Parrot®

FREEFLIGHT PRO

USER GUIDE



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Compatibility

Drones

The FreeFlight Pro app is compatible with the following drones:

- Parrot Bebop Drone v3.3.0 and later
- Parrot Bebop 2 v3.9.0 and later
- Parrot Discov1.0.5 and later

The FreeFlight Pro app is compatible with Parrot Skycontroller v1.7.4 and later, and Parrot Skycontroller 2 v1.0.2 and later.

NB: Before each use, make sure your drone and your controller are up-to-date. For more information, go to the Update section.

Smartphones

The FreeFlight Pro app is compatible with the following versions:

- Android 4.3 and up
- iOS 8 and up

Follow Me GPS & Visual tracking

Follow Me GPS & Visual tracking is compatible with Parrot Bebop 2 v4.0 and higher.

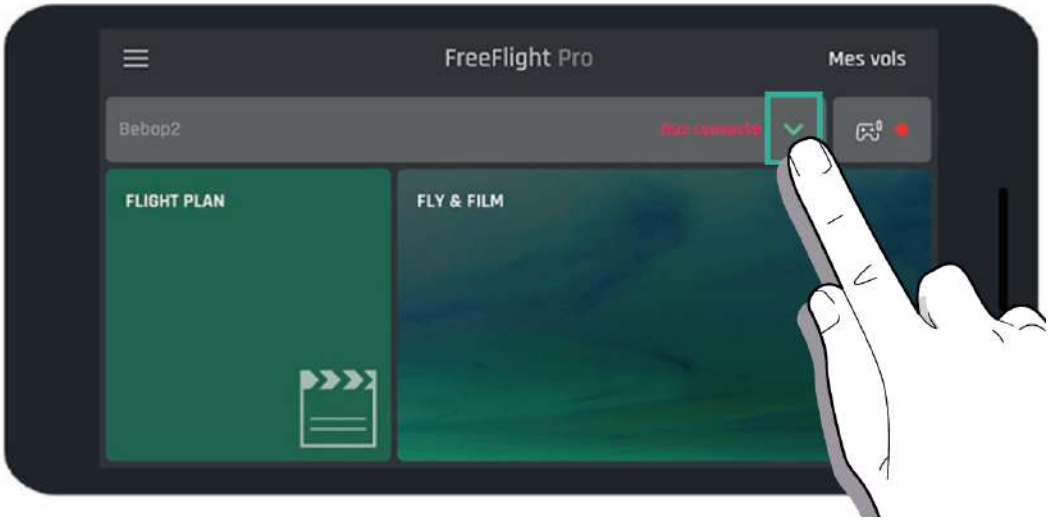
Before using this option, ensure that your smartphone has a working GPS.

Getting started

Connecting a drone and a smartphone

If you are connecting to your drone for the first time:

1. In the FreeFlight Pro app, tap .



> The list of drones detected by the app appears.

2. Select your drone.
> The live return video feed is displayed in the app's FLY&FILM window. You are connected to your drone.

If the app does not detect any drones:

1. Go into your smartphone's Wi-Fi settings.
> A list of the Wi-Fi devices around you appears.

2. Select your drone.

3. Open the FreeFlight Pro app.
> You are connected to your drone.

If you are already connected to the drone:

1. On your smartphone, turn on the Wi-Fi function.

2. Open the FreeFlight Pro app.

3. Place your Parrot drone on a flat surface.

4. Turn on your Parrot drone.
> The app recognises the drone and automatically connects to it.

Once connected to your drone you can:

- Adjust the flight settings
- Adjust the image settings
- Updating your drone
- Updating your Parrot Skycontroller 2
- View your flights
- Download your photos and videos onto your smartphone
- Fly (**NB**: you cannot fly the Parrot Disco with a smartphone. To do this, we recommend you use a Parrot Skycontroller 2.)
- Launch a Flight Plan
- Launch Follow Me

Connecting a drone and a Parrot Skycontroller

Parrot Skycontroller

You cannot use the Parrot Skycontroller to fly the Parrot Disco.

1. Place your Parrot drone on a flat surface.
2. Turn on your Parrot drone.
3. Turn on the Parrot Skycontroller.
4. Wait until the Parrot Skycontroller beeps.

> The Parrot Skycontroller is connected to the drone.

5. On your smartphone, turn on the Wi-Fi function and open the FreeFlight Pro app.
6. Tap  .

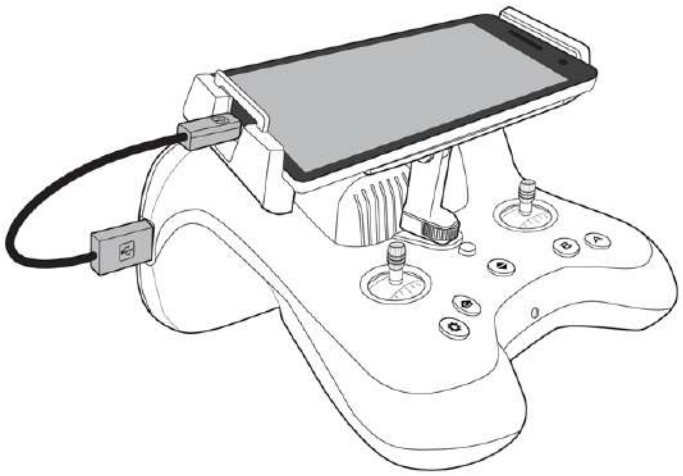
> The list of detected devices appears.

7. Select your Parrot Skycontroller.

You are connected.

Parrot Skycontroller 2

1. Place your Parrot drone on a flat surface.
2. Turn on your Parrot drone.
3. Attach your smartphone to the Parrot Skycontroller 2's holder.
4. Turn on your Parrot Skycontroller 2.
5. Use a USB cable to connect your Parrot Skycontroller 2 to your smartphone.



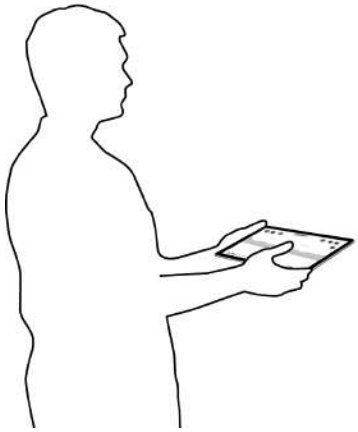
> The FreeFlight Pro application launches automatically.

6. Wait until the light on the controller turns green.
7. The Parrot Skycontroller 2 is connected to the drone.

Flying

Flying a Parrot Bebop Drone or a Parrot Bebop 2

With a smartphone

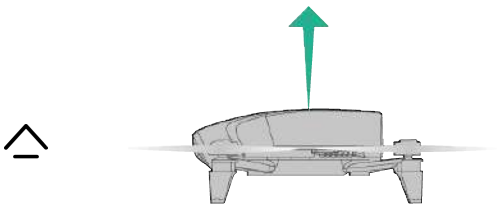
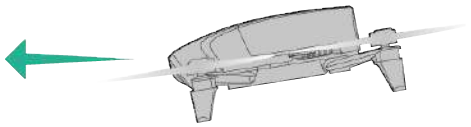
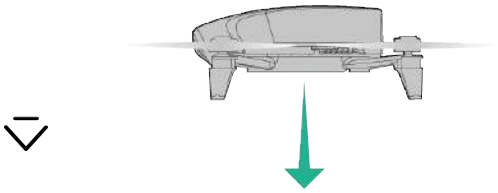
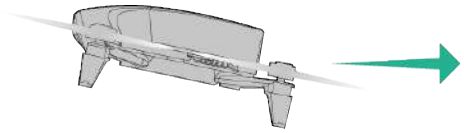
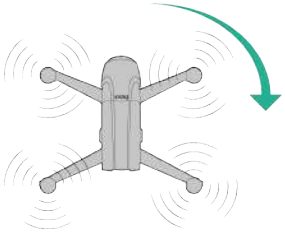
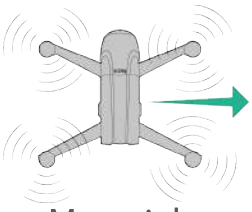
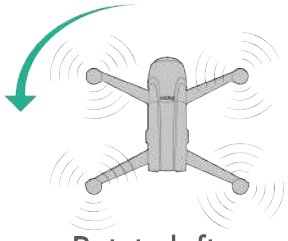
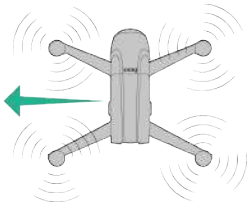


Piloting screen

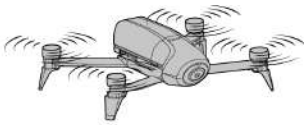
If you're flying a Parrot Bebop Drone **or a Parrot Bebop 2 (default mode):**

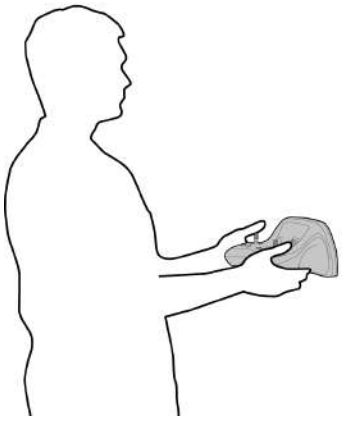
1	Access the settings
2	Recording resolution: Full HD (1080p) or HD (720p) **NB:** define the recording resolution in the settings. When you record a video in 1080p, the live return video feed is 480p. When you record a video in 720p, the live return video feed is 720p.
3	Video recording time
4	Return home
5	Pre-programmed manoeuvre
6	Take a photo
7	Switch to map mode to see the position of the drone on a map
8	Drone speed
9	Drone altitude
10	Distance of the drone relative to its take off point
11	Land
12	Wi-Fi signal strength
13	Drone battery level
14	Switch to FPV mode **NB**: when you switch to FPV mode, the video automatically switches to HD (720p).

Default piloting mode

Left joystick	Right joystick
 Go up	 Go forward
 Go down	 Go backward
 Rotate right	 Move right
 Rotate left	 Move left

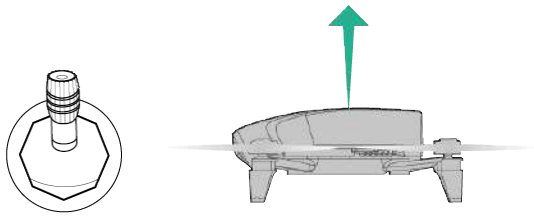
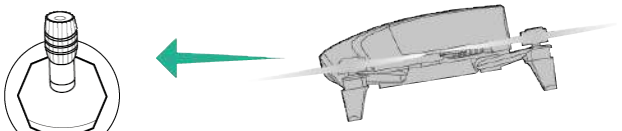
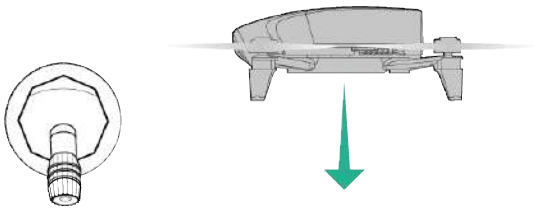
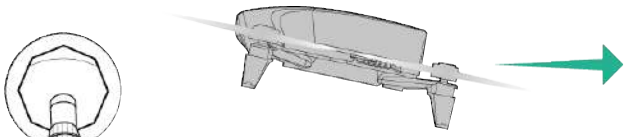
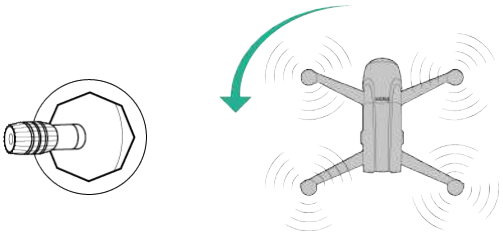
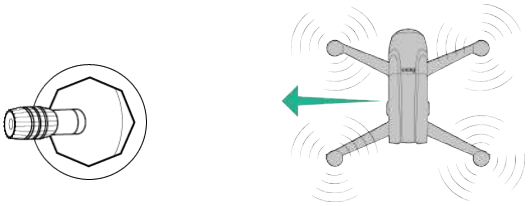
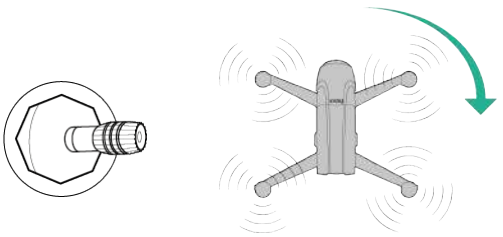
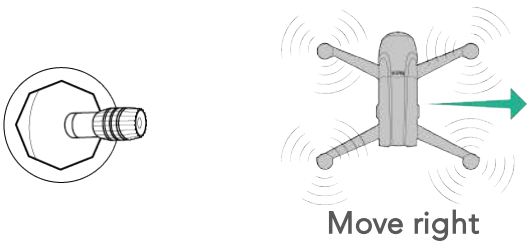
With a Parrot Skycontroller alone



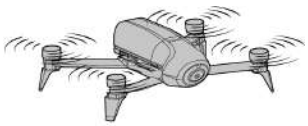


You can use a Parrot Skycontroller or a Parrot Skycontroller 2 to fly the Parrot Bebop Drone and the Parrot Bebop 2.

The default commands are as follows:

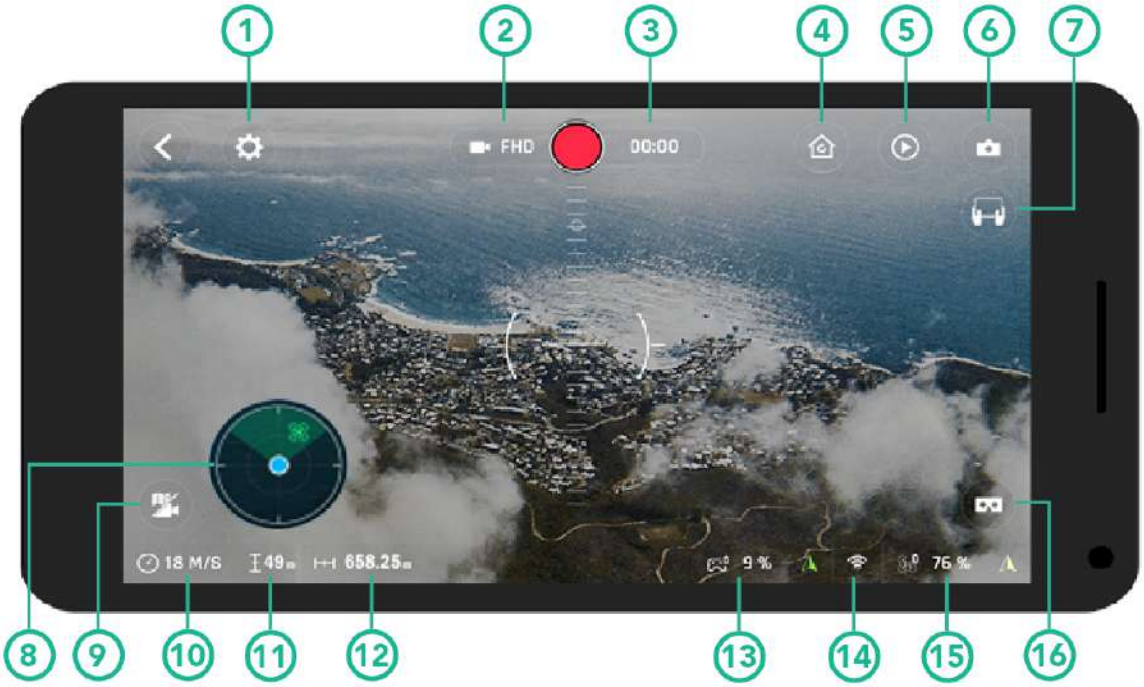
Left joystick	Right joystick
 Go up	 Go forward
 Go down	 Go backward
 Rotate left	 Move left
 Rotate right	 Move right

With a Parrot Skycontroller and a smartphone



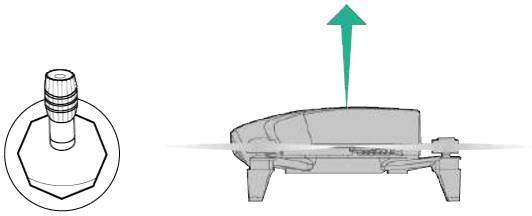
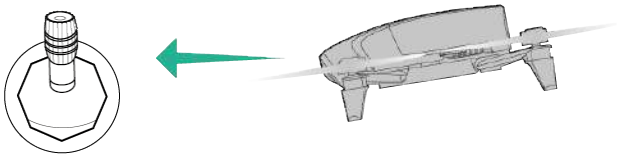
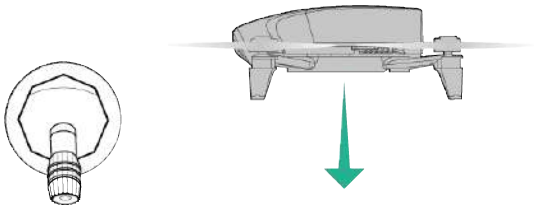
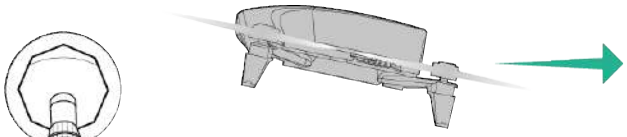
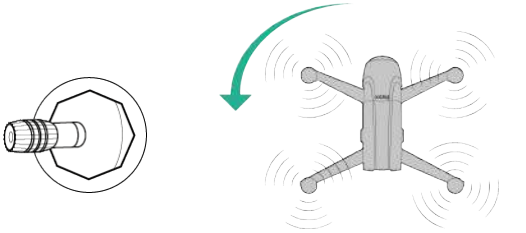
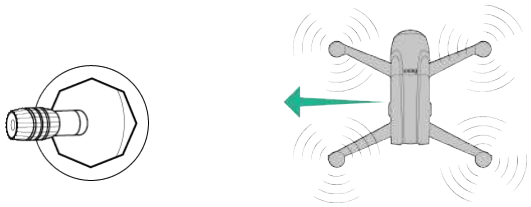
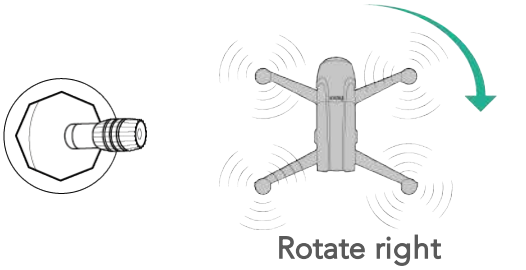
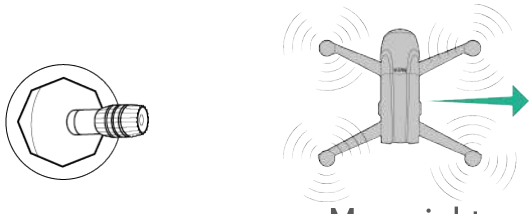
You can use a Parrot Skycontroller or a Parrot Skycontroller 2 and a smartphone to fly the Parrot Bebop Drone and the Parrot Bebop 2.

Piloting screen



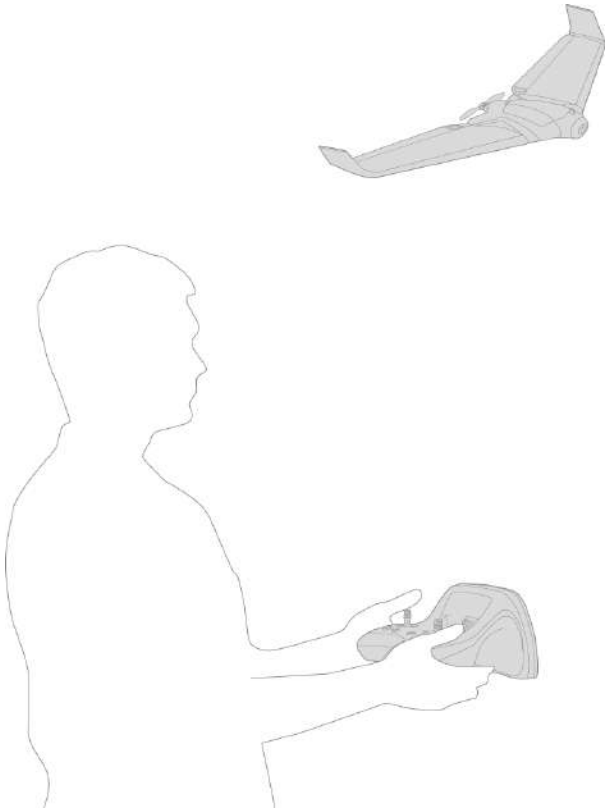
1	Access the settings
2	Recording resolution: Full HD (1080p) or HD (720p) **NB:** define the recording resolution in the settings. When you record a video in 1080p, the live return video feed is 480p. When you record a video in 720p, the live return video feed is 720p.
3	Video recording time
4	Return home
5	Pre-programmed manoeuvres
6	Take a photo
7	Switch to smartphone piloting
8	Radar. The radar shows the position of the drone relative to the Parrot Skycontroller. Point your Parrot Skycontroller towards the drone for a better Wi-Fi connection.
9	Switch to map mode to see the position of the drone on a map. **NB:** to use this feature, your smartphone must be connected to the internet.
10	Drone speed
11	Drone altitude
12	Distance of the drone relative to its take off point
13	Battery level of Parrot Skycontroller 2
14	Wi-Fi signal strength
15	Drone battery level
16	Switch to FPV mode

Default piloting mode

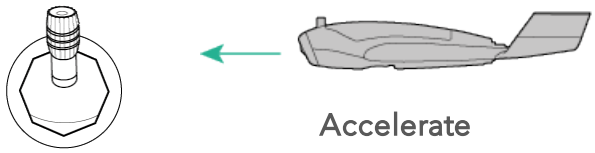
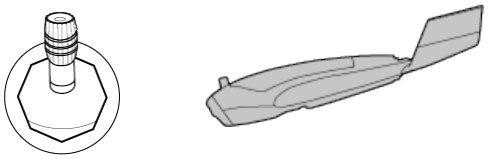
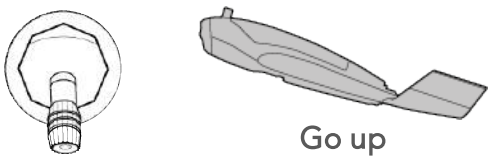
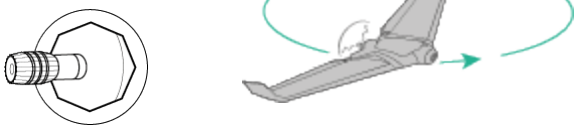
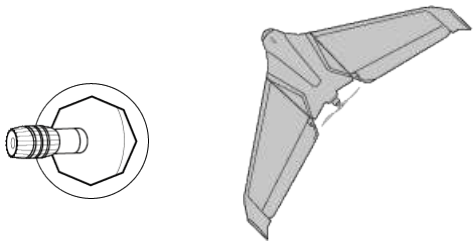
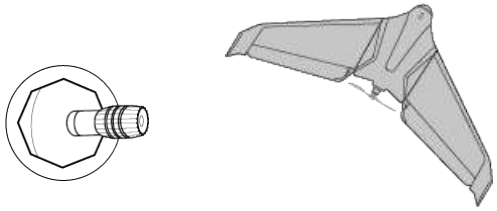
Left joystick	Right joystick
 Go up	 Go forward
 Go down	 Go backward
 Rotate left	 Move left
 Rotate right	 Move right

Flying a Parrot Disco

With a Parrot Skycontroller 2 alone



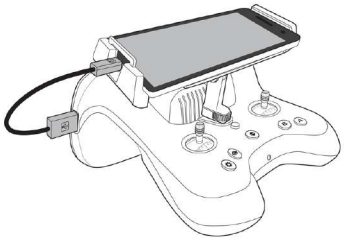
NB: The Parrot Disco is not compatible with the Parrot Skycontroller 1.

Left joystick	Right joystick
 Accelerate	 Go down
 Slow down	 Go up
 Left orbital standby mode	 Turn left
 Right orbital standby mode	 Turn right

With a Parrot Skycontroller 2 and a smartphone

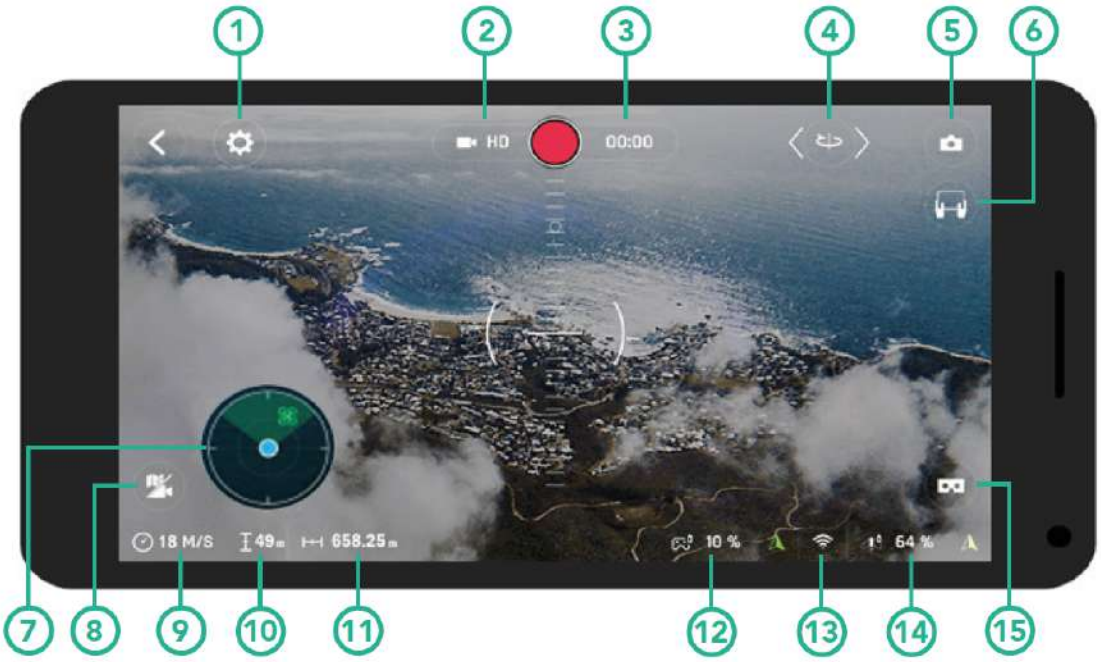
NB: The Parrot Disco is not compatible with the Parrot Skycontroller 1.

To control the Parrot Disco with a Parrot Skycontroller 2 and a smartphone, the smartphone must be connected to the Parrot Skycontroller 2 via a USB cable.



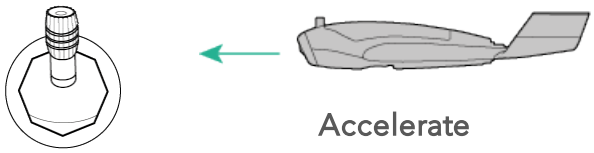
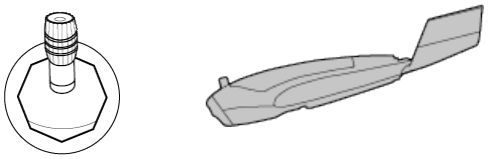
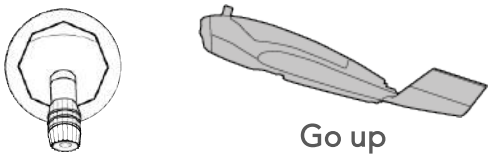
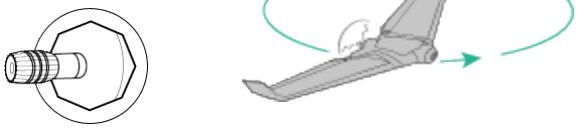
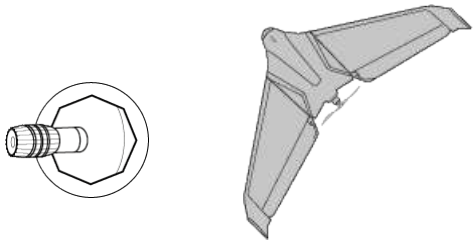
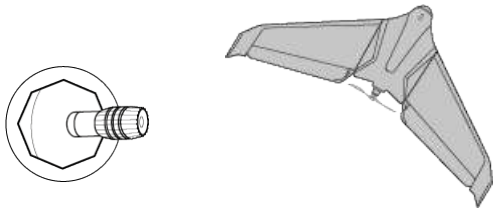
Piloting screen

Use the Parrot Skycontroller 2's smartphone holder to attach your smartphone to the controller.
Use the Parrot Skycontroller 2's controls to take off, land and direct your drone.



1	Access the settings
2	Recording resolution: Full HD (1080p) or HD (720p) **NB:** define the recording resolution in the settings. When you record a video in 1080p, the live return video feed is 480p. When you record a video in 720p, the live return video feed is 720p.
3	Video recording time
4	Switch to right or left stationary flight
5	Take a photo
6	Switch to smartphone piloting
7	Radar. The radar shows the position of the drone relative to the Parrot Skycontroller 2. Point your Parrot Skycontroller 2 towards the drone for a better Wi-Fi connection.
8	Switch to map mode to see the position of the drone on a map
9	Drone speed
10	Drone altitude
11	Distance of the drone relative to its take off point
12	Battery level of Parrot Skycontroller 2
13	Wi-Fi signal strength
14	Battery level of the Parrot Disco
15	Switch to FPV mode

Default piloting mode

Left joystick	Right joystick
 Accelerate	 Go down
 Slow down	 Go up
 Left orbital standby mode	 Turn left
 Right orbital standby mode	 Turn right

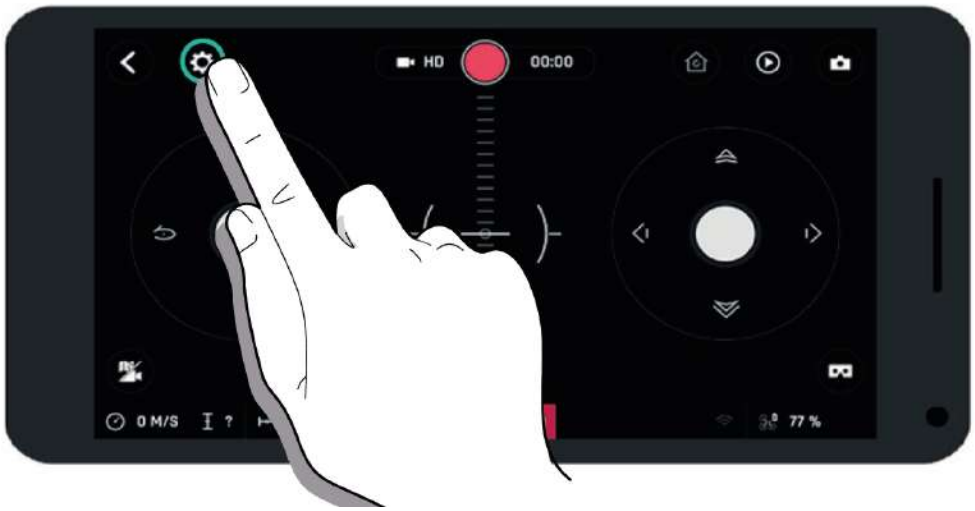
Settings

General settings

Use your smartphone to directly define your drone's settings.

Accessing the general settings

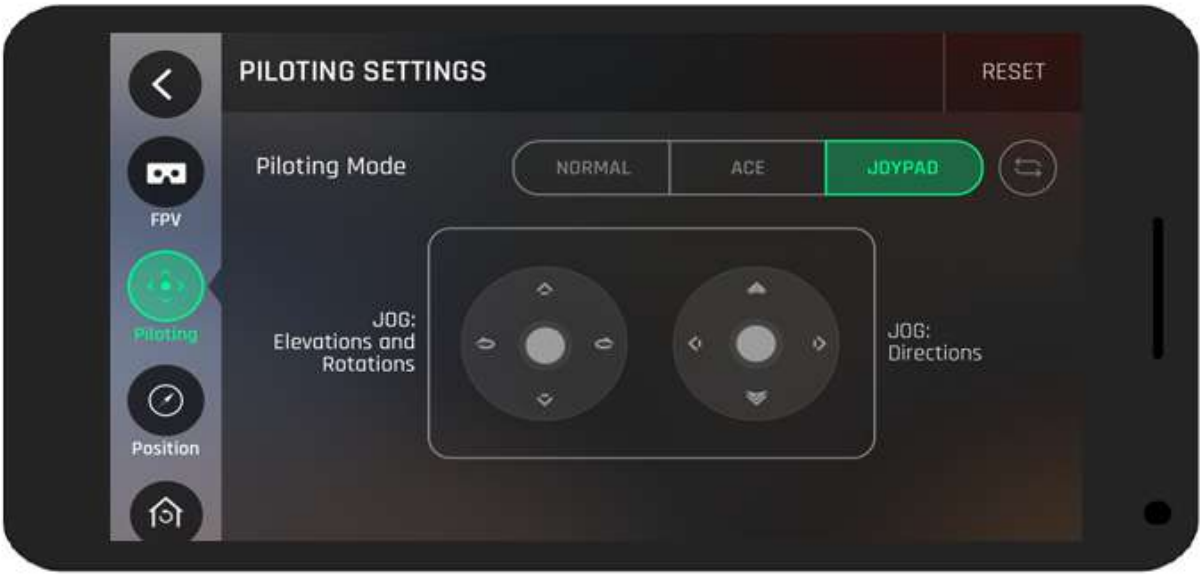
In the FreeFlight Pro app, go to **FLY & FILM** and tap the icon (Settings) in the upper left of your screen.



The settings are displayed.

For each of these settings, tap **Reset** in the upper right of the screen to return to the default configuration.

Piloting settings



Pitch mode

Change the direction of the pitch of the Parrot Disco (by default, right joystick on the Parrot Skycontroller 2).

Normal: when you press the right joystick on the Parrot Skycontroller 2 upwards, the Parrot Disco goes down, and when you press downwards, the Parrot Disco goes up.

Reversed: when you press the right joystick on the Parrot Skycontroller 2 upwards, the Parrot Disco goes up, and when you press downwards, the Parrot Disco goes down.

Loiter direction

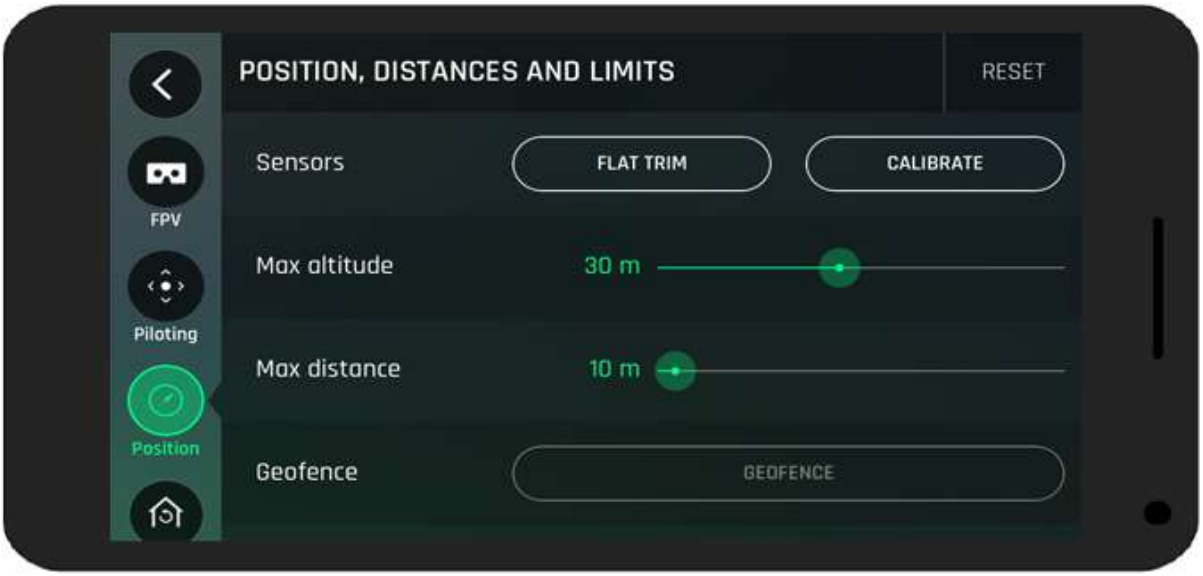
Determine the direction of circles made by the Parrot Disco while hovering.

Loiter altitude

Determine the hovering altitude of the Parrot Disco.

NB: you cannot change the hovering altitude after take off (50 meters).

Position, Distances and Limits



Sensors

Flat Trim resets the accelerometer and indicates the horizontal position to it. Make a Flat trim before each flight. To do this, connect to your drone, lay it on a flat surface and tap **Flat Trim**.

Calibration

Tap **Calibrate** to calibrate your drone. Follow the instructions on your smartphone screen to calibrate your drone.

Max altitude

Set the maximum altitude of your drone in flight.

Min altitude

Set the minimum altitude of your drone in flight. This feature is only available for the Parrot Disco.

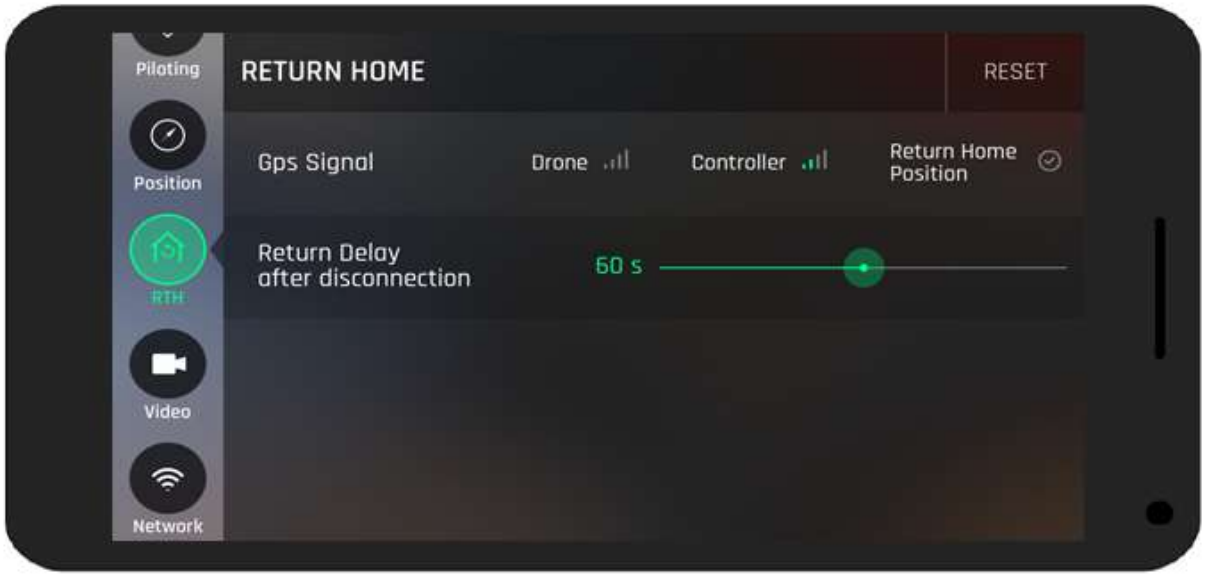
Max distance

Define the maximum distance between the drone and Parrot Skycontroller 2.

Geo-Fence

Enable or disable the geo-fence. If the geo-fence is on, the drone will turn around once it's boundary (Max distance) is reached.
If the geo-fence is off and your drone exceeds the maximum distance, the distance on the screen of your smartphone is displayed in red and the Parrot Skycontroller 2 vibrates.

Return home



GPS signal

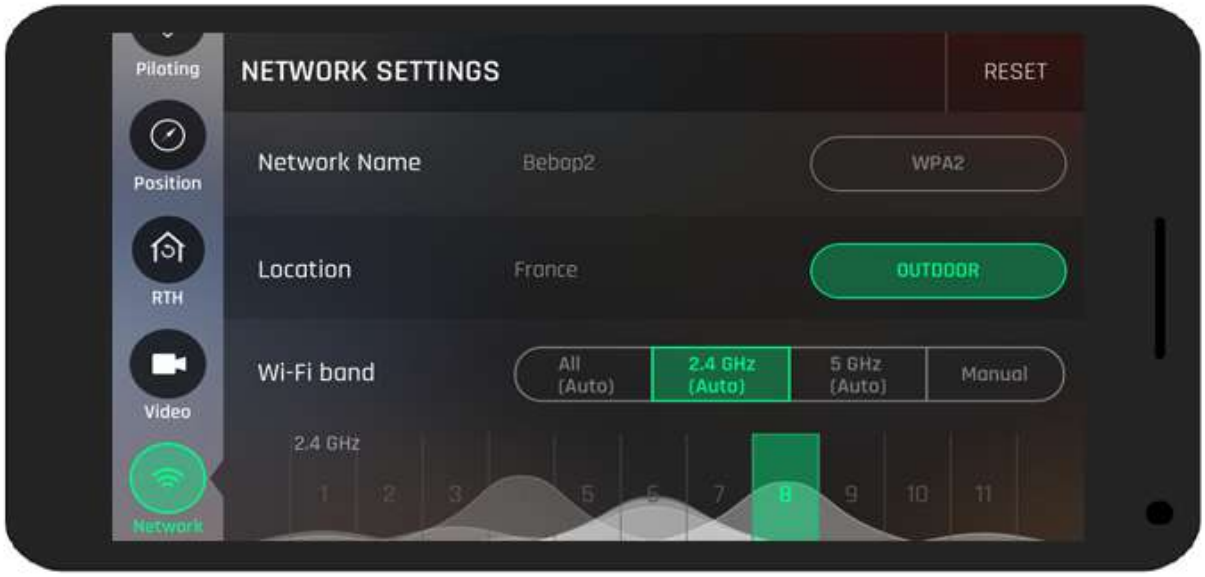
This section shows the quality of the GPS signal of the drone, the Parrot Skycontroller 2 and whether or not the return home point is stored.

NB: Do not fly your drone if the Return Home position is not set. Your drone will not be able to automatically return to its starting point.

Return time after disconnection

During the flight, in case of connection loss, the drone automatically returns to its starting position after a certain time period (10 seconds by default). Set this time in this section. If you're fly a Parrot Disco, it is recommended that you set this delay to 0 seconds.

Network settings



Network

Change the name of your drone's Wi-Fi network. Tap WPA2 to set a password for your drone's Wi-Fi network.

Location

Select the country you're in to fly the Parrot drone.
For the Parrot Disco, Outdoor mode must always be enabled.

Wi-Fi band

Connect the drone to 2.4 GHz or 5 GHz Wi-Fi bands.
The 2.4 GHz Wi-Fi band allows you to expand the range of the Wi-Fi signal. It is usually more crowded than the 5 GHz Wi-Fi band, especially in urban areas.
The 5 GHz Wi-Fi band provides a more reliable connection between the drone and your smartphone. Check the user guide or the technical specifications of your smartphone to see if it supports connection to the 5 GHz Wi-Fi band. If this is not the case, only use the 2.4 GHz Wi-Fi band.
*NB: the graph at the bottom of the screen shows the traffic on Wi-Fi bands.

Before you fly your drone, check for restrictions regarding the use of Wi-Fi frequencies in the place where you are going to fly it. Certain frequencies may be restricted or prohibited. Country selection and activation of the Outdoor option makes it possible to adapt the Wi-Fi settings according to the legislation of the country selected. Based on these settings, all channels may not be allowed. In some countries, for example, the use of the 5 GHz Wi-Fi band may be prohibited outdoors.

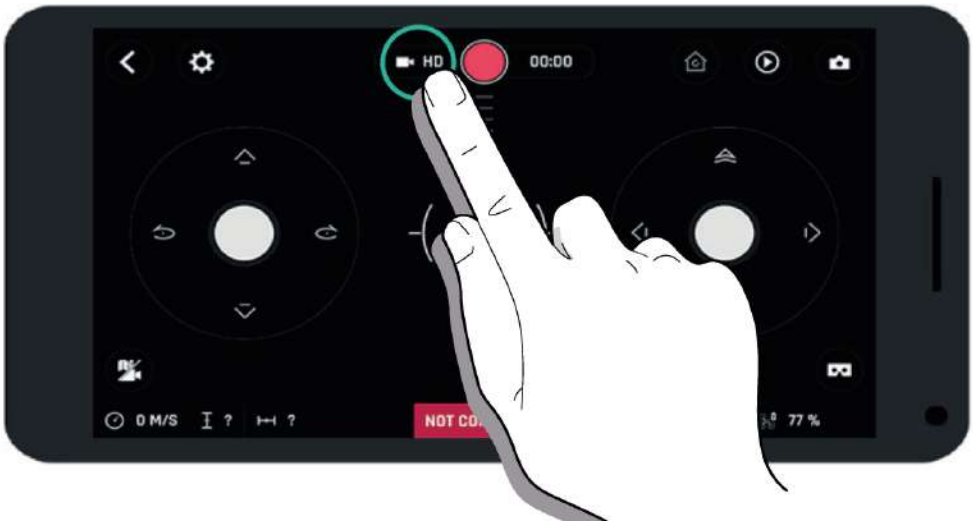
If you notice a problem with the quality of the Wi-Fi connection:

1. Select **Manual** mode.
2. Select a channel from the drop-down menu or tap an access point directly on the graph. Give priority to a channel that's not very crowded (transparent) or free (no curve).
3. Make sure your Parrot Skycontroller is directed towards you drone. For this, refer to the radar on the flight screen:

Video settings

Accessing video settings

1. On your smartphone, launch the FreeFlight Pro app.
2. Go to **FLY & FILM**.
3. Tap the icon to the left of the save button.



The image settings appear.

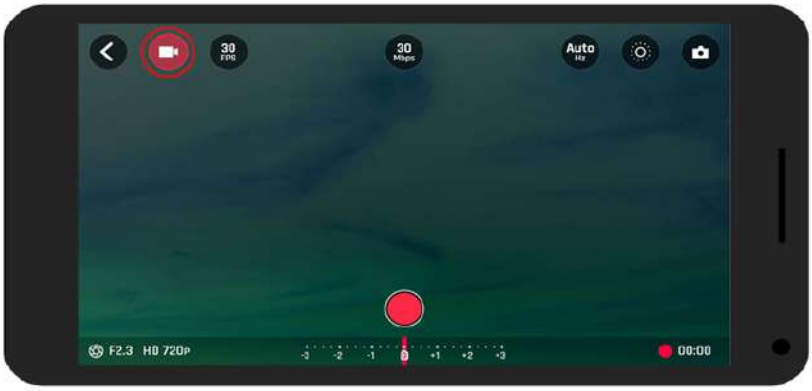
Presentation of modes

There are three modes:

- Video
- Photo
- Burst

Switching from one mode to another:

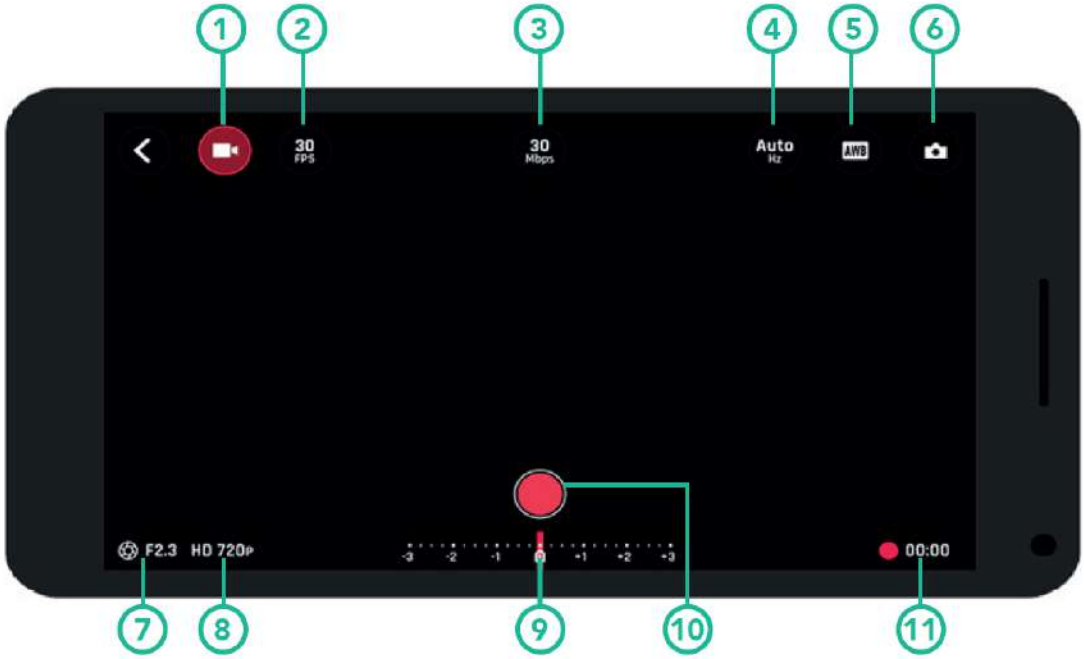
1. Go to image settings.
2. Tap the icon of the mode highlighted in red, in the upper left of your screen.



> A dropdown list appears.

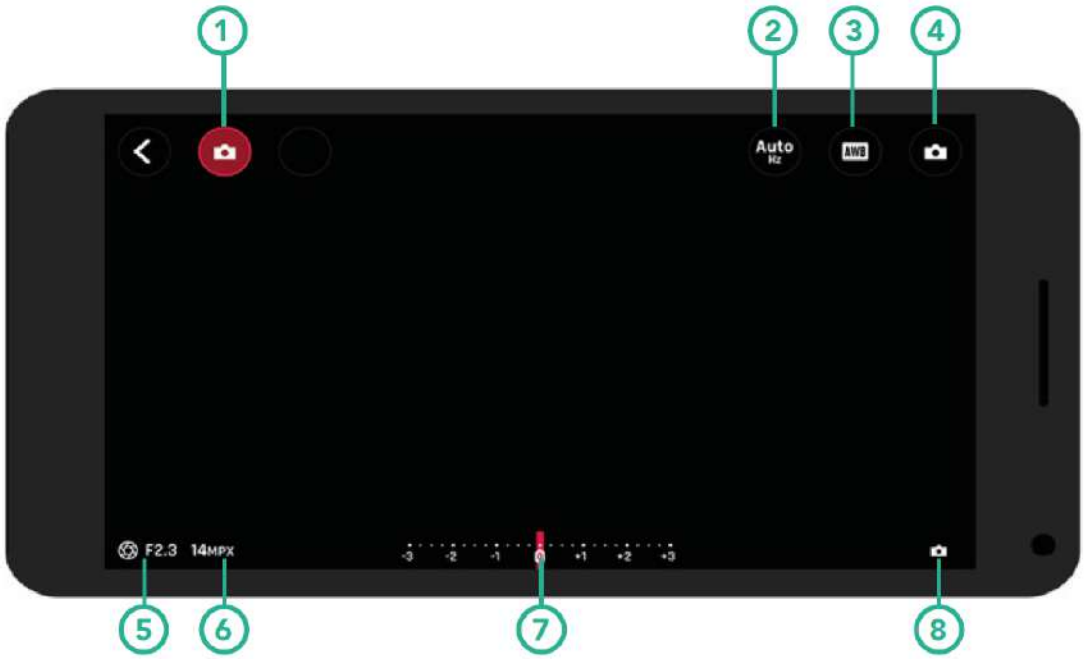
3. Tap the icon of the mode to apply. The new mode is applied.

Video mode



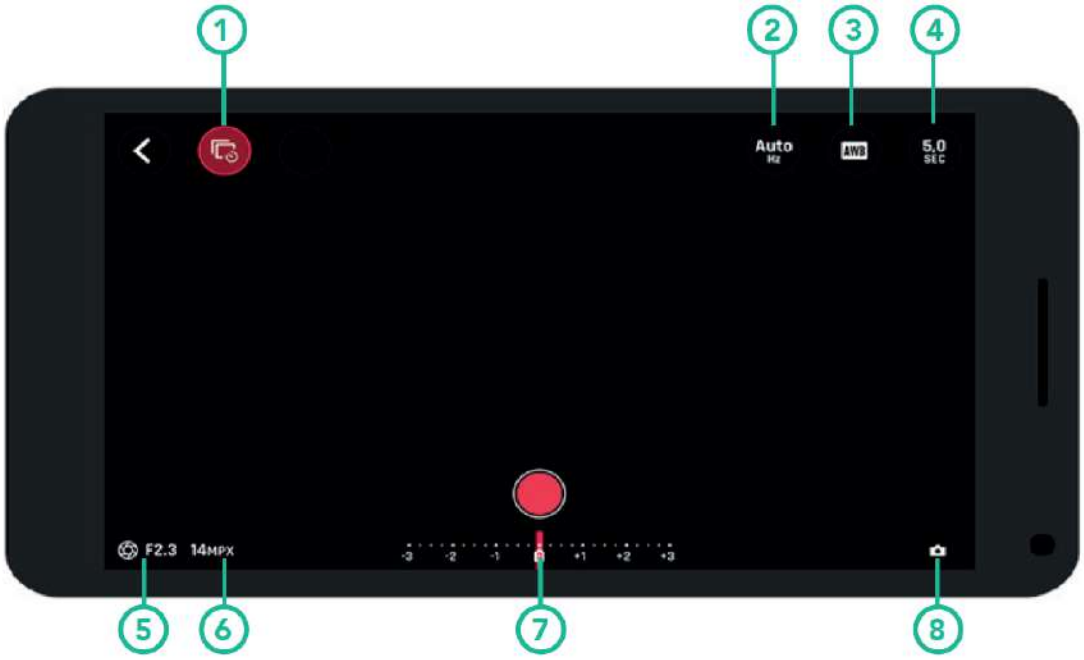
1	Mode
2	Number of images per second
3	Number of megabits per second
4	Anti-flicker settings
5	White Balance
6	Take a photo
7	Lens aperture
8	Recording resolution: Full HD (1080p) or HD (720p)
9	Camera exposure
10	Start recording a video
11	Recording time

Photo mode



1	Mode
2	Anti-flicker settings
3	White Balance
4	Take a photo
5	Lens aperture
6	Image resolution
7	Image exposure
8	Photo mode status

Burst mode



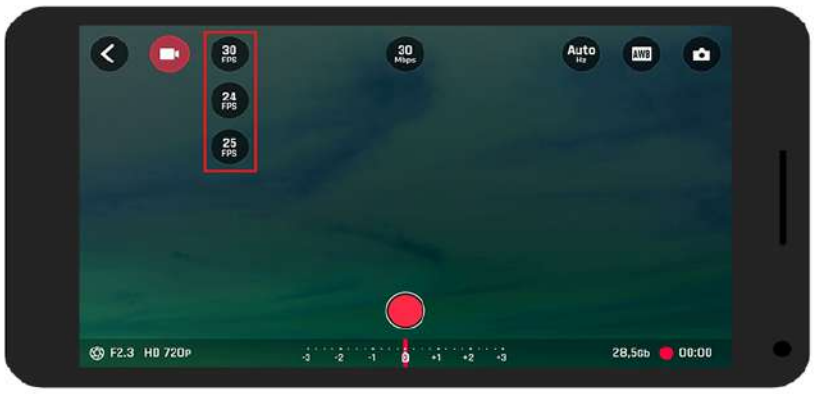
1	Mode
2	Anti-flicker settings
3	White Balance
4	Interval between each photo
5	Lens aperture
6	Image resolution
7	Image exposure
8	Start burst mode
9	Burst mode status

Managing video settings

Number of frames per second

You can change the number of frames per second of your videos. The more frames per second, the smoother the video.

1. Tap the icon corresponding to the number of frames per second.
> A dropdown list appears.



2. Tap the number of frames per second to apply to your videos.
> The number of frames per second is applied.

Number of megabits per second

Change the number of megabits per second (Mbps) of your videos. The greater the number of Mbps, the higher the quality of the video. A 30 Mbps video takes more space in the drone's memory than a 20 Mbps video.

1. Tap the icon corresponding to the number of Mbps.
> A dropdown list appears.

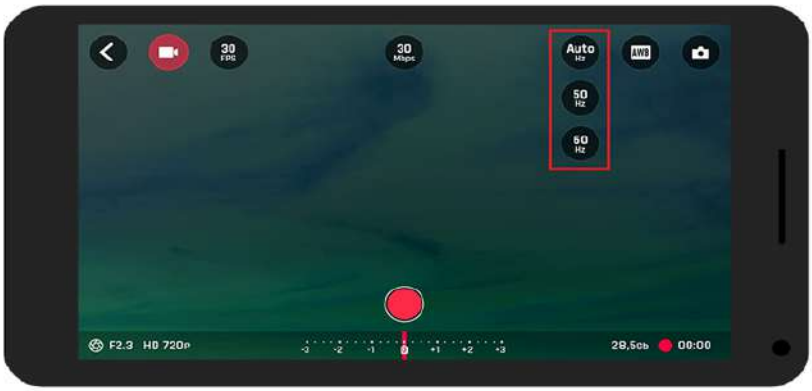
2. Tap the number of Mbps to apply to your videos.
> The number of Mbps is applied.

Anti-flicker

Remove the flicker effect on the video. Select the frequency that corresponds to the electrical frequency of your country.
If you select **Auto**, the frequency band will be selected based on the country specified in the Wi-Fi settings.

To set the frequency:

1. Tap the anti-flicker settings icon.
> A dropdown list appears.



2. Tap the frequency for your country or tap Auto.
> The new frequency is applied.

White Balance

Adjust the white balance as per your environment:

AWB Automatic

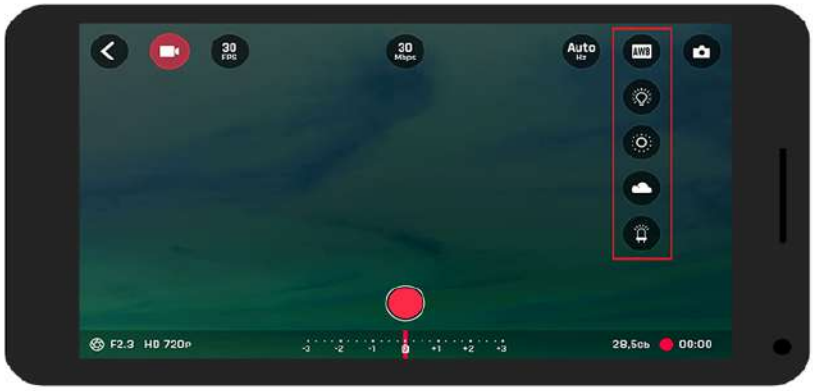
Outdoor sunny

Outdoors cloudy

Indoor neon lighting

Indoor bulb lighting

1. Tap the white balance icon.
> A dropdown list appears.



2. Tap the matching environment.
> The white balance is set.

Image exposure

Adjust the exposure of the image. To do this, drag slider at the bottom of your screen to the left or right.

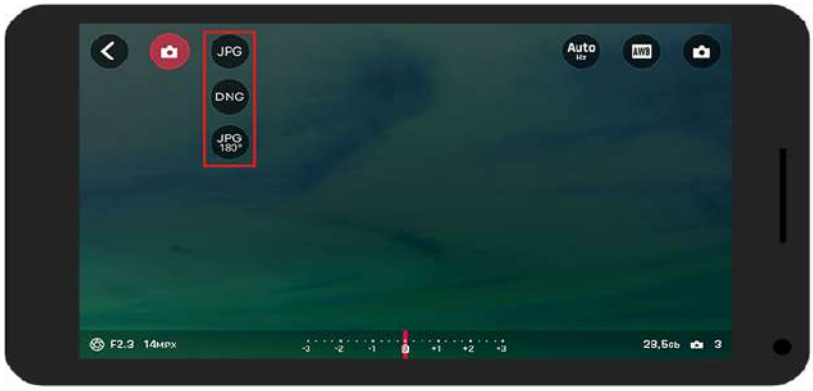
Photo format

You can select from the following three formats:

- **DNG:** select this image format to take high resolution photos.
- **JPEG:** select this image format to take medium resolution photos.
- **JPEG 180°:** select this image format to keep the Fish-eye effect from the camera in your photos. This format does not store the image's metadata.

To set a format:

1. Tap the format icon.
> A dropdown list appears.



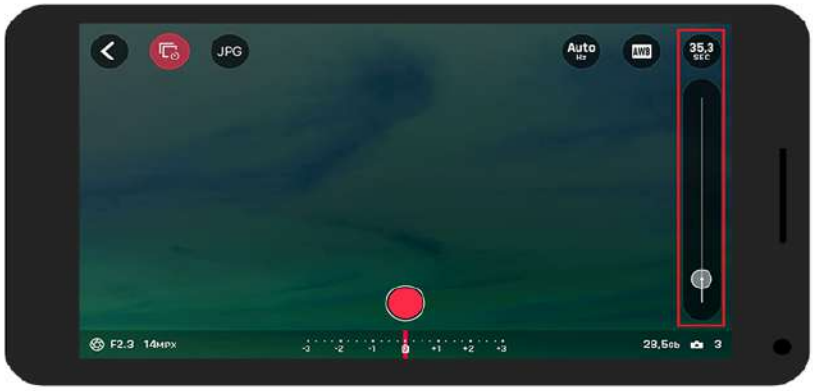
2. Tap the format you want to apply.
> The format is set.

Interval between each photo

When you're in burst mode, you can set the interval between each photo. For example, if you select 10 seconds, your Parrot drone will take a picture every 10 seconds.

To set the interval between each photo:

1. Tap the icon corresponding to the interval between each photo.
> A slider appears on the right of the screen.

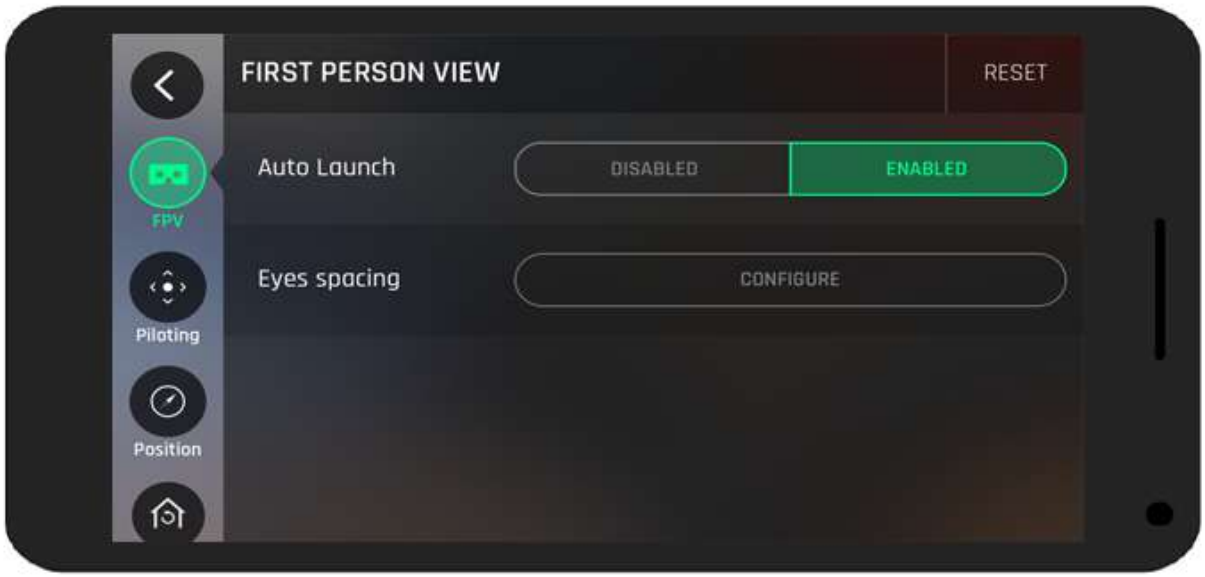


2. Move the slider up or down to determine the interval.
The interval is set.

FPV settings

When wearing Parrot Cockpitglasses:

- Use the Parrot Skycontroller 2's left joystick to navigate in the settings
- Confirm the settings with the Parrot Skycontroller 2's **A** button
- For parameters such as maximum altitude, move the Parrot Skycontroller 2's left joystick to the right or left to set them. Press the **A** button to validate your selection, and then press the **B** button to exit.
- To cancel a setting, press the **B** button to cancel the setting, and then press the **B** button again to exit.



Auto launch

Enable or disable auto-start for FPV mode when you connect your smartphone to the Parrot Skycontroller 2.

Eye spacing

Use the Parrot Skycontroller 2 to set the eye spacing while wearing Parrot Cockpitglasses.

Before starting, connect your Parrot Skycontroller 2 to your Parrot drone, insert your smartphone into your Parrot Cockpitglasses, and connect your smartphone to the Parrot Skycontroller 2's USB port.

1. Adjust the Parrot Cockpitglasses on your head.
2. Tap the **Settings button** of the Parrot Skycontroller 2.

> The Settings window opens.

3. Using Parrot Skycontroller 2's joysticks, go to the **FPV** section.
4. In **Eye spacing**, select the **Configure** button and press the **A** button on the Parrot Skycontroller 2.

> A cross appears on your screen.

5. Move the right joystick from left to right, and the left joystick from top to bottom to adjust the eye spacing.
6. Use the Parrot Skycontroller's left joystick to zoom in and move the screen left or right.
7. When the image is clear and the lines of the cross are aligned, press the A button on the Parrot Skycontroller 2 to confirm the settings.

> The distance between the eyes is configured.

Updating your products

Use the FreeFlight Pro app to update the following products:
- Parrot Bebop Drone
- Parrot Bebop 2
- Parrot Disco
- Parrot Skycontroller 2

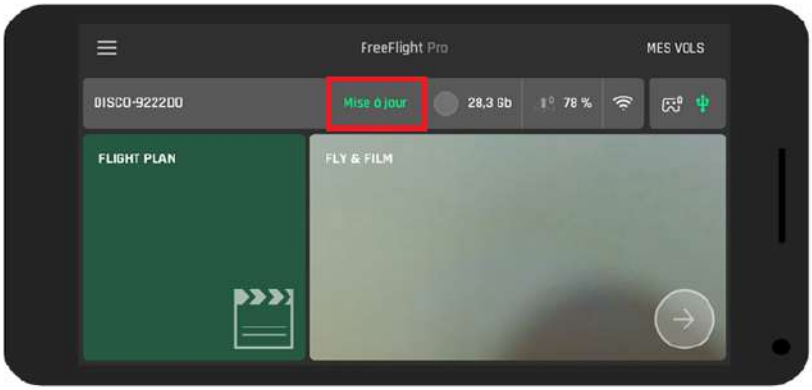
NB: you cannot update the Parrot Skycontroller 1 via the app. This controller only updates via USB. For more information, see the Update procedure for the Parrot Skycontroller 1 article.

Before updating your products, make sure that your smartphone is connected to the internet.

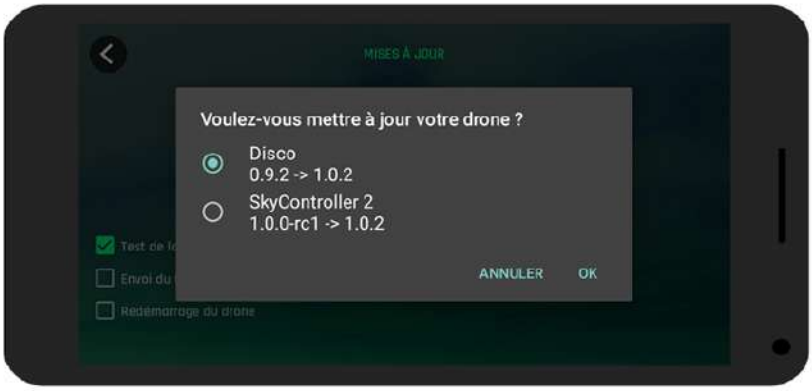
Updating your drone and your Parrot Skycontroller 2

NB: The FreeFlight Pro app must have been connected at least once to the drone to scan for updates.

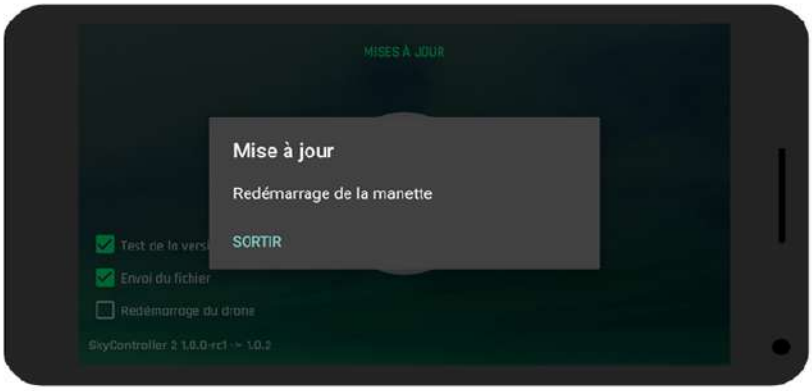
1. Connect your Parrot Skycontroller 2 to your drone.
2. Connect your smartphone to your Parrot Skycontroller 2 via USB.
> The FreeFlight Pro app starts automatically.
3. Make sure the FreeFlight Pro app has detected the drone and the Parrot Skycontroller 2.
4. In the FreeFlight Pro app, tap **Update**.



> The app searches for updates for the Parrot Skycontroller 2 and the drone.
5. If the app finds one or several update files, select the new version and tap **OK**.



> The app downloads the update file.
NB: you cannot select both updates at the same time.
A pop-up window appears informing you that the drone or the controller will restart.

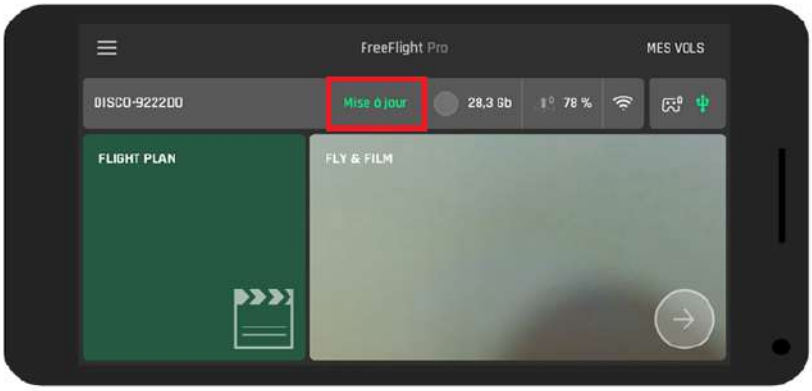


6. Tap **Exit**.
> The drone or the Parrot Skycontroller 2 automatically restarts during installation of the update. It may take several minutes.
Once the update is complete, the FreeFlight Pro app automatically restarts.
7. Once the update is complete, launch the update for the second product.

Updating your drone

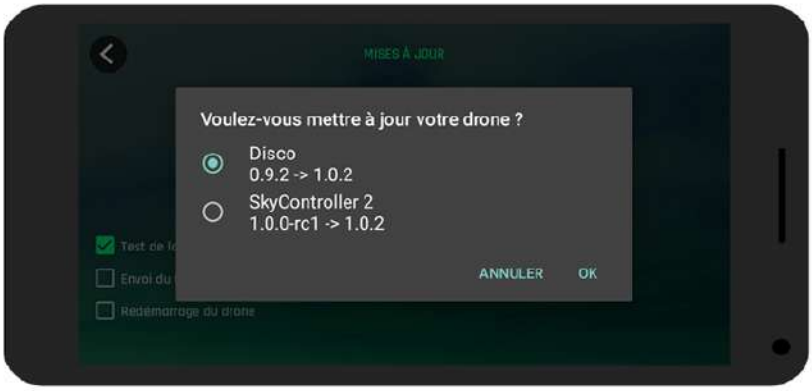
NB: The FreeFlight Pro app must have been connected at least once to the drone to scan for updates.
Use this update procedure for the Parrot Bebop Drone, the Parrot Bebop 2 and the Parrot Disco.

1. Connect your drone to your smartphone.
2. On your smartphone, open the FreeFlight Pro app.
3. Make sure the FreeFlight Pro app has detected the drone. For more information, go to the Connect a drone to a smartphone section.
4. In the FreeFlight Pro app, tap **Update**.

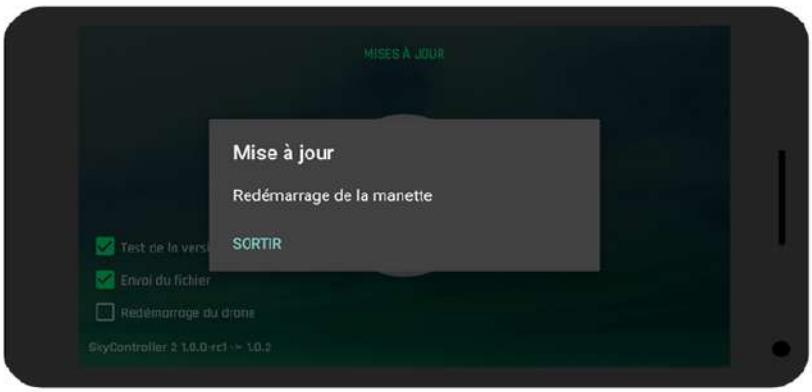


> The app searches for updates for the drone.

5. If the app finds an update file, select the new version of the firmware and tap OK.



6. The app downloads the update file.
7. A pop-up window appears informing you that the drone will restart.



8. Tap Exit.

> The drone automatically restarts during installation of the update. It may take several minutes.

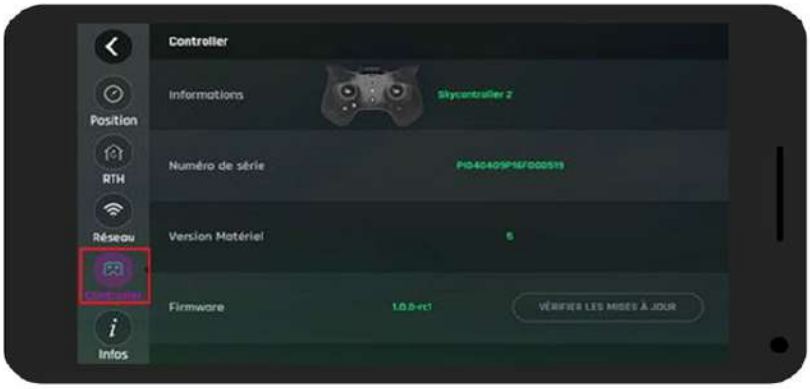
Once the update is complete, the FreeFlight Pro app automatically restarts.

Updating your Parrot Skycontroller 2

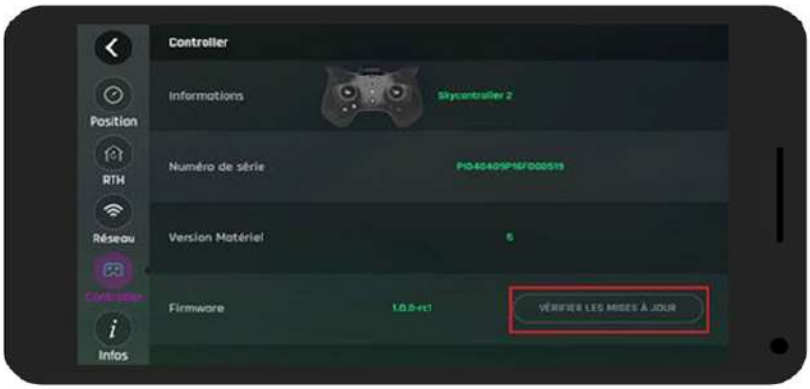
1. Connect your smartphone to the Parrot Skycontroller 2 with a micro-USB cable (for iOS, use the phone cable).
2. Turn on the Parrot Skycontroller 2.

> The FreeFlight Pro app starts automatically.

3. In the FreeFlight Pro app, go to **FLY & FILM**.
4. Go to Settings



5. Scroll down, tap
6. In the **Firmware** section, tap **Check for updates**.



> A pop-up window prompts you to install the update.

7. Tap **OK** to start the update.
8. Tap **OK** again to continue the update.

> The FreeFlight Pro app downloads the update and installs it automatically.

Customising the controls of the Parrot Skycontroller 1 and 2

Use the FreeFlight Pro app to customise the flight controls for the Parrot Skycontroller 1 and the Parrot Skycontroller 2.

1. Turn on the Parrot Skycontroller and connect it to your smartphone.
2. On your smartphone, open the FreeFlight Pro app.
3. In the FreeFlight Pro app, tap  in the upper right of the screen.

> The list of functions associated with the Parrot Skycontroller appears.

4. In the app, tap the function to be changed to select it.
5. On your Parrot Skycontroller, tap the button you want to assign the function to.

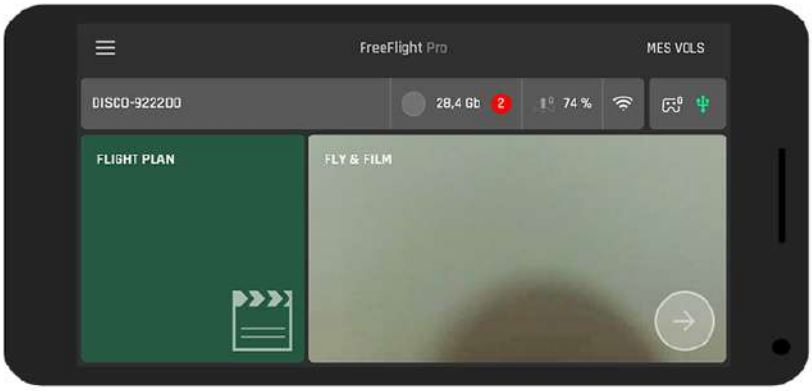
> The function is associated with the button.

To return to the default configuration, tap **Reset** in the upper right of your screen.

Viewing flights

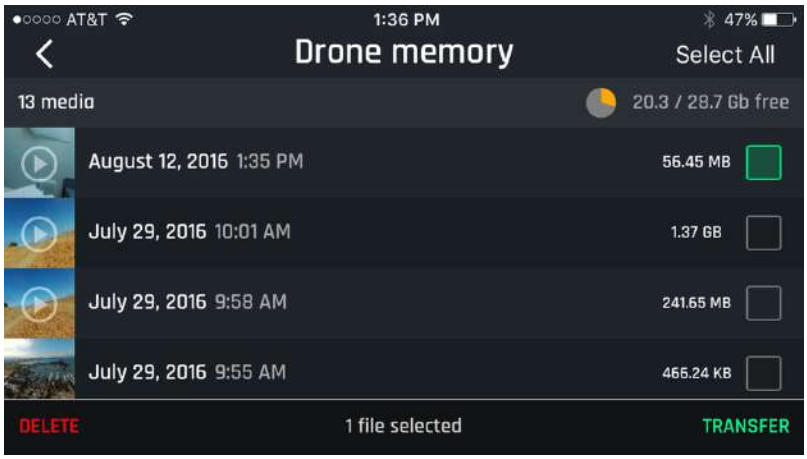
1. Open the FreeFlight Pro app.
2. Connect to your drone.

If flights are saved in the drone's memory, a red notification will appear next to the drone's memory: 2.



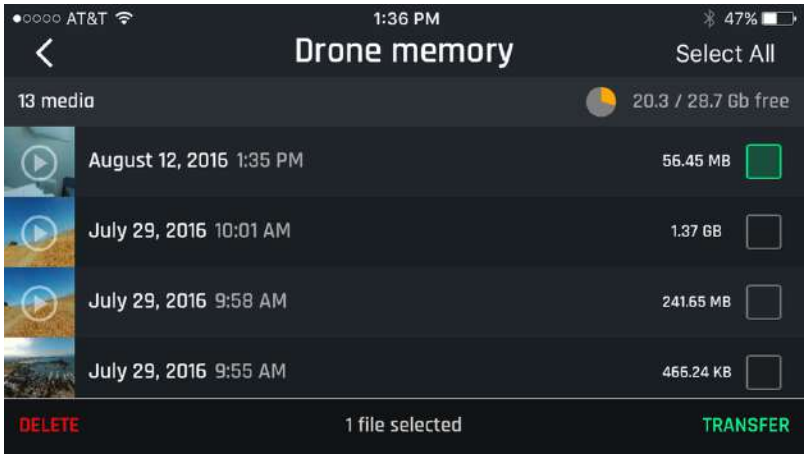
3. Tap the drone's memory to access your flights.

> The files stored in the drone's memory will appear.

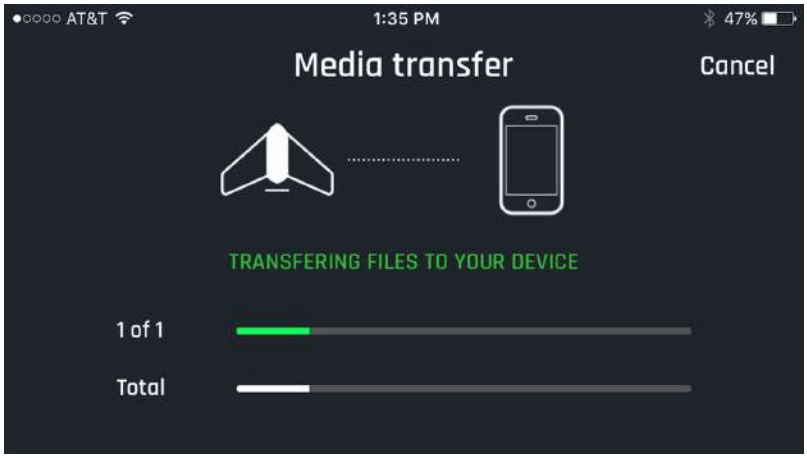


Transferring flights to a smartphone

1. Connect your drone to your smartphone.
2. Open the FreeFlight Pro application and go to the drone's memory.

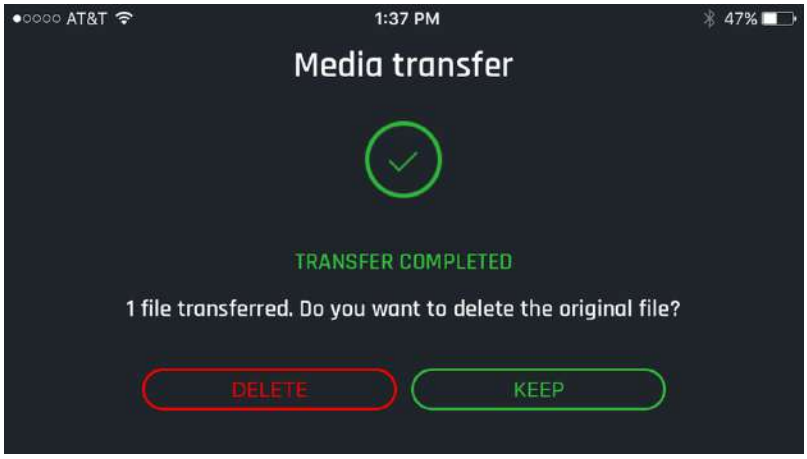


3. Select the files you want to transfer or delete.
4. Tap **Transfer** in the lower left of your screen.
> The transfer of files from the drone's memory to your smartphone launches.



NB: you can cancel the transfer during the operation. To do this, tap **Cancel**, in the upper right of the screen.

Once the transfer is complete, a window asks you if you want to keep or delete the files transferred to your smartphone from your drone's memory.
5. Select **DELETE** or **KEEP**.



NB: it is recommended that you transfer videos from your drone directly to your computer. For more information, see the Retrieving photos and videos article.

Follow Me GPS & Visual tracking

N.B. : Follow Me GPS & Visual tracking is compatible with the Parrot Bebop 2.

Before using the tracking modes, ensure that your smartphone has a working GPS.

To make the most out of using auto follow, your smartphone must have a barometer, especially for Climb Mode (altimetric tracking).

Follow Me GPS & Visual tracking is available to purchase directly within the FreeFlight Pro app. You have **15 days** for free to test the Follow Me GPS & Visual tracking option.

Before using the auto follow option, ensure that you are in an open space.

N.B.: if you use two smartphones with two different OSs, you must buy the option twice so that it works on both smartphones.

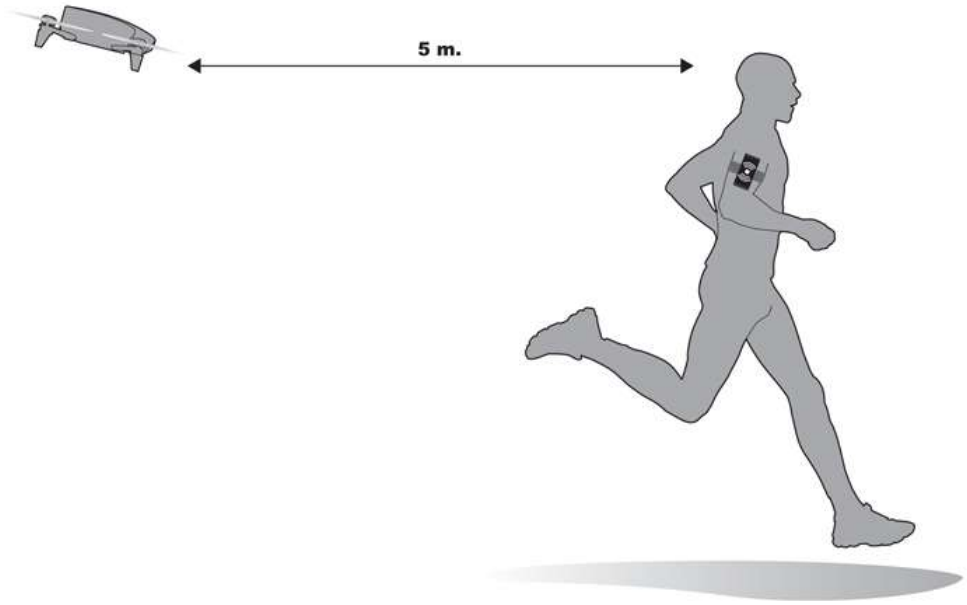
Auto follow and auto framing work thanks to a visual recognition algorithm on the smartphone. This algorithm is demanding in terms of hardware resources for the smartphone. It it therefore possible that these options may not be entirely functional on certain less powerful smartphones.

Auto Follow

In auto follow mode, your drone uses visual recognition coupled with GPS tracking technology and the barometer, which allows it to accurately adapt its position in real time to keep you in the frame.
N.B.: if your phone is not equipped with a barometer, the drone maintains its altitude during auto follow.

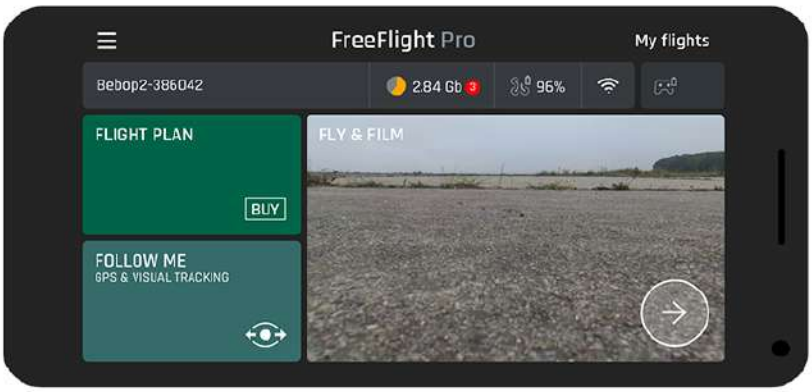
When you are in auto follow mode, you can use your smartphone to over-correct your drone. The drone will respond to the commands received (ascend, descend, move forward, etc.), while continuing to follow the subject.

N.B.: for safety reasons, the drone always maintains a distance of at least 5 metres from its subject.

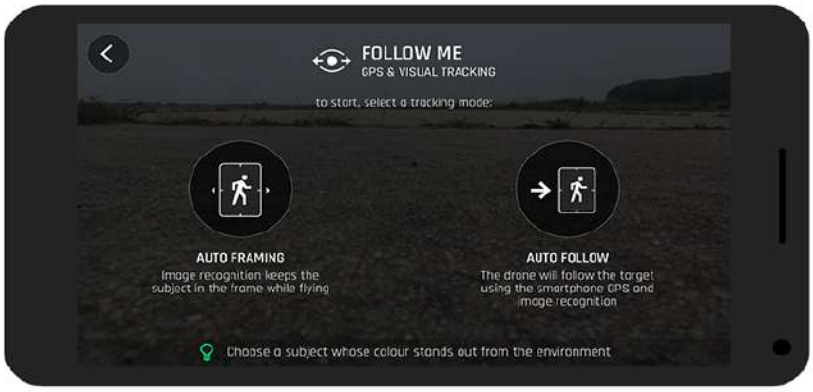


Switching to Auto Follow mode

1. With the help of the FreeFlight Pro app, connect to your drone.
2. Go into **FOLLOW ME GPS & VISUAL TRACKING**.

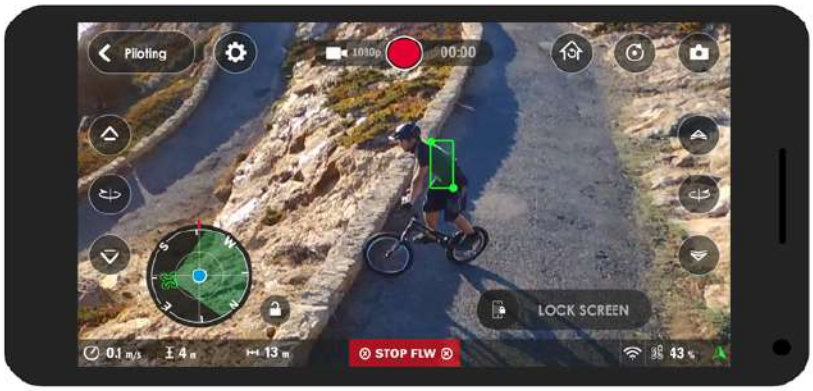


> The following screen is displayed:



3. Select AUTO FOLLOW  .
> The following screen is displayed:

4. Press GOT IT!
> The flight screen is displayed and a blue frame appears in the centre of your screen.
5. Make your drone take off.
> The drone takes off and stabilises at approximately 1 metre from the ground.
6. Stabilise the drone at the desired altitude.
7. Position the subject within the field of view of your drone's camera. **In auto follow mode, the subject must keep hold of the smartphone which is connected to the drone.**



8. Use the dots either side of the blue frame to adjust it around the subject to be followed, then press on GO. N.B: for quality auto following, close in the frame as much as possible around the subject.

> The frame turns green and the radar is displayed. The drone is in auto follow mode. It follows the selected subject and the GPS signal of the smartphone to which it is connected.

You can also launch auto follow from the flight screen. To do this press the (FOLLOW) icon 

in the top left of your screen then select AUTO FOLLOW.

Presentation of the flight screen

1	Back to manual piloting
2	Pre-programmed manoeuvres
3	Take a photo
4	Controls to over-correct the drone during auto follow mode
5	Direction of the drone in relation to its subject
6	Lock or unlock the viewing angle of the drone in relation to its subject
7	Stop auto follow and go back to manual piloting.
8	Subject to be followed N.B.: the green frame around the subject means that auto follow is confirmed
9	Lock the auto follow screen Use this option when you are putting your smartphone in your pocket during auto follow.

Meaning of the colours of the auto follow frame

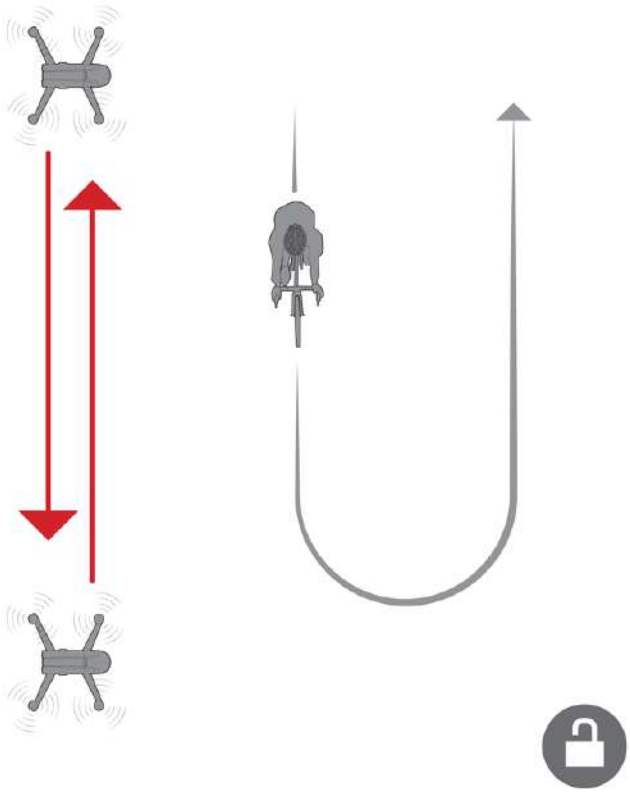
Blue	There is currently no auto follow. Select the subject to be followed.
Green	The subject to be followed is selected. The drone can use visual recognition to follow its subject.
Dotted green	The drone is looking for the subject. Once the subject is found, the frame turns green and the drone activates visual tracking. The drone continues to follow the smartphone's GPS, but no longer uses visual recognition.
Red	The drone has lost sight of its subject. The drone continues to follow the smartphone's GPS, but no longer uses visual recognition.

Default viewing angle and Perfect Side

The FreeFlight Pro app offers two viewing angles during auto follow: the default viewing angle and Perfect Side.

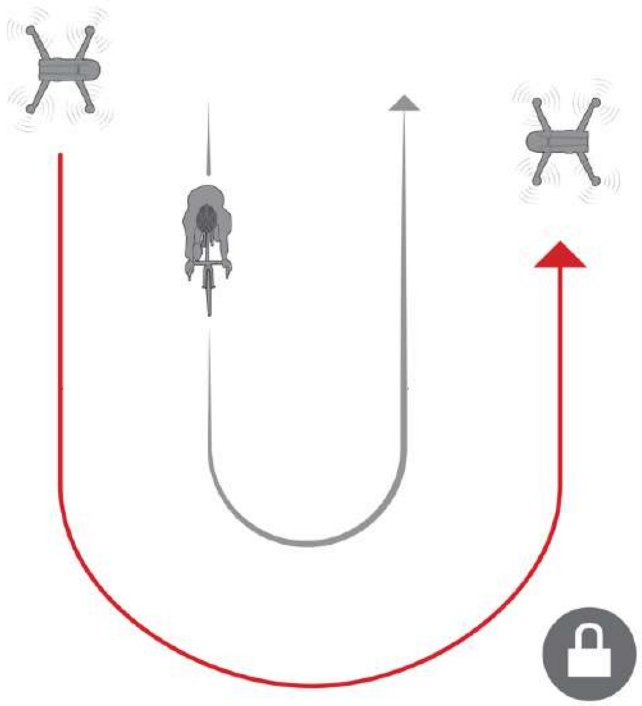
Default viewing angle

The drone follows its subject but does not change its course.



Perfect Side

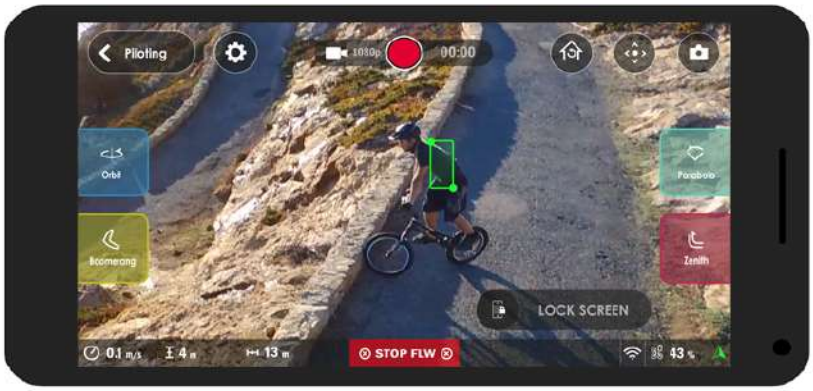
Lock the drone's orientation with the help of the lock icon located on the bottom left of your screen. Once the orientation of the drone is locked, the drone films and constantly follows the subject keeping the same viewing angle. The drone changes its course according to the subject's position.



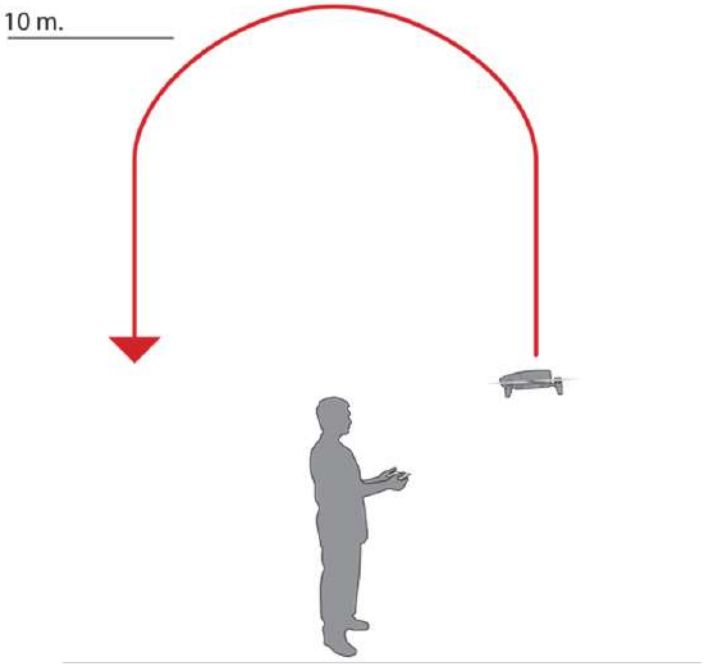
Magic Dronies

When you are in auto follow mode, you can carry out Magic Dronies (pre-programmed manoeuvres).

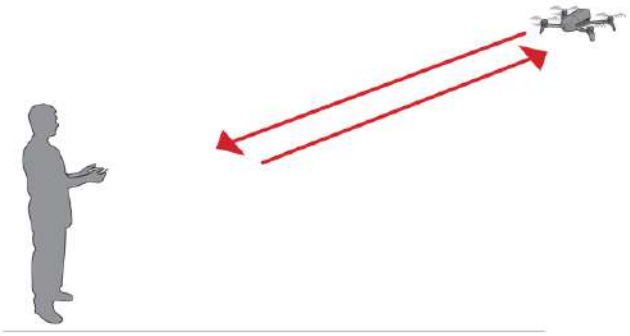
1. Press the icon when you are in auto follow mode.
> The Magic Dronies list appears:



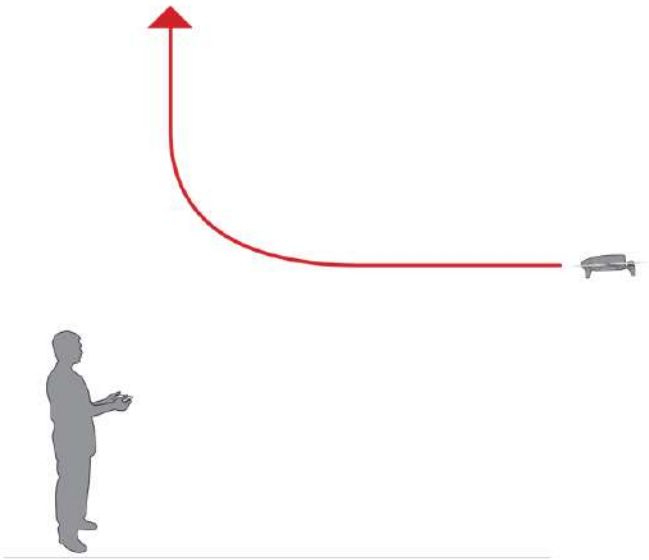
- Parabola: the drone flies over its subject.



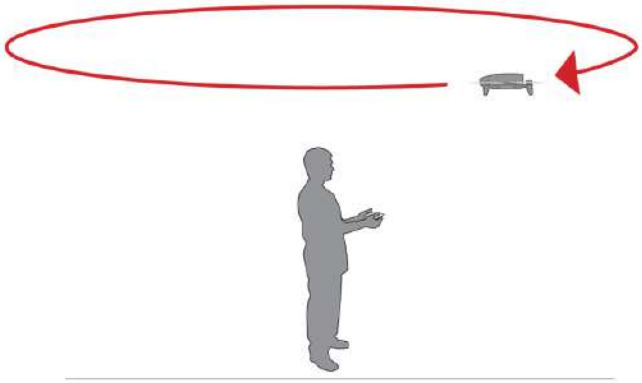
- Boomerang: the drone flies away from its target and then comes back.



- Zenith: the drone flies towards its subject, pulls up then makes the reverse journey.



- Orbit: the drone flies in a 360° circle around its target.



2. Press the manoeuvre that you want to undertake to carry it out.

N.B.: you can stop a manoeuvre at any time. To do this, press **STOP**.

Locking the screen

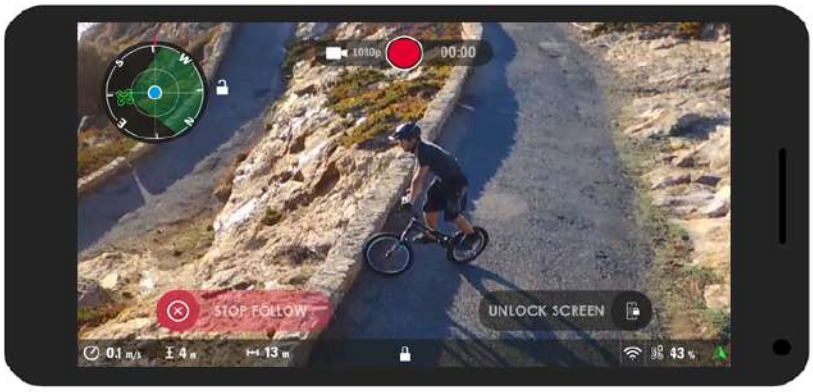
If you lock your smartphone manually the auto follow mode stops.

However, you can lock the screen of the auto follow mode directly from the FreeFlight Pro app. Use this option to put your smartphone in your pocket during auto follow.

To lock the screen, slide the (**LOCK SCREEN**) icon 

to the right.

The following screen is displayed:



To unlock the screen, slide the (**UNLOCK SCREEN**) icon 

to the left.
To unlock the screen and stop the auto follow mode, slide the **(STOP FOLLOW)** icon 

to the right.

Exiting auto follow mode

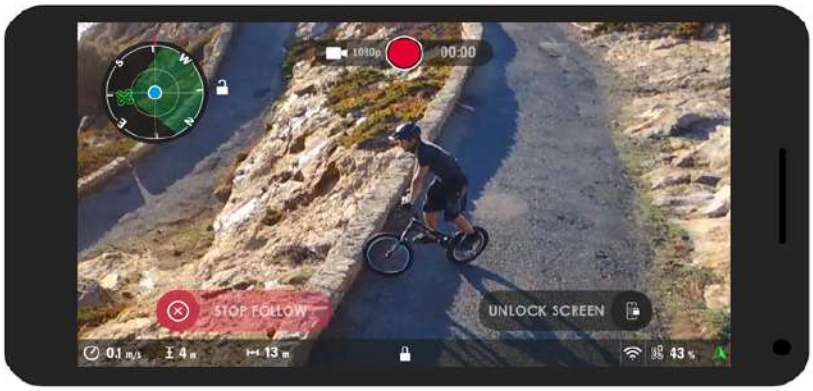
You can exit auto follow mode in several ways:

- Press 

. The drone goes back to manual piloting.
- Press 

(**Piloting**) in the top left of your screen. The app goes back to manual piloting.
- If you have locked the auto follow mode, unlock it by sliding the (**STOP FOLLOW**) 

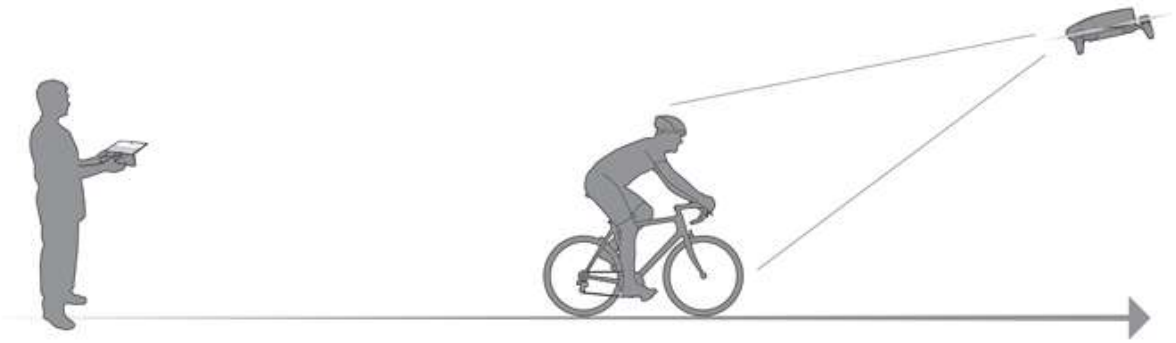
icon to the right.



The drone goes back to manual piloting.

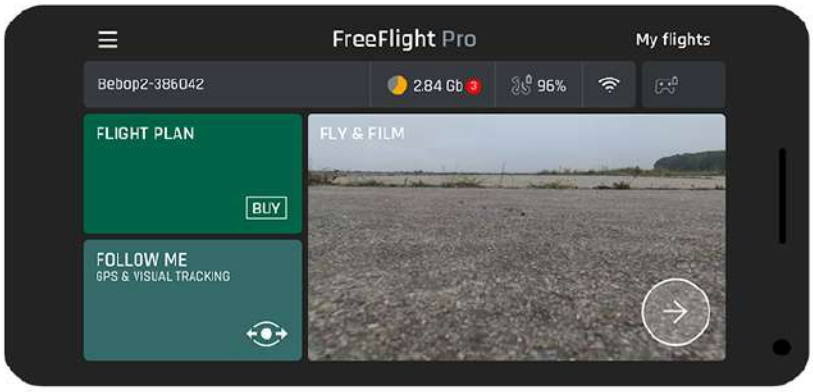
Auto Framing

In auto framing mode, the drone remains at a fixed point, but changes the direction of its camera continuously in order to film its subject. This mode uses visual recognition to keep your subject centred in the frame while you fly without requiring the GPS from your smartphone. **Therefore, a second person must be able to fly** the drone in order to follow the subject to be filmed.

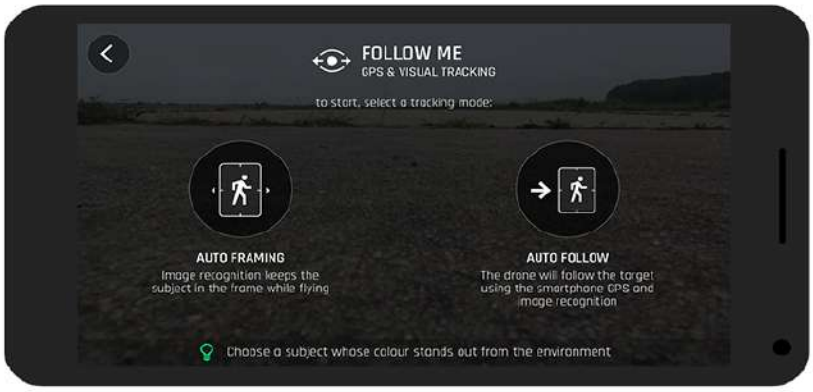


Switching to auto framing mode

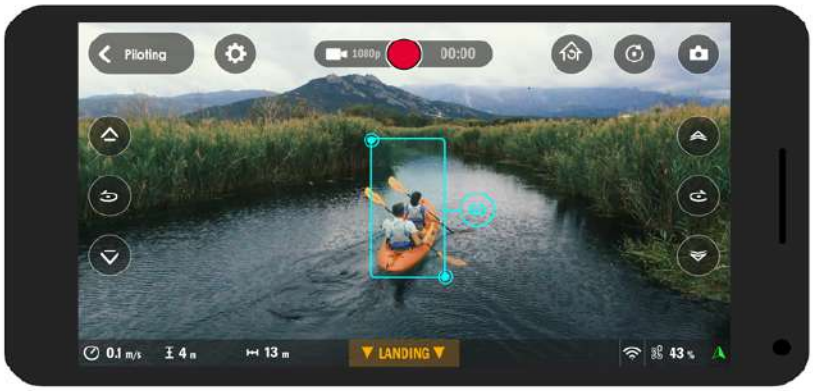
1. With the help of the FreeFlight Pro app, connect to your drone.
2. Go into **FOLLOW ME GPS & VISUAL TRACKING**.



> The following screen is displayed:



3. Select **AUTO FRAMING**  .
> The flight screen is displayed and a blue frame appears in the centre of your screen.
4. Make your drone take off.
> The drone takes off and stabilises at approximately 1 metre from the ground.
5. Stabilise the drone at the desired altitude.
6. Position the subject within the field of view of your drone's camera.



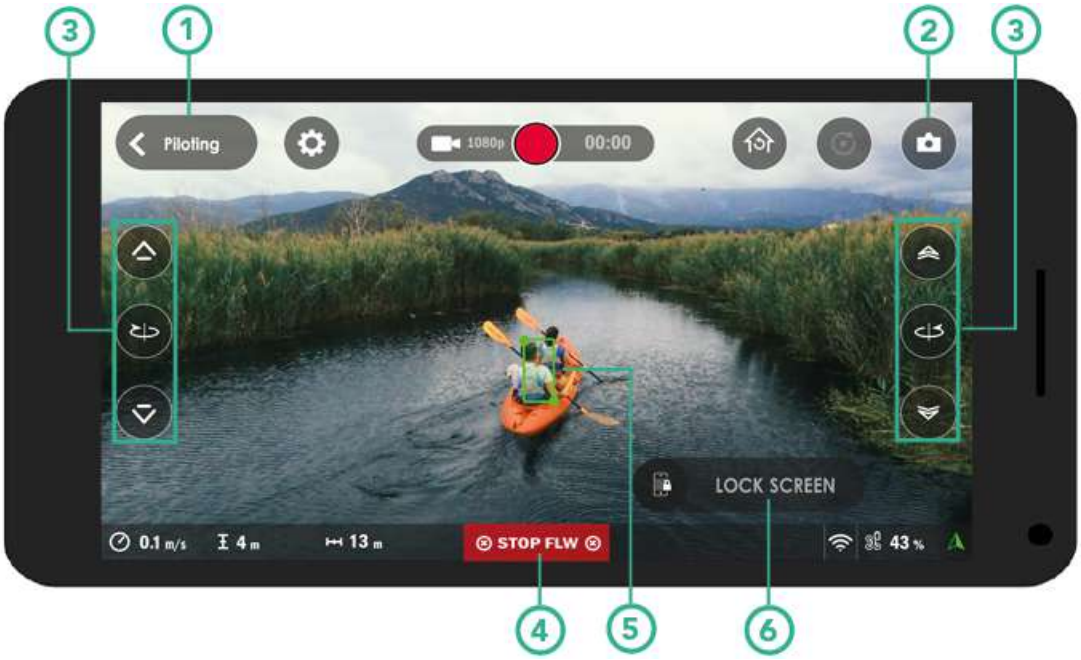
7. Use the dots either side of the blue frame to adjust it around the subject to be followed, then press on GO. N.B: for quality auto framing, close in the frame as much as possible around the subject.

> the frame turns green and the radar is displayed. The drone is in auto framing mode. It constantly films the selected subject.

You can also launch auto framing from the flight screen. To do this press the (FOLLOW) icon 

in the top left of your screen then select AUTO FRAMING.

Presentation of the flight screen



1	Back to manual piloting
2	Take a photo
3	Controls to over-correct the drone during auto framing mode
4	Stop auto framing and go back to manual piloting mode.
5	Subject to be filmed **N.B.**: the green frame around the subject means that auto framing is confirmed
6	Lock the auto framing screen.

Meaning of the colours of the auto framing frame

Blue	There is currently no auto framing. Select the subject to be filmed.
Green	The subject to be filmed is selected. The drone can use visual recognition to film its subject.
Dotted green	The drone is looking for the subject.
Red	The drone has lost sight of its subject. Select the subject to be filmed again.

Locking the screen

If you lock your smartphone manually the auto framing mode stops.

However, you can lock the screen of the auto framing mode directly from the FreeFlight Pro app. Use this option to put your smartphone in your pocket during auto framing.

To lock the screen, slide the (**LOCK SCREEN**) icon 

to the right.

The following screen is displayed:

To unlock the screen, slide the (**UNLOCK SCREEN**) icon 

to the left.

To unlock the screen and stop the auto follow mode, slide the **(STOP)** icon 

to the right.

Exiting auto framing mode

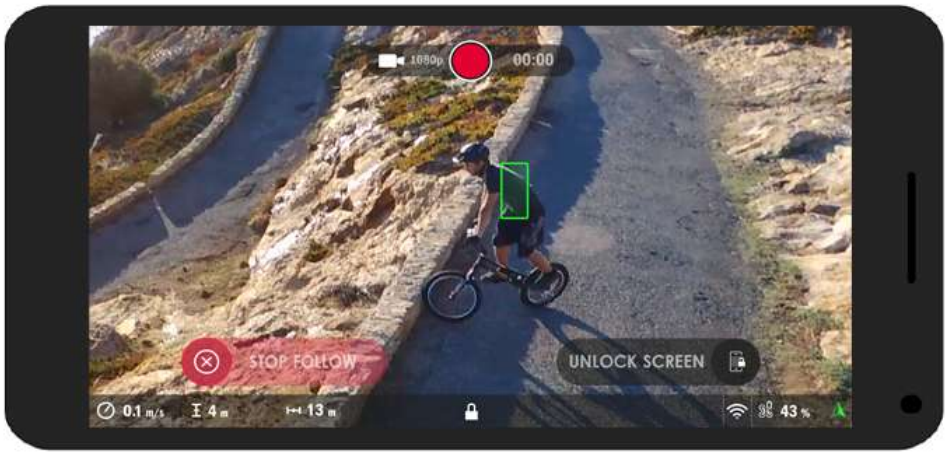
You can exit auto framing mode in several ways:

- Press 

. The drone goes back to manual piloting.
- Press 

(**Piloting**) in the top left of your screen. The app goes back to manual piloting.
- If you have locked the auto framing mode, unlock it by sliding the (**STOP**) 

icon to the right.



The drone goes back to manual piloting.

Flight Plan

Before getting started

Flight Plan is available for iOS® and Android™ smartphones.
Flight Plan is compatible with:
- The Parrot Bebop Drone, firmware version 2.0.57 and later.
- The Parrot Bebop 2
- The Parrot Disco

For the version of drone and FreeFlight Pro:
1. Connect the drone to your smartphone. For more information, see the Parrot Bebop Drone, Parrot Bebop 2, or Parrot Disco user guide.
2. Launch FreeFlight Pro.
3. Tap FLY & FILM, and then ⚙ (settings).
4. Select the Information screen.

To update your drone, see the Updating article on its support page on our website.

NB: if you use two smartphones running two different OSs, you must buy the option twice so that it works on both smartphones.

Install Flight Plan

Flight Plan is available in the App Store® or Google Play™ as a FreeFlight Pro in-app purchase.

You can download Flight Plan:
- When downloading FreeFlight Pro
- From FreeFlight Pro. To do this, launch FreeFlight Pro, then go to **Menu > Flight Plan**.

Pre-flight checks

Before flying your drone, you must check the following:

Regulations
- Check for any applicable limitations and prohibitions. Certain areas are no-fly zones (e.g.: military sites, nature reserves, cities, airports, etc.).
- If visual flight is required, make sure that your entire flight plan is in your visual field.
- Check for restrictions regarding the use of Wi-Fi frequencies in the place where you are going to fly.
- Check for restrictions regarding recording, keeping and using images.

- Local regulations may require certification or special authorisation for the pilot of the drone.

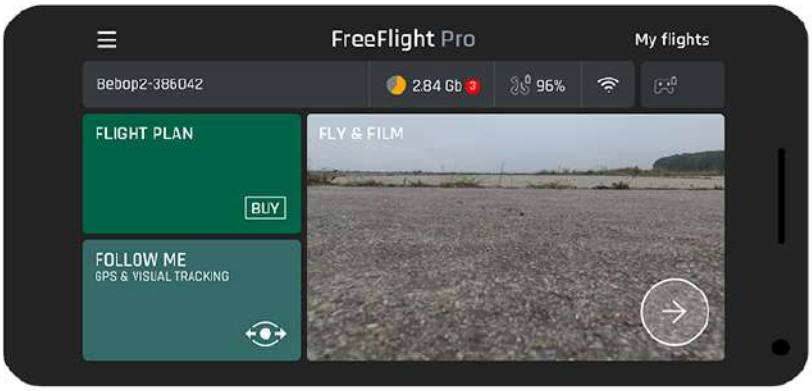
Checking flight conditions
- Do not fly the drone at night.
- Check weather conditions. Do not fly the drone in rain, fog or snow.
- Do not fly the drone if the wind speed exceeds 40 km/h.

Checking the condition of the drone
NB: For more information on the following procedures, see the user guide for the drone.
- Make sure the propellers are properly fitted and tightened.
- Make sure the battery is properly attached to the drone.
- Make sure the batteries of the drone and your smartphone are charged.
- Check the quality of the connection between the drone and your smartphone.
- Calibrate the drone. For more information, see the drone's user guide.

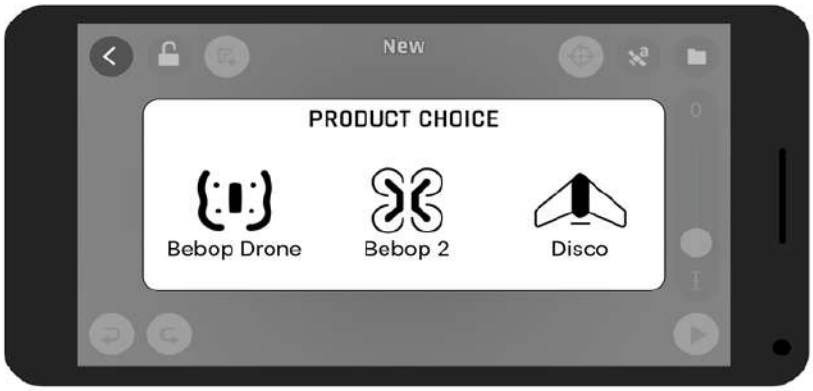
Accessing Flight Plan

To open and use Flight Plan, you must be connected to the internet.

1. Launch FreeFlight Pro.
2. Tap **FLIGHT PLAN**.



> The following screen appears.



3. Select the drone that you want to create a flight plan for (Parrot Bebop Drone, Parrot Bebop 2 or Parrot Disco).

> The map appears.

NB: To open Flight Plan, you can also go to **FreeFlight Pro** > ☰ > **Flight Plan**.

Presentation of Flight Plan

An internet connection is required to display the map.

NB: If the total duration of your flight plan exceeds the battery life of the drone, the drone will automatically land before its completion.

The approximate duration of your flight plan is shown at the top of the flight plan scenario screen.
The battery life of the drone is approximately:

- Parrot Bebop Drone: 11 minutes
- Parrot Bebop 2: 25 minutes
- Parrot Disco: 45 minutes

Main screen

No.	Description	No.	Description
1	Go back to the previous screen	8	Open the flight plan directory
2	Lock/Unlock flight plan editing	9	Compass
3	Add events (take a picture, landing, etc.)	10	Undo the last action
4	Name of the flight plan being created	11	Redo the last undone action
5	Drone model used	12	Change the speed of a connection
6	Centre the map on your GPS position	13	Start the current flight plan
7	Change the map mode	14	Edit the altitude of a waypoint

Changing the map mode

To change the map mode, tap the button in the upper right of your screen. A dropdown list appears.
The following modes are available:

	Satellite	The satellite image of the area appears.
	Map	The map of the area appears.
	Hybrid	The satellite image of the area appears with place names.

Creating a flight plan

An internet connection is required to display the map. If your flight plan is in an area without internet access, define and save your flight plan beforehand. To save the map's data, do not clear the cache on your smartphone.

NB: Ensure your entire route is in an unobstructed area.

- To zoom in and out, pinch the display with two fingers.
- To move the map, drag a finger across the screen.
- To display a 3D view of the flight plan, drag two fingers up the screen. The buttons disappear. To display them again, drag two fingers down to straighten the map.

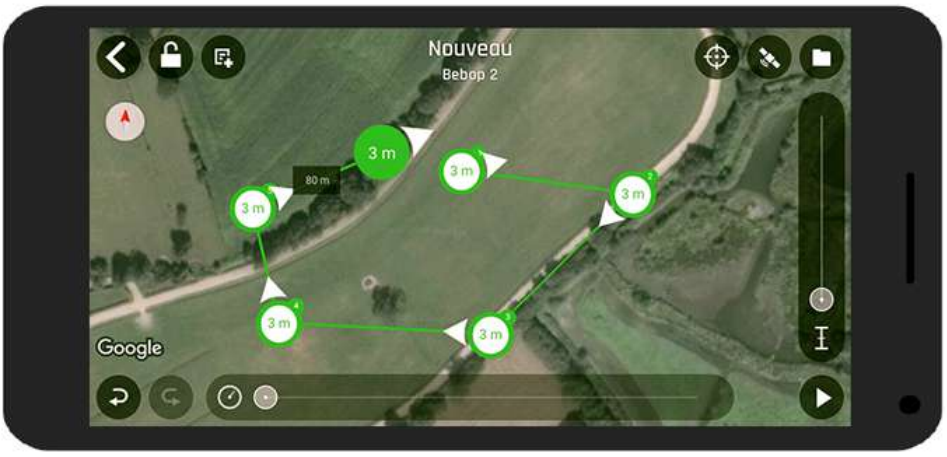
To centre the map on your location, tap .

A flight plan consists of several waypoints. To create a flight plan, you must determine several waypoints for your drone.

1. Tap on the map.
➢A waypoint appears on the map.

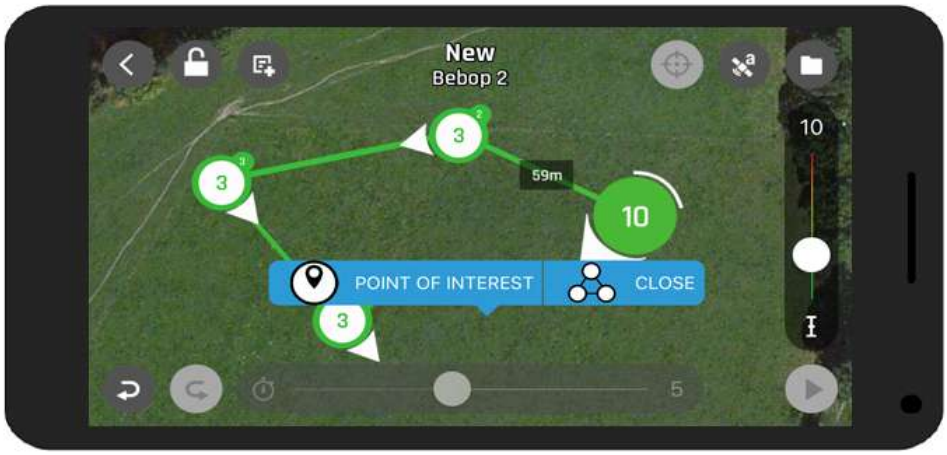
- The number in the centre of the waypoint represents the drone's altitude.
- The white arrow represents the orientation of the drone's camera.

2. Tap the screen again to create other waypoints.



- The order of waypoints appears in small numbers on each waypoint.
- A line is automatically created between each waypoint.

3. Once you've finished your flight plan, tap and hold the last waypoint.



> A pop-up menu appears.
4. Select **CLOSE**.
> Your flight plan is created.

- To undo the last action, tap .
- To reopen the flight plan, tap and hold **OPEN**.

NB: For smooth video quality, keep a distance of at least 5 minutes between each waypoint.

Changing the drone's settings

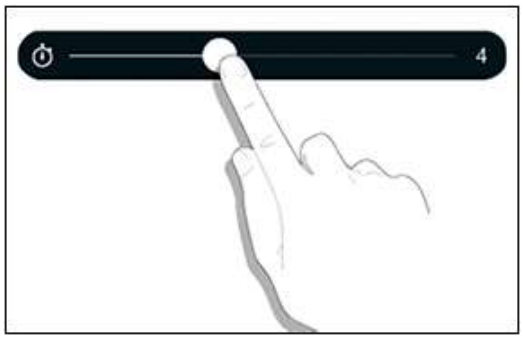
Changing the speed of the drone

You can assign one speed per connecting line (in meters per second). This speed will remain constant for the entire connecting line.

NB: For smooth video quality, a lower speed is preferable if there are significant changes in direction.

Changing the speed with the horizontal slider

1. Tap the connecting line.
> The speed appears.
2. Drag the slider left or right to decrease or increase the speed.



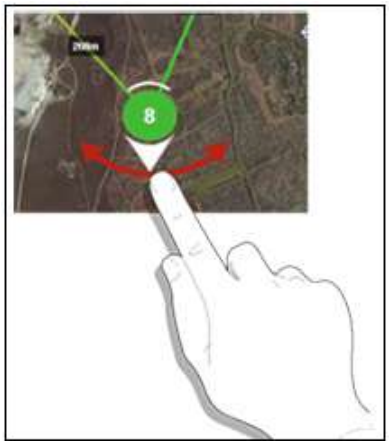
Changing the speed with the context menu

The context menu allows you to control the speed of the drone with precision.

1. Tap and hold the connecting line.
> A pop-up menu appears.
2. Tap **EDIT**.
> A pop-up window appears.
3. Enter the new speed value.
4. Tap **OK**.
> The speed is changed.

Changing the direction of the drone's camera

By default, the drone directs its camera along the axis of the connecting line.
Tap the tip of the waypoint's arrow and rotate it in the desired direction.
> Once it reaches the waypoint, the drone will turn its camera in this direction. It will keep this direction until it reaches the next waypoint.



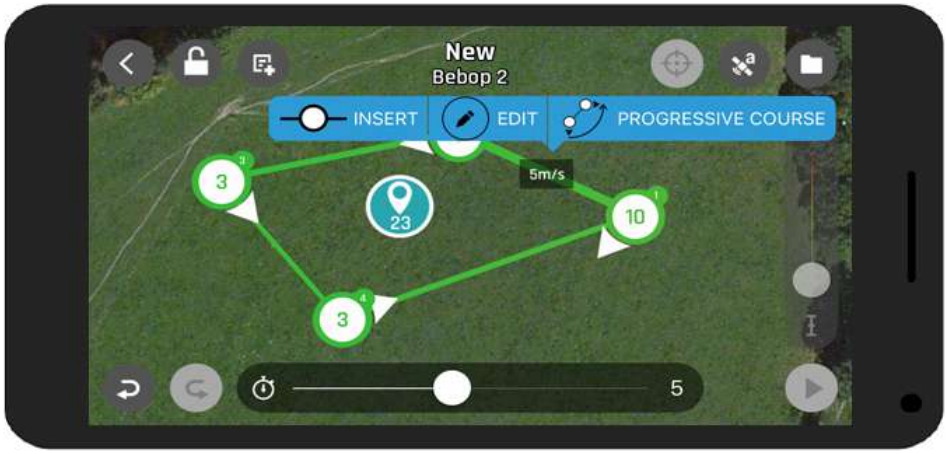
Managing waypoints

Moving a waypoint

Select the waypoint and then drag it to the desired location.

Inserting a waypoint on a connecting line

1. Tap and hold the connecting line at the point where you want to insert the waypoint.
> A list of options appears.



2. Tap **INSERT**.
> A waypoint appears on the connecting line.

The altitude of the inserted point will be the average of the other two points.

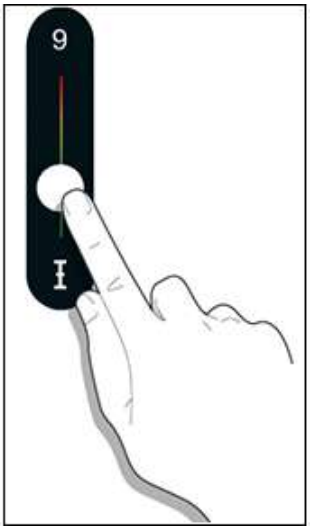
Changing the altitude of a waypoint

The altitude is shown in the middle of the waypoint (in meters). The default altitude of a waypoint is 3 metres above the ground. The maximum altitude of a waypoint is 150 meters.

NB: The higher the waypoint is, the redder it becomes. The lower the waypoint is, the greener it becomes.

With the vertical slider

1. Tap the waypoint.
2. Drag the slider on the right of your screen up or down to increase or decrease the altitude.

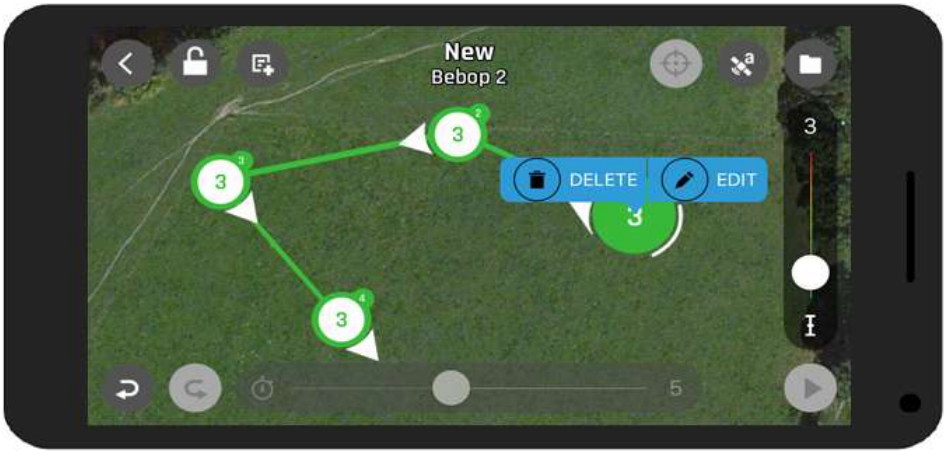


With the context menu

The context menu allows you to control the altitude of the waypoint with precision.

1. Tap and hold the waypoint.

> A pop-up menu appears.

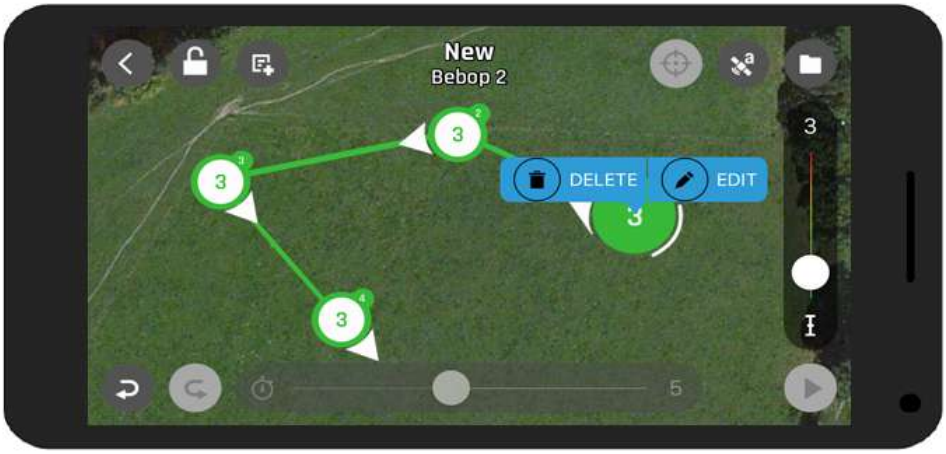


2. Tap **EDIT**.

3. Enter the desired altitude for the waypoint.
4. Tap **OK**.

Deleting a waypoint

1. Tap and hold the waypoint.



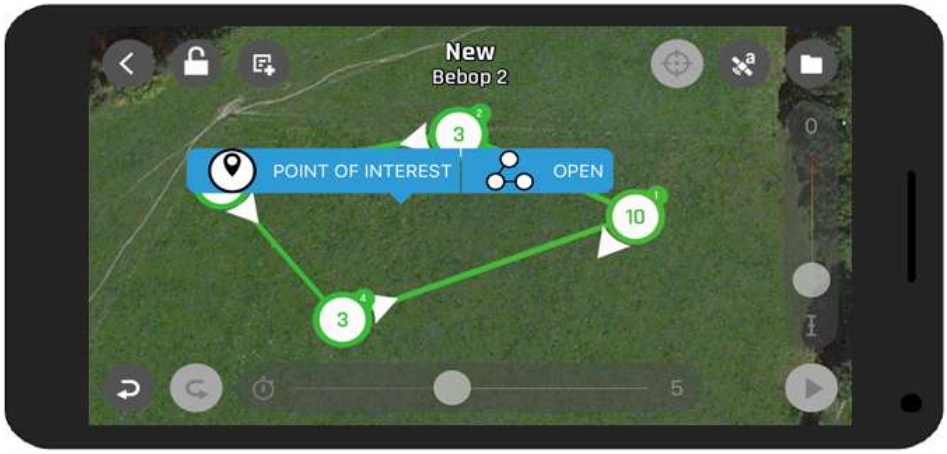
2. Tap **DELETE**.

Point of interest

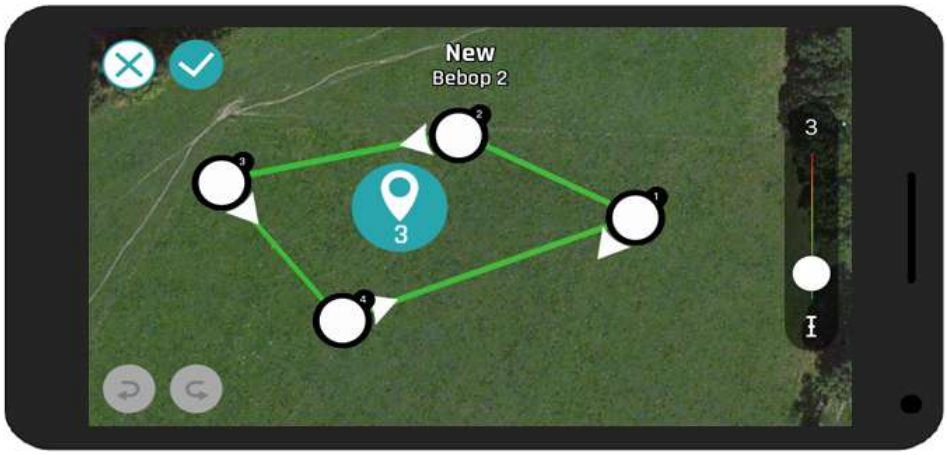
This option allows the drone to carry out its flight plan while filming a precise point. For this, you must create one or more points of interests (POI) and associate them with one or more segments of your flight plan.

Creating a POI

Define one or more POIs when creating your flight plan.
1. Tap and hold the map to bring up a list of options.



2. Select **Point of interest**.
> The POI appears on your flight plan.



3. Tap ✔ to lock the POI.
4. Tap the POI to select it.
5. Select the segment (line between two waypoints) on the flight plan that you want to assign it to. This makes it possible to orient the drone's camera towards this POI on the segment.

NB: you cannot associate two consecutive flight segments to two different POIs. However, you can change the orientation of the last waypoint associated with the POI.

6. Tap ✔.
> Arrows in the colour of the POI appear on the segment. They indicate the orientation of the drone's camera on the segment.

NB: You can create as many POIs as needed for the flight plan.

Changing a POI

To change a POI, you must be in edit or unlock mode .

You can:

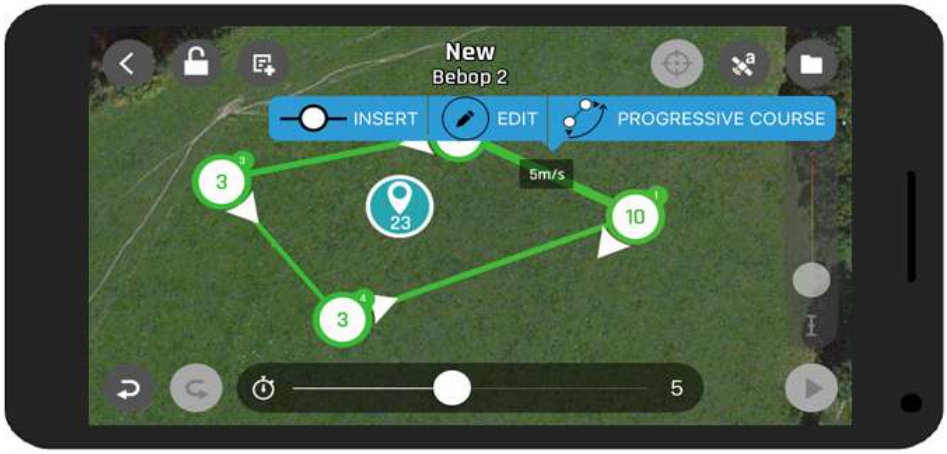
- Move the POI on your flight plan. To do this, press the POI you want to move and reposition it on your flight plan.
- Change the altitude of the POI. To do this, select your POI, change its altitude on the right of your screen and tap .

Progressive course

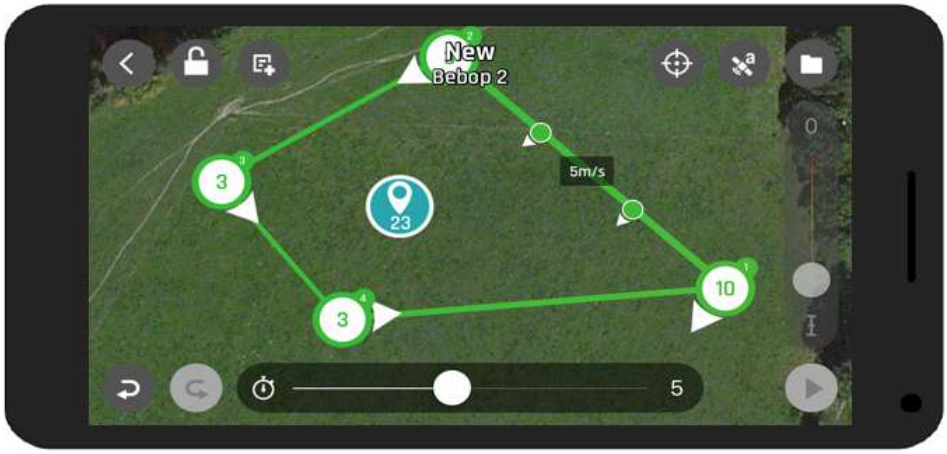
The progressive course allows the drone to move more smoothly towards the next waypoint.

Defining a progressive course:

1. Tap and hold the flight segment concerned. Here the selected segment is on the right of the screen.
> A list of options appears.



2. Select **Progressive course**.
> The progressive course is defined. Arrows show the progressive orientation of the drone's course between the two waypoints.



Green arrows indicate the direction of the drone during the progressive course

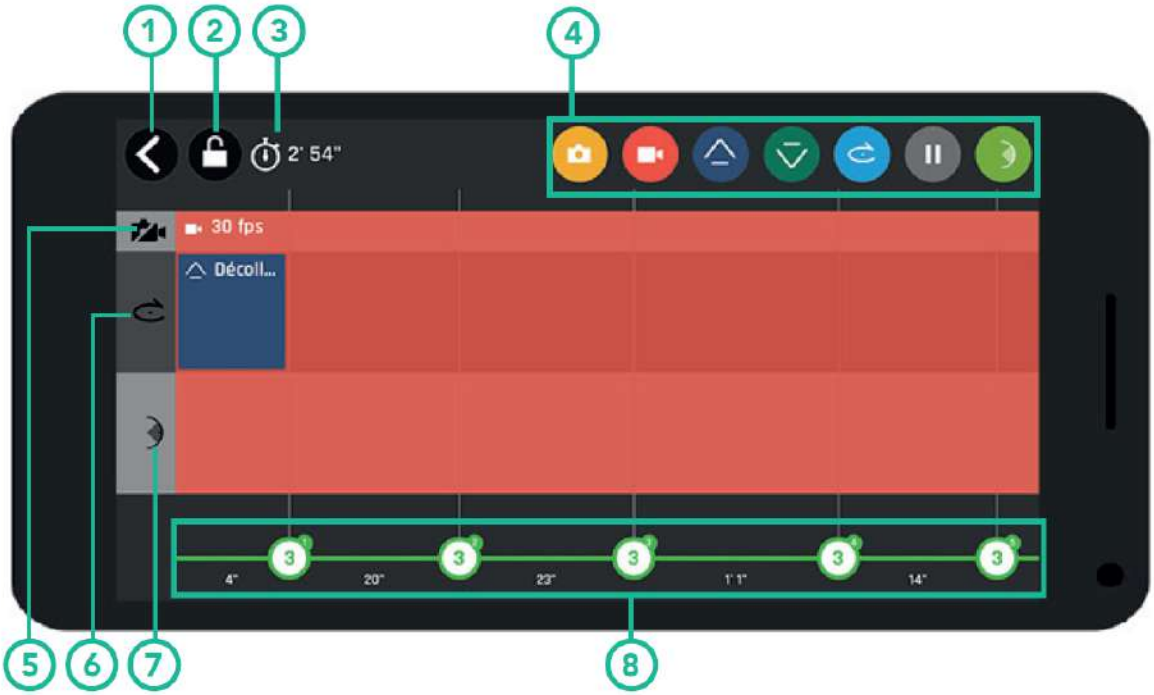
Managing events

You can add occasional actions (events) in the flight plan.

To do this, tap in the upper left of your screen.

> The current flight plan's scenario mode is displayed.

Presentation of the timeline



No.	Description
1	Previous screen
2	Lock/Unlock the flight plan's events
3	Estimated time of the flight plan
4	Types of events. For more information on the various events, go to the Add/Delete an event section.
5	Actions of the drone during the flight plan (photo, video or burst)
6	Drone manoeuvres during the flight plan
7	Drone orientation
8	Timeline of waypoints and connections

To zoom in and out on the timeline, pinch the display with two fingers.

NB: The timeline allows you to know the length of each connecting line in the flight plan (in seconds). This time is shown under each connecting line.

Presentation of events

Icon	Description	Comments
	Video recording	**Filming the flight plan.** At the launch of a flight plan, video mode is enabled by default.
	Photos	**Taking photos during the flight plan.** You cannot take a video and photos simultaneously.
	Pause	**Pause recording during the flight.** This event can only be programmed on a waypoint.
	Take off	**Taking off.** This event is present by default in each flight plan.
	Landing	**Landing.** You can program a Landing event at any time during the flight plan. To make the drone take off again, program a Take off event. A Landing an event is programmed by default at the end of each flight plan. If you delete this event, the drone will hover at the height of the last waypoint.
	Panorama	**Make the drone turn around towards the left or right.** This event can only be programmed on a waypoint.
	Orientation	**Adjust the angle of the drone's camera.** This event can only be programmed on a waypoint. The drone's camera retains the orientation angle throughout the flight plan. To straighten the camera, program an Orientation event again at the desired angle.

Adding/Deleting an event

You can schedule an event on a connecting line or a waypoint.
You can program multiple events simultaneously.

To add an event, select the icon for the event and drag it to the timeline.
The event appears on the timeline.

To remove an event, drag it off the timeline.
The event disappears from the timeline.

Event settings

You can change the settings for:
- photos,
- pause,
- panorama,
- camera direction.

To edit an event's settings, tap the event in the timeline.
> A dialog box appears.
You can set the settings needed.

Photos

Select the image format:
- RAW/DNG (wide angle high resolution photos),
- JPEG,
- JPEG 180° (wide angle photo),
- Snapshot (screenshot).

By default, the DNG format is enabled.
Tap the interval value to change it (in seconds).
The default interval is 10 seconds.

Format	Minimum interval
RAW/DNG	8 seconds
JPEG	6.2 seconds
JPEG 180°	6.2 seconds
Snapshot	1 second

Pause

Tap the pause value to change its length (in seconds).
The default length is 10 seconds. The maximum length is 600 seconds.
You can program several consecutive Pause events.

Panorama

Tap the value of the angle to change it (in degrees). To make the drone rotate to the right, enter a negative value.
The default angle of rotation is 360°. The rotation angle value can be between -3600° (10 rotations to the right) and 3600° (10 rotations to the left).

Press the rotation speed value to change it (in degrees per second).
The default rotation speed is 30° per second. The minimum rotation speed is 5° per second. The maximum rotation speed is 180° per second.

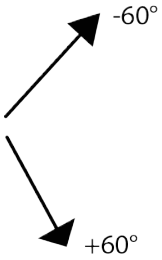
NB: For smooth video quality, a low rotation speed is preferable.

Orientation

Tap the camera angle value to change it (in degrees).

Parrot Bebop Drone

The default orientation angle is zero. The minimum angle is -60°. The maximum angle is 60°.



Press the camera orientation speed value to change it (in degrees per second).
The default orientation speed is 30° per second. The minimum orientation speed is 5° per second. The maximum orientation speed is 180° per second.

Parrot Bebop 2

By default, the angle of rotation is 33°. The zero orientation angle corresponds to the horizon and not the centre of the camera.
The maximum angle of upward orientation is -17°.
The maximum angle of downward orientation is 83°.

Changing the default settings

1. Tap the event icon.
> A dialog box appears.
2. Enter the default values you want to assign to the event.

Managing flight plans

Opening a flight plan

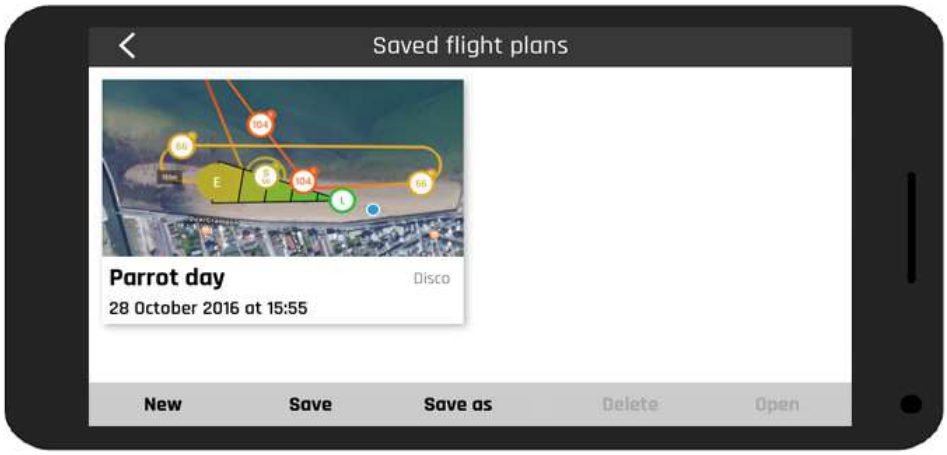
Opening a new flight plan

Open Flight Plan.
> The map appears.

If you are using Flight Plan for the first time, directly create your new flight plan.
If you have already used Flight Plan, the last flight plan you used appears.

To open a new flight plan, press the icon in the upper right of your screen.

The Flight plan menu appears.
Tap **NEW**, in the lower left of the screen, to create a new flight plan.



Opening a saved flight plan

1. Open Flight Plan.
2. Tap the icon in the upper right of your screen.

> A list of saved plans appears.

3. Tap the plan that you want to use.
4. Tap OPEN.
5. The plan opens in protected mode, represented by the icon in the upper left of your screen.
6. To change it, tap the icon.

> The icon changes to: . You can change your flight plan.

Saving a flight plan

To save changes to a previously saved flight plan, go to  and tap **Save**.
To save a new flight plan:

1. Tap the  icon in the upper right of your screen.
2. Tap **Save as**.
> A dialog box appears.
3. Name your flight plan.
4. Tap **Save**.

Your new flight plan is saved.

Deleting a flight plan

1. Tap the  icon in the upper right of your screen.
2. Tap the flight plan that you want to delete.
3. Tap **Delete**.
> A dialog box appears.
4. Tap **OK** to confirm the deletion, or Cancel.

Launching a flight plan

NB: Before starting a flight plan, make sure there are no obstacles in the flight plan's route.

The flight parameters defined in FreeFlight Pro (speed, distances, default modes) do not apply in Flight Plan.

1. Connect the drone to FreeFlight Pro.
2. Wait until the drone's GPS icon at the bottom of the screen turns green. This means that the GPS is connected.
3. In the FreeFlight Pro app, go to Flight Plan and tap the  icon in the upper right of your screen.
> Your flight plans appear.
4. Select the flight plan that you want to start. You can launch:
- a saved flight plan. For more information, see Managing flight plans > Opening a flight plan,
- a flight plan under construction.

4. Tap the  icon in the lower left of your screen.

- Parrot Bebop Drone and Parrot Bebop 2: If the drone is already flying, it goes towards the first waypoint. If the drone is on the ground, it automatically takes off and goes towards the first waypoint.

- Parrot Disco: If the drone is already flying, it goes towards the first waypoint. If not, make the Parrot Disco take off. Once in the air, the Parrot Disco starts the flight plan.

NB: If the Wi-Fi connection between the drone and your smartphone is lost, the drone continues its route. If the GPS signal of the drone is lost, the drone switches to stationary mode until it receives a valid GPS signal.

Display modes

When the drone follows the flight plan, on your smartphone you can view:
- flight plan display: the drone icon follows its evolution on the flight plan,
- camera display: the camera feed of the drone is displayed.

To change the display mode, tap the minimized window of the return video feed or flight plan.

NB: In case of an alert, when the flight plan is displayed, a red box appears around the minimized window of the return video feed. Tap the minimized window to enter the flying interface and display the alert box.

Interrupting the flight plan

To pause the drone, tap ⏸. To resume the flight plan, tap ▶. The drone will go towards the next waypoint in the flight plan.

To stop the current flight plan, tap ■. To restart the flight plan, tap ▶. The drone will go towards the first waypoint in the flight plan and then resume the route.

Regaining control of the drone

At any time during the flight plan, you can regain control of the drone, activate the emergency stop, make it return home, or make it land.

If you use a Parrot Skycontroller:

Directly use the joysticks or the navigation buttons of the Parrot Skycontroller to regain control of the drone.

If you do not use a Parrot Skycontroller:
1. Display the return video feed from the camera of the drone.
> The flying screen appears.
2. Use the screen's controls to fly the drone.
> The flight plan will pause.

To resume the flight plan:
1. Tap on the flight plan's minimized window.
2. Tap ▶.
> The drone goes towards the next waypoint in the flight plan.