitude level. For more information, visit: [knowbeforeyoufly.org](http://knowbeforeyoufly.org)

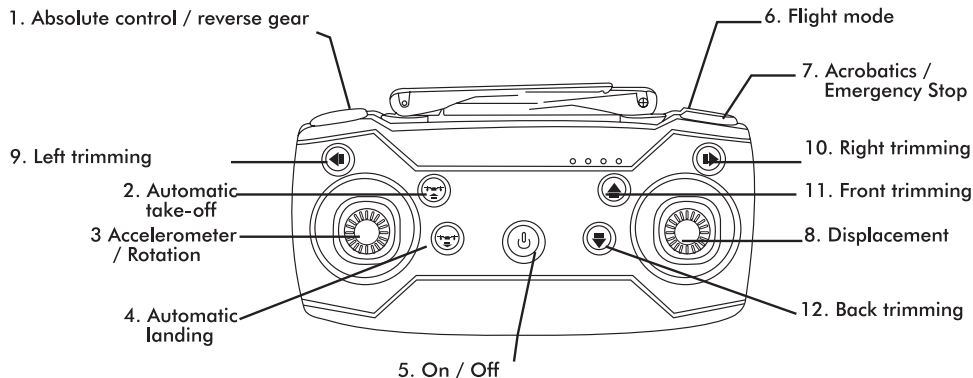
## LIST OF COMPONENTS



- 1 x X Pro Air
- 4 x Spare propellers
- 1 x Transmitter 2.4Ghz with smartphone holder
- 1 x USB charger cable
- 1 x Screwdriver
- 4 x Propeller guards
- 1 x Instruction Manual
- 1 x LiPo Battery

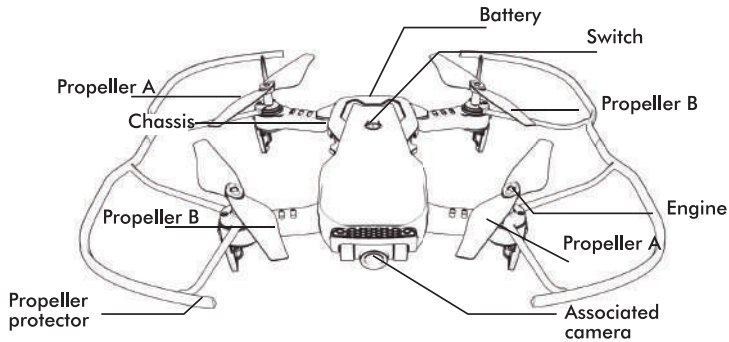
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# PARTS AND FUNCTIONS OF THE TRANSMITTER

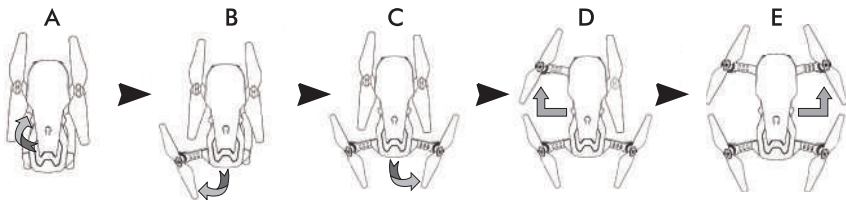


1. With a quick tap, the drone enters "absolute control" mode. If you press and hold the button, the drone goes into "reverse" mode so if it is flying in front of us, it will come back to us. To exit "reverse" mode and regain manual control of the drone, simply reuse the movement lever
  2. Press for the drone to take off (between 0.30 m and 1.5 m).
  3. It is used to move the drone up or down and to rotate it on itself.
  4. Press for the drone to land automatically.
  5. Turns the transmitter on and off.
  6. Select among 3 different flight modes. By default, the drone is in the slowest mode. If you press once, go to average speed and if you press twice, the drone will move at maximum speed. To return to mode 1, press once more.
  7. With a quick tap, the drone performs an acrobatic in the direction to which you direct the drone with the right lever. **ATTENTION:** If you keep the button pressed longer, the drone motors stop automatically. Do not use this in-flight stop option except in case of emergency, as the drone will fall down without control.
  8. It is used to move the drone forward or backward and sideways.
- Buttons 9 to 12: Trimming buttons. If the drone's seasonal flight is not stable and tends to automatically move/drift in a certain direction, just press the directional TRIM button that is opposite the direction the drone is drifting. If the flight does not stabilize, press the same button again as needed until your Drone is able to hover in one location without drifting.

## PARTS OF THE DRONE



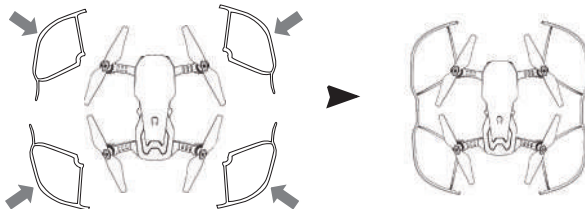
## TAKING OFF



Starting from the fully folded position (A), push down gently one of the rear arms so that its arrangement moves in a 180° movement until the arm is fully unfolded and the propeller is aligned with the respective propellers of the front arms (B). Then repeat the same operation with the other rear arm (C). The movement of the front arms is much simpler: Just pull out one of them until it unfolds 90° in a straight line (D). Repeat the same operation with the rear arm (E) so that the drone is fully unfolded.

To store the drone in its case, remember to fold it again, following the same steps in reverse order.

## POSITIONING OF THE PROPELLER GUARDS (OPTIONAL)

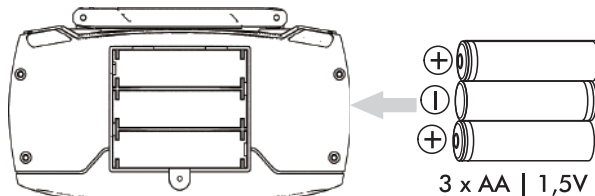


The propeller protectors can be very useful during flight practice and for flying indoors.

To connect these, insert one under each propeller in the direction indicated. Use a small star screwdriver (included) to secure them with one of the included small screws.

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## TRANSMITTER BATTERY INSTALLATION

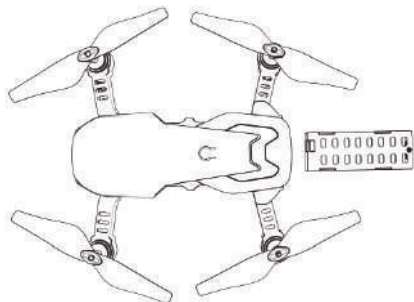


1. Place the batteries in the right direction.
2. Do not mix new batteries with old ones.
3. Do not mix different types of batteries.

Use the screwdriver to open the cover. Insert 3 "AA" batteries in position as shown in the picture and replace the cover.

## DRONE BATTERY INSERTION AND CHARGING

To insert the battery, insert it through the back of the drone in the direction shown in the illustration until you hear a "click" sound. To remove it, first gently push the battery down to unhook it and then pull it out.



Never charge the battery without first removing it from the drone. Connect the end of the charging cable (included) to the battery as shown in the picture. For charging, you can use the USB socket on your PC's CPU or connect the included USB cable into a standard smartphone wall charger. The battery charging time is between 80 and 100 minutes. You'll know charging is complete when the USB jack lights up.



When the drone lights start flashing during flight, it means the battery is about to run out. When you see this, land it as soon as possible and, once it is switched off, wait at least 15 minutes to recharge the battery to prevent battery damage from overheating.

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## PRECAUTIONS DURING BATTERY CHARGE

1. During charge, place the drone and the charger in a dry area that is ventilated, and away from intense heat sources or flammable products.
2. To avoid accidents during charge, make sure the drone is turned off and never leave the battery unattended during this process.
3. Do not charge the battery right after flying. Wait until the battery has cooled down. Otherwise, it may swell or even burn and explode.
4. Make sure you use the original charging cable supplied with the drone and follow the recommendations provided below for maintaining the batteries.
5. An extreme use of the batteries (i.e. flying until the last second even though the drone is flashing) seriously shortens the battery life.
6. If the battery swells, **STOP** using it, because it could burn.

## BATTERY MAINTENANCE

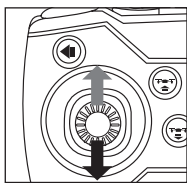
1. Never expose the battery to direct sunlight or store it in a place where temperatures could exceed 25°C
2. In order to extend the use of battery, be "relaxed" on the first 5 flights.
3. Whenever you want to store the drone for a long time, first charge the battery and, then, store it with at least 50-60% of the total charge allowed.
4. If you are not going to use it for more than a month, it is highly recommended that you measure the voltage of the battery every month to ensure that this does not fall below 3V. Otherwise, repeat step 3. or buy new batteries at [DroneCloneXperts.com](http://DroneCloneXperts.com)

## START UP

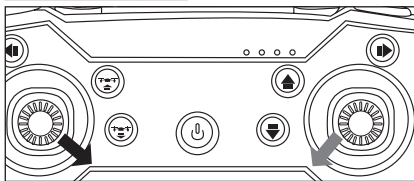
1. Turn on your Drone X Pro AIR.

Press the ON button at the top of the drone (see section "Drone parts") once and you will see the lights turn on and flash.

2. Turn on the transmitter by pressing the ON button (see section "Transmitter parts and functions"). The station will beep once.



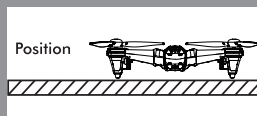
3. Pull the left joystick upwards to max height, then pull it directly down, as shown in the illustration. You'll hear a beep for both, which means that the station and the drone are synchronized. The lights on the drone will stop flashing and remain steady.



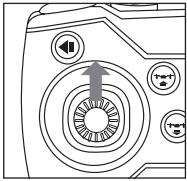
4. To turn the engines on and off, push both levers inwards and downwards as shown in the picture. When the propellers start to rotate, you can release both levers.

### ADVICE:

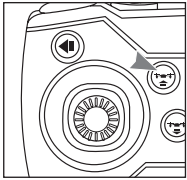
When you synchronize your Drone, make sure it is on a flat and horizontal surface, so the flight is stable.



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Once the engines are running, you have two different ways to take flight 5.1. The first option is the manual system used by most drones: Push the power lever up until the drone rises and release it when you have ascended to the desired height.



The other way to take off is to use automatic take-off:

5.2 In this option, the automatic take-off button is pressed and the drone lifts itself in a vertical line to a height of between 0.30 and 1.5 metres. Then, it will remain in stationary flight with an altitude and position fixed waiting for your orders.

## WARNING

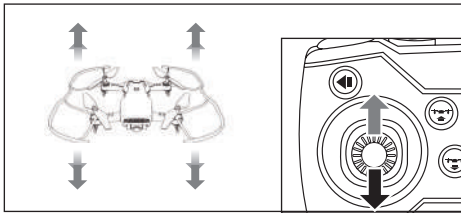
1. When the transmitter's LED stays on but the drone's LED blinks slowly, it is an indication that the synchronization has not been successful. Turn the transmitter and drone off and perform the "start-up" again from the beginning.

If once in the air the drone does not remain stable, land it and turn off both the transmitter and the drone. Then, resynchronise it, making sure the drone is placed on a flat and horizontal surface while you do so. If the drone continues to fly uncontrollably, check the TRIMMING section on page 8.

3. When the drone's LED blinks slowly, it means that the battery is running low. Land and put the drone's battery to charge with the charger provided, once the battery has cooled down.

## MOVEMENT CONTROL

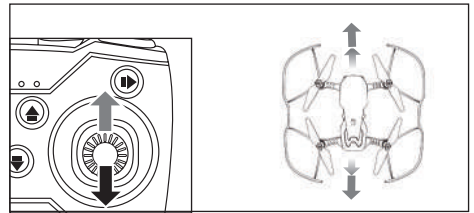
### UP AND DOWN



Lift the power lever (left) for the drone to go up.

Lower the power lever (left) for the drone to go down.

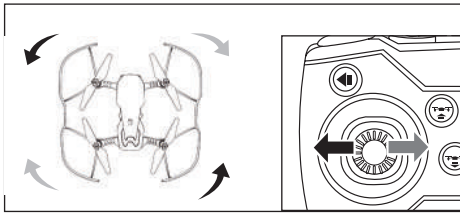
### FORWARD AND BACKWARD



Lift the steering lever (right) for the drone to go forward.

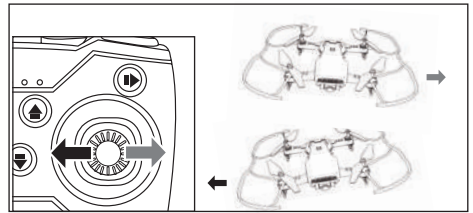
Lower the steering lever (right) for the drone to go backward.

## LEFT AND RIGHT TURNS



Move the power lever (left) to the right or left for the drone to rotate on its own axis to the corresponding side.

## LATERAL MOVEMENTS



Move the steering lever (right) to the right or left for the drone to move to the corresponding side.

## TRIMMING

This drone has an optical viewfinder that allows it to position itself and remain stable with respect to the ground. Although it is rare, the drone may make unwanted movements without a direct intervention, moving in any of the four directions, rotating on its axis, or even ascending or descending without being given any order. Therefore, there is the Trimming, which is an adjustment that can be done from the transmitter so that the drone recovers its stability in the stationary flight.

When the Drone moves in one direction, we should press the trimming button in the opposite direction (in section "parts and functions of the transmitter" you can check which is the corresponding trimming button for each direction) as many times as necessary until you correct that unwanted movement.

## HEADLESS MODE

While the drone is functioning in normal mode, without total control, the pilot will have to recognize the front and back parts of the drone as well as the lateral parts in order to give the right movement orders during the flight. In this flight mode, you need to know that the controls will be inverted when the drone goes back to you. The Drone X Pro AIR integrates a total control system which makes it easier to pilot.

Once headless mode is activated, the orientation of the drone does not affect the movements, because the drone moves in relation to the position where the pilot is located. In order to activate headless mode, press the corresponding button (in the section "parts and functions of the transmitter" you can check which is the button for that function). Press again to deactivate "headless mode".

## ACROBATICS

The Drone X Pro AIR can perform acrobatics almost automatically. You only have to press the button (in the section "parts and functions of the transmitter" you can check which is the button to make the drone pirouette) and push the right lever in the direction we want it to perform the acrobatics, we will be giving the drone the order to perform such movements and in that direction. Finally, the drone can lose altitude during the performance of acrobatics, so just move the power lever up once the acrobatics are finished.

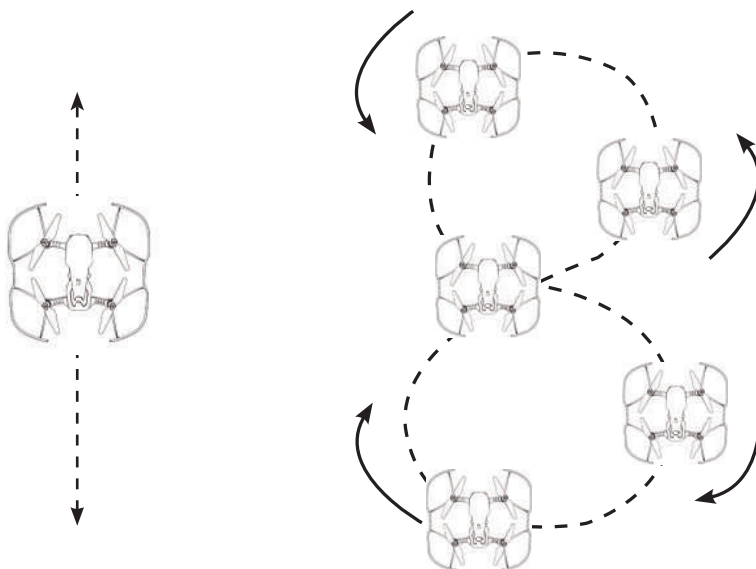
**NOTE:** If the protective propeller shields/guards are attached, the drone may find it difficult to perform acrobatics perfectly.

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## DRONE FLYING TIPS

always moves at the height of your eyes. The most challenging part of this exercise is to master the movement in such a way that we are able to make "eights" in the air using only the right lever, with all the movements of that lever.



### EXERCISE 3 - ROTATION

Rotation is the most complicated movement when it comes to flying drones. When you rotate the drone, it is normal to be confused with the directions, that means that: a) if the drone is facing forward, the controls of the radio station correspond to what we see (if we give to the right, the drone moves to the right) and b) if the drone is facing us, the controls are reversed: if you tell it to go to the right, it will go to its right (our left).

The first step is to keep the drone at a certain altitude, and using the same power lever, maintain that power and turn the lever at the same height right or left. The drone will begin to rotate on its axis, and depending on our expertise, it will ascend or descend. The challenge is to get circles while remaining in the same spot.

Now, let's try exercise 2 but, in this case, make the turn with the drone facing towards you. That means: Move forward normally, stop the drone, rotate it 180°, and bring it back to you.

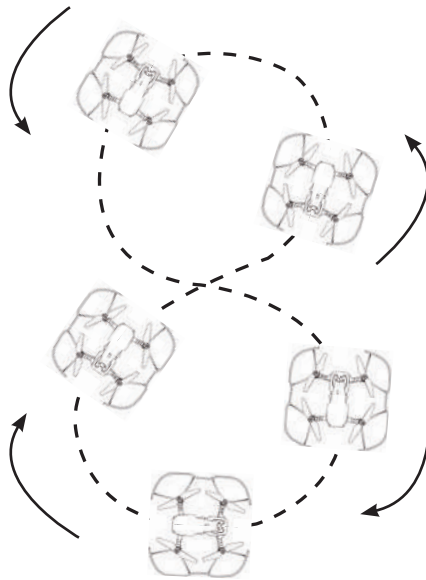
The third step is about repeating the first step but slower and while rotating the drone with a frontal displacement towards the right using the lever. It is advisable to carry out this exercise in an open space, as the goal is to have the drone make wide circles. Start recording and stand in the middle of the circle, in such a way that the drone is recording you at all times. Remember to carry out this exercise in an obstacle-free open space.

## DRONE FLYING TIPS

The third step is a total control of the previous exercises. It is not easy and it is normal to take several weeks of practice to achieve full control.

The exercise consists of a mixture of all the previous exercises. The goal is to make "eights" or the symbol of infinity in the air but, unlike what happens in exercise 2, in this case the drone will make this symbol always with its front side.

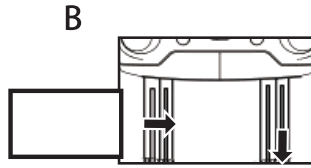
To achieve this, we have to keep the drone at a certain altitude. Start moving it diagonally with the right lever and, at the same time, set the direction of the drone using the left lever. Whenever you want to go back, start the rotation on its axis to the left. After completing more than one hemisphere, stop rotating it on its axis and move it towards you. When it is close by, begin to rotate it to the right and repeat this process until you get several "eights" in a row.



# TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The drone does not respond to transmitter commands.	<ol style="list-style-type: none"><li>1. The drone does not have enough battery.</li><li>2. The transmitter does not have enough battery</li><li>3. The transmitter frequency does not match that of the drone.</li></ol>	<ol style="list-style-type: none"><li>1. Charge the drone</li><li>2. Change transmitter batteries</li><li>3. Re-synchronize transmitter and drone.</li></ol>
The drone takes time to respond or responds with difficulty to transmitter commands.	<ol style="list-style-type: none"><li>1. The transmitter has not enough power.</li><li>2. There is another radio-frequency device nearby with the same control frequency.</li></ol>	<ol style="list-style-type: none"><li>1. Change transmitter battery.</li><li>2. Remove the other radio-frequency device from the drone's coverage area.</li></ol>
When you try to make the drone take off, the propellers rotate, but it does not take off.	<ol style="list-style-type: none"><li>1. The drone does not have enough battery.</li><li>2. The propellers are not in the right position</li><li>3. One of the engines fails</li></ol>	<ol style="list-style-type: none"><li>1. Charge the drone</li><li>2. Check the position of the propellers (p.6).</li><li>3. Visit our SAT After Sales Service to help you resolve it.</li></ol>

# SMARTPHONE SUPPORT



If you want to see what the drone's camera is recording on your smartphone live, the station has a bracket at the bottom that can be removed as shown in picture A. Then place your smartphone into the hole as shown in picture B. The length of the support automatically adjusts to the width of your smartphone, so that it will fit regardless of the dimensions of the model.

## APP CONFIGURATION

Using the (free) DRONE X PRO AIR App\*(HFUN), you can record and take photos from the drone to view and save them on your smartphone. In addition, it can be used without the transmitter, because it allows to control all features directly from the screen on the drone. You will find on the back cover the QR code to download the App on both iOS and Android. You can also search directly in Google Play or in the Apple store for the App name: "HFUN."

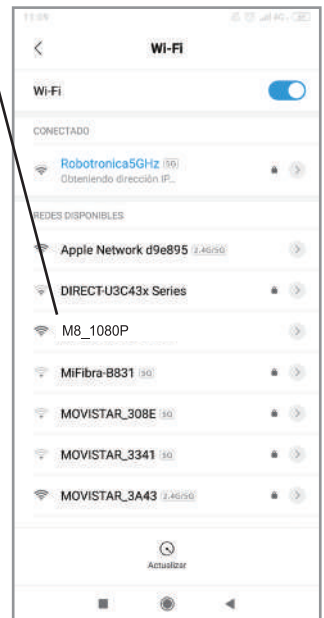
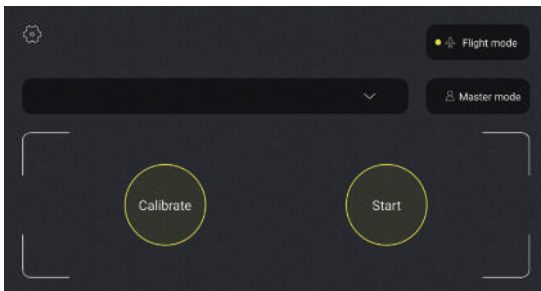


\* Application developed by third parties

Once installed, open the App and turn on the drone. If your smartphone does not automatically connect to the drone's wifi, do it manually. The name of the wi-fi of the Follower Drone can change but, in order to identify it, it always starts with "M8\_1080P..." and is followed by a combination of numbers and random letters. You don't need a password.

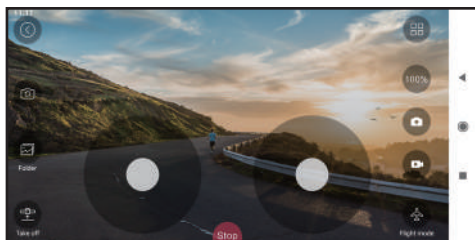
The home screen on the App offers a choice to select between "Flight Mode" and "Master Mode". If you're just going to use your smartphone to record, take photos or FPV, choose Master Mode. If you are also going to use the App to control the drone's movements (rather than the remote), select Flight Mode. Then select the "Calibrate" option to return the drone to factory settings or "Start" to access the control screen.

### APP CONFIGURATION

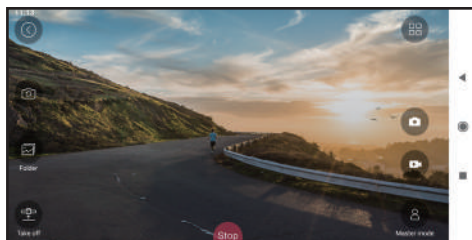


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As you can observe, the only noticeable difference between the two screens is that in Flight Mode the power and direction levers appear in the middle. In both cases, the image you see in the App is the real-time transmission of what the drone's camera captures:

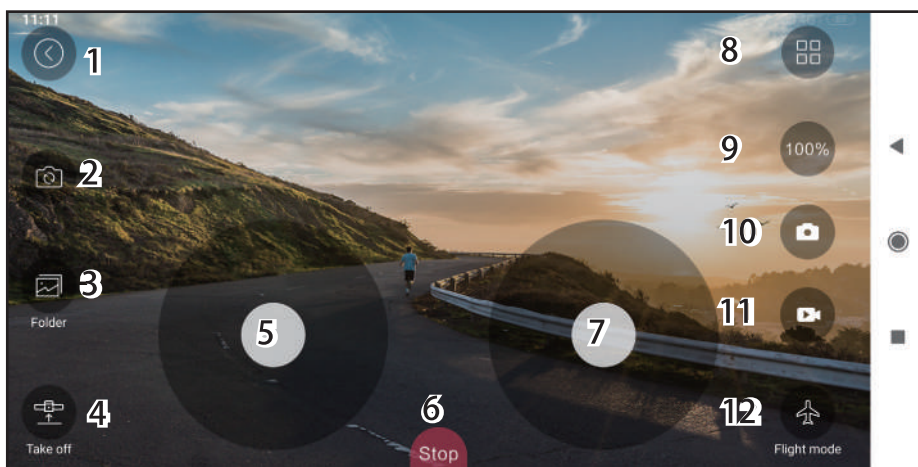


FLIGHT MODE



MASTER MODE

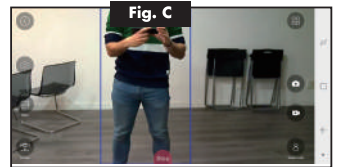
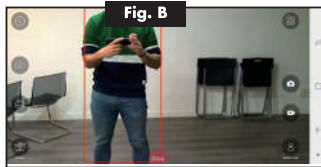
## APP FUNCTIONALITIES



1. Return to the previous menu.
2. Change of viewpoint: It changes the viewpoint the App shows toggling between the image captured by the frontal camera (default one) and that of the zenithal camera.
3. Access to the picture and video folder captured by the drone on your smartphone.
4. Automatic take-off / landing.
5. Power lever.
6. Emergency stop (WARNING: if you use it during the flight, the engines stop automatically and the drone falls to the ground).
8. Extra features.
9. Change of flight speed (30% / 60% / 100%).
10. Take a picture.
11. Start / Stop video recording + Dual Camera, Split Screen, Picture in Picture, Side-by-Side
12. Follow me: The drone will fly independently follow the movements of the object or person determined by the pilot. Once the button is pressed, the application will show a disclaimer indicating that, for the "Follow me" feature to work properly, the target to follow must be at least 2 meters away (Fig. A). Once you accept by clicking "Submit," the drone will identify possible targets and frame each one available in a red box (Fig. B). To confirm which object to follow, select it on the screen until the box changes to blue (Fig. C).

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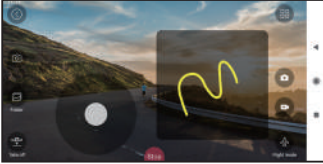
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## EXTRA FEATURES

If you select "Extra Features," the following icons will be displayed:

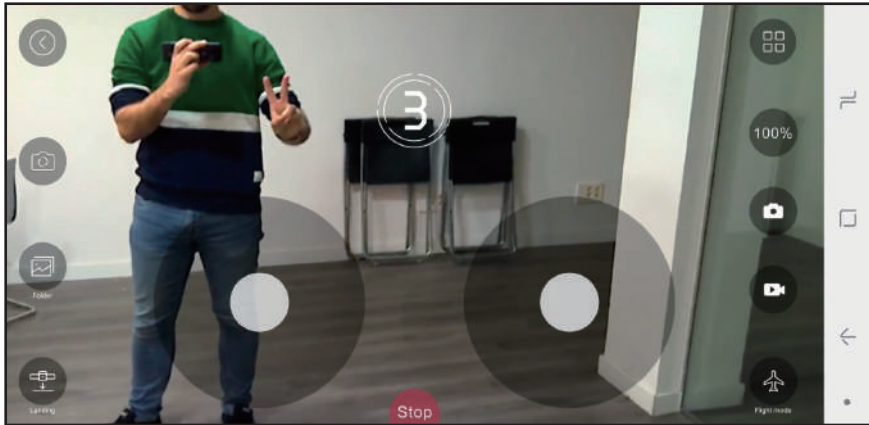


1. Image filters: Edit the images you have recorded in the App directly using predefined filters (greyscale, colour change, etc...).
  2. Hands-free flight: Place the palm of your hand in front of the camera for a few seconds, so the drone can identify it. Then, move your hand gently from side to side and the drone will follow the movement.
  3. Flight plan: Allows you to draw with your finger directly on the surface of the screen the route you want to follow, and once you are finished drawing it, the drone will execute that same move.
- 
4. FPV: Divides the image transmitted on the screen into two halves in order to insert the smartphone in a VR glasses and be able to fly in FPV mode.
  5. Rotate image: Rotates the orientation of the display on the screen by 180 degrees.
  6. Absolute Control.

## SELFIE MODE

At any moment of the flight, if you make the Victory sign (see image) while you are in front of the camera, the drone will interpret that you want to take a picture. At the end of that countdown, the drone takes a picture and saves the image in the corresponding folder of the App.

**NOTE:** If selfie mode does not work, it could mean you are too far away from the drone. For optimum results, the minimum distance to the camera is between 1.5m and 2m.



## DRONE FLYING TIPS

### EXERCISE 1- KEEP THE DRONE FLYING IN A FIXED SPOT

Synchronize the transmitter with the drone and prepare to take it off. Start the engines and power up with the left lever with a continuous touch. The drone should go up and stay at a certain altitude thanks to its visual positioning. Use the left lever carefully to bring the drone down to your eye line. This is very easy to do thanks to the automatism of the drone. Sometimes you will need to power up and, sometimes, to power down, but those changes should be subtle, with slight touches on the lever. You will need to adjust the lateral displacements so that the drone is always in front of you. If you notice that the drone has a tendency to move alone in some direction, trim him. Although, up to 8 meters it will remain almost fixed thanks to the visual positioning, above that altitude you will need to control the position and lateral displacement yourself.

### EXERCISE 2- ONE WAY MOVEMENT

Once you have mastered the static flight, begin to move the drone intentionally, and not simply with the intention to fly static. Maintaining the altitude, push the right lever forwards to move the drone forwards. After moving forward a few meters, push the right lever down to reverse to the starting point. Normally, while you're making this moves, you need to correct the lateral displacement so this exercise is very useful to learn how to avoid colliding into walls or other obstacles. Focus on steering the drone, and, at the same time, maintain altitude. In addition, pay attention to the power; power up or down when required so that the drone

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