

# Table of Contents

1 Connecting Android device with the drone.....	1
2 Connecting UgCS for DJI and UgCS desktop application.....	3
3 Creating a route.....	4
4 DJI application activation process.....	5
5 DJI verification process before first flight.....	6
6 Drone connection and first flight.....	7
7 Getting ready.....	8
8 Getting ready (iOS).....	9
9 Getting ready(iOS).....	10
10 Operation list of UgCS desktop and UgCS for DJI.....	11

# 1 Connecting Android device with the drone

[Main Page](#) [UgCS](#) [UgCS for DJI User Manual](#) [Drone connection and first flight](#)

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Connection of the Android device and drone using UgCS for DJI varies depending on the drone type used:

## 1. Connecting with DJI Phantom 3 Standard

Remote controller (RC) of DJI Phantom 3 Standard creates Wi-Fi network. Ensure that no obstacles are between the drone and RC.

? Connect Android device to Wi-Fi network provided by RC,

? Connect laptop / PC with installed UgCS desktop to the same Wi-Fi network,

? On the Android device launch UgCS for DJI application and wait until the drone is detected.

When both application - mobile UgCS for DJI and desktop UgCS - are in the same network they should detect each other automatically.

**Note:** The drone will not be detected by UgCS for DJI if other applications like DJI GO, Litchi, etc. are already connected to the drone, because they are in the same network.

## 2. Connecting with other supported DJI vehicles

Connect mobile Android device to remote controller (RC) via micro USB Cable. Then the Android device should offer to choose from application list, for example DJI GO and/or UgCS for DJI - choose to run UgCS for DJI.



**Note:** If the Android device does not show application choice, but opens DJI GO application, clear default settings of DJI GO (Settings -> App)

UgCS for DJI will automatically detect the type of DJI drone in use.

UgCS for DJI application screen will be displayed shortly after established connection:



In order to connect UgCS desktop and UgCS for DJI, the PC and Android device must be in same network. Android mobile device or an external network router can be used as Wi-Fi access point.

**Note:** Check drone's firmware version by accessing drone settings tab. Please always keep drone's firmware up-to-date. If drone's firmware is

## 2 Connecting UgCS for DJI and UgCS desktop application

[Main Page](#) [UgCS](#) [UgCS for DJI User Manual](#) [Drone connection and first flight](#)

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Once both devices are in same network, connection will be established automatically. This will be confirmed in UgCS for DJI with a green indicator next to ?UCS? (application status bar).



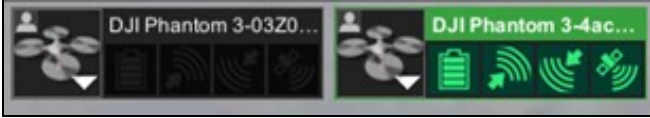
## 3 Creating a route

[Main Page](#) [UgCS](#) [UgCS for DJI User Manual](#) [Drone connection and first flight](#)

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After successful drone and RC connection, and if UgCS desktop application and UgCS for DJI mobile companion are in same Wi-Fi network - the drone should be displayed as available in UgCS desktop software.

UgCS Vehicle cards:



**Note:** After UgCS for DJI application update, serial number of drone may be different to serial number displayed in previous version of UgCS f

Please follow the instructions described in UgCS User Manual how to create a route for appropriate drone profile. Route has to be created and after successful automatic route calculation it can be uploaded to the drone.

In order to upload route to drone, Remote Controller switch should be in specified position:

- ? **Phantom 3** (Professional, Advanced) - mode ?F?,
- ? **Phantom 3** (Standard) - **RC switch S1 down**,
- ? **Phantom 4, Phantom 4 PRO / ADV** - mode ?P?,
- ? **Inspire 1**(Professional, Raw) - mode ?F?,
- ? **Inspire 2** - mode ?P?,
- ? **M600 \ M600 Pro** - mode ?P?,
- ? **M200** - mode ?P?,
- ? **M100** - mode ?F?,
- ? **A3, N3** - mode ?P?,
- ? **Mavic Pro, Mavic 2** - mode ?P?,
- ? **Spark** - mode ?P?.

**Note:** Route can be uploaded only when the vehicle has acquired Home location. This can take up to one minute after the vehicle is switched on

After route is uploaded to drone, click ?Auto mode? command in UgCS desktop and drone should start the route.

**Note:** Planning long routes, take in to the account that the distance between adjacent waypoints should be smaller than 2 km. The first and la

## 4 DJI application activation process

[Main Page](#) [UgCS](#) [UgCS for DJI User Manual](#) [Drone connection and first flight](#)

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DJI has introduced a new application activation process. If being used in China, DJI aircraft firmware require mobile applications that control DJI aircraft to be activated with the user's DJI account. This will ensure operators to use correct set of geospatial information and flight functions for their aircraft, as determined by their geographical location and user profile.

A summary of the activation system is:

- ? Users in China are required to activate their application by logging into their DJI account at least once every three months within the application
- ? Activation will be persistent in the application until the user logs out
- ? A data connection will require to log into a DJI account. When launching **UgCS for DJI** application a DJI authentication pop-up window will be displayed - provide your DJI account credentials to be sent to DJI (your DJI account credentials are not stored in UgCS for DJI)
- ? Additionally, users in China are required to bind their aircraft to their user account in DJI Go. This is required only once
- ? Outside of China, the application will activate automatically without requiring user to log in.

If an application is not activated, the aircraft not bound (if required) or **UgCS for DJI** prior to version 2.6 is used - all camera live streams will be disabled, and flight will be limited to a cylinder of 100m diameter and 30m height to ensure the aircraft stays within line of sight.

More info: [DJI Updates Process](#)

## 5 DJI verification process before first flight

[Main Page](#) [UgCS](#) [UgCS for DJI User Manual](#) [Drone connection and first flight](#)

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When launching **UgCS for DJI** for the first time, the Android device **must be connected to internet**, in order to pass DJI verification. This is an automatic DJI process and does not need any input from the user.

## 6 Drone connection and first flight

[Main Page](#) [UgCS](#) [UgCS for DJI User Manual](#)

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- Getting ready
- DJI verification process before first flight
- DJI application activation process
- Connecting Android device with the drone
- Connecting UgCS for DJI and UgCS desktop application
- Creating a route
- Operation list of UgCS desktop and UgCS for DJI



## 7 Getting ready

[Main Page](#) [UgCS](#) [UgCS for DJI User Manual](#) [Drone connection and first flight](#)

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Following items are required to proceed:

1. DJI drone, supported by UgCS for DJI:

- ? **Phantom 4**,
- ? **Phantom 4 PRO**,
- ? **Phantom 4 ADV** (will be detected as the profile of Phantom 4 PRO),
- ? **Phantom 3** (all editions),
- ? **Inspire 2**,
- ? **Inspire 1** (Professional, Raw),
- ? **autopilot A3 series**,
- ? **autopilot N3\* series**,
- ? **M600\* or M600 Pro\***,
- ? **M200, M210, M210RTK**,
- ? **M100**,
- ? **Mavic Pro, Mavic 2 Pro/Enterprise/Zoom**,
- ? **Spark**.

2. Android 4.4+ compatible device (Android device), with installed UgCS for DJI, except devices based on the x86 architecture, as it is not supported for the current stage.

Minimal recommended display = 4.5???

Get latest version from Google Play: [UgCS for DJI](#)

3. PC with installed UgCS for desktop.

Get latest version [UgCS for Desktop](#)

\* To be used with DJI Lightbridge 2

## 8 Getting ready (iOS)

[Main Page](#) [UgCS](#) [UgCS for DJI \(iOS\) User Manual](#) [Drone connection and first flight](#)

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Following items are required to proceed:

1. DJI drone, supported by UgCS for DJI:

- ? **Phantom 4,**
- ? **Phantom 4 PRO,**
- ? **Phantom 4 ADV** (will be detected as the profile of Phantom 4 PRO),
- ? **Phantom 3** (all editions),
- ? **Inspire 2,**
- ? **Inspire 1** (Professional, Raw),
- ? **autopilot A3 series,**
- ? **autopilot N3\* series,**
- ? **M600\* or M600 Pro\***,
- ? **M200, M210, M210RTK,**
- ? **M100,**
- ? **Mavic Pro, Mavic 2 Pro/Enterprise/Zoom,**
- ? **Spark.**

2. iOS device, with preinstalled UgCS for DJI

3. PC with preinstalled UgCS for desktop.  
Get latest version [UgCS for Desktop](#)

\* To be used with DJI Lightbridge 2

## 9 Getting ready(iOS)

[Main Page](#) [UgCS](#) [UgCS for DJI \(iOS\) User Manual](#) [Drone connection and first flight\(iOS\)](#)

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Following items are required to proceed:

1. DJI drone, supported by UgCS for DJI:

- ? **Phantom 4,**
- ? **Phantom 4 PRO,**
- ? **Phantom 4 ADV** (will be detected as the profile of Phantom 4 PRO),
- ? **Phantom 3** (all editions),
- ? **Inspire 2,**
- ? **Inspire 1** (Professional, Raw),
- ? **autopilot A3 series,**
- ? **autopilot N3\* series,**
- ? **M600\* or M600 Pro\*,**
- ? **M200, M210, M210RTK,**
- ? **M100,**
- ? **Mavic Pro, Mavic 2 Pro/Enterprise/Zoom,**
- ? **Spark.**

2. iOS device, with preinstalled UgCS for DJI

3. PC with preinstalled UgCS for desktop. Get latest version [www.ugcs.com/downloads](http://www.ugcs.com/downloads)

\* To be used with DJI Lightbridge 2

# 10 Operation list of UgCS desktop and UgCS for DJI

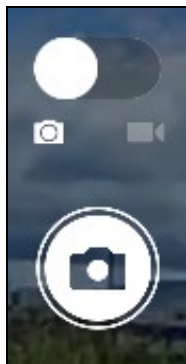
[Main Page](#) [UgCS](#) [UgCS for DJI User Manual](#) [Drone connection and first flight](#)

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No	Step	Application in which the Step is performed	Notes
1	Create route	UgCS desktop	To create, plan and calculate mission and routes, use UgCS desktop client.  To upload the route to drone use UgCS desktop:  ? Select drone (start route automatic calculation) ? Press ?Upload? button  Pay attention to the remote control mode: Phantom 3 (Professional, Advanced) ? mode ?F?, Phantom 3 (Standard) - RC switch S1 down, Phantom 4, Phantom 4 PRO / ADV - mode ?P?, Inspire 1, (Professional, Raw) - mode ?F?, Inspire 2 - mode ?P?, M600 / M600 Pro - mode ?P?, M200 - mode ?P?, M100 - mode ?F?, A3, N3 - mode ?P?, Mavic Pro, Mavic 2 - mode ?P?, Spark - mode ?P?. To stop a mission toggle RC switch from "F" to "P". To stop a Phantom 4 (PRO), mission toggle RC switch from "P" to "S" (Sport) mode. User should set new home point with caution (see Route settings: home location). A home location is valid if it is within 30m of: ? initial take-off location ? aircraft?s current location ? remote controller?s current location as shown by RC GPS ? mobile device?s current location  *NOTE: Route will not be uploaded if drone has completed the mission. In this case, send ?Hold? or ?Manual mode? command. Use UgCS desktop or UgCS for DJI to launch route. Press ?Auto mode? command in UgCS desktop or ?Take-off? button in UgCS for DJI.
2	Upload route	UgCS desktop	
3	Auto ? Launch route	UgCS desktop or UgCS for DJI	After drone has finished the route, ?Auto Mode? command will become enabled and the route can be repeated.  *NOTE: For Phantom 3 Standard, ensure RC throttle stick is not locked down!
4	Manual mode	UgCS desktop	Sets vehicle in manual mode, for example, to control vehicle with RC. This command interrupts mission and erases it from drone memory.
5	Hold	UgCS desktop or UgCS for DJI	Puts mission on hold. If flown in Click & Go mode - stops the vehicle and clears current target point.  *NOTE: When drone is in 'Hold' mode, operator can move it via RC only along the current pass (only forward and backward).
6	Continue	UgCS desktop or UgCS for DJI	Continues mission from point where mission was put on hold.
7	Track mission	UgCS desktop or UgCS for DJI	1. Use UgCS desktop to track vehicle?s telemetry data. 2. Use UgCS for DJI to control camera. 3. Use both applications to change control mode or failsafe command performance (return to home). Use remote controller or dedicated buttons in UgCS for DJI application to make a shot or start/stop recording of video.

8 Take pictures or record video

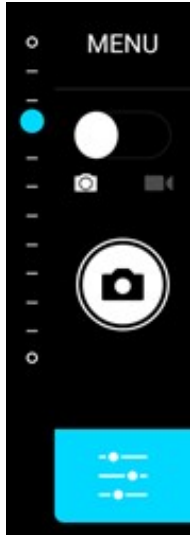
UgCS desktop or UgCS for DJI



\*NOTE: Minimal time interval between taking pictures is different for different DJI drones. If the time interval is

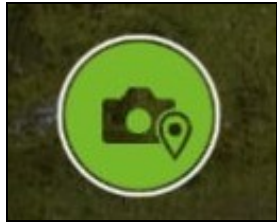
The parameters of camera can be modified in ?Camera settings?.

9 ?onfigure camera UgCS for DJI



If ?Make a placemark on photo? is checked in UgCS for DJI Settings menu, use remote controller or dedicated buttons in UgCS for

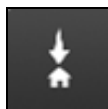
10 Take photo placemark UgCS for DJI



Phantom 3 and Inspire 1 support Land mission command in UgCS desktop. Use Return to Home command in UgCS for DJI.

11 Land

UgCS desktop or UgCS for DJI



\*NOTE: Manoeuvre the aircraft during landing to avoid obstacles.

12 Click & Go

UgCS desktop or UgCS for DJI

Enables to interactively command the aircraft to fly to a location by clicking on the map. See Click & Go section for more information

13 Joystick

UgCS desktop (UgCS for DJI in future releases)

Control vehicle with joystick.

14 Return Home

UgCS desktop or UgCS for DJI

Enables to interactively command aircraft to fly to a home location. Maneuver the aircraft to avoid obstacles, when returning home.

\*NOTE: If the vehicle is within 30m from Home position it will land immediately.