

# Parrot® minidrones

## Hydrofoil Drone



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User Guide

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## General Information

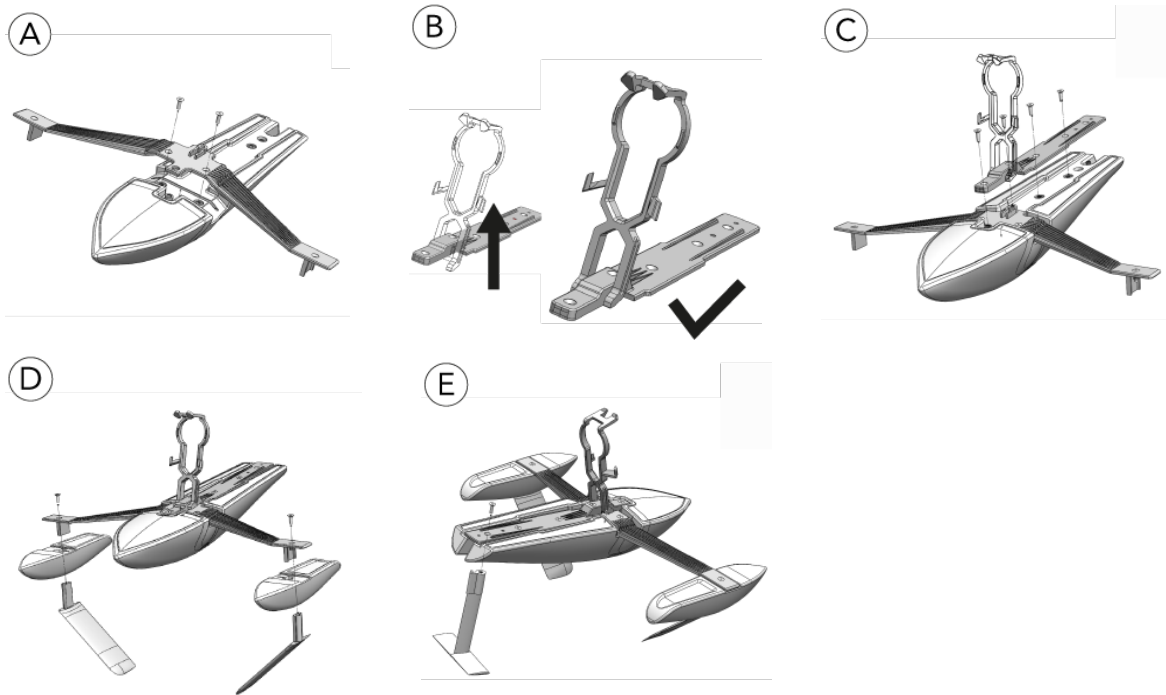
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# Before getting started

## Assembling the Hydrofoil

A T10 screwdriver (supplied) is needed to assemble the Hydrofoil. Do not over-tighten the screws.



1. Remove the elastic band from the hull.
2. Screw the arm onto the hull with 2 screws (diagram A).
3. Insert the MiniDrone support into the slot on the central spindle (diagram B).
4. Screw the central spindle onto the hull with 4 screws (diagram C).
5. Insert the two lateral floats into the ends of the arm.
6. Insert then screw the two lateral fins into the floats with 2 screws (diagram D).
7. Insert then screw the tail fin into the slot located at the rear of the hull with 1 screw (diagram E).

In order to avoid any risk of the Hydrofoil losing its shape, keep it on its original support.



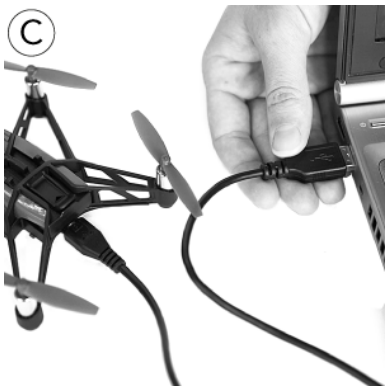
## Charging the battery

1. Insert the battery into the compartment provided (photos A and B). The small triangle on the battery indicates which side should be on top. The direction the triangle is pointing in shows which way the battery should be inserted.



2. Plug in the MiniDrone (photos C and D):

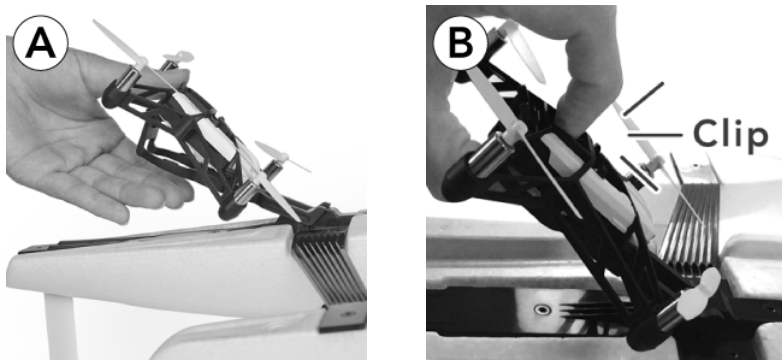
- When using a charger with a minimum power rating of 2.4 A, charging time is approximately 25 minutes.
- When charging through a computer using the USB cable, charging time is approximately 1 hour and 30 minutes.



To remove the battery, lift the flap located underneath the battery and slide it to the rear.

## Setting up the MiniDrone on the Hydrofoil

Before setting up the MiniDrone, assemble the Hydrofoil and check the battery has been installed correctly.



1. Insert the front of the MiniDrone in its support, the head facing the front of the Hydrofoil. Ensure that the two front lugs on the support are inserted into the front arms of the MiniDrone (photo A).
2. Fasten the clip on the rear of the MiniDrone (photo B).

## Switching on the MiniDrone

Insert the battery into the slot or press the On/Off button underneath the MiniDrone.

Then place your MiniDrone on a flat surface so it can complete its initialisation phase.

The eyes of the MiniDrone will turn red, amber, and then green.



## Compatibility

You need a smartphone or tablet that supports *Bluetooth*® 4.0 to use the MiniDrone.




For more information, go to the [Compatibility](#) page on our website.

## Downloading the app

Log into the App Store™ or Google Play™ and download the free FreeFlight3 app.

## Connecting a smartphone

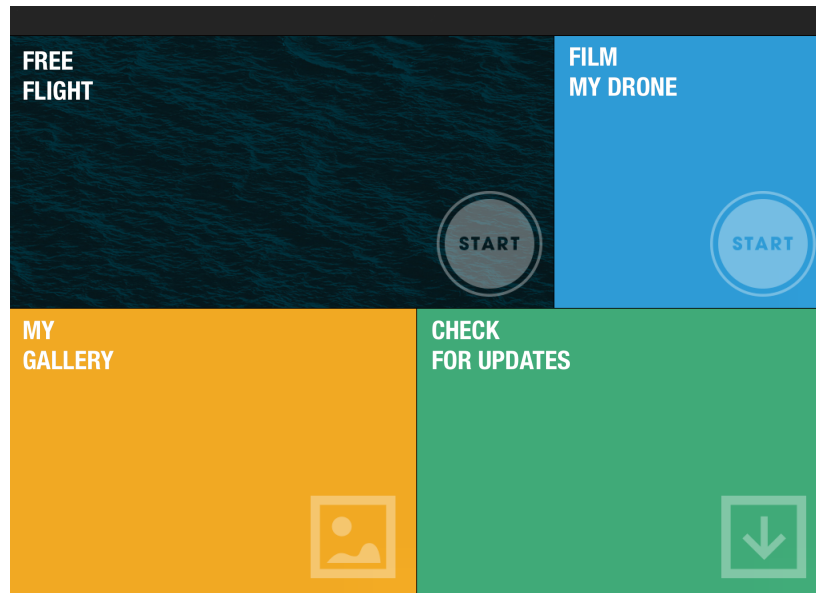
Since the MiniDrone uses *Bluetooth*® Low Energy, it will not be displayed in the normal list of *Bluetooth*® devices shown on your phone. You will only be able to see it and connect to it via the FreeFlight3 app.

1. Activate the *Bluetooth*® function on your smartphone.
  2. Launch the FreeFlight3 app.
  3. Press  to bring up the list of MiniDrones located near your smartphone.
- > The MiniDrone will connect to your smartphone automatically. A pop-up window saying "Sending status" and then "Connected" will appear.
- > The  icon shows which MiniDrone is currently connected.
- > The  icon indicates the status of the *Bluetooth*® connection between your smartphone and the MiniDrone. The number of bars displayed indicates the quality of the connection.

If your phone doesn't automatically connect to the MiniDrone, select the name of your MiniDrone from the list.

# Flying

1. Launch the FreeFlight3 app.  
> The main screen will appear.



2. Press **Free Flight** to control the MiniDrone in **Normal** mode. Press **Film My Drone** to control the MiniDrone in **Controller** mode. **Controller** mode lets you film your MiniDrone with your smartphone while you are flying it. For more information on control modes, see the [Controlling the MiniDrone in flight](#) section.  
> The control screen will appear.

A pop-up will ask you to choose the control mode for your MiniDrone:

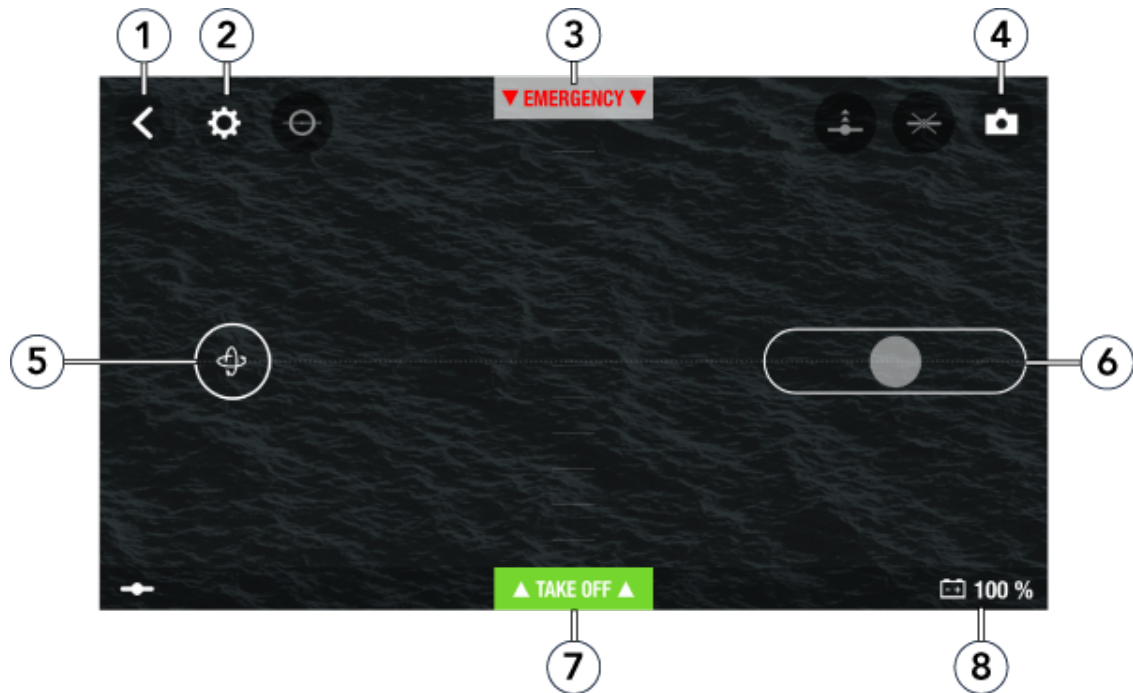
- the MiniDrone with hulls,
- the MiniDrone without hulls.





# Controlling the MiniDrone with the Hydrofoil

Description of the control screen



No.	Description	No.	Description
1	Return to previous screen	5	<a href="#">Left joystick</a> (accelerometer)
2	Settings	6	Right joystick
3	Emergency stop	7	Take Off / Landing
4	Photo	8	Battery level

## Start-up

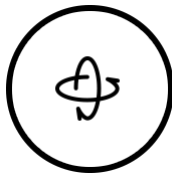
1. Place the MiniDrone on the water.
2. Press **Take Off**.
  - > The MiniDrone motors will start up. The MiniDrone will lift itself 90° on its support and start to move.

## Navigation

Navigation depends on the settings for the selected control mode: **Controller**, **Normal** or **Expert**. **Normal** mode is selected by default. To change the control mode, see the Control Settings section.

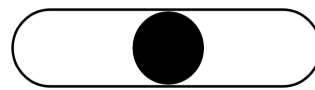
### Normal

Left joystick (accelerometer)



- This joystick will only appear once Take Off has been pressed.
- Press the joystick and tilt your smartphone up or down to increase or decrease the motor speed of the MiniDrone.
- Tilt your smartphone left or right to move the MiniDrone to the left or right.

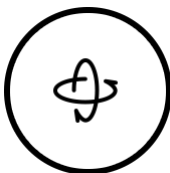
Right joystick



- Drag the joystick left or right to pivot the MiniDrone to the left or right.

### Expert

Left joystick (accelerometer)



- Press the joystick and tilt your smartphone up or down to increase or decrease the motor speed of the MiniDrone.
- Tilt your smartphone left or right to move the MiniDrone to the left or right.

## Controller

Left joystick





- Drag the cursor up or down to increase or decrease the motor speed of the MiniDrone.

Right joystick



- Drag the cursor left or right to pivot the MiniDrone to the left or right.

The **Controller** mode lets you film the MiniDrone with the camera on your smartphone while you are driving it.

To do this, press . Videos are automatically saved to the gallery in the FreeFlight 3 app. To stop recording, press  again.

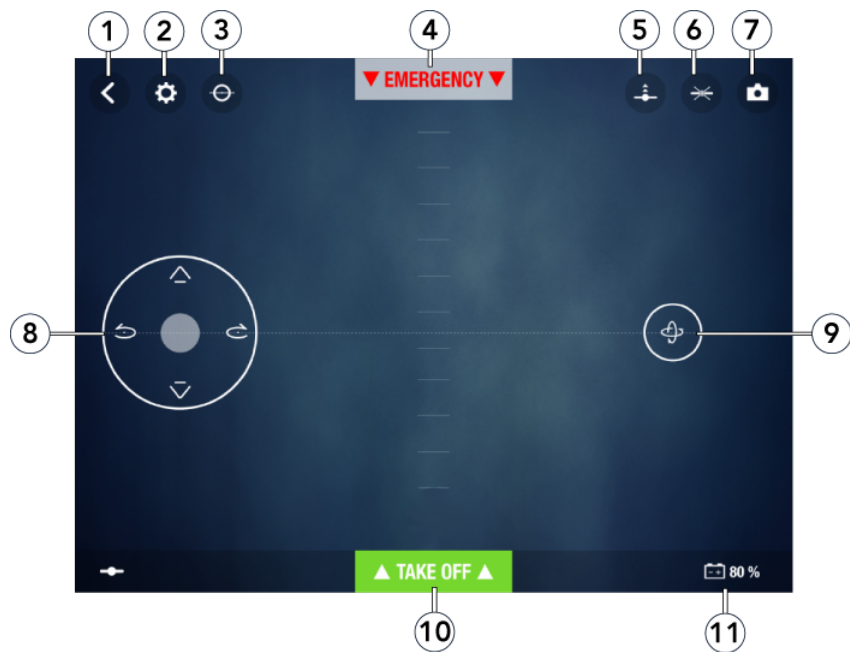
## Stopping

Press **Landing** to stop the motors on the MiniDrone.

Only press **Emergency** in the event of a genuine emergency. The four motors will cut out immediately.


# FLying the MiniDrone

## Description of the control screen



N°	Description	N°	Description
1	Return to previous screen	7	Photo
2	Settings	8	Left joystick
3	Flat trim	9	<a href="#">Right joystick</a> (accelerometer)
4	Emergency stop	10	Take off / Landing
5	Launched take off	11	Battery level
6	Pre-programmed aerobatics		

### Flat trim

Before each take off (especially after an impact or fall), check that the MiniDrone is placed on a flat surface and press .

## Take Off

Place the MiniDrone on a dry, flat surface, ensuring there are no obstacles in the way, and press **Take Off**.

> The MiniDrone will take off and stabilise 1 metre above the ground.

You can also have the MiniDrone take off from your hand. To do this:

1. Press .

> The MiniDrone LEDs will blink red and green rapidly.

2. Throw the MiniDrone in front of you, up, or simply take away your hand to let it fall.

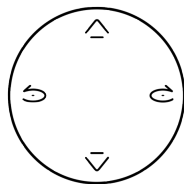
> The motors for the MiniDrone propellers will start automatically and the MiniDrone will stabilise itself.





## Controlling the MiniDrone in flight

Flights depend on the settings for the selected control mode: **Controller**, **Normal** or **Expert**. **Normal** mode is selected by default. To change the control mode, go to the Control Settings section.

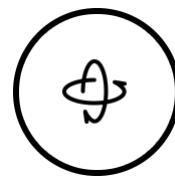
### Normal

Left joystick



- Press  or  to pivot the MiniDrone to the left or right.
- Press  or  to make the MiniDrone climb or descend.

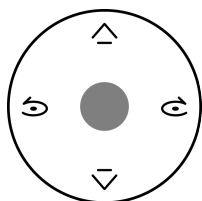
Right joystick (accelerometer)







- Press on the joystick and tilt your smartphone up and down to move the MiniDrone forwards or backwards.
- Tilt your smartphone left or right to move the MiniDrone to the left or right.

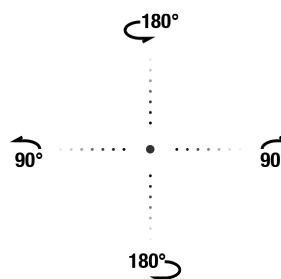
## Expert





Left joystick



- Press  or  to pivot the MiniDrone to the left or right.
- Press  or  to make the MiniDrone climb or descend.
- Hold down the middle button and tilt your smartphone to move the MiniDrone.

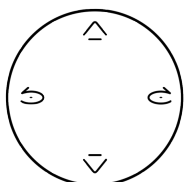
Right joystick







- Drag your finger from the middle of the joystick to the  or  to make a quarter turn to the left or right.
- Drag your finger from the middle of the joystick to the  or  to make a half turn to the left or right.

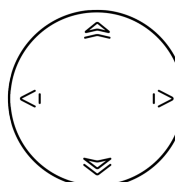
## Controller

Left joystick



- Press  or  to pivot the MiniDrone to the left or right.
- Press  or  to make the MiniDrone climb or descend.

Right joystick




- Drag the joystick up or down to move the MiniDrone forwards or backwards.
- Drag the joystick left or right to move the MiniDrone to the left or right.






The **Controller** mode lets you film the MiniDrone with the camera on your smartphone while you are flying it.

To do this, press . Videos are automatically saved to the gallery in the FreeFlight3 app.

To stop recording, press  again.

## Pre-programmed aerobatics

1. Press the Loop icon  to bring up the list of pre-programmed aerobatics. By default, no trick is selected.

	Back loop
	Front loop
	Left loop
	Right loop
	No trick

2. Press the desired trick.

> The icon is displayed in place of .

3. Tap your smartphone screen twice to perform the selected trick.
4. Press on the aerobatic icon again to edit it.

## Landing

Make sure that the MiniDrone is above a flat, dry and unobstructed surface, then press **Landing** to land your MiniDrone.


Only press **Emergency** in the event of a genuine emergency. The motors will immediately cut out and the MiniDrone will fall from whatever height it is currently at.

## Battery

The  icon shows the battery level for your MiniDrone.

A fully charged battery lasts for around 7 minutes when the hulls are attached to the MiniDrone, and around 9 minutes if the hulls aren't used. The indicator turns red when the battery level is low. When the battery level is too low, bring the MiniDrone back towards you or land it.




## Photos

Press the  button to take a photo using the MiniDrone vertical camera. The photo will be saved in the MiniDrone memory.

You can save hundreds of photos in the MiniDrone internal memory. When the memory is full, a warning message will appear telling you it is no longer possible to take photos.

## Retrieving or deleting photos

To retrieve or delete photos, your smartphone must be connected to the MiniDrone.


1. Bring up the context menu. To do this:
  - If the control screen is open, press  then .
  - If the main screen is open, press .
2. Press **Internal Memory**.
  - > The list of stored photos in the MiniDrone memory will appear.
3. Select one or more files.
4. Press **Delete** or **Transfer**.
  - > The files will be transferred to the FreeFlight3 gallery and into your smartphone's memory.

You can also retrieve or delete them by connecting the MiniDrone to your computer using the USB cable. To do this, the battery for the MiniDrone must be installed. Once connected, the MiniDrone will show up as a USB drive on your computer. You can then copy files using your computer.



## Videos

You can film your MiniDrone using your smartphone while you are flying it. To do this, the **Controller** control mode must be activated. For more information, go to the Control Settings section.

To record a video, press . The icon will flash during recording. Frame your MiniDrone with your smartphone.

To stop recording, press . The icon will change to .

The videos will be automatically saved in the FreeFlight3 gallery and in your phone's memory. To open the gallery:

1. Open the FreeFlight3 home screen.
2. Press  then **Gallery**.

# Settings

Press  to access the settings menu for your MiniDrone.

Press  at any time to revert to factory settings.

## Max Altitude

The **Max Altitude** option allows you to limit the maximum height your MiniDrone can go. When the MiniDrone is about to go past this limit, it will automatically go back down to the selected height.

## Max Tilt

The **Max Tilt** option allows you to choose the maximum tilt angle the MiniDrone can make while it is moving.

The higher this value is, the larger the pitch of the MiniDrone. The lower this value is, the smaller the pitch of the MiniDrone.

This setting affects acceleration. With a large pitch, the MiniDrone will gain speed quicker and will be more sensitive to commands.

## Left-handed mode

The **Invert Controls** option allows you to invert the controls on your smartphone.



## Control Settings

The **Expert**, **Normal** and **Controller** options let you choose the control mode you want. For more information on control modes, see the [Flight control](#) section in this guide.



## Automatic Recording

The **Auto Rec** option is available in **Controller** mode only. It is used to automatically trigger video recording as soon as you press **Take Off**. For more information on video recording, see the Video section.

## Max Vertical Speed

The **Max Vertical Speed** option allows you to set the maximum upward and downward speed of the MiniDrone when you press the  or  buttons.

## Max Rotation Speed

The **Max Rotation Speed** option allows you to set the maximum rotation speed for the MiniDrone when you press the  or  buttons.

## Accessory

Activate the **Hydrofoil** option when you are driving the MiniDrone with the hydrofoil.

Activate the **None** option when you are driving the MiniDrone without the hydrofoil.

## Short-Circuit

The **Short-Circuit** option allows you to cut the motors in the event of prolonged impact to the propellers on your MiniDrone. This option is deactivated by default, but is useful if you are a beginner pilot.

## Charge Settings

The **Charge Settings** screen shows you the last type of charging used and the battery level of your MiniDrone.

## Network Name

The **Network Name** option allows you to edit the *Bluetooth*® name of how the MiniDrone will be seen by your smartphone in the FreeFlight3 app. The name change will take effect once the MiniDrone has been restarted.

The MiniDrone network name can only contain numbers, letters and underscores. It must not be longer than 32 characters.

## Versions

The **General Information** shows you:

- The version number of the FreeFlight3 app currently installed on your smartphone.
- The version number of the firmware installed on your MiniDrone.
- The hardware version of your MiniDrone.

# Academy Drone

An internet connection is necessary to use the Drone Academy.

To launch the Drone Academy:

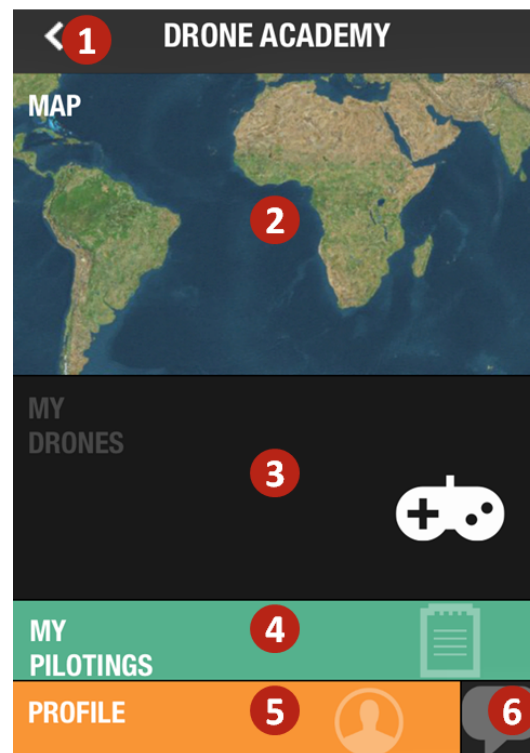
1. Launch the FreeFlight3 application.
2. Press Drone Academy.

A profile is necessary to access the Drone Academy.

To create a profile:

1. Press Sign up now.
2. Type a user name, a password and an e-mail address.
3. Press Register your profile.

> The Drone Academy main screen appears



N°	Description
1	Accessing the FreeFlight3 application home screen
2	Visualizing the map of the flights
3	Accessing your list of drones
4	Accessing your list of flights

5	Modifying and disconnecting your profile
6	Sending a Drone Academy invitation


To modify or delete your profile:

1. Press the Profile tab.
2. Press 
3. Press Logout or Edit.
4. If you edit your profile slide the screens towards left to complete your profile.

To register a MiniDrone press My drones.

The first time you connect the MiniDrone to your smartphone, a pop-up ask you to register your MiniDrone in the Drone Academy.

To consult the shared flights:

1. Press Map.
2. Press  to search flights amongst:
  - your flights or other user's flights,
  - the type of media.

Press  to search flights by user or place.

To consult and share your flights:

1. Press My pilotings.
  - >The list of your flights appears. You can sort them by date, rank or type.
2. Press the flight you wish to share.
3. Press Public to share the flight. You can also:
  - press the stars to rate the flight,
  - press the tabs at the bottom of the screen to consult the flight information.

# Updates

Press **Updates** to check if any software updates are available for the MiniDrone.

There are two ways to update your MiniDrone:

- Via USB by [downloading the update file from our website](#). This method requires a computer. Check that the MiniDrone battery is installed and fully charged before carrying out updates via USB link.
- Via the FreeFlight3 app by pressing **Updates**.

# General Information

## Precautions for use and maintenance

The MiniDrone is not suitable for children under 14 years of age.

The MiniDrone is a model aircraft designed for recreational and leisure purposes. The pilot must always maintain direct visual contact with the MiniDrone and control its trajectory. The MiniDrone should only be used in suitable spaces so you are always able to ensure the safety of nearby people, animals and property. There are some public places where you may not be permitted to use your MiniDrone.

When you are using the MiniDrone alone, ensure you do so in accordance with the civil aviation rules in your country. Keep the MiniDrone away from high voltage power lines, buildings, and any other potentially dangerous areas. Only use accessories specified by the manufacturer. The MiniDrone and all its components are fragile and should be handled with care. Only use the MiniDrone on fresh water. If sand, sea salt, seaweed or any other biological matter gets into the MiniDrone, irreversible damage may be caused and it will no longer function properly. Do not use the MiniDrone in adverse weather conditions (rain, strong winds, snow) or when visibility is poor (at night). Ensure you keep the MiniDrone within a reasonable distance in order to maintain the *Bluetooth*® connection with your smartphone at all times. Make sure to anticipate how long you can use your MiniDrone for and how far it can go according to the battery life, so that you can recover it safely.

The propellers of the MiniDrone can cause injury to people or property when in use. Do not touch the MiniDrone once you've started it up. Wait until the propellers have completely stopped before handling the MiniDrone. Do not leave the MiniDrone in direct sunlight.

## Accessories and spare parts

Accessories and spare parts are available from your Parrot retailer or from our website [store.parrot.com](https://store.parrot.com)



## Battery

Failure to comply with instructions may cause permanent damage to the battery or its surroundings, and may cause injury. Always use a LiPo battery charger. Never charge via a discharge lead. Never trickle charge or charge below 2.5 V. Never allow the battery temperature to exceed 60°C (140°F). Never disassemble or modify the wiring in the battery pack, or puncture the battery cell. Never place the battery on top of flammable materials or leave it unattended while charging. Always charge in a fireproof location. Always make sure that the charger output voltage corresponds to the battery voltage. Always keep out of reach of children. Incorrect use of the battery can cause fires, explosions or other damage.



The battery terminals should not be allowed to short-circuit. The product must only be connected to class II appliances that display the symbol opposite.

## Warranty

For the warranty conditions please refer to the retailer's General Conditions of Sale where you purchased your MiniDrone.

## Modifications

The explanations and specifications in this guide are given for information purposes only and may be modified without prior notice. They are deemed to be correct at time

of going to press. The utmost care has been taken when writing this guide, as part of the aim to provide you with accurate information. However, Parrot shall not be held responsible for any consequences arising from any errors or omissions in the guide, nor for any damage or accidental loss of data resulting directly or indirectly from the use of the information herein. Parrot reserves the right to amend or improve the product design or user guide without any restrictions and without any obligation to notify users.

As part of our ongoing concern to upgrade and improve our products, the product that you have purchased may differ slightly from the model described in this guide.

If so, a

later version of this guide might be available in electronic format at Parrot's website

at [www.parrot.com](http://www.parrot.com).

## Recycling this product



The symbol on this product and on its literature shows that at the end of its life, it is not to be disposed of with household waste. The uncontrolled disposal of waste is harmful to the environment: please separate this from other types of waste and dispose of responsibly. Private individuals are invited to contact the retailer who sold them the product or to ask advice from their local authority to find out how and where it can be recycled.

## Declaration of Conformity

Parrot SA, 174 quai de Jemmapes, 75010 Paris, France, declares under their sole responsibility that the product described in this user guide complies with EN 301489-17, EN300328, EN71-1, EN71-2, EN62115 technical standards following the provision of the Radio Equipment, Telecommunication Equipment directive (1999/5/EC R&TTE), and of the General Safety directive (2001/95/EC).

The Declaration of Conformity is available on our website:

[www.parrot.com/fr/ce/?airborne-cargo-drone](http://www.parrot.com/fr/ce/?airborne-cargo-drone)



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Parrot, Parrot MiniDrones and the Parrot logo are trade-marks of PARROT SA.

App Store is a service mark of Apple Inc.

Google Play is a trademark of Google Inc.

The *Bluetooth*® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Parrot SA is under license.

All other trademarks mentioned in this guide are protected and are the property of their respective owners.

## Notice regarding the right to privacy

Recording and distributing images of an individual without their consent could constitute a violation of their privacy, for which you may be held liable. Ask for permission before filming individuals, particularly if you want to keep your recordings and/or share them online. Do not distribute any degrading images or those that could undermine an individual's reputation or dignity.