

# GC2-S

## User Guide



**SwellPro**

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V1.0 – June 2021

## Thank you

The GC2-S is a waterproof low-light 2-axis gimbal camera designed for SplashDrone 4 to gain visual footage in low-light environment. The GC2-S comes with a dimable LED light that allows use even in complete darkness. The high-sensitivity sensor of the GC2-S provides full color images in low-light environment when normal cameras cannot return an image.

## Using this manual

This document is designed to be printed or viewed on a computer or mobile device.

## Tutorial videos

To watch tutorial videos or download the firmware, please visit SwellPro website [www.swellpro.com](http://www.swellpro.com)

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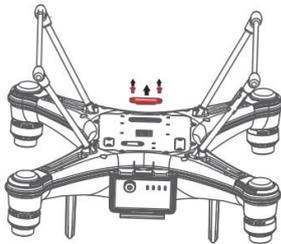
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## Precaution

- The GC2-S is a piece of precision electronics with corrosion-resistant materials which allow for use in harsh marine environments. As with any marine equipment, trouble-free and lasting operations depend on proper attention and maintenance of the equipment.
- When taking off or landing, slowly proceed to avoid damage to the gimbal camera which can be caused by the huge impact when contacting the surface at high speeds. Drop or crash directly into the water from above will result in significant damage to the drone and the gimbal camera.
- After using in seawater, soak and rinse thoroughly with clean fresh water before the seawater dries out.
- If seawater or other sediments form on the gimbal camera, soak thoroughly with fresh water and clean all sediments on the camera and motor before use. For more information, check the drone's "Maintenance manual".

## Installation

### Install the Gimbal

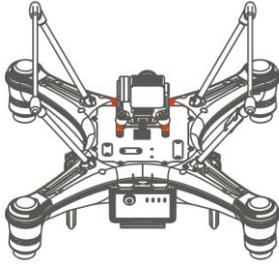


1. Unscrew and take off the gimbal port cover plate using a hex screwdriver. (equipped with SplashDrone 4)



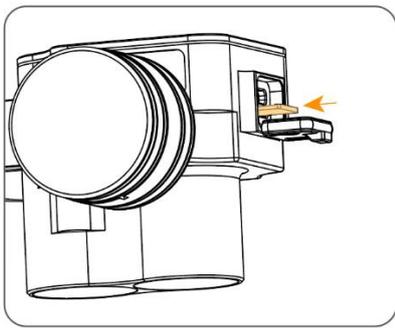
2. Plug the gimbal connector into the drone's gimbal port and screw it in place with a screwdriver.

**⚠ Make sure the rubber ring is attached to the gimbal connector before you screw the connector.**



3. Align the holes on the base of the gimbal to the bottom of the drone, screw in to mount the gimbal. Make sure the camera is pointing to the front of the drone.

## Install SD Card



1. Open the soft rubber seal on the top of the camera, insert the Micro SD card in the correct direction, press the Micro SD card, the "click" sound indicates that the installation is in place.

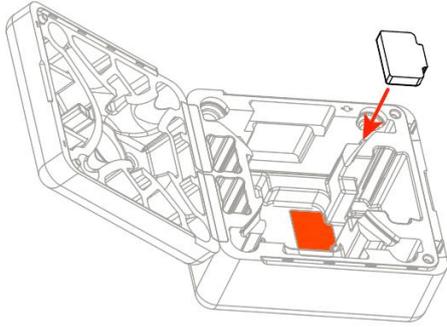
2. After installing the Micro SD card, plug the rubber seal back.

**⚠ Make sure the rubber seal is tightly plugged in to ensure waterproofing.**

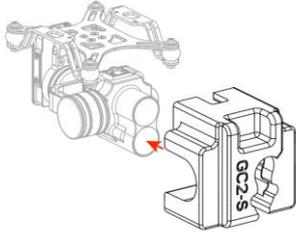
- The GC2-S supports Micro SD cards with a maximum capacity of 128GB. Since the camera requires fast reading and writing of high-stream video data, please use Micro SD cards with Class 10 or UHS-1 or above to ensure proper functioning.
- Do not insert or unplug the Micro SD card during aircraft shooting, as data files may be damaged or lost.
- Once you are done recording, stop recording and save the file. If you turn off the power directly before saving the files, the recording file might be damage.

## After Use Casing

After using the gimbal camera, you can choose not to take off the gimbal camera and put it directly into the case with the drone. Follow the following steps to make sure the gimbal camera is properly secure after casing.



1. Remove the double-side-glued pad from the gimbal box and paste the pad into the drone's case as showing to the left.

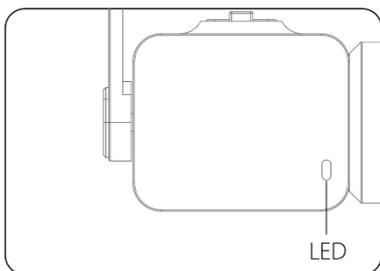


2. After cleaning and drying the gimbal camera and the aircraft, secure the gimbal camera with the fixing case, then put the aircraft and other parts into the case. The case is secure and ready to be carried or transported.

## Control

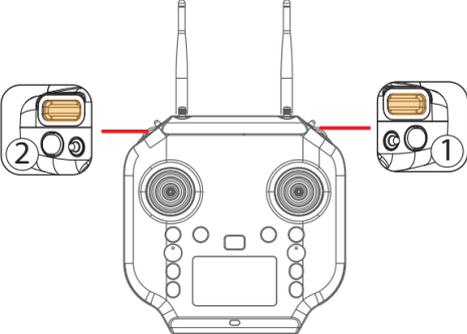
### Camera Status Indicator

There is a camera status indicator on the back of the camera to indicate the camera's working status. It flashes green or red.

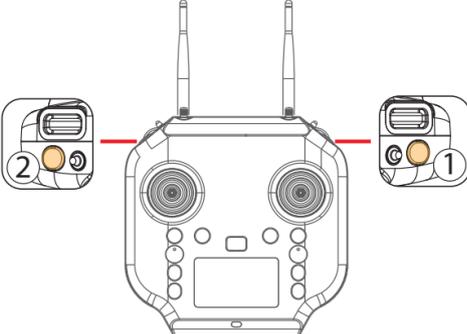


LED		
	Solid Green	Ready to shoot
	Flashing Green	No SD card
	Flashing Red Once	Taking photo
	Flashing Red	Video recording
 Solid	 Flashing	

## Gimbal Control

Remote controller	Description
	<p>Tilt①: Roll the right gimbal control roller as shown to turn the gimbal up or down from 0 to -90 degrees.</p> <p>Dimable LED light control②: Roll the left gimbal control to adjust the brightness dimable LED light. (Dimable LED light works the best when the aircraft is 15 meters away from the subject.)</p>

## Camera control

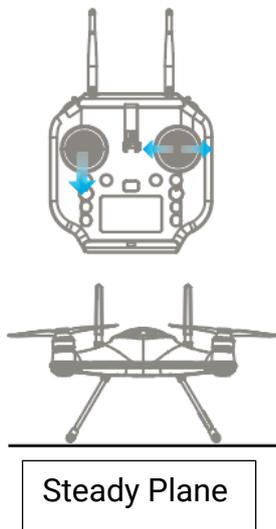
Remote controller	Description
	<p>Photo①: press once to take a picture.</p> <p>Video②: press once to start recording, press again to stop recording, and save files.</p>

## Calibration

If there are any abnormal movements being observed or the camera is not level, you can recalibrate the gimbal camera to solve the problem.

Gimbal camera calibration is performed together with the aircraft gyroscope calibration. To calibrate the gimbal camera, you just need to proceed with aircraft gyroscope calibration.

### To calibrate the gimbal camera:



1. Place the drone on a level surface, power on the remote controller, then the drone. Wait for the aircraft to connect to the remote controller.

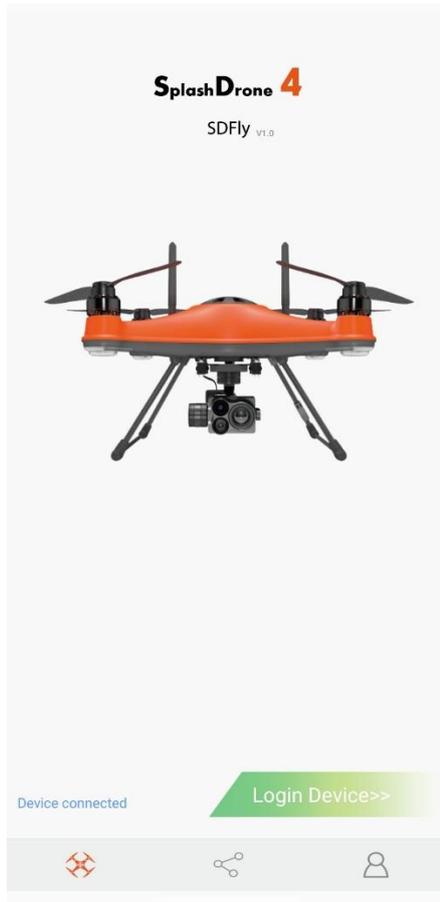
2. Hold the left joystick down to its lowest position, then quickly move the right joystick left to right, back and forth, until the front and rear status indicators flash alternately, or the remote controller screen prompts "WARNING aircraft Initializing, Please Wait". The drone will now perform gyroscope calibration. Now release the joysticks. This process will be completed in 20 seconds. Do not move the drone during this process.

3. When the front status indicators fast-flashing red and the rear status indicators turn solid green, or "WARNING Aircraft Initializing, Please Wait" prompt disappears, power off and restart the drone. Gyroscope calibration is complete.

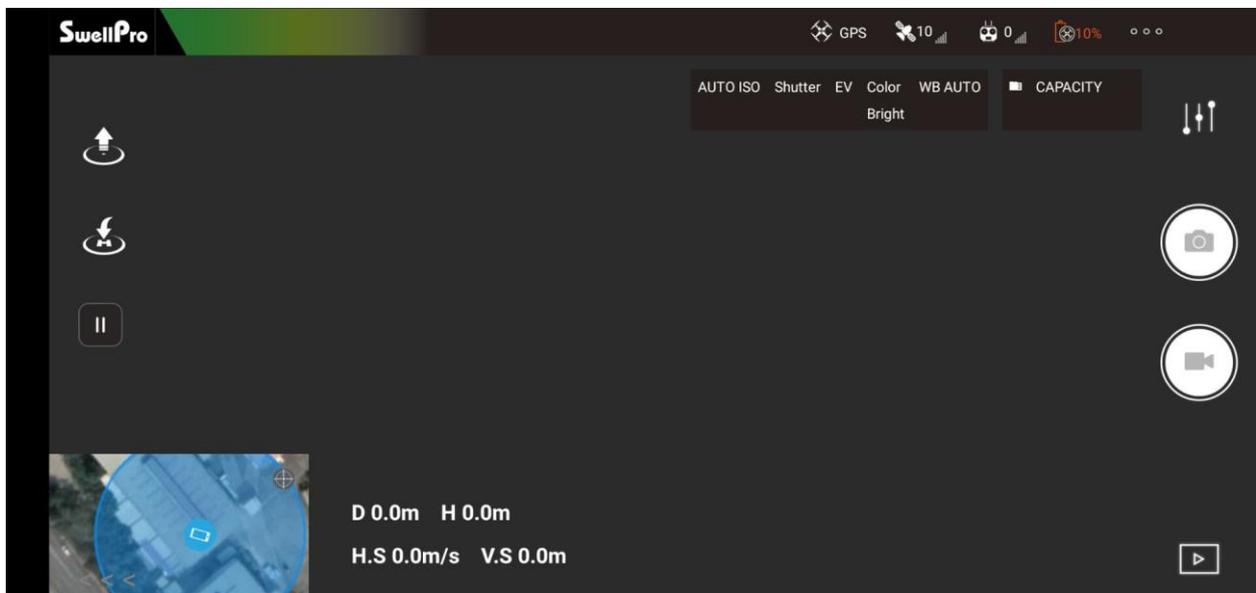
**⚠ 1) Do not calibrate the gimbal camera on a boat or other moving platforms.**

## APP Interface

To get into APP's camera interface: Power on the remote controller, then the aircraft. Connect the phone to the remote controller's Wi-Fi hotspot. Then click "Login device".



Login device



Camera Interface

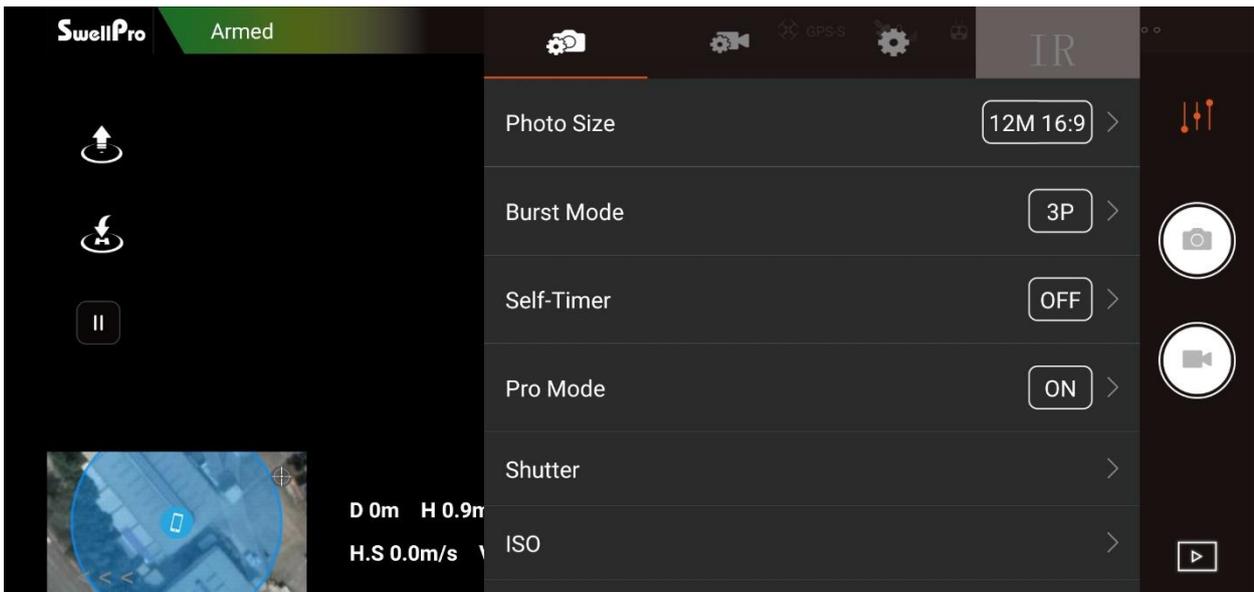
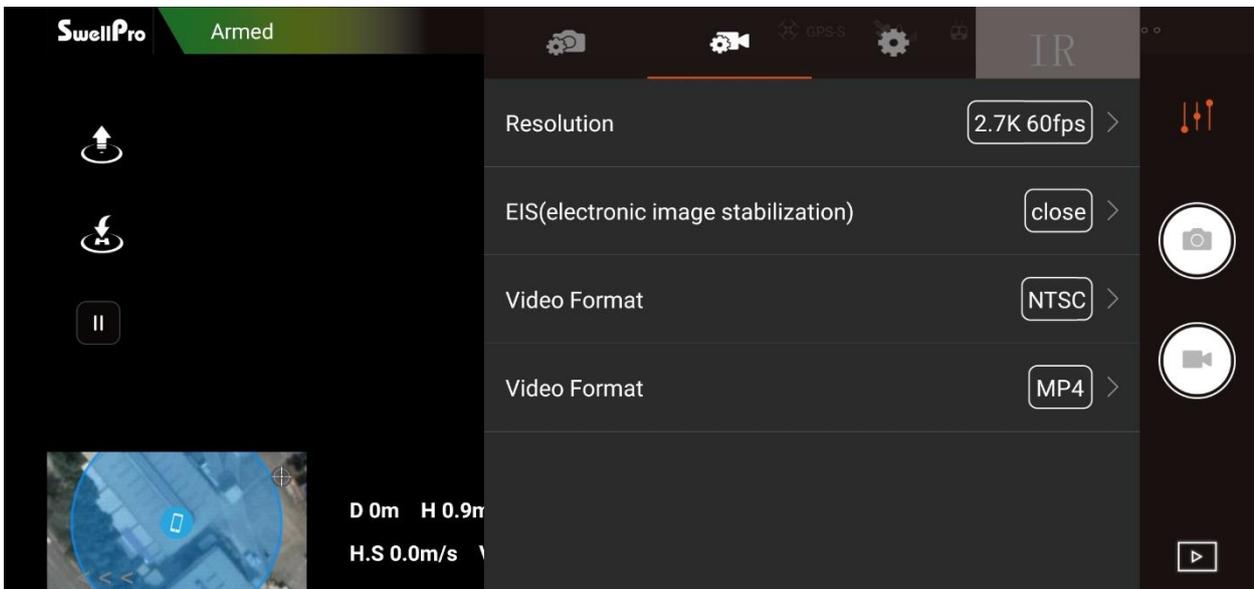
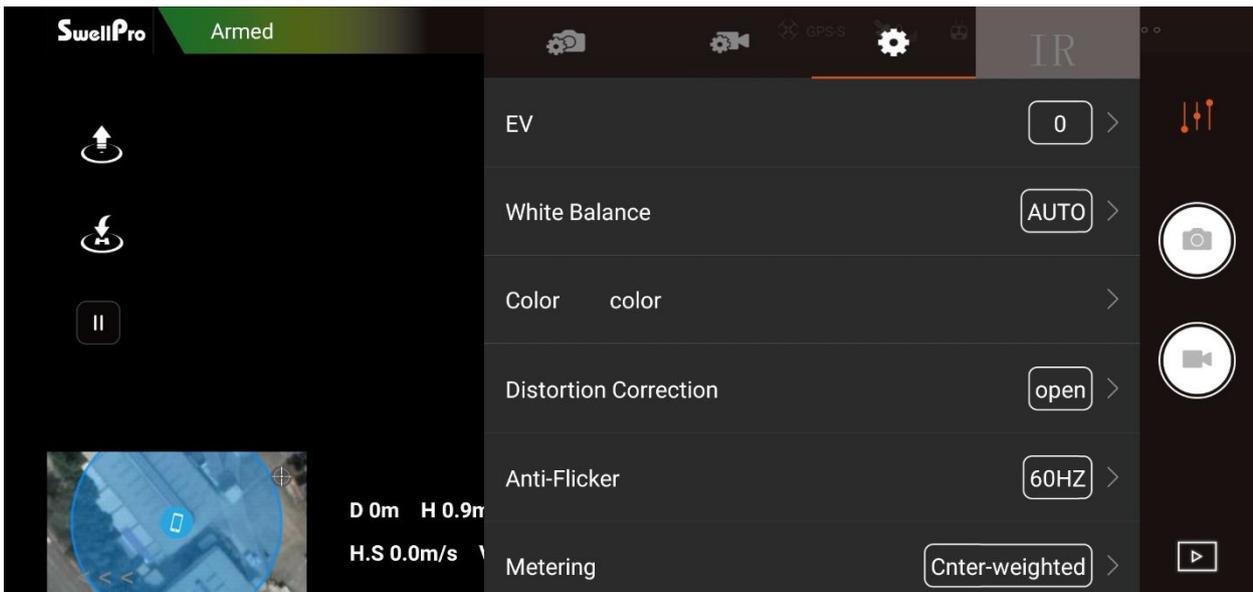


Photo Setting Interface



Video Setting Interface



Camera Setting Interface

## Specification

Gimbal	
Waterproof rating:	IP67
Stabilization:	2-axis (tilt, roll).
Controllable range:	Tilt: -90° to 0°
Max control speed:	Tilt: 60 °/s
Weight:	About 145 g
Size:	71*55*65mm
Camera	
Sensors:	1/2" 2M CMOS
Lens:	FOV: 92.6°
Photo size:	4:3/16:9 12MP
Burst mode:	3/5/10 shoots
Video resolution:	FHD: 1920*1080 30/60p   HD: 1280*720 120/60p
Max data stream:	64 MBps
Photo format:	JPEG
Video format:	MP4, MOV
Memory card:	Micro SD card: supports up to 128GB of capacity, write speeds ≥ 40 MB/s, recommend using Class 10 or above, or with UHS-1 rating.
Working temperature:	-10°C - 40°C

## Version Information

SwellPro products are constantly improving, so as the product user guides. It is recommended to visit [www.swellpro.com](http://www.swellpro.com) to check and download the latest user guide.

Version

1.0 GC2-S User Guide First Edition