DJI Inspire 1 V2.0 User Manual

Compliance Information

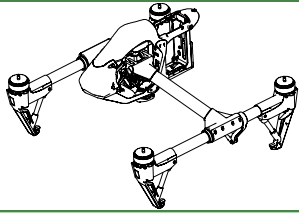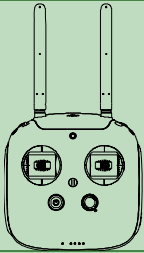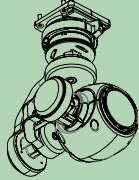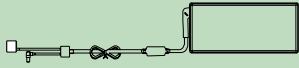**In the Box**

Check that all of the following items have been included in your package before use. If anything is missing, please contact your local dealer.

Index	Name	Picture	Qty.
1	DJI Inspire 1 V2.0		1
2	Propeller		4
3	C1		1
4	Camera with gimbal		1
5	Smart Battery		1
6	Battery Charger		1

<u>Introduction</u>

DJI Inspire 1 V2.0 package includes aircraft,C1,gimbal,camera and DJI App.Flight control system is inside the aircraft, the built-in camera has been integrated with gimbal. C1 and DJI App are used to control the aircraft, gimbal and camera. The HD video downlink and receiver have been integrated in the aircraft, which is used for HD video transmitter and control the aircraft.

Features:
-Equipped with retractable landing gear, and unobstructed 360 degree view from the camera is made possible by simply moving the landing gear out of sight.The maximum flight height of DJI Inspire 1 V2.0 is **,the maximum distance is **.DJI Inspire 1V2.0 has a battery capacity of 6S,4500mAh.When the battery is fully charged, it has a maximum run time of **.

- The camera is using a 21mm bugeye lens, which has low optical distortion and high resolution. Video output can be achieved at HD 4Kp30@60Mbps and it supports many kinds of filters. A high performance gimbal enables to obtain stable images even when the aircraft is fling in high speed.

- Integrated the advanced flight controller of DJI,the DJI Inspire 1V2.0 has stable performance during flight. It can automatically fly back when the C1 signal was missed.The hover assistant enable the DJI Inspire 1V2.0 to hover stable without GPS.

- The HD video downlink has been integrated inside the aircraft, which is used with DJI App to display real time HD aerial image, aircraft data and camera data on the mobile device. In addition, it provides ground station function which allows users to plan the flight mission and enables aircraft to flight automatically.

Flight safety
In GPS mode, the aircraft can be positioned accurately and hover stably, and the return home function is available. (Orientation of aircraft is under control but it could not avoid obstructer automatically). Hover assistant makes aircraft hover stable without GPS (hover assistant can work properly below height of 5m, and the floor surface have pattern variations in good light conditions).

Aircraft
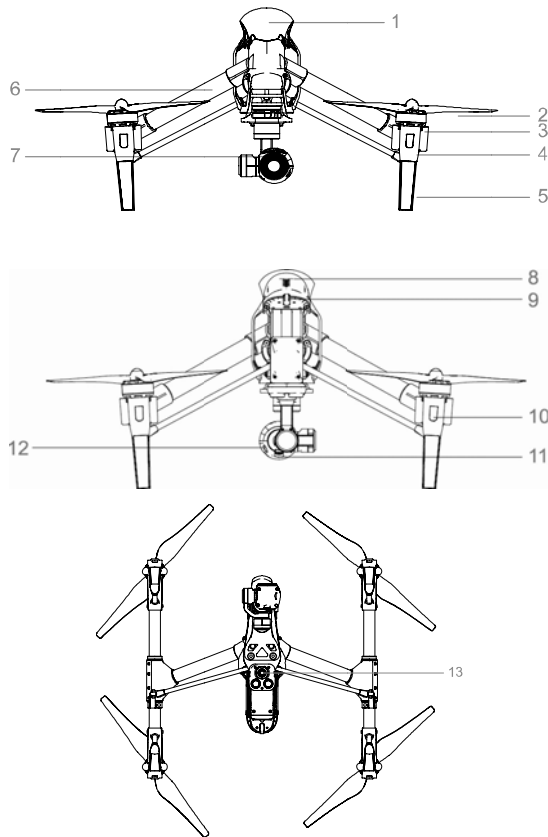
[1]	Built-in GPS
[2]	Propeller
[3]	Motor
[4]	Front LED
[5]	Landing gear
[6]	Frame arm
[7]	Gimbal
[8]	DJI Smart Battery
[9]	Micro-USB Port
[10]	Rear LED
[11]	Camera Micro-USB Port
[12]	Camera Micro-SD Card
[13]	Port
	Hover assistant camera

GL658A
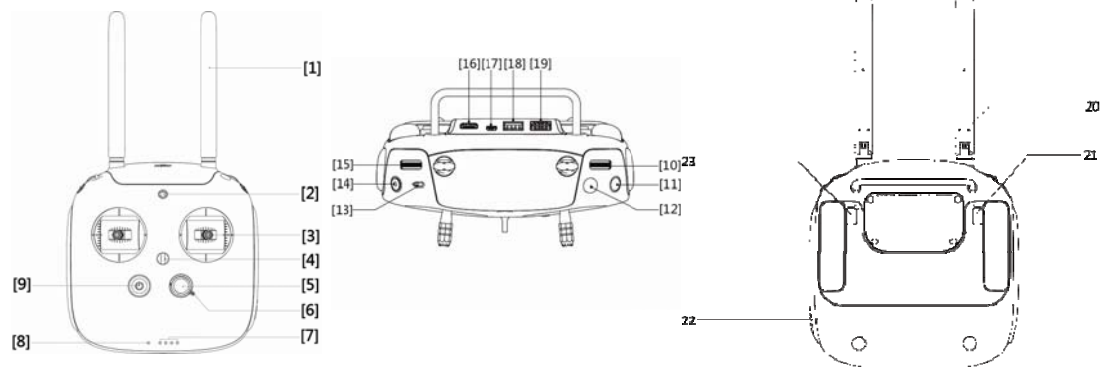
[1] Antenna

[2] Mounting Position

[3] Stick

[4] Neck Strap Attachment

[5] RTH Button

[6] Transformation Switch

[7] Battery Level LEDs

[8] Status LED

[9] Power Button

[10] Camera Settings Dial

[11] Playback Button

[12] Shutter Button

[13] Flight Mode Switch

[14] Video Recording Button

[15] Gimbal Dial

[16] HDMI Port

[17] Upgrade Port

[18] CAN Port

[19] USB Port

[20] Handle Bar

[21] Reserved Button

[22] Power Source Port

[23] Reserved Button

Start

1. Watch the tutorial video

 Scan the QR code or click the link shown below to watch the tutorial video.

 Tutorial video

   http://www.dji.com/Inspire1/training

2. Download DJI App

Search "DJI" on the App Store then follow instructions for iOS version.

Search "DJI" on Google Play then follow instructions for Android version.

Register your e-mail address when using the app for the very first time.

 App Store

 Google Play

3. Ensure the smart battery\C1 and the mobile device are fully charged. Please charge the device if it has low battery level.

Important: Please watch the tutorial and read the quick start guide fully before using your DJI Inspire 1 V2.0.
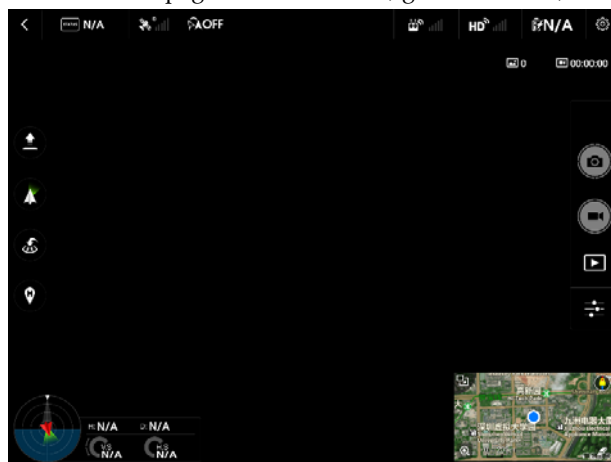
* For the best experience, install and use the DJI App on tablet.

** See Appendix for checking battery levels. Refer to user manual for charging。

DJI App
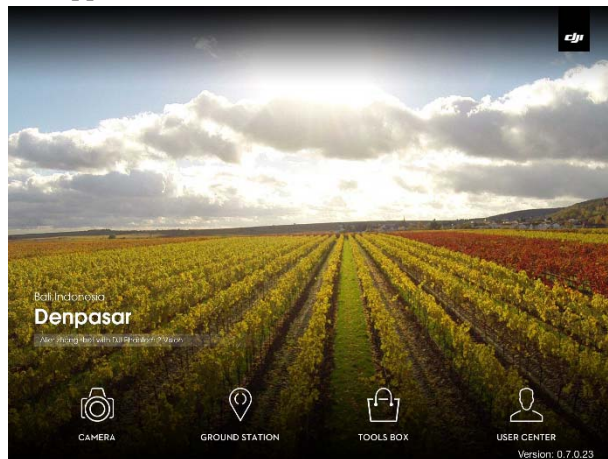

There are four page of GUI: Camera, ground station, tool box and user center.

[1] Present flight mode

[2] GPS signal status

[3] Aircraft status

[4] RC settings

[5] HD video downlink settings

[6] Smart battery information

[7] General settings

[8] Photo format

[9] Video format/Recording time

[10] Shutter/Record switch

[11] Shutter/Record

[12] Play back

[13] Camera settings

[14] Ground station

[15] Aircraft orientation/Height/Distance

[16] Home point settings

[17] Return home

[18] Gimbal mode

[19] Take off

Camera GUI: For display the real time HD images and aircraft data, enable shutter and video recording.
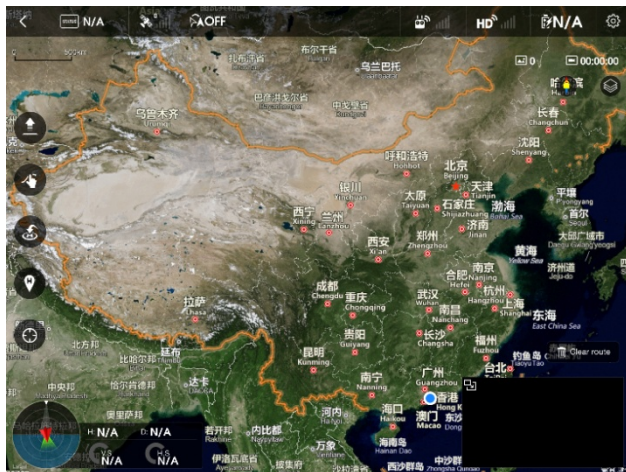
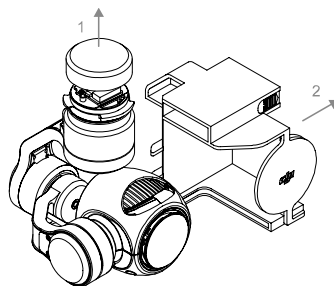Ground Station: For display the map for setting flight mission.
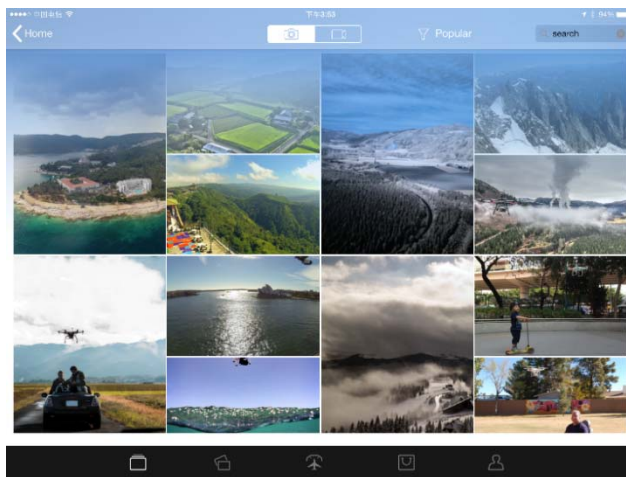
User Center: photograph and video synchronization, flight record, DJI Shop and account information.
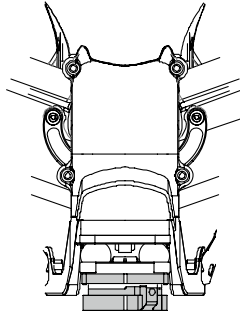
Preparing DJI Inspire 1 V2.0

1. Mounting the Gimbal

Step 1：Remove the Gimbal Cover and the Gimbal Clamp from the gimbal.

Step 2：Turn the Gimbal Lock to the right(when you are facing the nose of the DJI Inspire 1V2.0)until it locks in place and you hear a clicking sound. Refer to the picture below for details:

Step 3: Insert the gimbal into the Gimbal Lock. Ensure the white mark on the gimbal is aligned with the white mark on the left of the Gimbal Lock. Refer to the picture below for details:
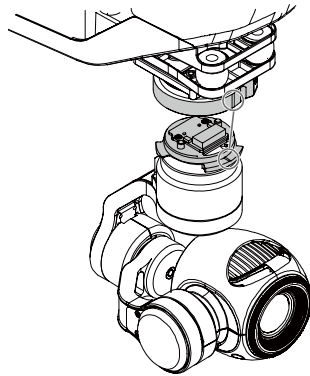

Step 4: With the gimbal in place, turn the Gimbal Lock to the left (when you are facing the nose of the DJI Inspire 1V2.0) until it locks in the position shown in the below. Now the gimbal is secured:
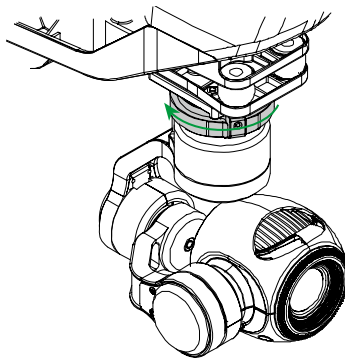
2. Attaching the Propellers

Screw the propellers, clockwise for grey nuts and anti-clockwise for black nuts, onto the four motors. Be sure to match the black propeller nuts with the black dot motors.
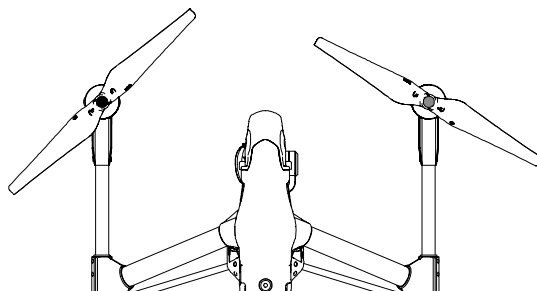
Important：Make sure your smart flight battery and Micro-SD care are inserted correctly.

3. Description of Aircraft Port

（See the location on P ）

Micro-USB Port: For connecting aircraft and PC Assistant to upgrade firmware.

Camera Micro- USB Port: For connecting aircraft and PC to output the data to PC.

Camera Micro-SD Card Port: For placing the SD card.

4. Powering On Smart Flight Battery

Press the circular power button once, then press again and hold for 2 seconds to power on the smart flight battery. (Repeat the above steps to power off the smart battery.)
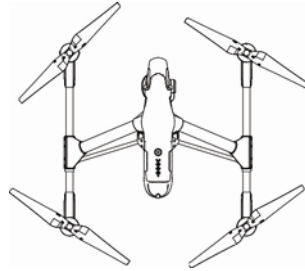
* Press circular power button once to check battery level.

Preparing C1

1. Switch the flight mode switch to GPS mode, ensure the transformation switch is on the lower
   position.
   The return home function would be unavailable when fly in non-GPS mode, and the aircraft only
   can maintain attitude and would be drift ; The camera may be damaged if the transformation switch
   was not on the lower position before flight。

2. Description of C1 button and port
   Shutter Button : Press to take a photo. If burst mode is activated, multiple photos will
   be taken with a single press.

   Camera Settings Dial: Turn the dial to quickly adjust camera settings such as ISO,
   shutter speed, and aperture without letting go of the C1. Move the dial button to left or
   right to select your preferred settings.

Playback Button: Press to view the images or videos that have already been captured.
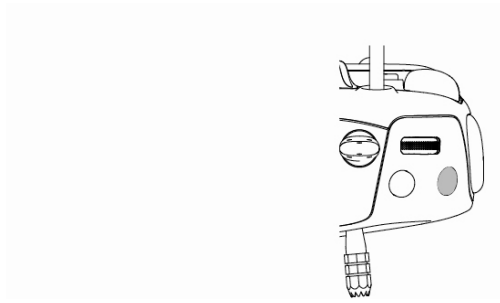
Recording Button: Press once to start recording video, then press again to stop recording.

Flight Mode Switch: Toggle the switch to select the desired flight mode. You may choose between; GPS mode, OPTI mode and ATTI mode.

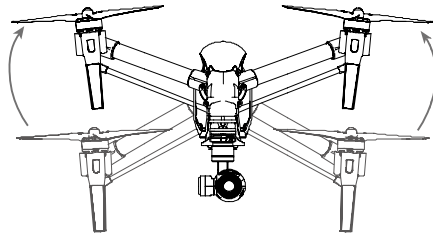Position 1 : GPS mode   Position 2 : OPTI   mode   Position 3 : ATTI mode

Transformation Switch: This switch has two positions. The effect of toggling the switch to any of these four positions is defined below:

1) Raise, 2) Lower.

1) Raise: Raise the landing gear to its upper most position.

2) Lower: The landing gear will lower to its lowest position for landing.
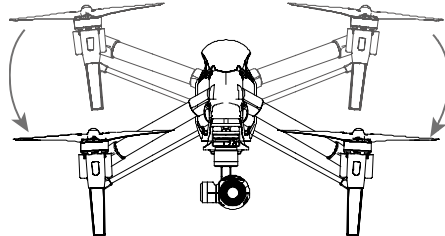
⚠ Deformation of aircraft on the ground do not use function, so as not to damage the camera.

RTH Button : Press and hold this button to start the Return to Home (RTH) procedure. The LED around the RTH Button will blink white to indicate the aircraft is entering RTH mode. The aircraft will then return to the last recorded Home Point. Press this button again to cancel the RTH procedure and regain the control of the aircraft.

USB Port: Connect your mobile device to the USB Port to access all of the camera and aircraft features available in the DJI app.

HDMI Port: Connect an HD compatible monitor to the HDMI port to see what your camera sees in full HD.

Upgrade Port: Use this port to connect the GL658C to a PC or Mac and upgrade the firmware. The relevant Assistant software must be installed and open on your computer.

CAN Port: Reserved for future use.

3. Connecting Mobile Device and C1

    Step 1: Position the mobile device holder as the picture shown, then plug the holder into the mounting hole and tighten the screw.
    Step 2: Attach the holder to neck strap attachment and tighten.
    Step 3: Press the button on the side to hold the mobile device and secure.
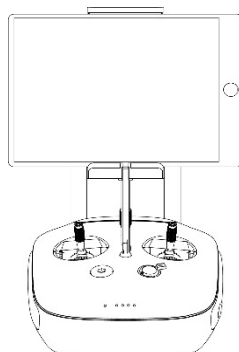
Step 4: Connect the mobile device to C1 USB port via micro-USB cable.

4. Powering on C1

Press the power button once to check the current battery level. Press once and then press again and hold for 2 seconds to power on the C1. (Repeat the above steps again to power off the C1)

Ready to Fly

1. Place the aircraft on flat ground in an open place with rear LED flight indicators facing you, and then power on the C1 and aircraft.

2. Connect C1 and mobile device.

3. Launch DJI App, make sure the GPS mode has been selected.

4. Calibrating Compass

Always calibrate compass before your flight.

Step 1: Go into the App camera GUI and tap the $\boxed{\text{STATUS}}$ button, select "calibrate compass" to start the process, the rear LED flight indicator will be solid blue at this time.

Step 2: Hold aircraft horizontally then rotate 360° around the center axis until rear LED flight indicator will be solid green.

Step 3: Hold aircraft vertically with nose pointing to the ground, rotate 360° around the center axis until rear LED flight indicator will be blink purple. The process is completed.

If rear LED flight indicator is solid red, calibration has failed. Re-calibrate by repeating step 1-3.
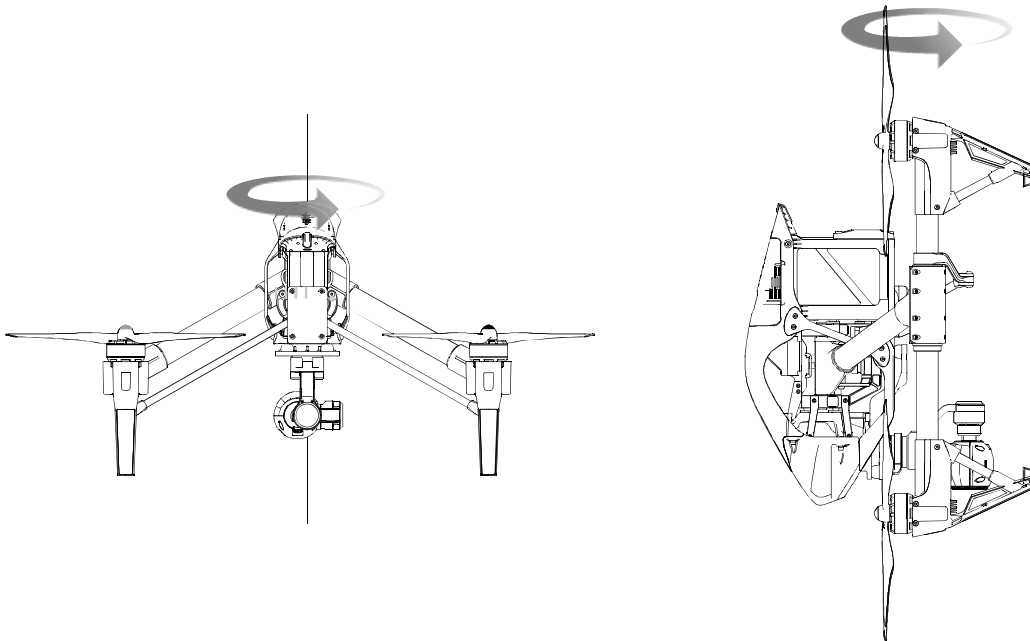
5. Description of rear LED indicator

Blinking purple：GPS〉 = 6 or hover assistant is functioning，it is safe for flight.

Blinking yellow: No GPS protection.

Blinking red: System error occurs.

* Refer to Appendix for more information.

6. Go into the camera GUI and tap check list, ensure everything is functioning normal.

Flight

1. Taking off : Start motors by pulling both control sticks to the bottom corners. Release sticks once motors start. Slowly push the left(throttle) stick up to take off.
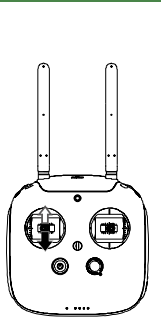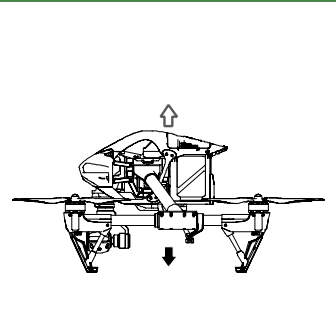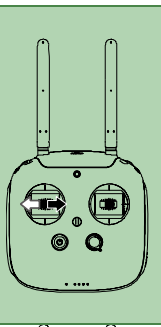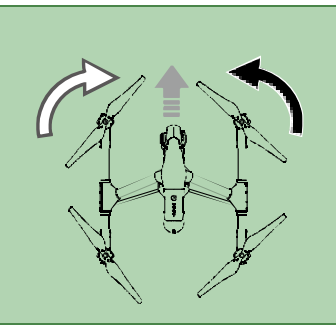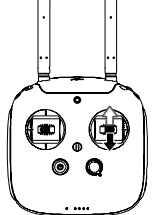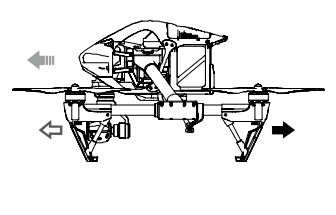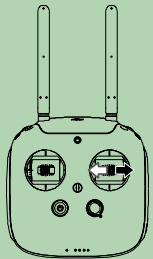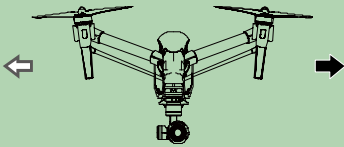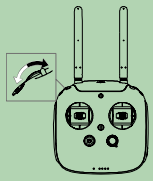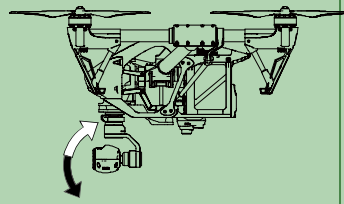
Landing : Switch the transformation switch to lower position before landing. Gently pull the left (throttle) stick down to lower the aircraft until it touches the ground. When landing on the ground, pull the throttle stick to the bottom, then pull both sticks to bottom corners to stop motors. Power off the aircraft prior to power off the C1.

2. C1 Operation

This section explains how to use the various features of the C1.

C1 (Mode 2)	Aircraft (indicates nose direction)	Remarks
		Moving the left stick up and down changes the aircraft's elevation. Push the stick up to ascend and down to descend. Push the throttle stick up to takeoff. When both sticks are centered,the DJI Inspire1 v2.0 will hover in place. The more the stick is pushed away from the center position, the faster the DJI Inspire 1 v2.0 will change elevation. Always push the stick gently to prevent sudden and unexpected elevation changes.
		Moving the left stick to the left or right controls the rudder and rotation of the aircraft. Push the sick left to rotate the aircraft counter clock-wise, and push the stick right to rotate the aircraft clockwise. If the stick is centered, the DJI Inspire 1 v2.0 will stay facing its current direction. The more the stick is pushed away from the center position, the faster the DJI Inspire 1 v2.0 will rotate.
		Moving the right stick up and down changes the aircraft's forward and backward pitch. Push the stick up to fly forward and down to fly backward.The DJI Inspire 1 v2.0 will hover in place if the stick is centered. Push the stick further away from the center

		position for a larger pitch angle (maximum 35°) and faster flight.
		Moving the right stick control left and right changes the aircraft's left and right pitch. Push left to fly left and right to fly right.The DJI Inspire 1 V2.0 will hover in place if the stick is centered. Push the stick further away from the center position for a larger pitch angle (maximum 35°) and faster flight.
		Gimbal Dial: Turn the dial to the right, and the camera will shift to point upwards. Turn the dial to the left, and the camera will shift to point downwards. The camera will remain in its current position when dial is static.

3. Return Home

Press and hold the return home button for a while until the LED surround the button blinking white, the return home procedure is in process. Press once to stop the procedure.

⚠️ It is recommend to take off the aircraft until the rear LED light blinks purple.
Do not stop the motor during flight.

Aerial Photograph

1. Set the part of camera parameter through the camera setting button on the C1; Tap the shutter button\record button and play back button to shutter\recording and preview the picture; Adjust the tilt angle of gimbal by using the gimbal dial.

2. Set all of the camera parameter, control camera to shutter \recording and play back via DJI App, it can also be use when you are using ground station function.

3. Synchronize the SD card data to mobile device.

Appendix

GL658A Status LED

Status LED	Alarm	C1 Status
Solid Red	**None**	The GL658C is functioning normally but is not connected with the aircraft.
Solid Green	**None**	The GL658C is functioning normally and is connected with the aircraft.
Solid yellow	**None**	The C1 has been set as the slave
Slow Blinking Red	**B-B-B… …**	GL658C error. Launch the Assistant software to learn more.
Fast Blinking Red	**BBBB**	Warning that the aircraft has low battery level.
Solid Green	**B-B-B… …**	The GL658C has been idle for 10 minutes.
RTH LED	**Sound**	**GL658C Status**
Blinking White	B……	Sending Return to Home command to the aircraft.
	BB……	Aircraft Return to Home in progress.
Solid White	BBB--BB	Aircraft is returning home

> ⚠ The GL658A Power LEDs will blink red, sound an alert, and then automatically power off after 3 seconds when the battery level is critically low. If this occurs during flight, your DJI Inspire 1 will enter Failsafe Mode and Return to Home, which cannot be interrupted.

C1 battery level indicator description

Battery Level Indicator
○ ○ ○ ○
25% 50% 75% 100%

Aircraft smart battery indicator description

The Battery Level Indicators display how much remaining power the battery has. When

the battery is powered off, press the Power Button once. The Battery Level Indicators will light up to display the current battery level. See below for details.

> The Battery Level Indicators will also show the current battery level during charging and discharging. The indicators are defined below.
>
> ◄: LED is on.   : LED is flashing.
>
> ◄: LED is off.

Battery Level				
LED1	LED2	LED3	LED4	Battery Level
On	On	On	On	87.5%~100%
Flashing	Flashing	Flashing		75%~87.5%
On	On	On	Off	62.5%~75%
Flashing	Flashing		Off	50%~62.5%
On	On	Off	Off	37.5%~50%
Flashing		Off	Off	25%~37.5%
On	Off	Off	Off	12.5%~25%
	Off	Off	Off	0%~12.5%
Off	Off	Off	Off	<0%

Battery Life

The battery life indicates how many more times the battery can be discharged and recharged before it must be replaced. When the battery is powered off, press and hold the Circular Power Button for 5 seconds to check the battery life. The Battery Level Indicators will light up and/or blink as described below for 10 seconds:

Battery Life				
LED1	LED2	LED3	LED4	Battery Life
On	On	On	On	90%~100%
Flashing	Flashing	Flashing		80%~90%
On	On	On	Off	70%~80%
Flashing	Flashing		Off	60%~70%
On	On	Off	Off	50%~60%
Flashing		Off	Off	40%~50%
On	Off	Off	Off	30%~40%
	Off	Off	Off	20%~30%
Off	Off	Off	Off	20%

> ⚠ When battery life reaches 0%, it can no longer be used.

> For more information about the battery, launch DJI App and check the information under the battery tab.

2.3 Charging the Smart Battery

1. Connect Battery Charger to a power source (100-240V 50/60Hz).

2. Open the Protection Cap and connect the Smart Battery to the Battery Charger. If the battery level is above 75%, turn on the battery before charging.
3. The Battery Level Indicator will display the current battery level during charging.
4. The Smart Battery is fully charged when Battery Level Indicators are all off.
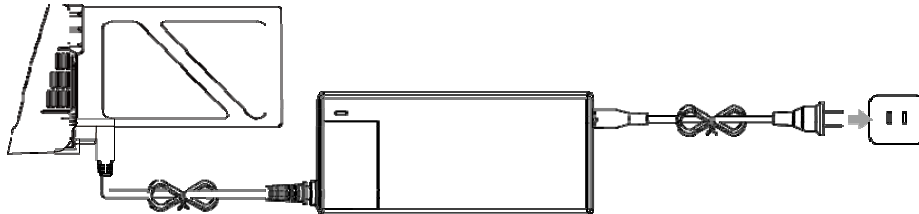
Figure 7

Battery Level Indicators while Charging				
LED1	LED2	LED3	LED4	Battery Level
	◁	◁	◁	0%~25%
		◁	◁	25%~50%
			◁	50%~75%
				75%~100%
◁	◁	◁	◁	Fully Charged

Rear LED indicator Description

Rear LED Flight Indicator	Status
Purple lights blinking quickly	GPS signal detected, and more than 6 GPS satellites are connected
Yellow lights blinking quickly	GPS signal detected, but less than 6 GPS satellites are available
Green lights blinking slowly	Operating in IOC mode.
Rear LED Flight Indicator	**Warnings**
Yellow and Green lights blinking alternately	Compass calibration is required.
Yellow lights blinking quickly	Low battery level warning.
Red lights blinking quickly	Critical low battery warning
Blue lights blinking quickly	C1 signal lost.
White lights blinking quickly	IMU error

⚠ If a system error occurs, connect your DJI Inspire 1 V2.0 to the DJI Inspire 1 V2.0 Assistant for more detailed diagnostic information and potential solutions.

Specifications

Battery	
Model　(Standard)	TB47
Voltage	22.2V
Energy	99.9Wh
Net Weight	570g
Model　（Option）	TB48
Voltage	22.8V
Energy	129.96Wh
Net Weight	570g
Charger (Standard)	
Output Power	100W
Charging Time	85min for 4500mAh; 103 min for 5700mAh
Charger (Option)	
Output Power	180W
Charging Time	49min for 4500mAh; 56 min for 5700mAh
Camera	
Operating Temperature	0℃ to 40℃
Resolution	1240M
FOV　（Field of View）	94°
CMOS	1/2.3"
Lens	F/2.8（21mm equivalent） Anti-distortion filter
Shooting Mode	Single shoot Burst shoot（BURST：3/5/7 frames per second，AEB：3/5 frames per second，0.7EV Bias） Time lapsed
HD Recording Mode	UHD：4096x2160p24/25，3840x2160p24/25/30 FHD：1920x1080p24/25/30/48/50/60 HD：1280x720p24/25/30/48/50/60
Supported File Format	FAT32/exFAT Photo format：JPEG，DNG Video format：MP4/MOV（MPEG-4 AVC/H.264）
Support SD Card Types	SD/SDHC/SDXC Micro SD
GL658C	
Operating Frequency	5738MHz~5808MHz 2404MHz~2462MHz，2406.5MHz~2476.5MHz
Transmitting　Distance（outdoor　and unobstructed）	2km or above
Receiver（1%PER）	-93dBm
EIRP	8dBm @5.8G，20dBm@2.4G

Working Current / Voltage	1.2A@7.4V
Battery capacity	6000mAH
Optical Flow	
Sensor Frequency	50HZ
Velocity Range	<8m/s (2m above ground)
Altitude Range	5cm-500cm
Operating Environment	Rich pattern surface with adequate lighting (Lux > 15)
Operating Range	0-2.5m

FAQ

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Standard Logo

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
DJI Inspire 1 V2.0 should be installed and operated with minimum distance 20cm between the radiator& your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

IC RSS warning

This device complies with Industry Canada licence-exempt RSS standard (s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference,including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IC Radiation Exposure Statement:

This equipment complies with IC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
DJI Inspire 1 V2.0 should be installed and operated with minimum distance 20cm between the radiator& your body.
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.