

SKYDROID 云卓

云卓科技（福建）有限公司



云卓 G11

用户手册

V1.1

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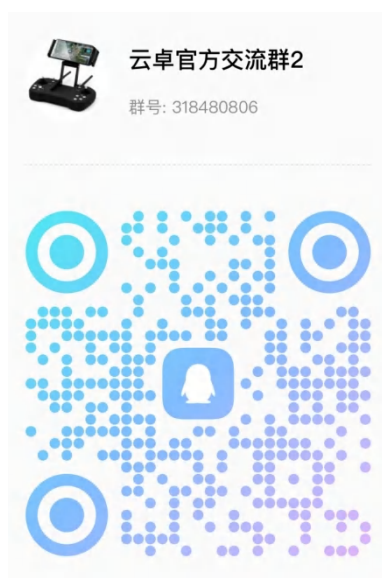
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云卓官方微信群

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- 1.本条款仅适用于云卓科技（福建）有限公司所生产的产品，云卓授权经销商销售的产品亦适用本条款。
- 2.本公司产品自购买之日起，一周内经我司核实为非人为造成的质量问题，由云卓承担返修产品的往返快递费，购买云卓产品一周以上一年以内经我司核实为质量问题，用户和云卓各自承担寄出返修产品的快递费。
- 3.返修时需提供购买凭证和保修卡或网络平台交易记录。
- 4.云卓产品自购买之日起七天内，在正常使用情况下出现非人为造成的质量问题，外观无损坏，凭保修卡及购机凭证在经销商处协商可以免费更换同型号产品；经销商在收

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5.云卓产品将由云卓科技（福建）有限公司提供终身售后服务，属于非人为造成的质量问题，一年内免费保修；对于自购买之日起人为的损坏、改装、拆机或超过一年免费保修期的，用户须支付往返邮费及维修费用。

6.为确保您的权益受到保护，并能及时有效地为您服务，请在购买云卓产品时完整填写好保修卡及索要购机凭证。用户享受本售后服务条款必须提供保修卡及购机凭证。

7.返修产品将于云卓公司收到后的 15 个工作日内寄回给顾客，并附上维修报告。

8.以上售后服务条款仅限于中国大陆销售的云卓产品。

港澳台及海外客户的售后问题发至邮箱 sales01@skydroid.xin，具体售后细则视情况而定。

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一、概述

1. 产品特性

G11 是云卓首款搭载 Linux 操作系统的旗舰遥控器。G11 基于 Linux 底层进行深度定制与开发，并提供开源 SDK，精简系统中无关组件，从源头杜绝软件冲突与死机隐患，为用户提供极致稳定流畅、低延时、安全的工业级操控体验。

机身轻至 480g，辅以人体工学曲线设计，大幅缓解长时间握持疲劳。内置 10000mAh 大容量电池，实现 5 至 6 小时的超长续航，全力保障作业连续性。通信方面，支持 2.4G/5.8G 双频段自动切换，遥控距离最远可达 9 公里，确保在复杂电磁环境下信号依然坚若磐石。

配备 4.5 英寸 1920×1080 全高清屏，画面细腻逼真；并支持实时 OSD 信息叠加，飞行数据、图传状态一目了然。11 个精准布局的物理通道，触感反馈清晰，支持无需目视的盲操体验。

2. 主要用途及适用范围

G11 适用于对机器人、直升机、固定翼、多旋翼、车、船等无人设备的视频图像传输（需选配摄像头）、数据传输和操控。

3. 使用环境条件

注意：

- a) 环境温度：-10°C~50°C。
- b) 贮存温度：-20°C ~50°C。
- c) 相对湿度：不超过 85%。
- d) 大气压力：86kPa ~ 106kPa。
- e) 使用地点不允许有爆炸危险的介质，周围介质中不应含有腐蚀金属和破坏绝缘的气体及导电介质，不允许充满水蒸气及有严重的霉菌存在。
- f) 使用地点应具有防御雨、雪、风、沙、灰的设施。

4. 工作条件

供电方式和注意事项

G11 系列地面端内置一体式可充电锂电池，兼容市场标准 TYPE-C 接口，请使用原装充电器充电。

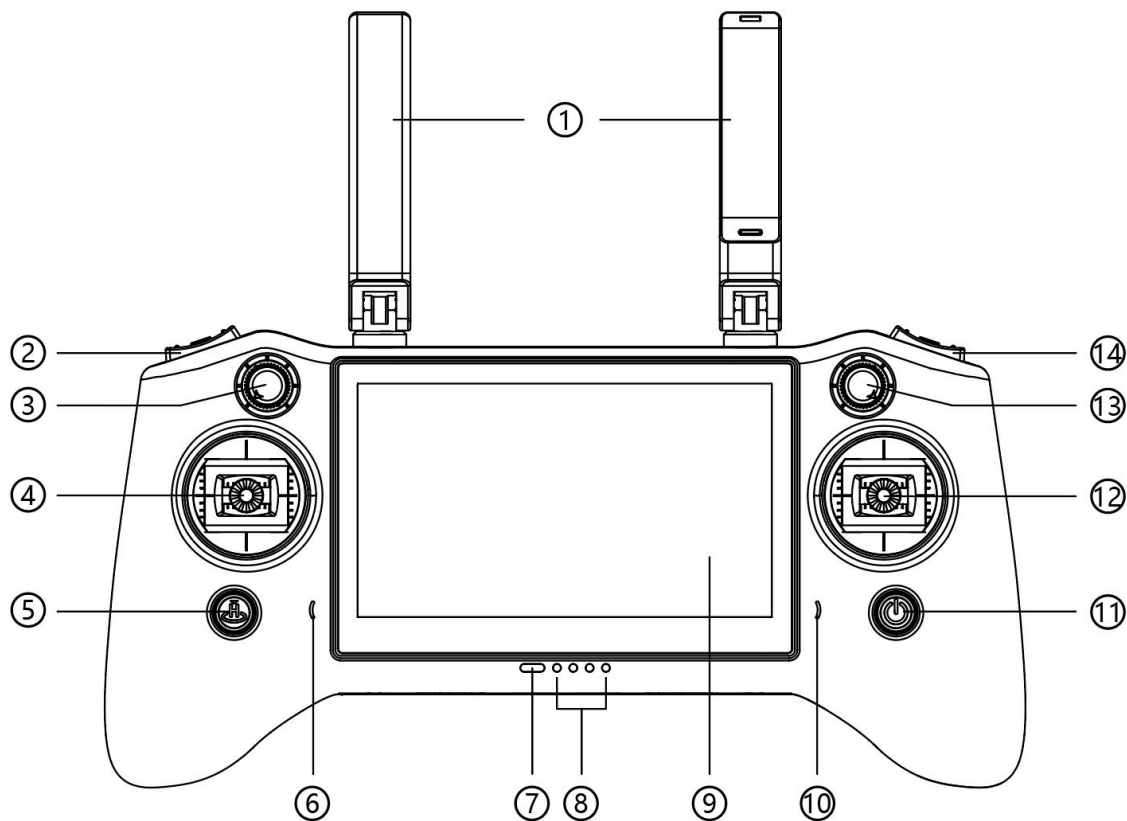
如在地面端充电时遇到冒烟、有异味、漏液的情况时，请勿继续给地面端充电，请移送至本公司进行维修。

请勿在婴儿触碰区域给本产品进行充电，以免发生触电危险。

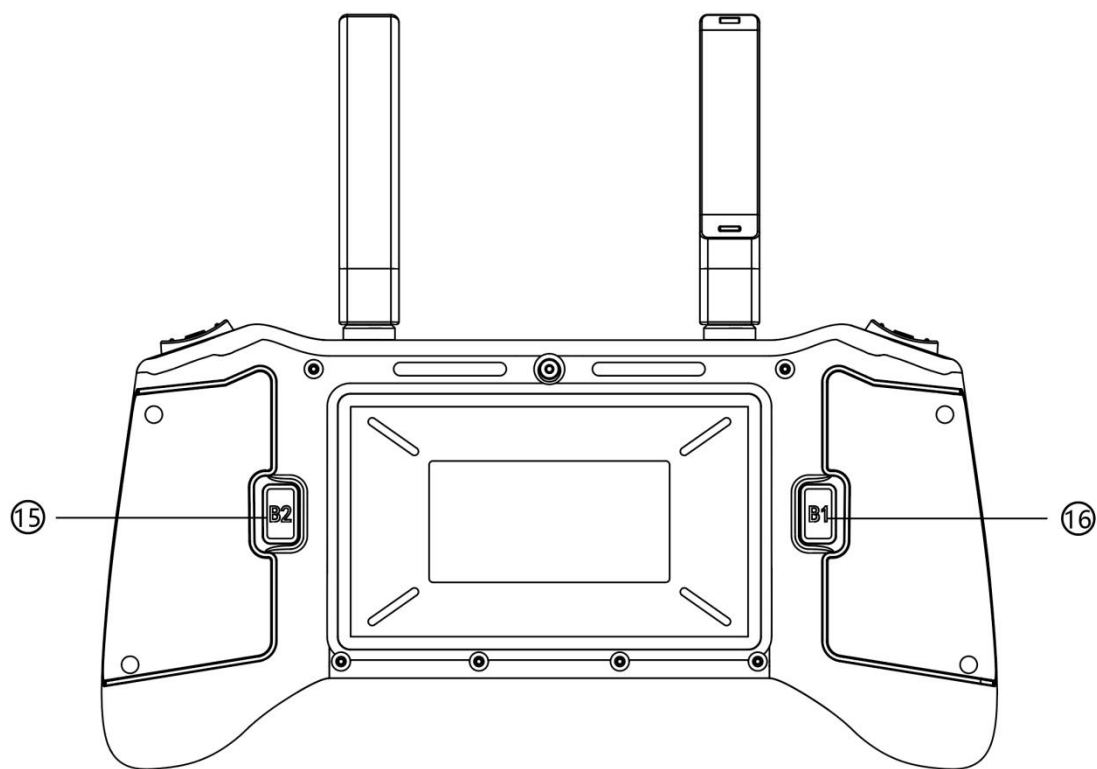
请勿在超过 60°C 的环境下对本产品进行充电。

二、部件名称

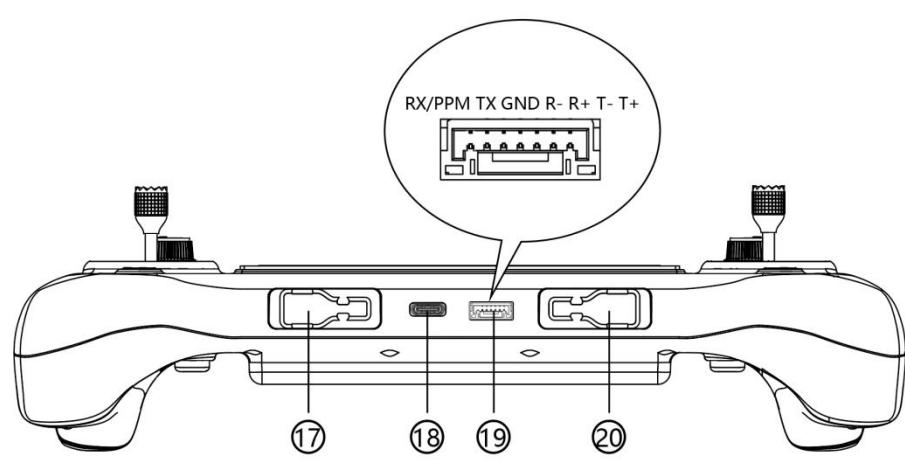
1. 遥控器



序号	注解	序号	注解
1	2.4GHz/5.8GHz 天线	8	充电指示灯
2	三段开关 SW1（飞行模式）	9	显示屏
3	旋钮 AUX1	10	扬声器 II
4	左摇杆 X1、Y1	11	开关机按键
5	按键 H	12	右摇杆 X2、Y2
6	扬声器 I	13	旋钮 AUX2
7	对频指示灯	14	三段开关 SW2（暂无功能）

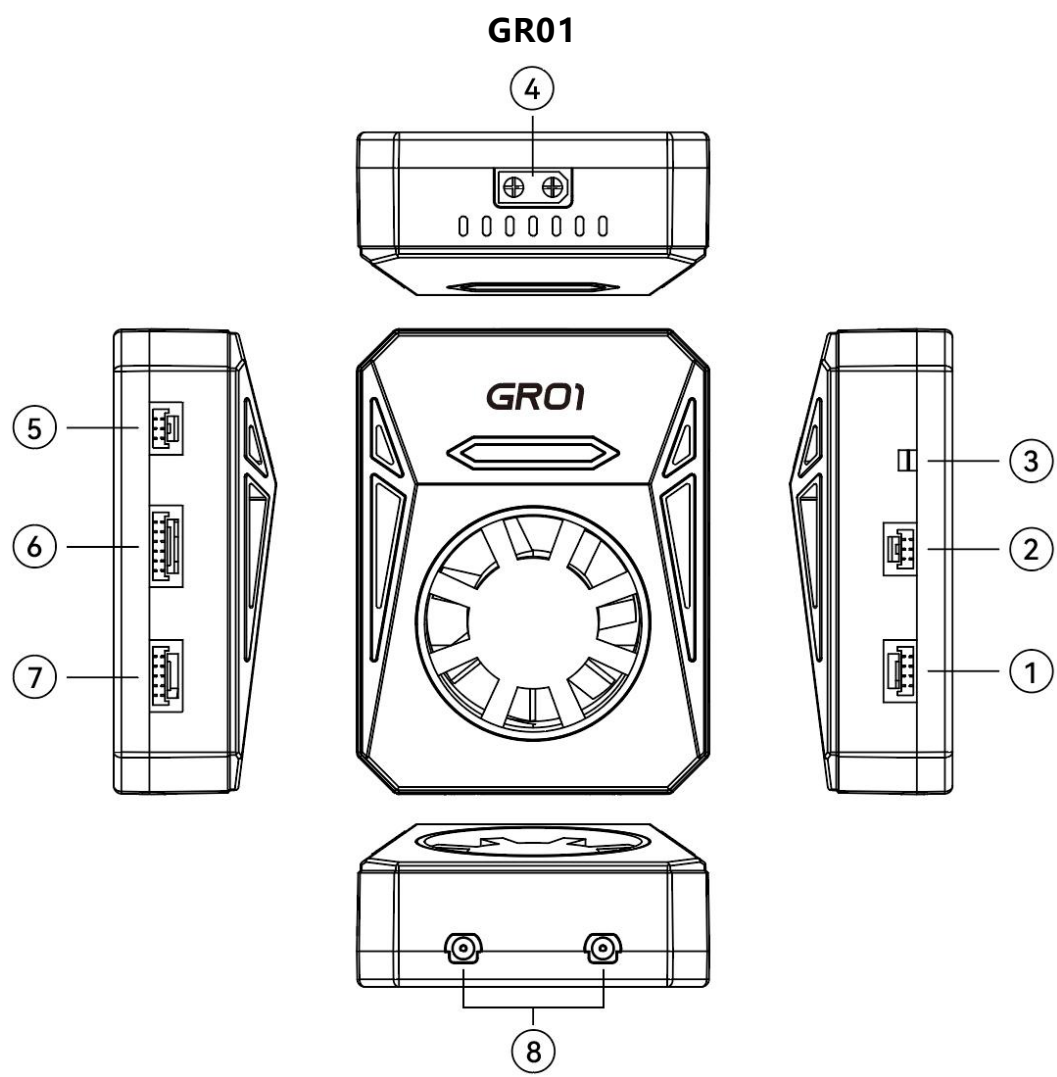


序号	注解	序号	注解
15	按键 B2	16	按键 B1



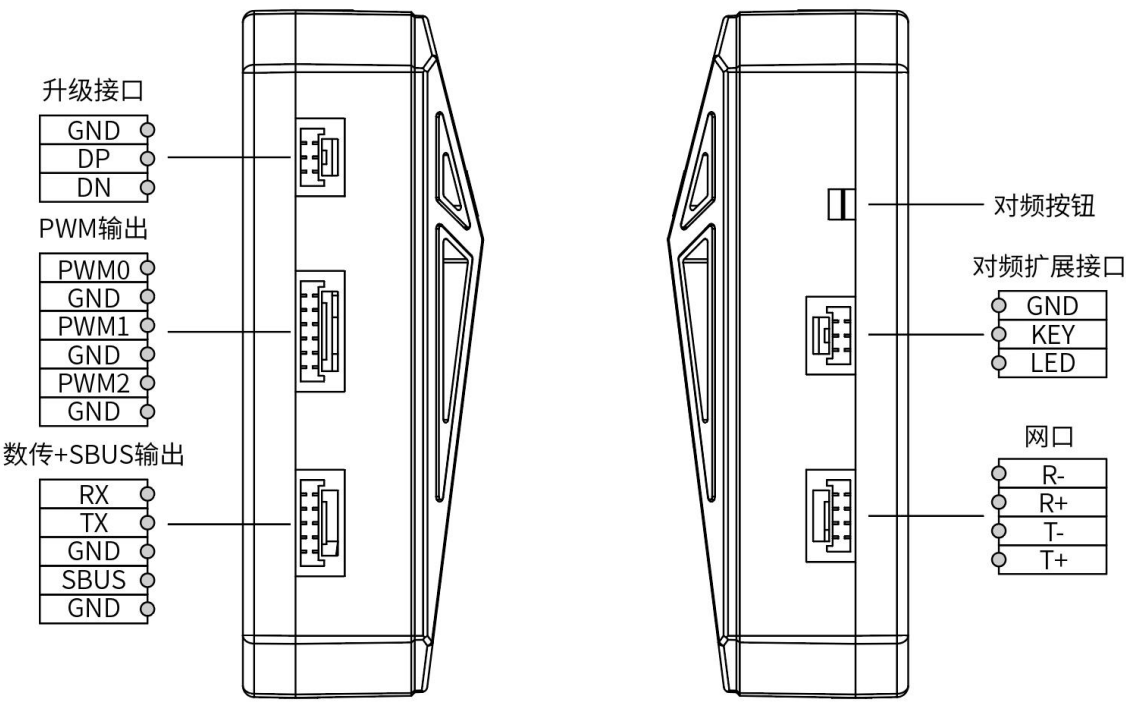
序号	注解	序号	注解
17	摇杆帽储物槽 I	19	PPM+ 网口
18	TYPE-C（充电口）	20	摇杆帽储物槽 II

2.接收机



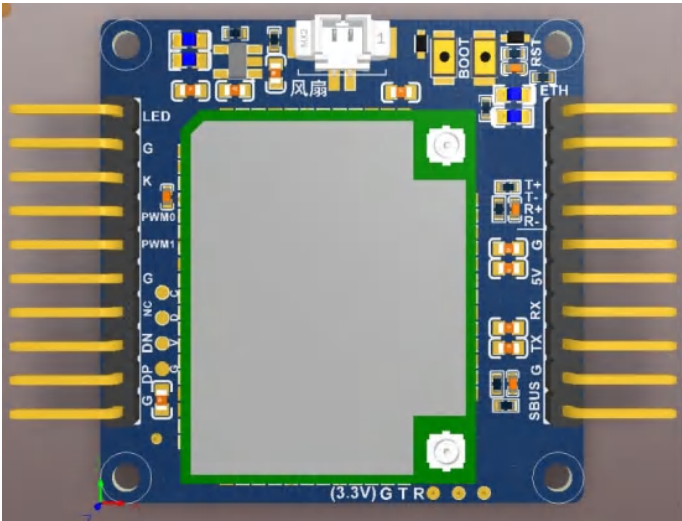
序号	注解	序号	注解
1	网口	5	升级接口
2	对频扩展接口	6	PWM 输出
3	对频按钮	7	数传接口+SBUS 输出
4	电源输入口（7.2V ~ 80V）	8	天线接口

接收机接口定义：



注：GR01 的 PWM0~2 对应遥控器通道 9~11

G12 RX

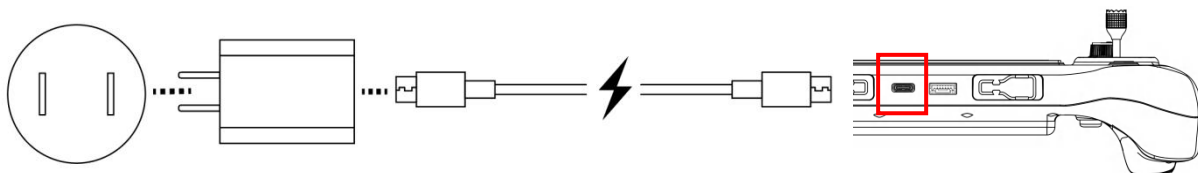


名称	注解	名称	注解
		ANT	天线座(IPEX1 代)
LED	对频指示灯	ETH0_TX+	网口
GND	地线	ETH0_TX-	
KEY	对频按钮	ETH0_RX+	
PWM0	PWM9 口 (9 通道)	ETH0_RX-	
PWM1	PWM10 口 (10 通道)	GND	供电 (5V) + 数传口
GND	地线	5V_IN	
NC	空引脚	UART_RX	
DN	升级口	UART_TX	
DP		GND	SBUS 接口
GND		SBUS	
		ANT	天线座(IPEX1 代)

三、准备遥控器

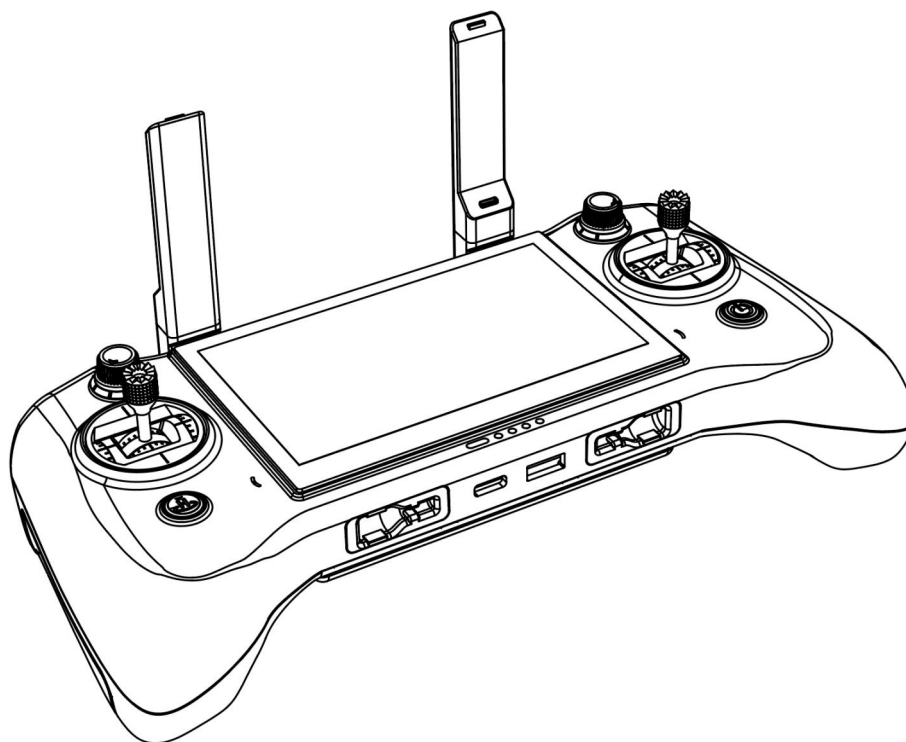
1. 遥控器充电

使用原装充电器充满约 3 小时



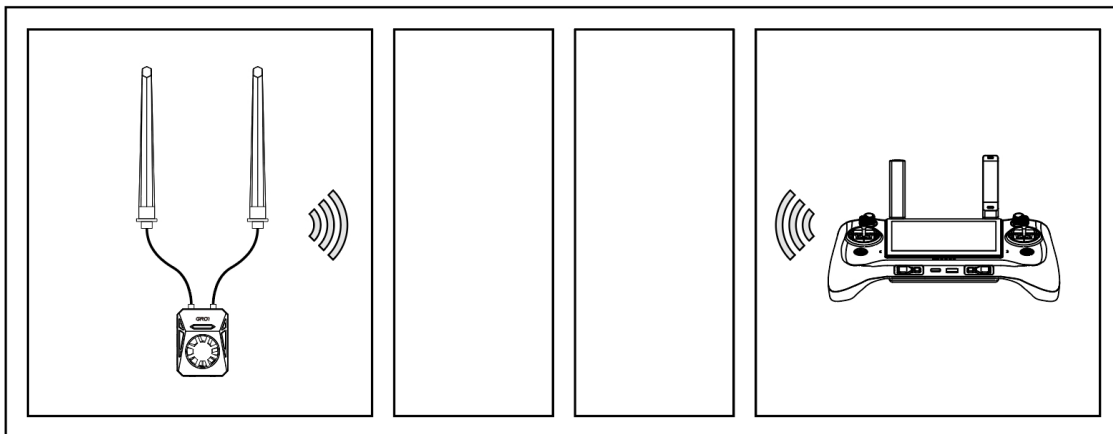
请使用原装充电器充电，为保持遥控器电池最佳状态，请确保每一个月对电池进行一次完全充电。

2. 天线正确打开

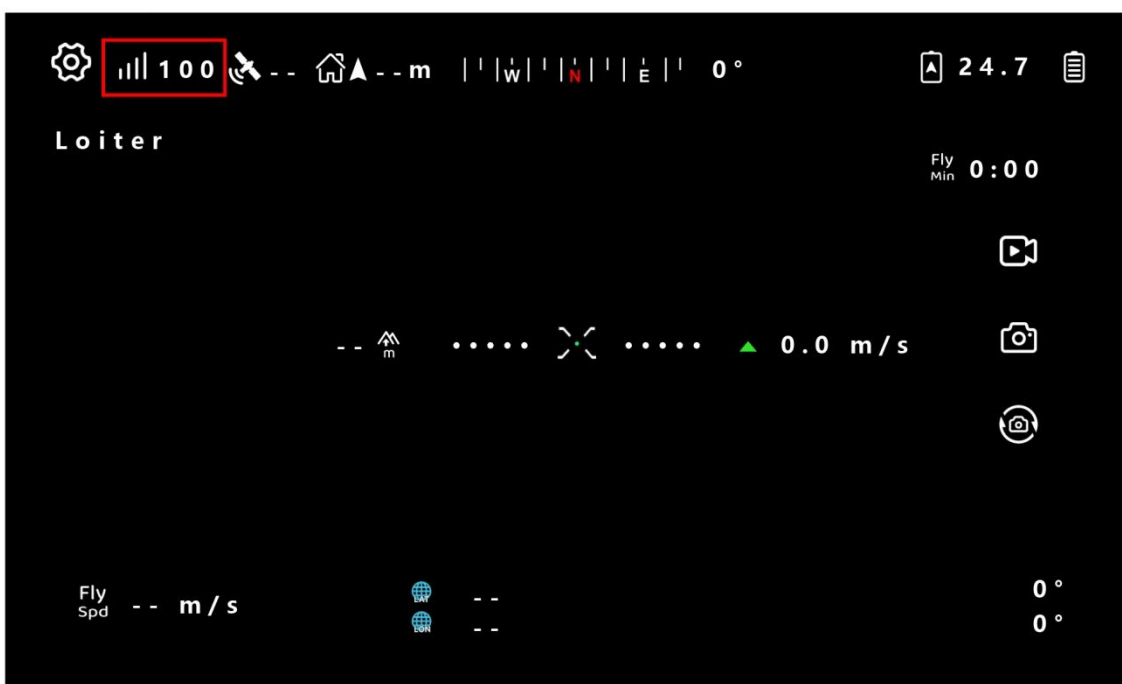


3. 室内拉距测试

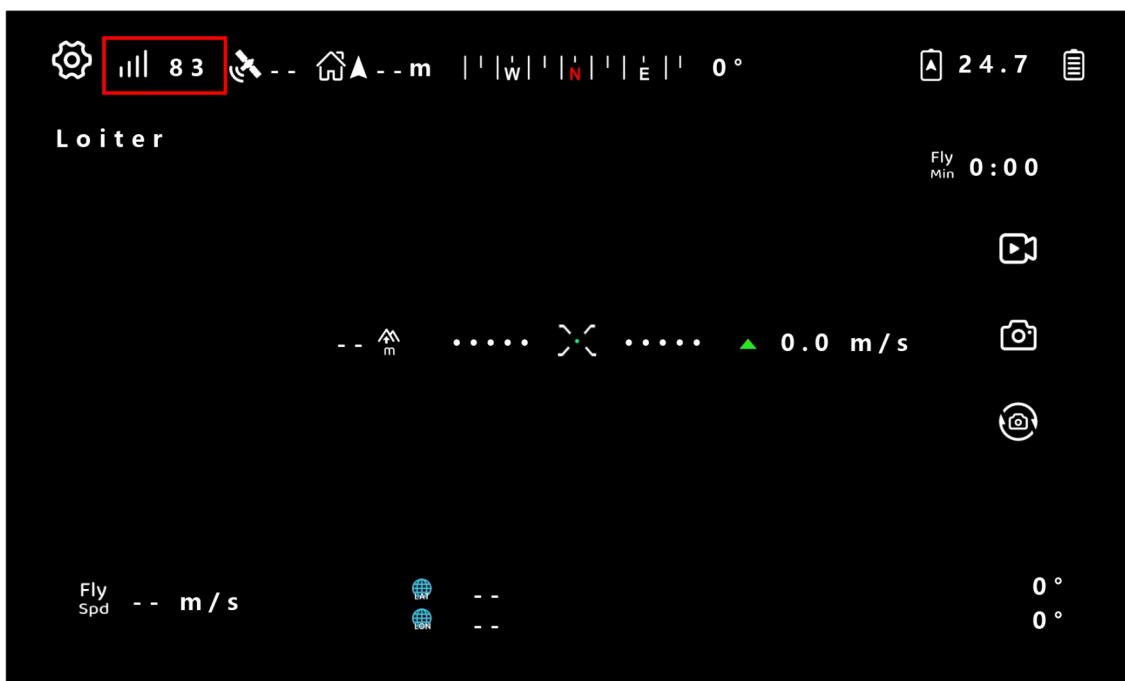
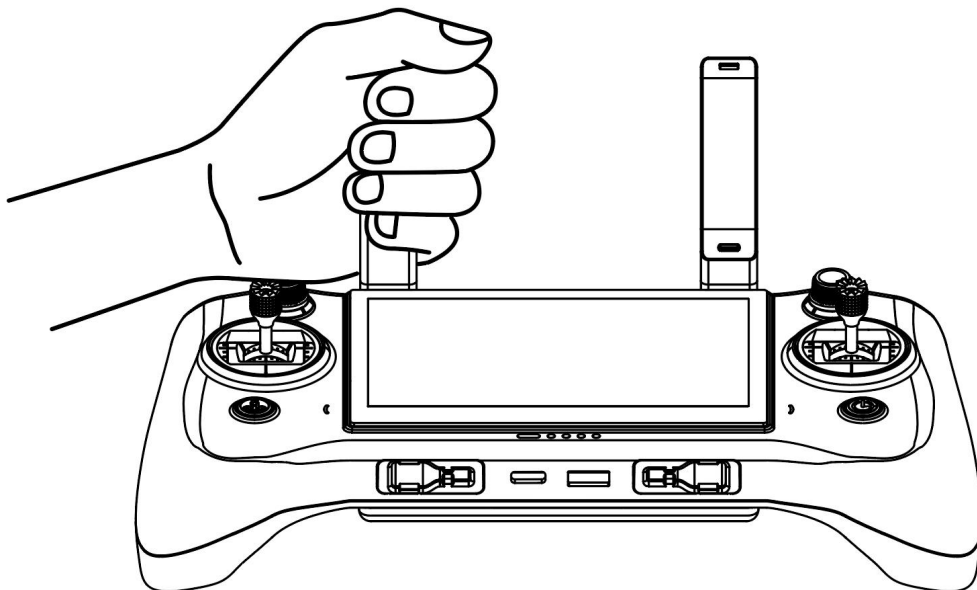
(1) 测试场景：遥控器与接收机隔着 3-4 堵墙。



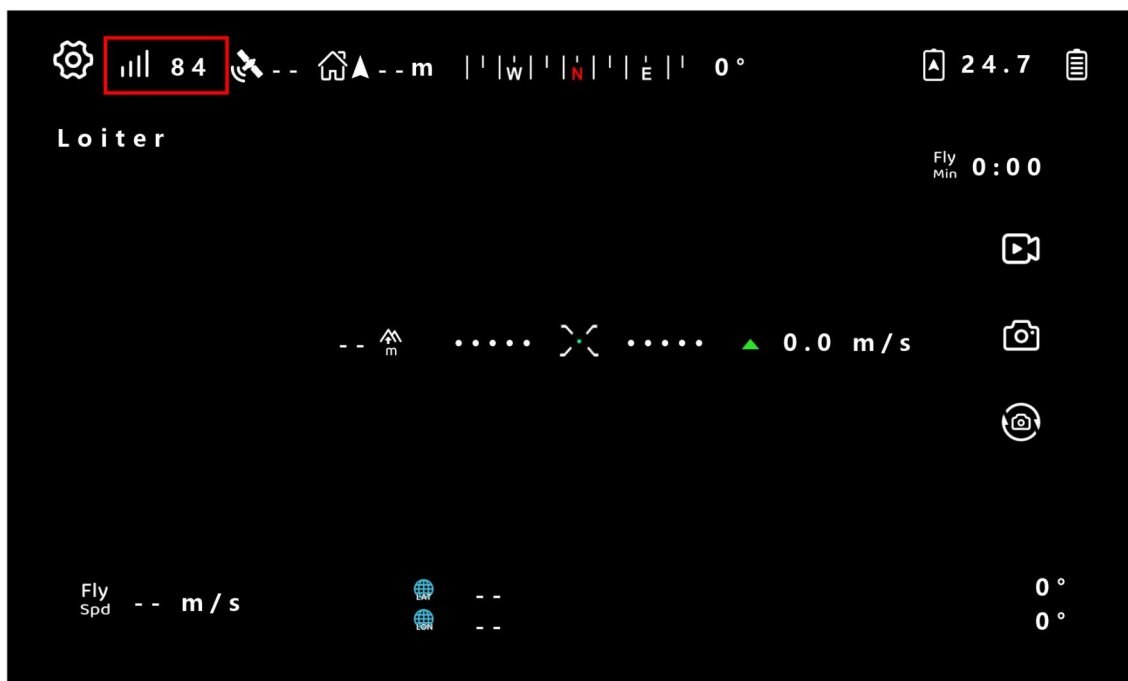
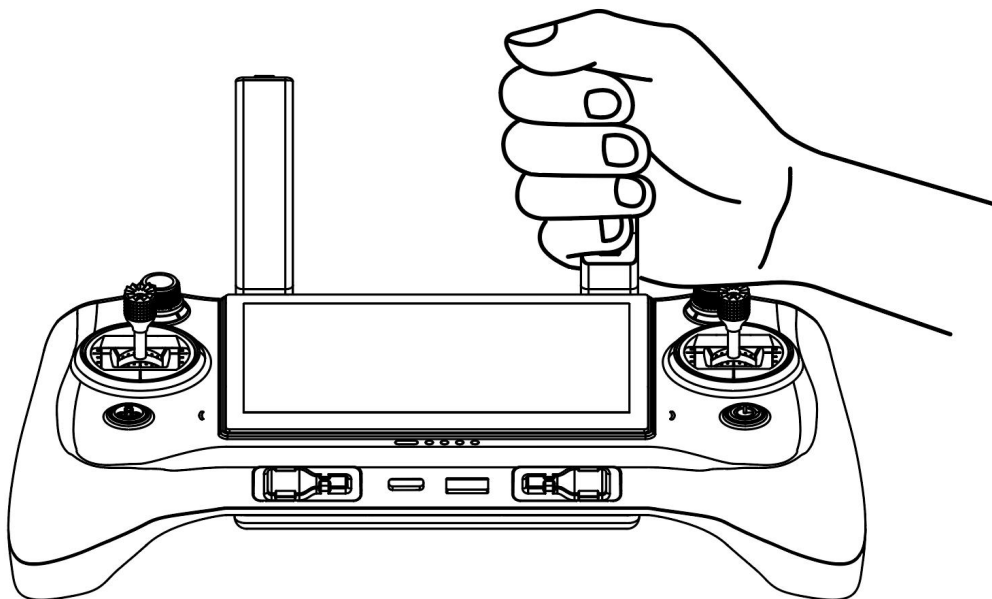
(2) 没有对天线进行遮挡的情况下，信号强度如下图所示。



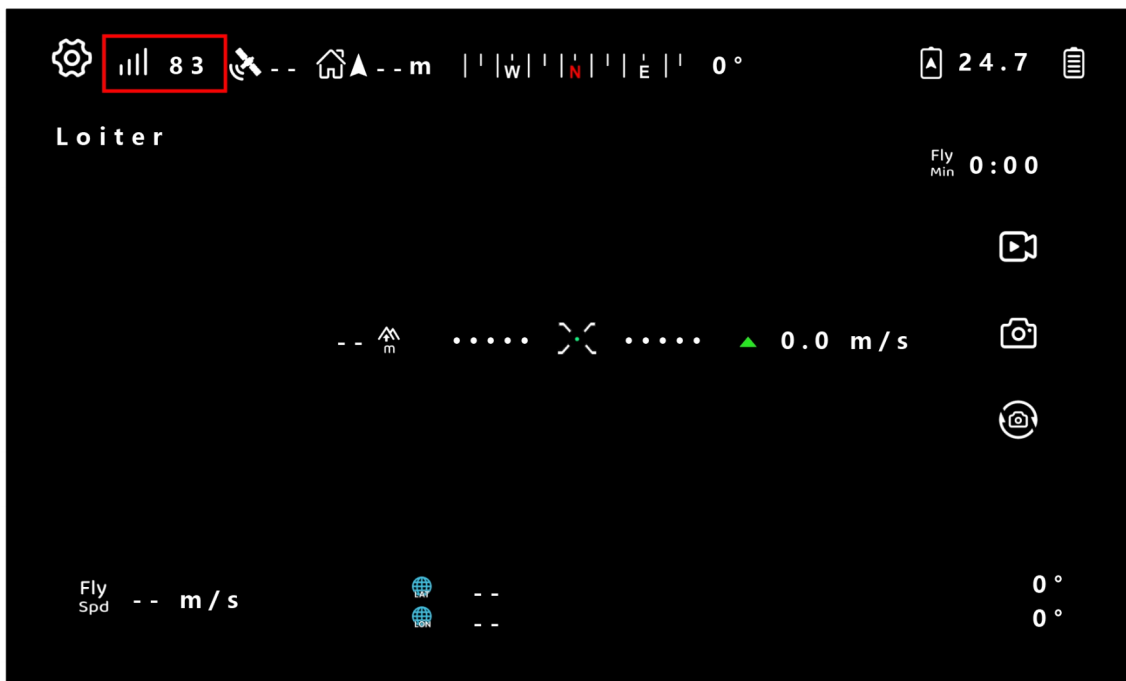
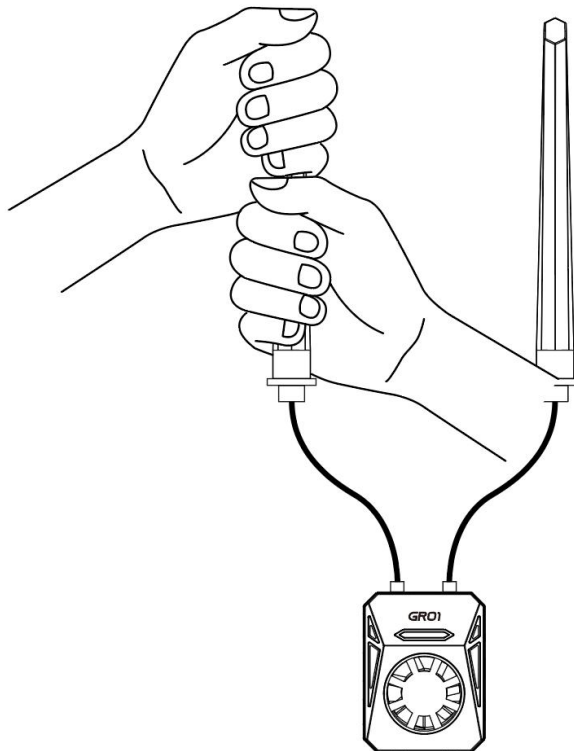
(3) 当紧握住遥控器左侧天线时，信号强度如下图所示。



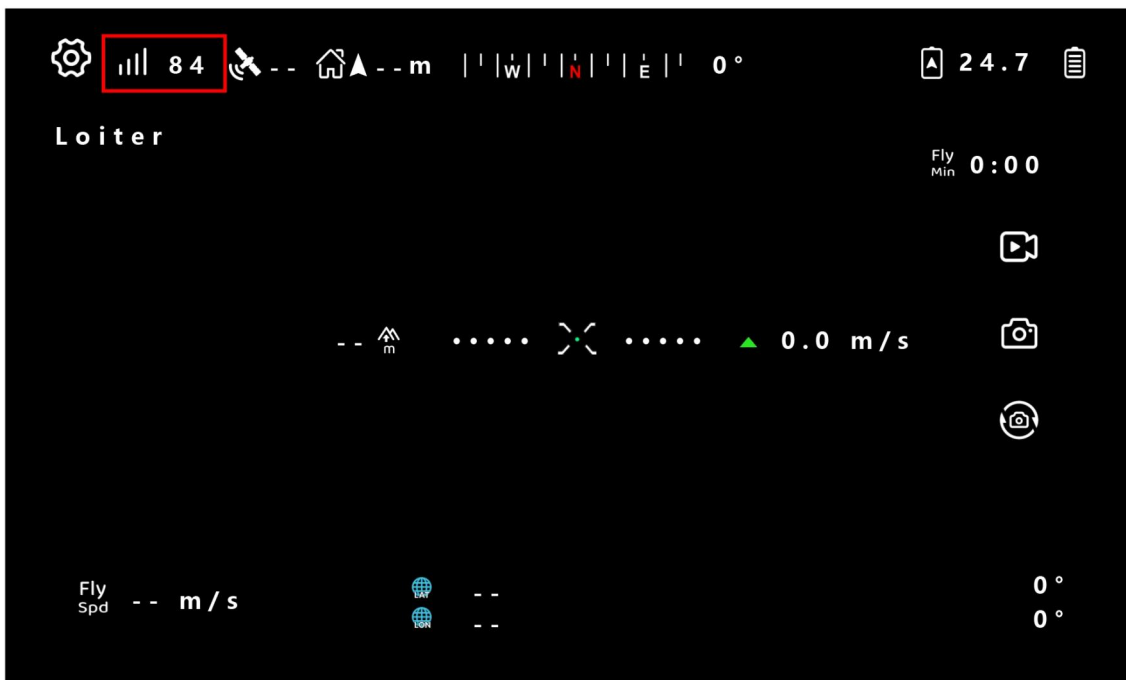
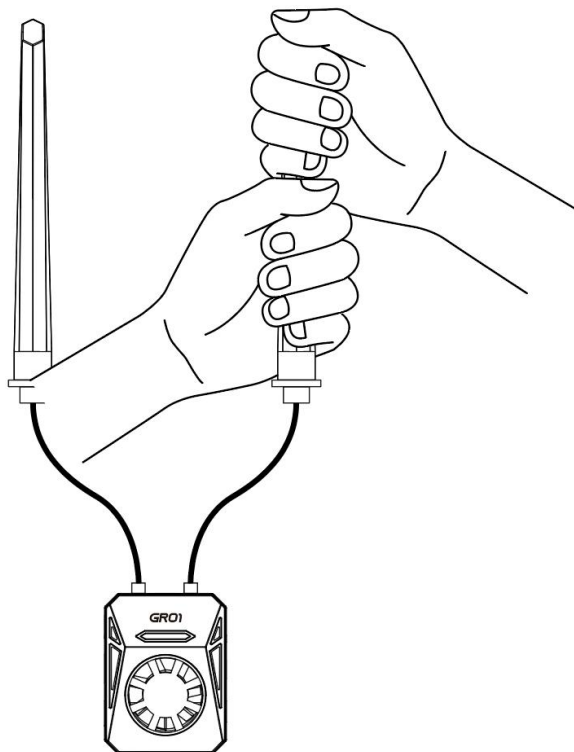
(4) 当紧握住遥控器右侧天线时，信号强度如下图所



(5) 当紧握住接收机左侧天线时，信号强度如下图所示。



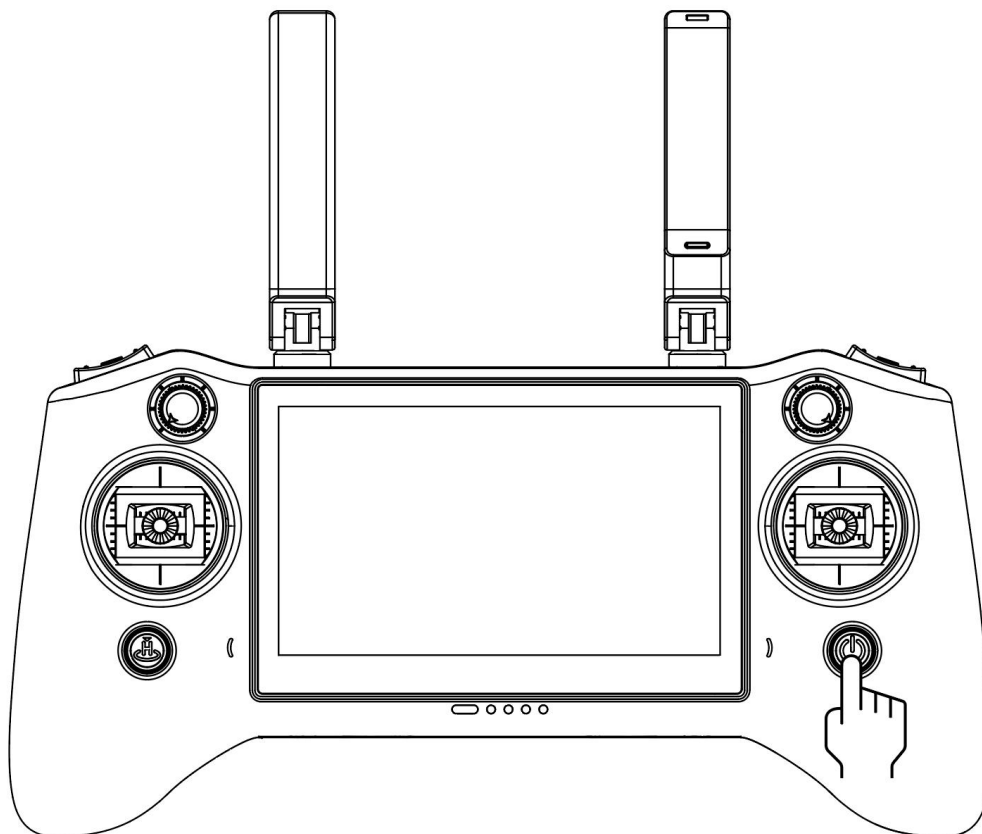
(6) 当紧握住接收机右侧天线时，信号强度如下图所示。



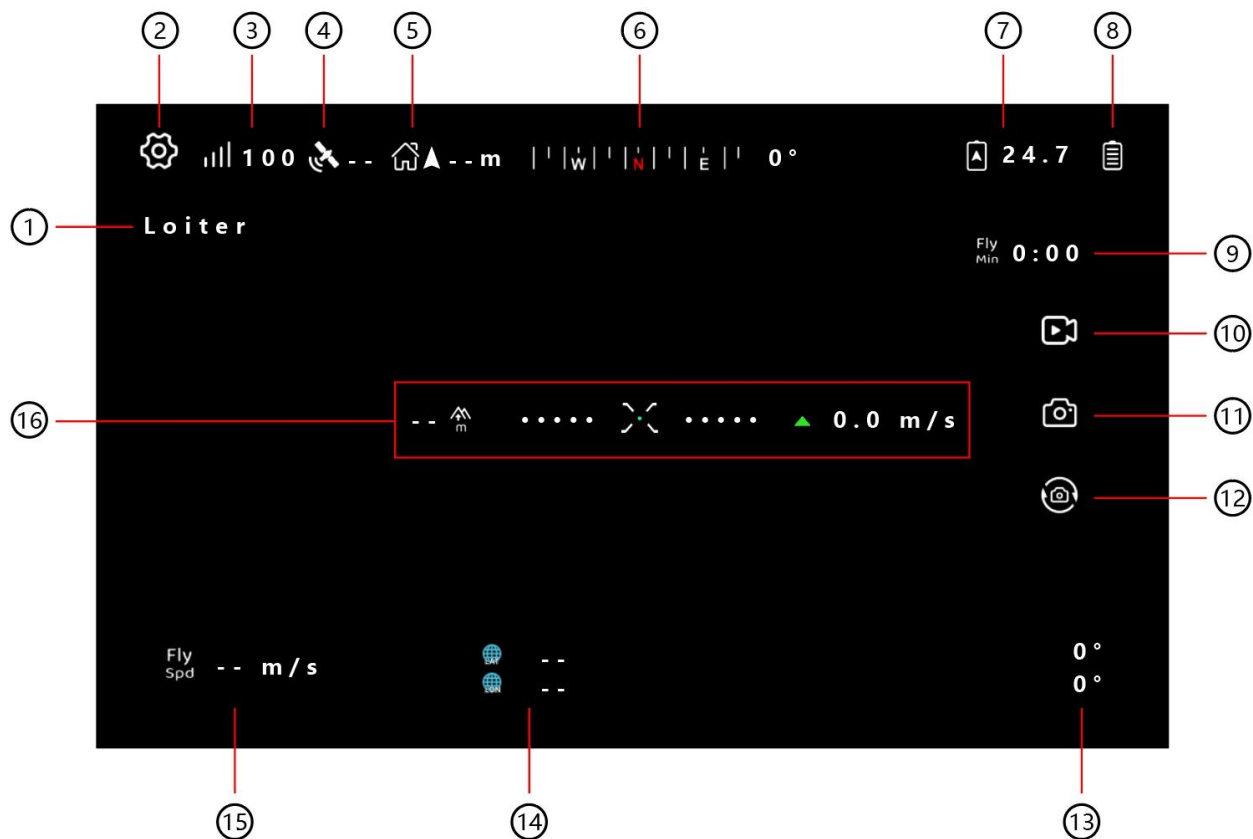
四、使用、操作

1. 遥控器开机与关机

短按+长按电源键可以开启遥控器，再短按+长按电源键，可以关闭遥控器。



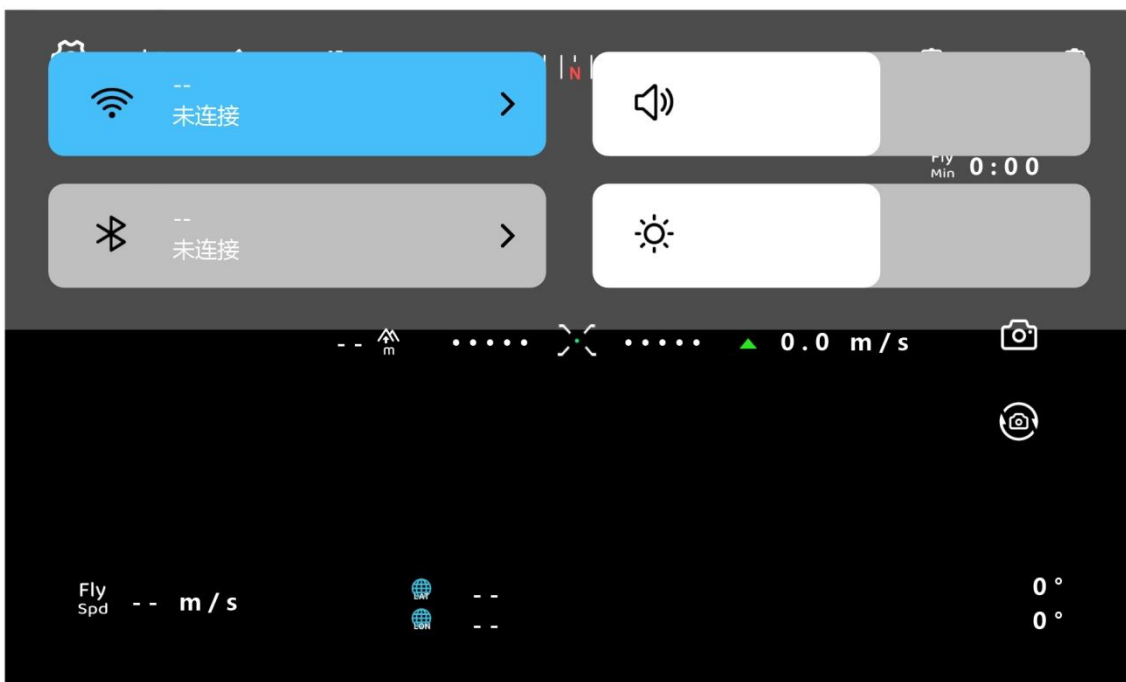
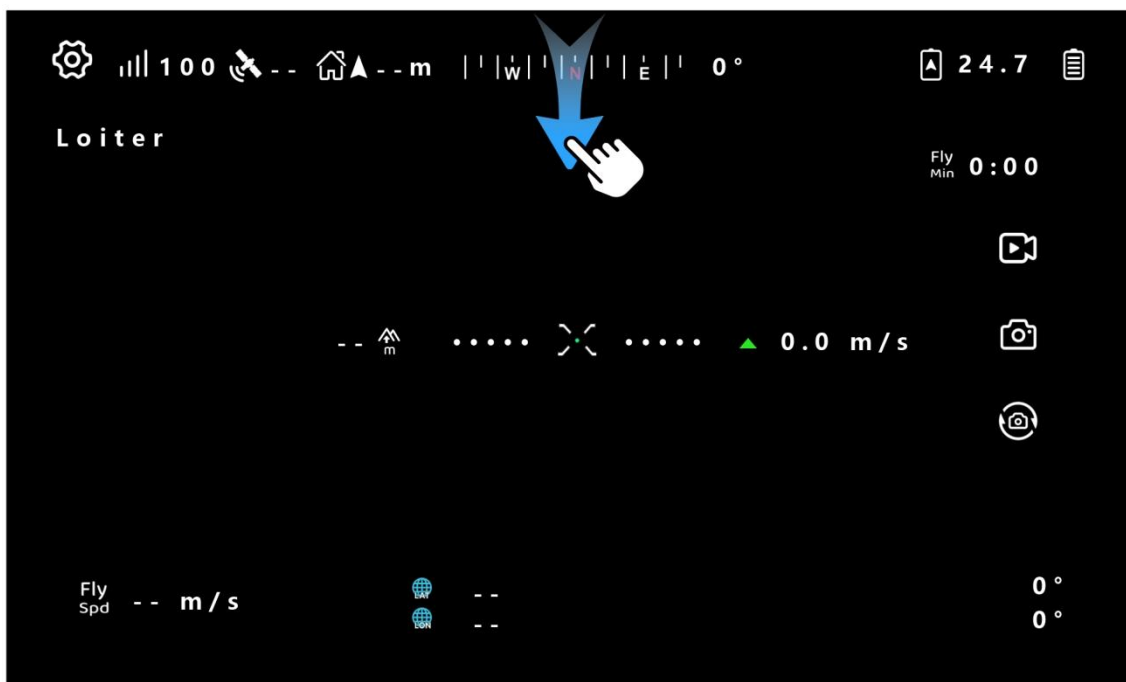
2. 系统桌面



序号	注解	序号	注解
1	飞行模式	9	飞行时间
2	设置	10	录像
3	信号强度	11	拍照
4	GPS 卫星个数	12	画面切换
5	离家距离	13	俯仰角和倾斜角
6	航向	14	经纬度
7	飞机电池电压	15	飞行速度
8	遥控器电量	16	飞行高度、姿态、攀爬速度

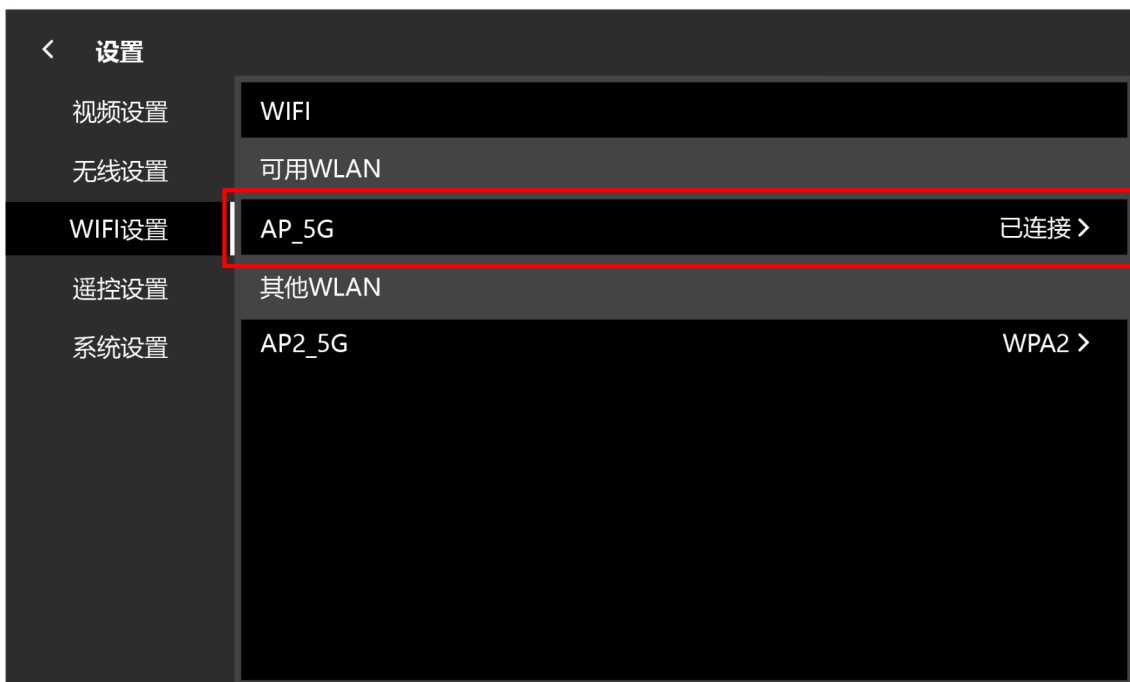
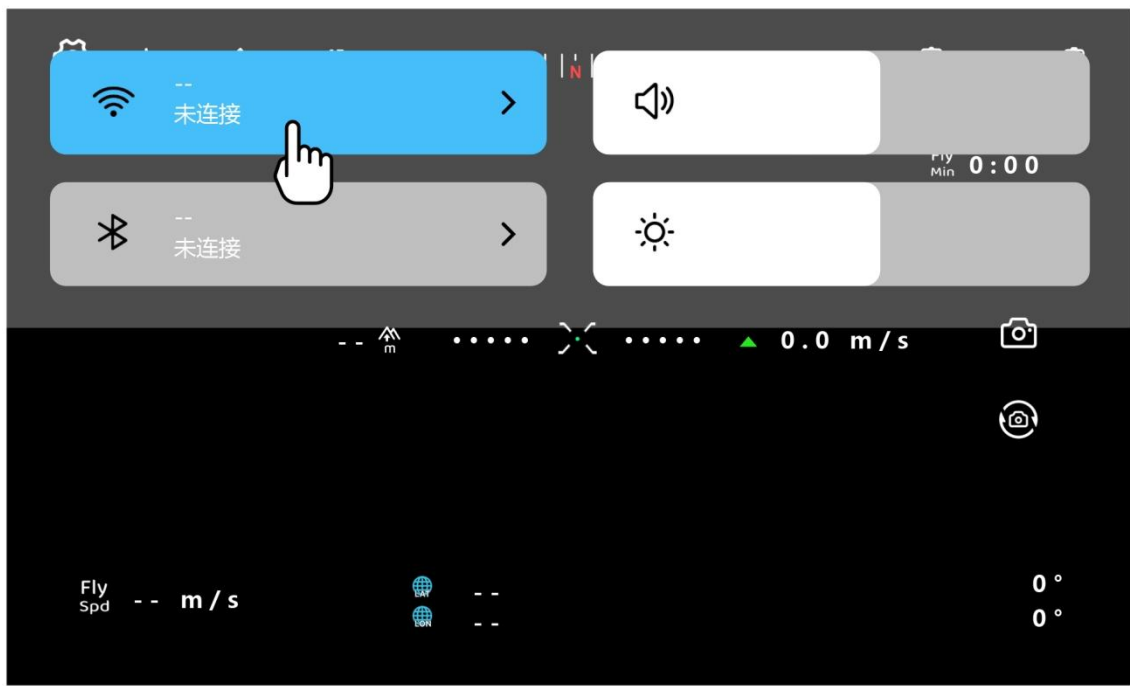
3. 控制中心

从屏幕顶部边缘向下滑动可进入控制中心



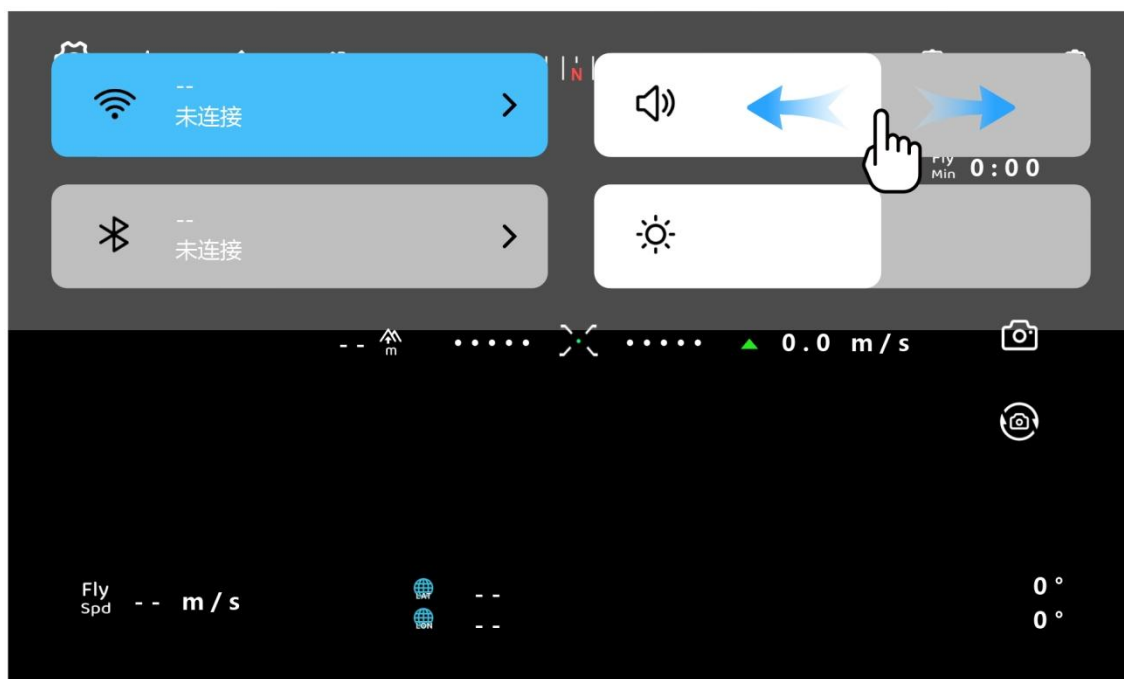
4. 设置 WIFI

点击 WIFI 即可打开或关闭 WIFI。长按 WIFI 即可进入 WIFI 设置页面。



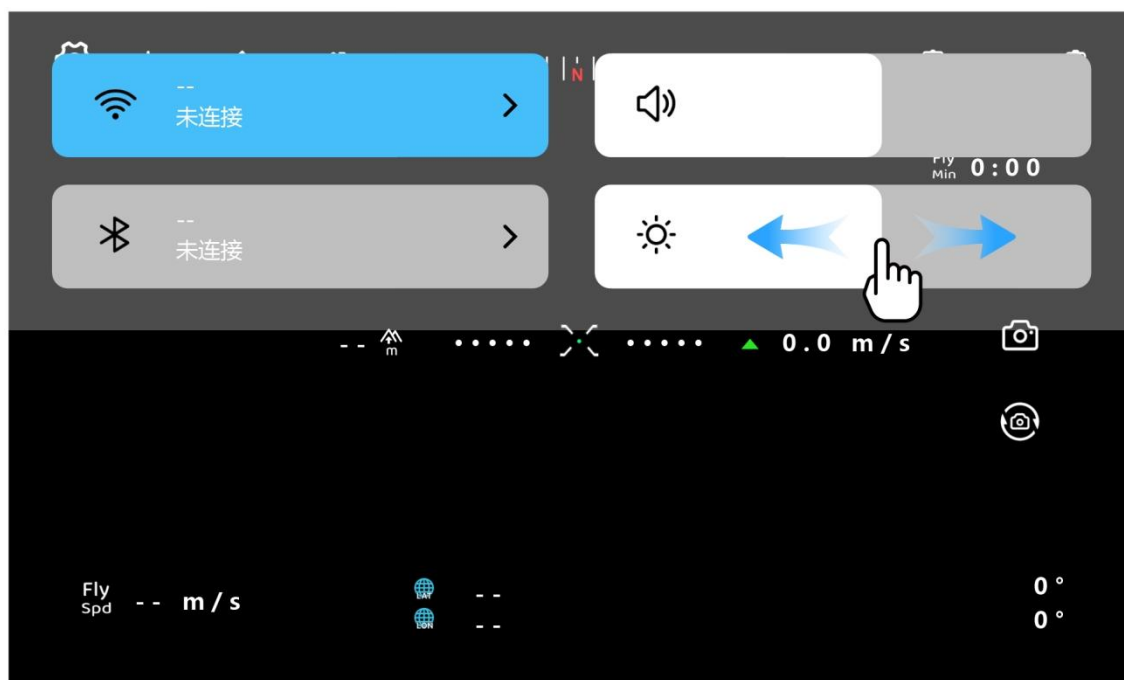
5. 调节音量

拖动声音滑动条可调节音量大小。



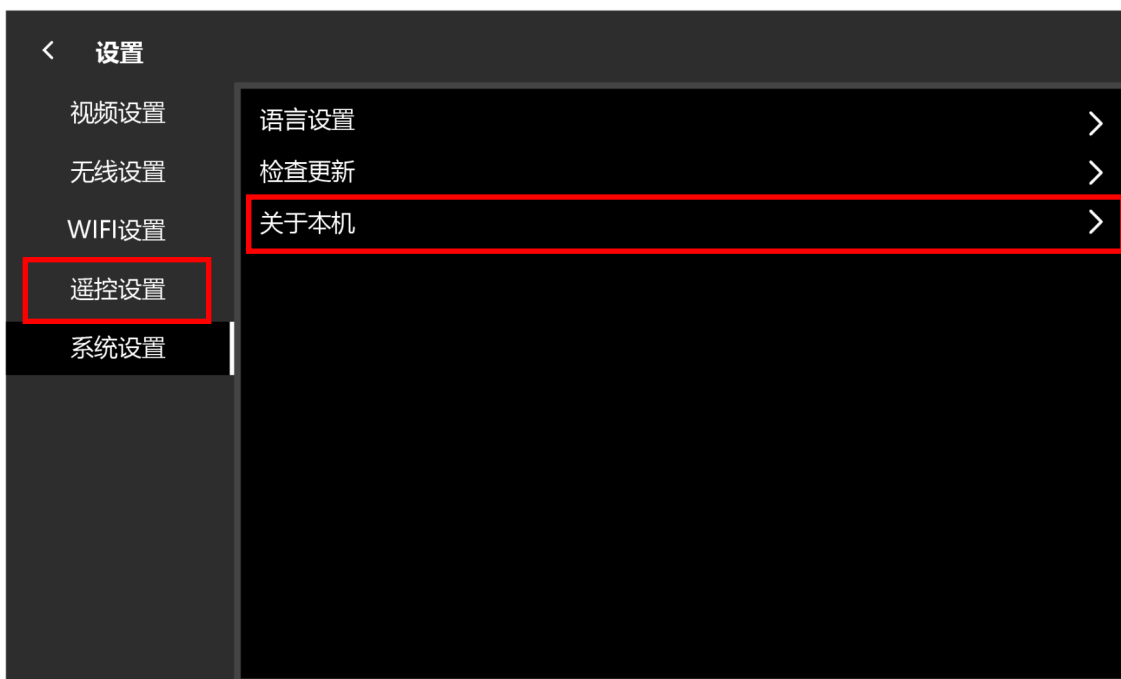
6. 调节亮度

拖动亮度滑动条可调节屏幕亮度。



7. 语言设置

点击设置  进入设置页面



8. 视频设置

点击设置  进入设置页面，选择视频设置

8.1 RTSP

可设置视频流地址



可读取、修改视频地址、保存设置。

8.2 低延迟模式



可设置低延时模式视频端口和视频格式（需要接专门的摄像头协议支持）。

8.3 OSD



可设置OSD开关。

可设置显示OSD的信息来源：mavlink/自定义。

9. 无线设置



9.1 对频开关

可设置开关遥控器射频。

9.2 对频

可查看对频状态和对频信息。

9.3 波特率

修改接收机串口波特率。

9.4 射频设置

可设置射频参数。

10. 遥控设置



10.1 舵量查看

查看遥控器各个通道的实时舵量值。

10.2 遥控调参

可自定义按键通道、设置反向和修改舵量最大最小值。

10.3 手型设置

可设置遥控器手型，默认美国手。

10.4 混控油门

可设置混控开关和油门死区。

10.5 按键设置：

按键音：可设置按键音，

长按设置：可设置按键的长按设置，

按键自锁：可设置按键（如B1）的自锁或非自锁模式，

掉电保存：可设置按键掉电后是否保存，

滚轮模式：可设置滚轮绝对值或增量值。

10.6 教练模式

可设置 PPM 输出或设置教练控模式。

11. 系统设置



11.1 语言设置

可修改系统语言。

11.2 检查更新：

①系统升级

升级系统固件版本。

②升级遥控器无线模块

升级遥控器的射频固件；

③升级接收机无线模块

无线升级接收机的射频固件；

④升级遥控器 MCU 固件

升级遥控器摇杆单片机的固件；

11.3 关于本机

查看本机 SN 码。

12. 遥控器对频

接收机 1：GR01

方式一：

- ①遥控器开机、接收机通电，通电后绿灯常亮，蓝灯间歇闪烁，风扇间歇转动。
- ②长按接收机对频按钮，直到蓝灯快速闪烁后松开。
- ③点击设置  --> 无线设置 --> 对频 --> 开始对频，确认对频，等待显示对频成功。
- ④对频成功接收机指示灯将会蓝灯常亮。

方式二：

- ①给接收机快速上电 4 次，第 4 次将自动进入对频模式，蓝灯快速闪烁。
- ②点击设置  --> 无线设置 --> 对频 --> 开始对频，确认对频，等待显示对频成功。
- ③对频成功接收机指示灯将会蓝灯常亮。

注：对频时请保持遥控器和接收机在 50CM 以内。

接收机 2：G12 RX

方式一：

- ①遥控器开机、接收机通电，通电后红灯常亮，绿灯间歇闪烁。
- ②短接接收机的 GND 和 KEY 引脚，直到绿灯快速闪烁后松开。
- ③点击设置  --> 无线设置 --> 对频 --> 开始对频，确认对频，等待显示对频成功。
- ④对频成功接收机指示灯将会绿灯常亮。

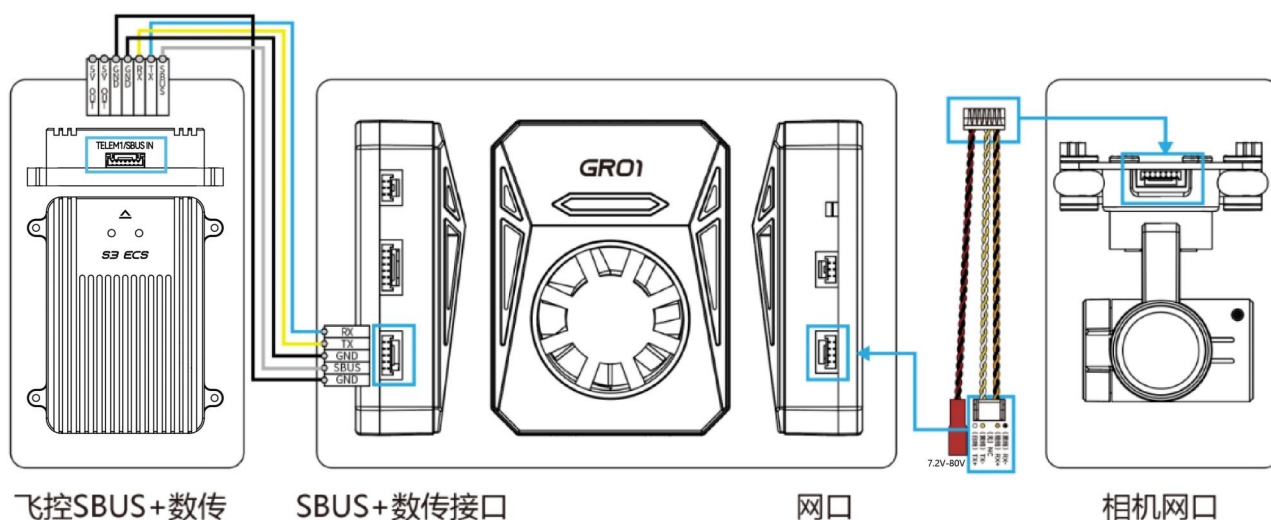
方式二：

- ①给接收机快速上电 4 次，第 4 次将自动进入对频模式，蓝灯快速闪烁。
- ②点击设置  --> 无线设置 --> 对频 --> 开始对频，确认对频，等待显示对频成功。③对频成功接收机指示灯将会蓝灯常亮。

注：对频时请保持遥控器和接收机距离在 50CM 以内。

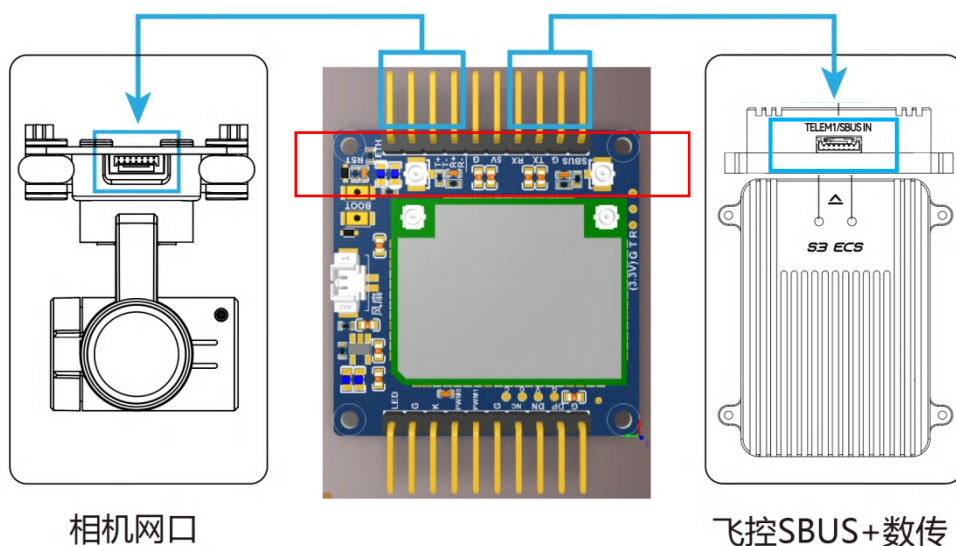
13. 图数传连接

接收机 1：GR01



按照上图接线，接收机的 SBUS+数传接口连接 S3 航电系统 SBUS+数传接口，接收机的网口连接相机网口（**注意：**设备供电和其他接线请参考对应说明书）。

接收机 2：G12 RX



按照上图接线，接收机的 SBUS+数传接口连接航电系统 SBUS+数传接口，接收机的网口连接相机网口。

(1) 图传



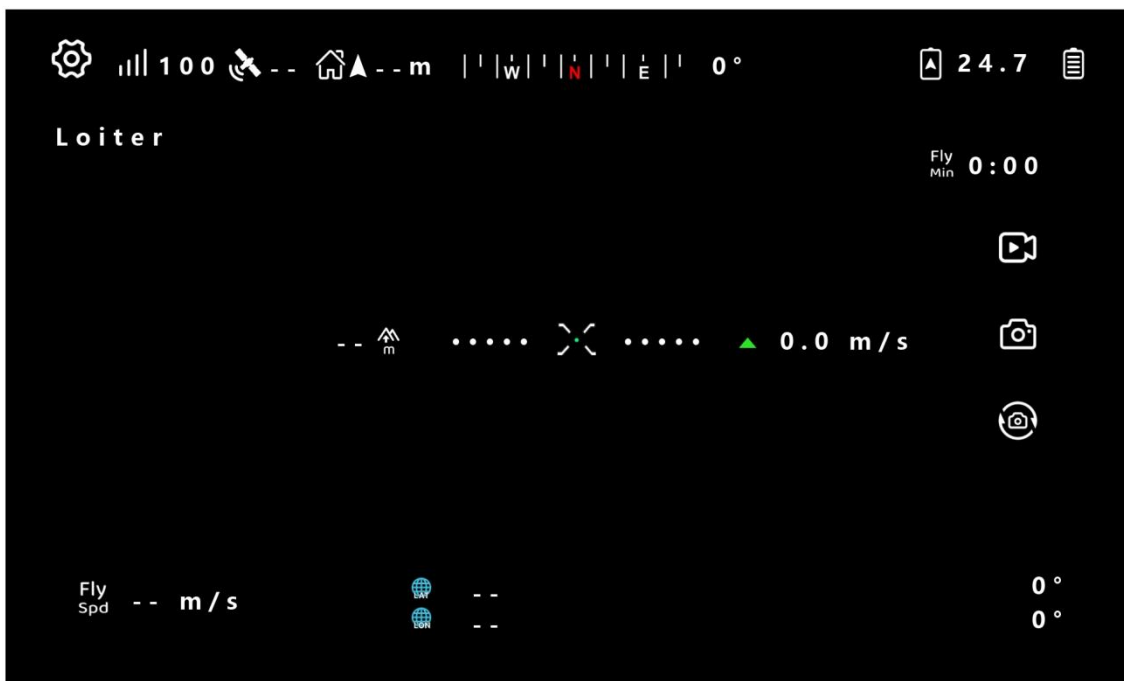
以云卓 C10Pro 为例，摄像头供电并且连接至接收机网口，即可看见图传画面；若使用第三方摄像头，摄像头网段需要设置为 144 网段（192.168.144.XXX），点击设置  进入设置页面，选择 RTSP，读取设置->输入摄像头的 RTSP 拉流地址->保存设置。（参考本文 8.视频设置）

注：第三方摄像头 RTSP 地址需要找厂家提供。



(2) 数传

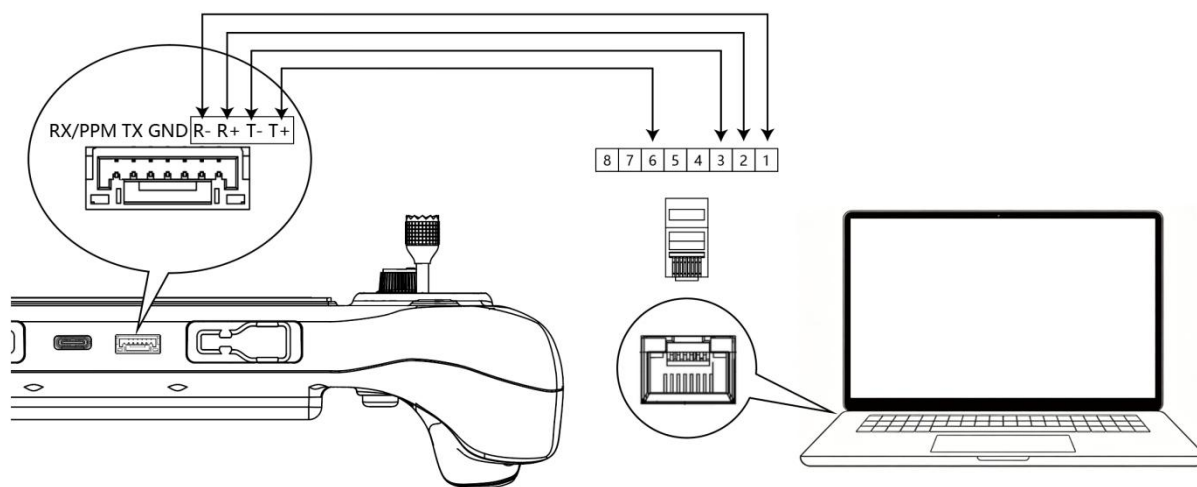
当数传线和波特率都连接设置正确时，将会自动连接上航电系统数传。



注：若连接不成功，请检查

- ①接收机串口波特率是不是与航电系统数传口波特率一致；（S3 航电系统的波特率为 921600）
- ②数传接线定义是否正确（RX 接 TX）。

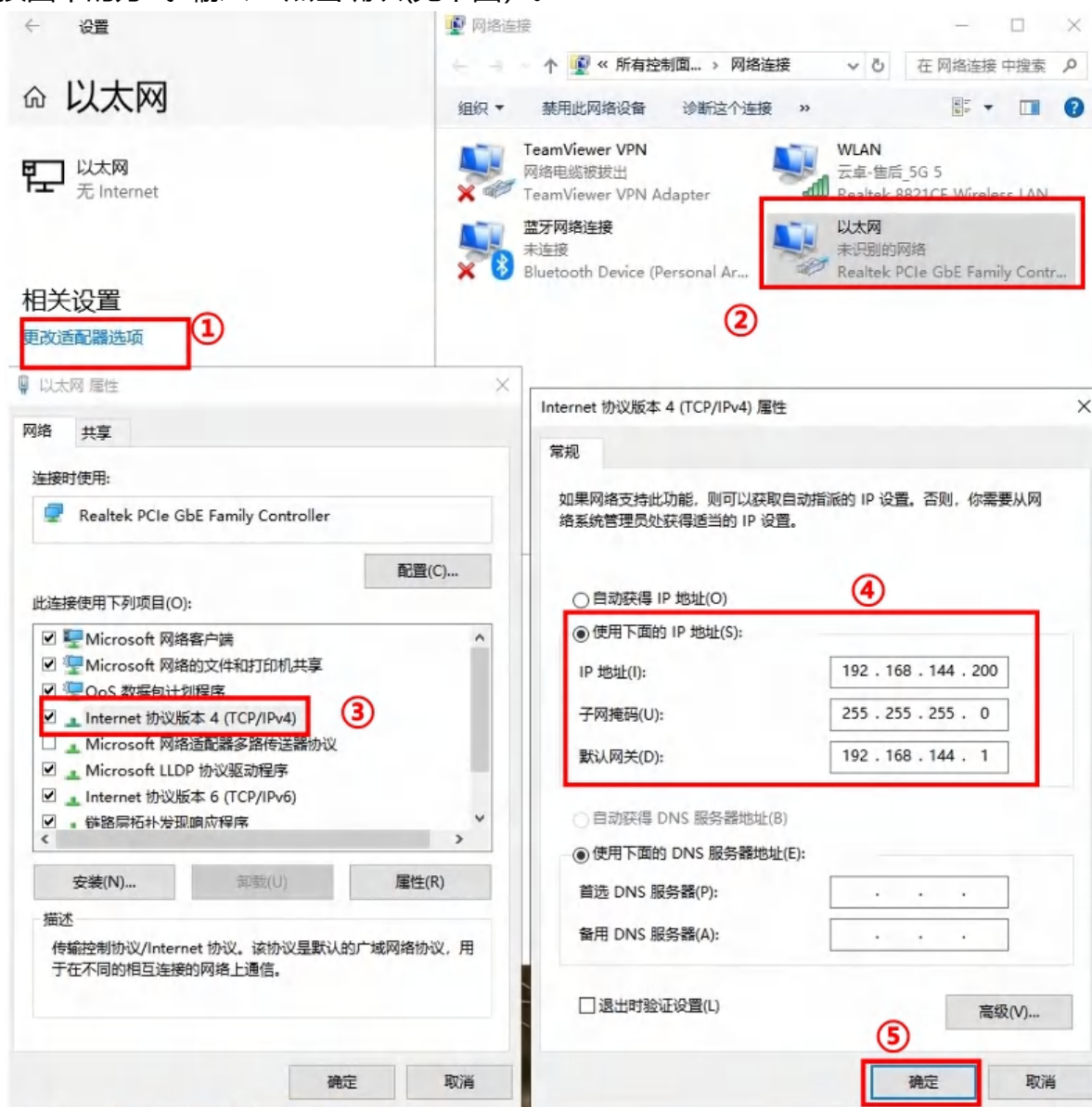
14. 遥控器连接 windows 电脑共享数传图传



使用网口线 GH1.25 7P 转 RJ45 水晶头线（需自己制作，网线需要双绞）将遥控器网

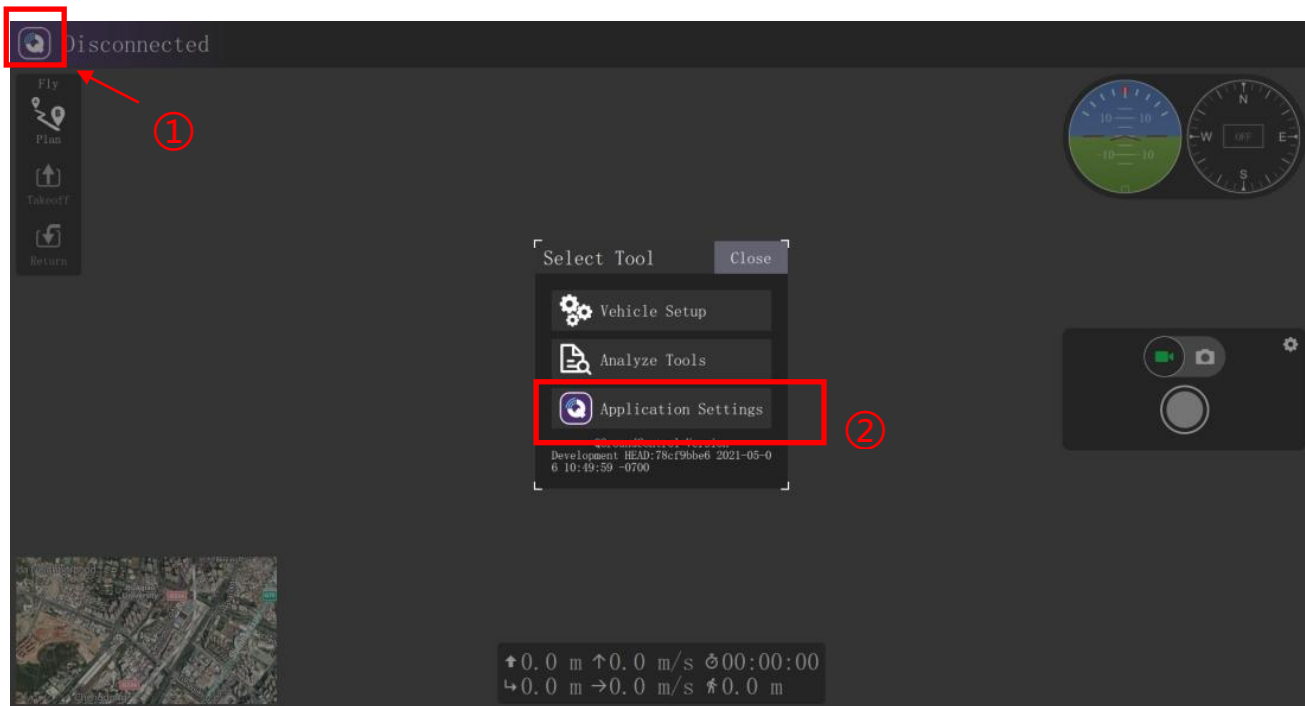
口和电脑网口连接，电脑以太网需要设置 144 网段：

打开电脑设置->点击更改适配器选项->选择以太网->选择IPV4协议->选择自定义IP地址->按图中的方式 输入->点击确认(见下图)。

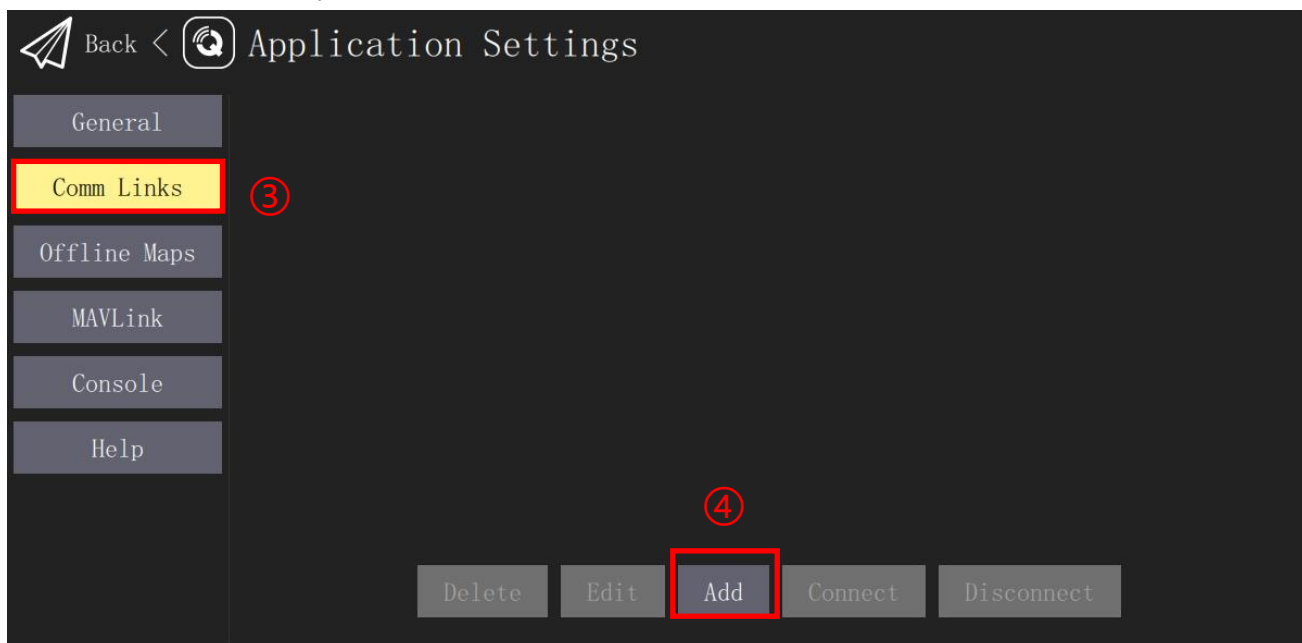


14.1 共享数传使用 QGC 连接数传

打开 QGC 软件 1.选择点击左上角的 Q.2.在弹窗的对话框,选择 Application Settings。



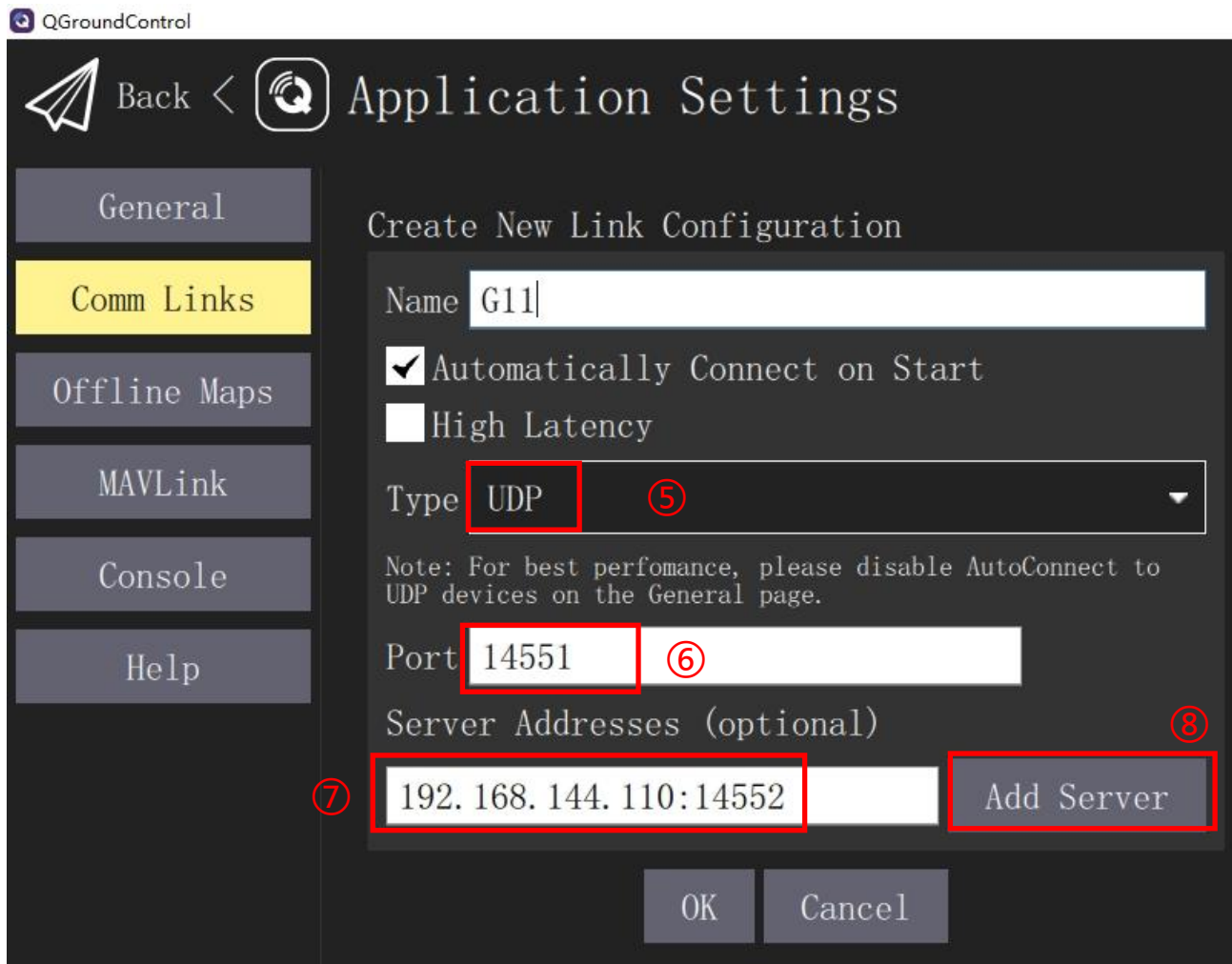
3.选择 Comm Links, 4.点击 Add



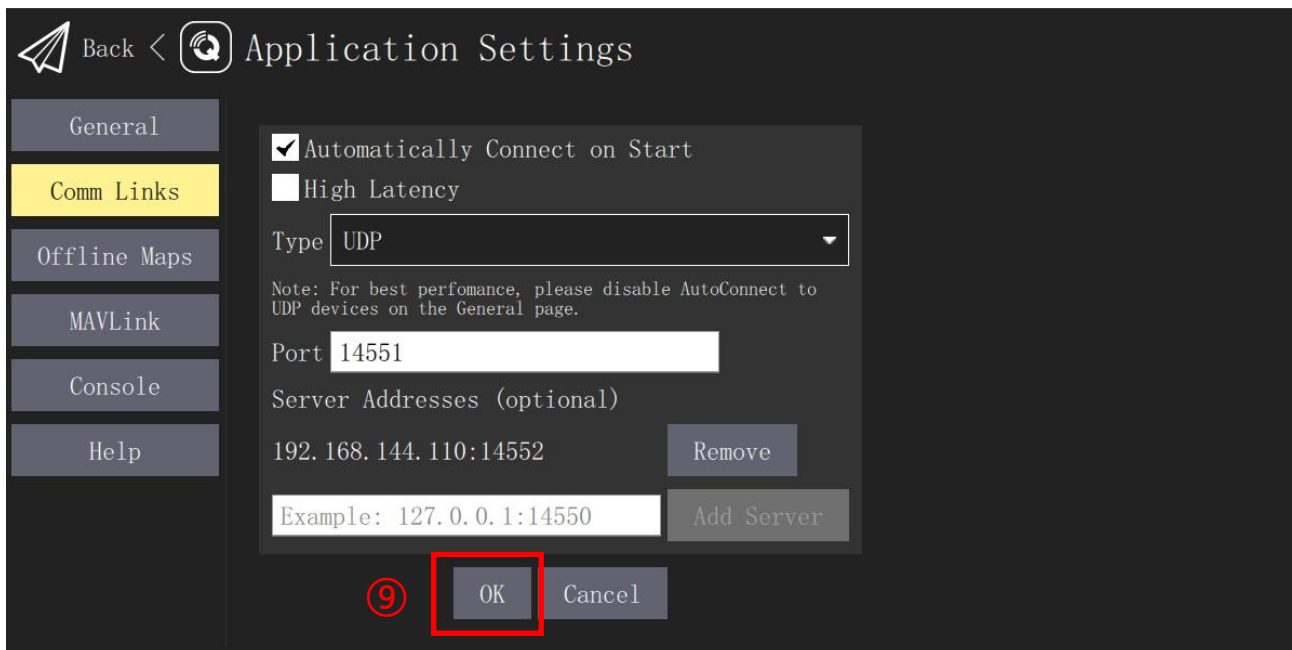
5. Type设置为UDP

6. Port设置为14551

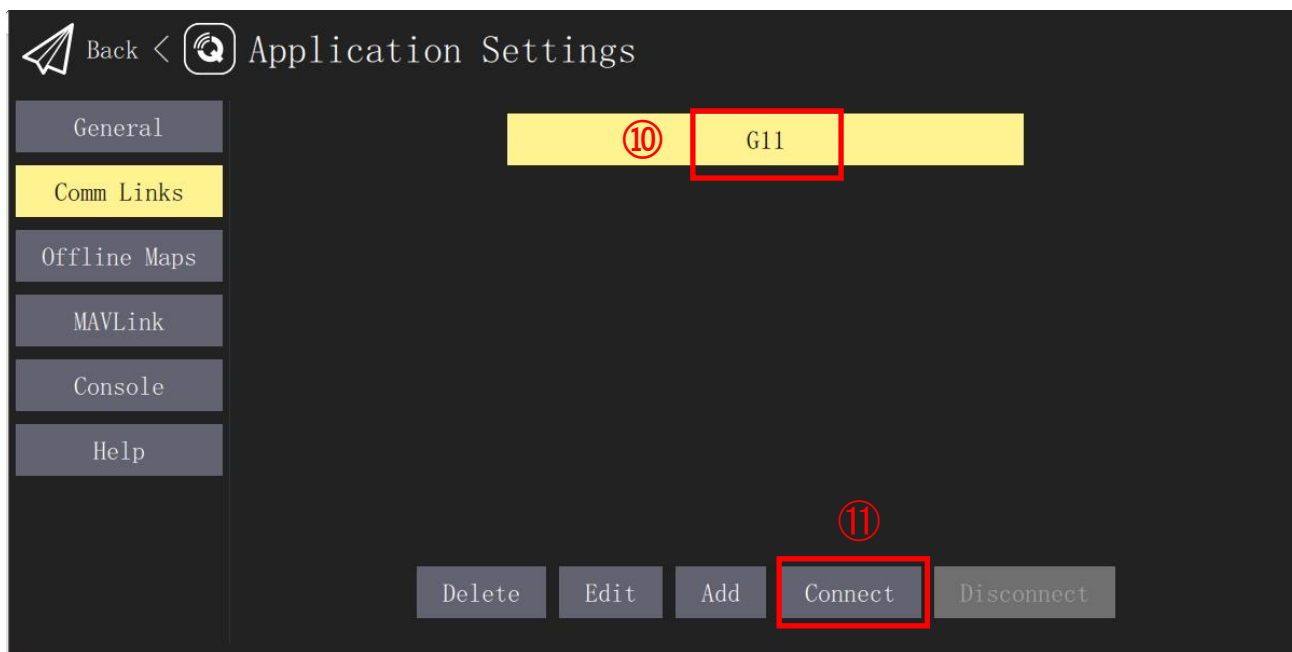
7. Server Addresses设置为192.168.144.110:14552

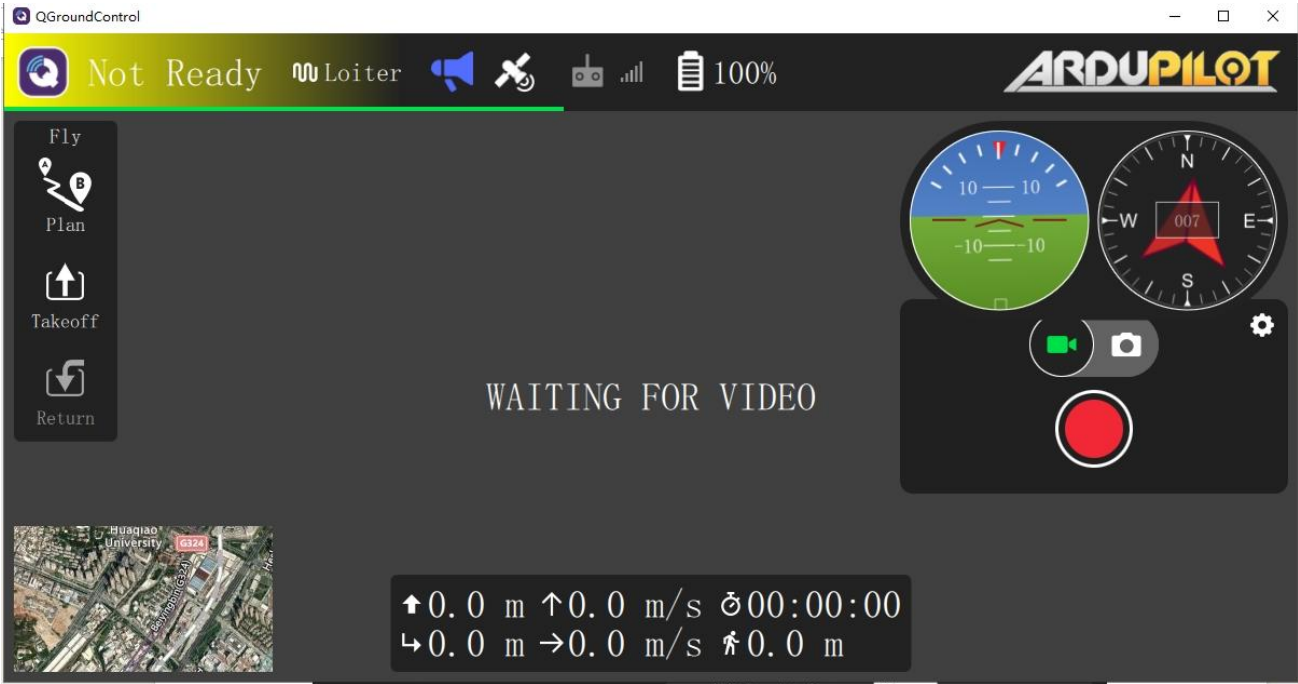


8.点击Add Server进行添加，9.点击OK确认。



10.点击选择添加的G11选项，11.点击Connect进行数传连接。

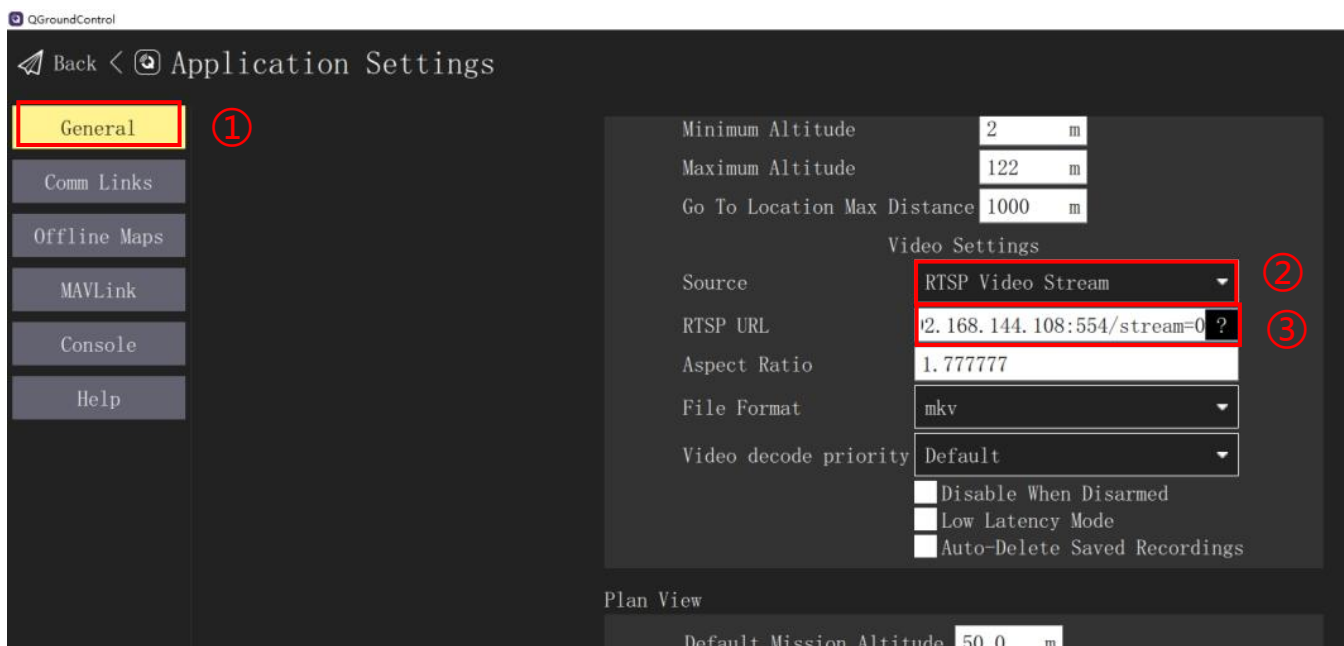




14.2 共享图传

使用 QGC 显示共享图传

如下设置输入摄像头 RTSP 拉流地址即可。



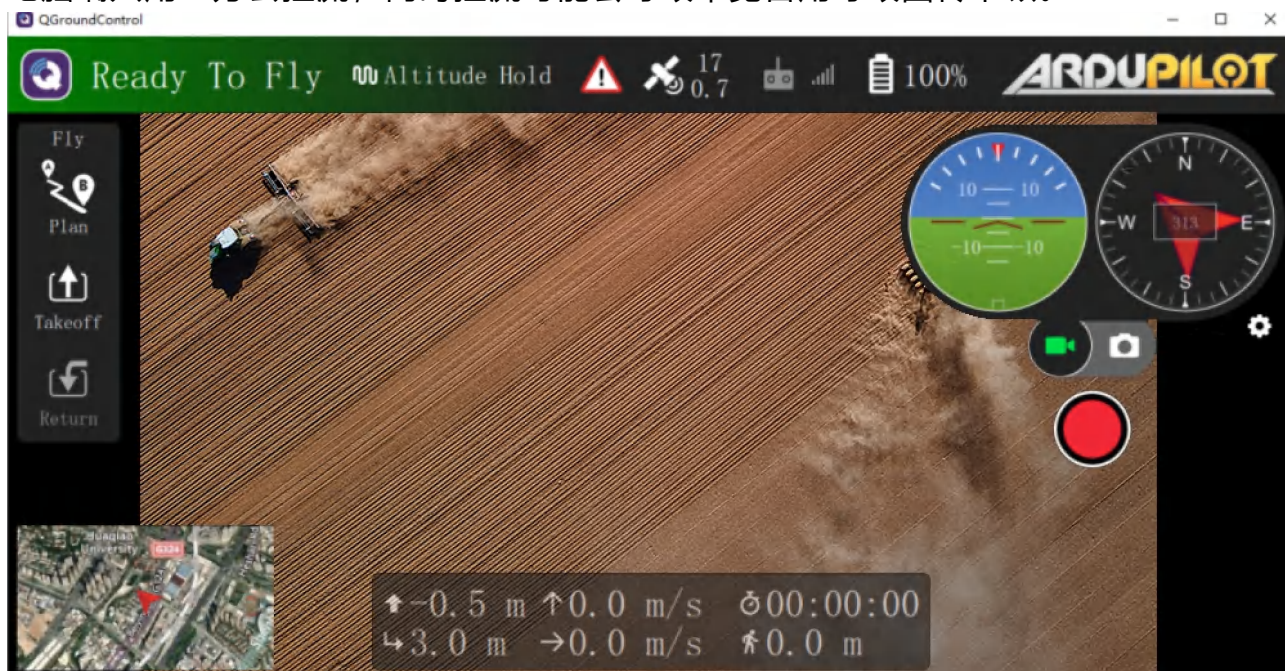
C10/C10PRO/网口三体/网口单轴是：rtsp://192.168.144.108:554/stream=0

C12/C13/C14PRO 双光分别是

rtsp://192.168.144.108:554/stream=1

rtsp://192.168.144.108:555/stream=2

注意：如果使用第三方摄像头时，摄像头 RTSP 地址需由摄像头厂家提供。遥控器和电脑端只用一方去拉流，同时拉流可能会导致带宽占用导致图传卡顿。



15. 参数

G11 遥控器参数			
显示屏	4.5 寸触控屏	分辨率	1920*1080
尺寸	225.3*66.9*120mm	系统	Linux 操作系统
电池	10000mAh	续航时间	5~6 小时
运行内存	128MB	系统存储内存	128MB
工作频段	2.4G/5.8G	动态调频	自动跳频
遥控距离	9KM	重量	480g
充电接口	TYPE-C	通道数	11
工作温度	-10℃~50℃	射频功率	23dBm@CE/FCC
外部接口	PPM+网口、TYPE-C		

GR01 接收机参数			
工作频段	2.4G/5.8G	串口波特率	57600/115200/921600
供电电压	7.2 ~ 80V(XT30)	工作电流	12V/300mA
数传口	1 路	空口速率	上行 200kbps 下行 15Mbps
网口	1 路	尺寸	45.5×60×21.5mm
SBUS 输出	1 路	重量	37g
PWM 接口	3 路	工作温度	-10℃~60℃
射频功率	23dBm@CE/FCC	信道带宽	1.25MHz/2.5MHz/5MHz/ 10MHz/20MHz/40MHz

G12 RX 接收机参数			
工作频段	2.4G/5.8G	串口波特率	57600/115200/921600
供电电压	5V	工作电流	5V/720mA
数传口	1 路	空口速率	上行 200kbps 下行 15Mbps
网口	1 路	尺寸	51×40.8×23.3mm
SBUS 输出	1 路	重量	45g
PWM 接口	2 路	工作温度	-10℃~60℃
射频功率	23dBm@CE/FCC	信道带宽	1.25MHz/2.5MHz/5MHz/ 10MHz/20MHz/40MHz

五、保养保修

长期停放时的维护、保养：

将遥控器存放于干燥通风处，减少阳光直射以防止电池过热。若需存放超过三个月，则推荐的存放温度区间为 22 摄氏度至 28 摄氏度。切勿将电池存在于低于零下 20 摄氏度或高于 45 摄氏度的场所。

六、运输储存

警告

为避免可能的伤害和损失，务必遵守以下各项：

由于线材和小零件可能对儿童造成危险，所以务必让儿童远离遥控器的部件。

注意

- 1) 切勿让遥控器浸入水中，若入水，请及时用柔软干布擦拭，并立即关闭电源。
- 2) 禁止机械撞击、碾压、刺穿电池，禁止将电池跌落。

七、包装物品清单

配件名称	数量	备注
G11 遥控器裸机	1	
GR01 接收机/G12RX 接收机/GR00	1	选配其一
GR01 电源线	1	
GR01 馈线（默认长度 50cm）	2	最长 1.5 米
2.4&5.8G 双频天线（内螺内孔）	2	
SBUS 数传线（选配对应航电系统的数传线）	1	选配其一
R20 网口线	1	
GR01-PWM（贴标签，绞线）	1	
数据线（C-C）	1	
G11 EPP 包装箱	1	
不回中改手配件（专用）	1	

选配GR01接收机时可选择其中一条数传线		
序号	名称	规格
1	GR01-PIX 数传线	GH5P/MX1.25 6P/杜邦 3P, L=300mm, 26AWG
2	GR01-微克 V7 数传线	GH5P/杜邦 3P/5264 4P, L=300mm, 26AWG
3	GR01-K3A 数传线	GH5P/杜邦 4P/杜邦 3P, L=300mm, 26AWG
4	GR01-K++数传线	GH5P/杜邦 3P/MX3.0 4P, L=300mm, 26AWG
5	GR01-V5+V7 数传线	GH5P/GH6P/杜邦 3P, L=300mm, 26AWG
6	S2mini-GR01 数传线	GH1.25 5P 白黄黑橙&GH1.25 4P 橙黄白黑 30# 硅胶线 绞线 L=15CM
7	GR01-K9 数传线	GH.1.25 5P 黑黄 黑黄白& 黑黄 杜邦头 3P, GH1.25 4P 黑黄白空
8	GR01-博鹰数传线	GH5P/MX3.0 4P/MX3.0 3P, L=300mm, 26AWG
9	GR01-S2 mini 数传线	GH4P/GH5P 26AWG, L=300mm
10	GR01-S2 连接线	GH1.25 5P 黑灰黑黄白 &GH1.25 7P 灰白黄黑 黑

G12RX接收机配件		
序号	名称	规格
1	标配	裸板+两个排针+散热片（总重量 16g），无数传线

说明书如有更新，恕不另行通知，请持续关注官网 www.skydroid.xin

SKYDROID 云卓

云卓科技（福建）有限公司



Skydroid G11

User Manual

V1.1

This manual may not be the latest version. For the latest version,
please go to the Official Website's Resource Download
Center - Resource Documents to download it:
<https://skydroidglobal.com/>

Note:

This product uses the following terms to classify and explain potential hazards that may arise from improper operation.

Note: Failure to follow the instructions may result in property damage and minor injuries.

Note: Failure to follow the instructions may result in property damage, major accidents, and serious injuries.

Warning: Operate the product only after reading the entire user manual and becoming familiar with its functions. Improper operation of this product may cause serious harm to yourself or others, as well as product damage and property loss. This product is relatively complex and requires a period of familiarization to be used safely; it also requires basic common sense to operate. Without a strong safety awareness, inappropriate operation may lead to product damage, property loss, or even serious harm to yourself or others. This product is not suitable for children. Do not use parts that are not provided or recommended by Skydroid. Strictly follow Skydroid's guidelines when using the product.

After-Sales Service Terms

1. These terms apply only to products manufactured by Skydroid Technology (FUJIAN) Co., Ltd., and also to products sold by authorized Skydroid distributors.
2. For products with non-human-caused quality issues verified by our company within one week from the date of purchase, Skydroid shall bear the round-trip courier fees for the returned products. For products with quality issues verified by our company more than one week but within one year from the date of purchase, the user and Skydroid shall each bear the courier fee for sending the product back for repair.
3. When returning a product for repair, the purchase certificate, warranty card, or online platform transaction record must be provided.
4. If a Skydroid product has non-human-caused quality issues under normal use within seven days from the date of purchase, with no appearance damage, the user may negotiate with the distributor for a free replacement of the same-model product by presenting the warranty card and purchase certificate. Distributors are requested to notify Skydroid immediately for record-filing when receiving the product to be replaced.
5. Skydroid Technology (FUJIAN) Co., Ltd. provides lifelong after-sales service for Skydroid products. For non-human-caused quality issues, free warranty service is offered within one year from the date of purchase. For products with human-caused damage, modification, disassembly, or those beyond the one-year free warranty period, the user shall bear the round-trip shipping fees and repair costs.
6. To protect your rights and ensure timely and effective service, please fill out the warranty card completely and request a purchase certificate when buying a Skydroid product. The user must provide the warranty card and purchase certificate to enjoy the after-sales service under these terms.
7. Repaired products will be sent back to the customer within 15 working days after Skydroid receives them, along with a repair report.
8. The above after-sales service terms apply only to Skydroid products sold in Mainland China. For after-sales issues of customers in Hong Kong, Macau, Taiwan, and overseas regions, please send an email to sales01@skydroid.xin. Specific after-sales details will be determined based on the actual situation.

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I .Overview

1. Product Features

G11 is Skydroid' s first flagship remote controller equipped with a Linux operating system. Ditching traditional open-source solutions, the G11 adopts in-depth customization and closed development based on the Linux kernel. It completely eliminates system redundancies, fundamentally avoiding software conflicts and crash risks, and delivers an ultra-stable, smooth, low-latency and secure industrial-grade control experience for users.

Weighing only 480g, the unit features an ergonomic curved body that significantly reduces fatigue during prolonged holding. Built-in a high-capacity 10000mAh battery, it delivers an ultra-long runtime of 5 to 6 hours to fully guarantee uninterrupted operations. In terms of communication, it supports automatic switching between the 2.4GHz and 5.8GHz dual frequency bands, with a maximum control range of 20km, maintaining rock-solid signal performance even in complex electromagnetic environments.

It is fitted with a 4.5-inch 1920×1080 full HD screen that presents delicate and lifelike images, and supports real-time OSD overlay to display flight data and video transmission status at a glance. Equipped with 11 precisely arranged physical control channels with distinct tactile feedback, it enables blind operation without visual check.

2. Main Uses and Scope of Application

G11 can be used for video image transmission (camera purchased separately), data transmission and control of unmanned devices including helicopters, fixed-wing aircraft, multi-rotor UAVs, UGVs and USVs.

3. Operating Environment Conditions

Notes:

- a) Ambient temperature: -10°C~50°C
- b) Storage temperature: -20°C ~50°C
- c) Relative humidity: ≤ 85%

- d) Atmospheric pressure: 86kPa ~ 106kPa
- e) The operating site must be free of explosive hazardous media. The surrounding atmosphere shall not contain gases or conductive substances that corrode metals or damage insulation. Excessive water vapor and severe mold growth are prohibited.
- f) The operating site shall be equipped with facilities to shield against rain, snow, wind, sand and dust.

4. Working Conditions

Power Supply Mode and Precautions

G11 ground station is built with an integrated rechargeable lithium battery and adopts a standard Type-C interface compatible with mainstream accessories on the market. Please charge the device with the original charger.

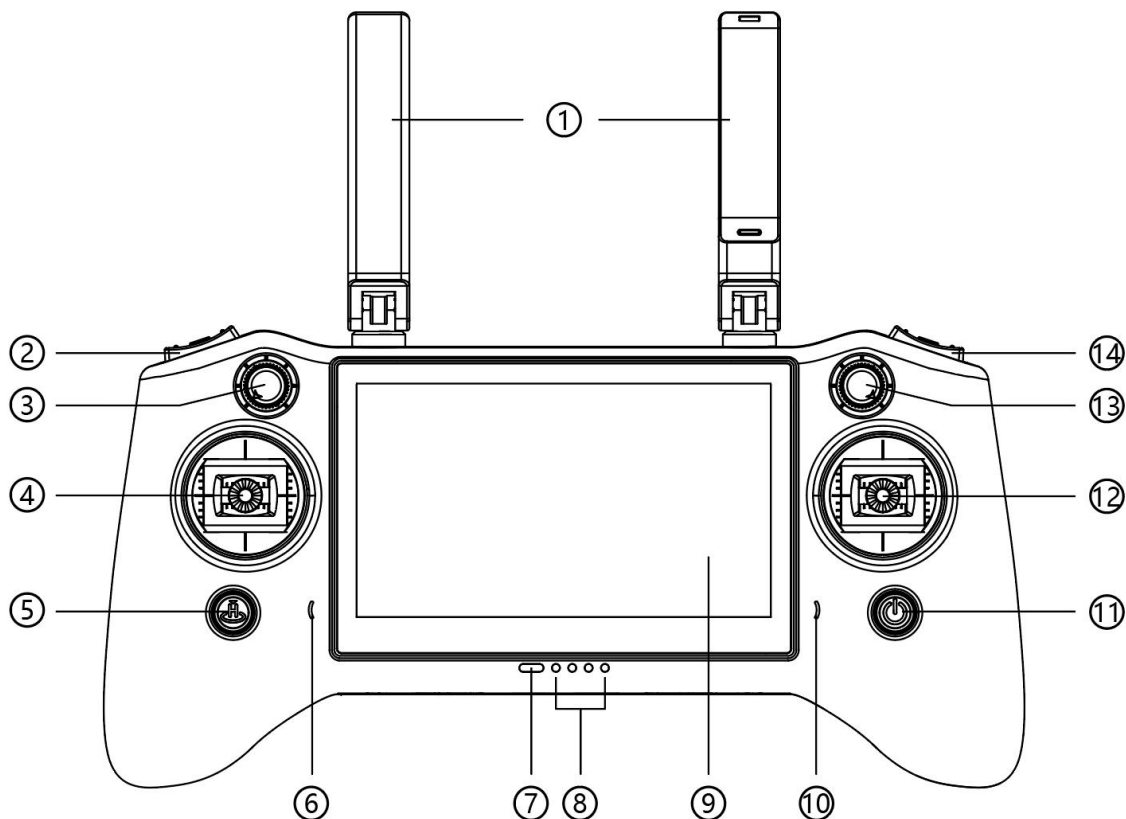
If smoke, abnormal odors or liquid leakage occur while charging the ground station, stop charging immediately and send the unit back to our company for maintenance.

Do not charge the product within areas accessible to infants to avoid electric shock hazards.

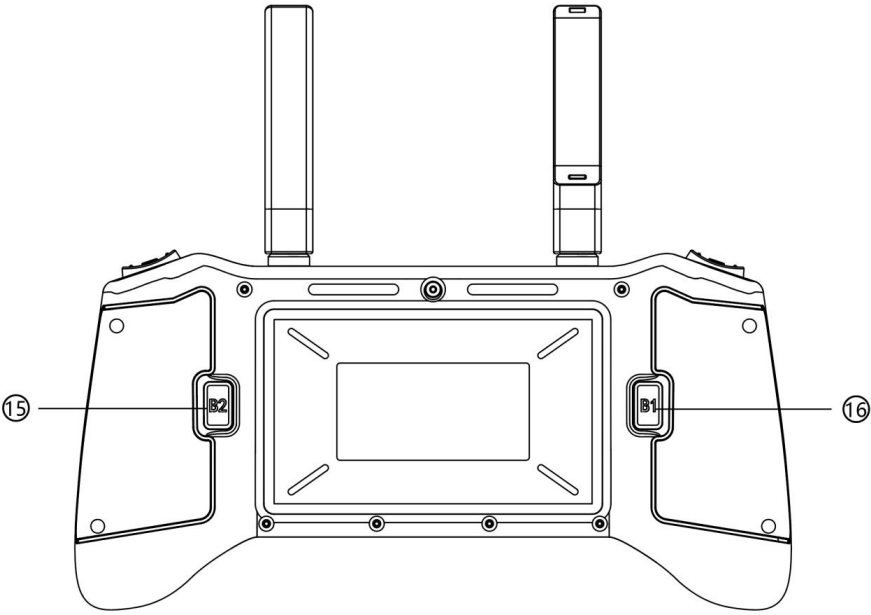
Do not charge the product in an environment with temperature above 60°

II. Component Names

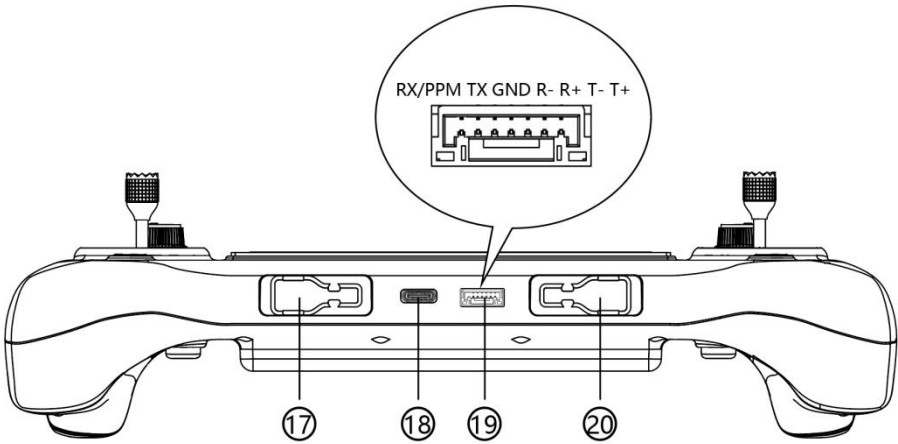
1. Remote Controller



No.	Description	No.	Description
1	2.4GHz/5.8GHz Antenna	8	Charging Indicator Light
2	3-position Switch SW1 (Flight Mode)	9	Display Screen
3	Auxiliary Knob AUX1	10	Speaker II
4	Left Joystick X1, Y1	11	Power Button
5	Button H	12	Right Joystick X2, Y2
6	Speaker I	13	Auxiliary Knob AUX2
7	Frequency Binding Indicator Light	14	3-position Switch SW2 (Function Unassigned)

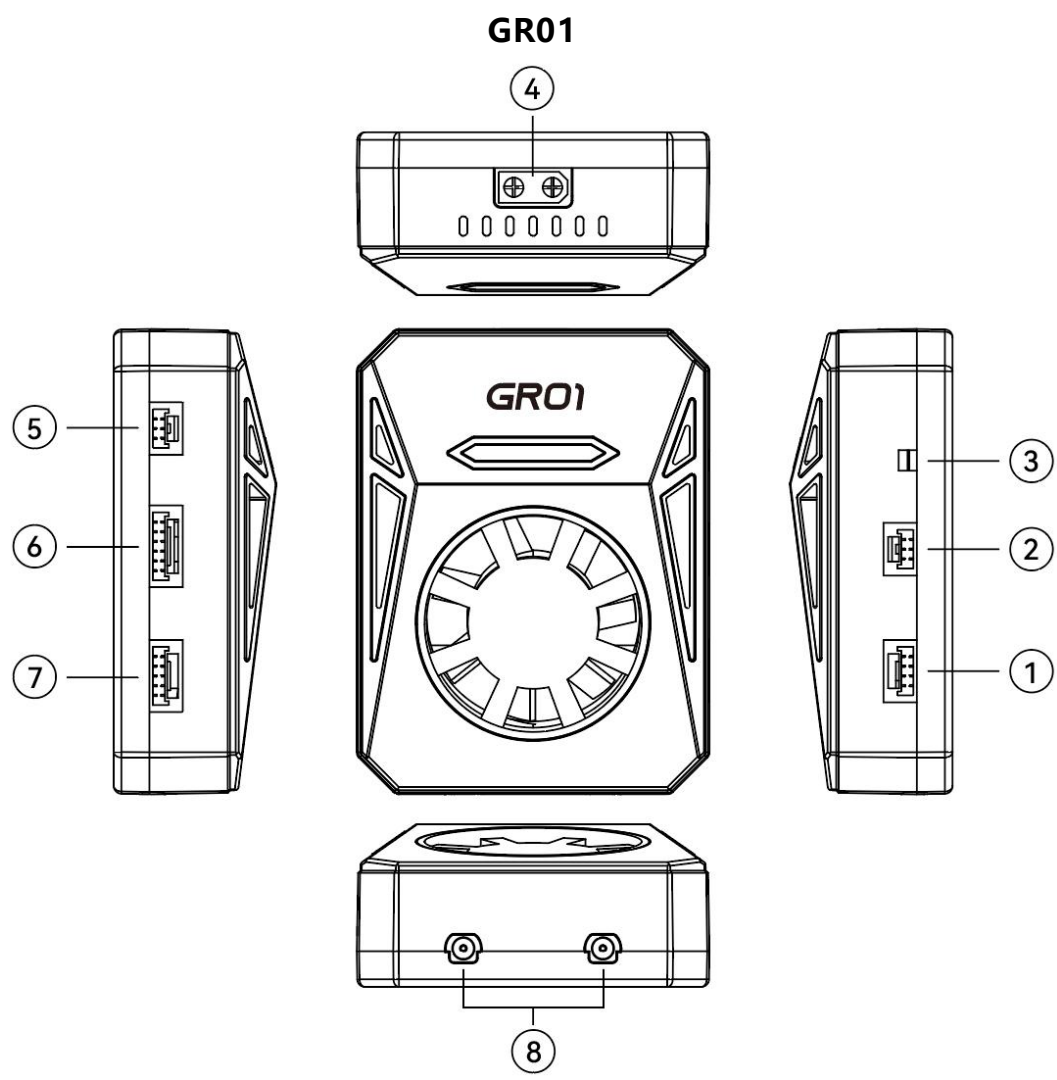


No.	Description	No.	Description
15	Button B2	16	Button B1



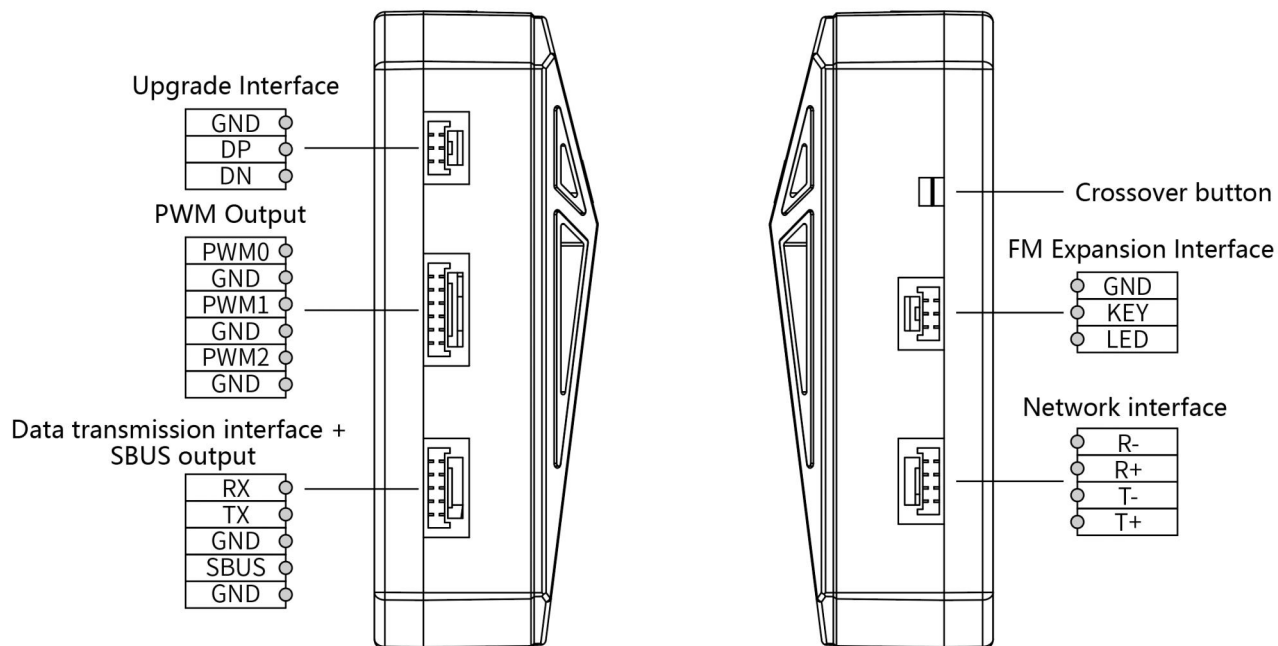
No.	Description	No.	Description
17	Joystick Cap Storage Slot I	19	PPM+LAN Port
18	TYPE-C (Charging Port)	20	Joystick Cap Storage Slot II

2.Receiver



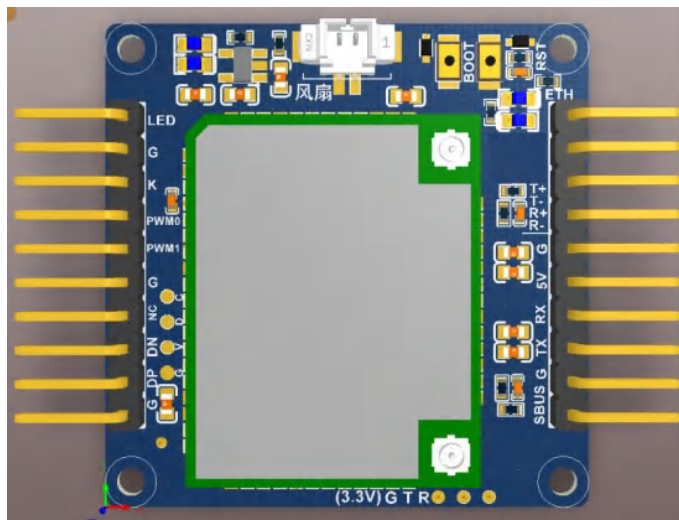
No.	Description	No.	Description
1	LAN Port	5	Upgrade Interface
2	Frequency Binding Expansion Port	6	PWM Output
3	Frequency Binding Button	7	Data Transmission Port+SBUS Output
4	Power Input Port (7.2V ~ 80V)	8	Antenna Interface

Receiver Interface Definition:



Note: PWM0~PWM2 of GR01 correspond to Channel 11 of the remote controller.

G12 RX

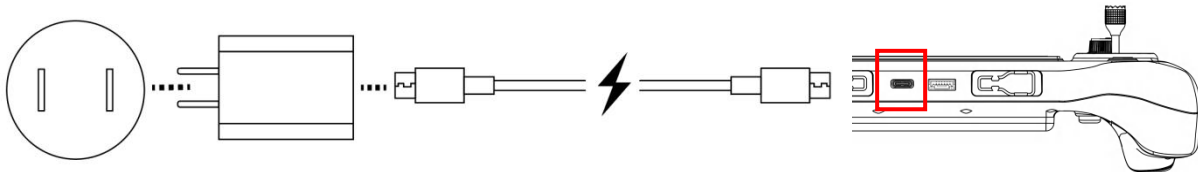


Name	Description	Name	Description
		ANT	Antenna Base (IPEX Generation 1)
LED	Frequency Binding Indicator Light	ETH0_TX+	LAN Port
GND	Ground	ETH0_TX-	
KEY	Frequency Binding Button	ETH0_RX+	
PWM0	PWM Channel 9 (Channel 9)	ETH0_RX-	
PWM1	PWM Channel 10 (Channel 10)	GND	Power(5V)& Data Transmission Port
GND	Ground	5V_IN	
NC	No Connection	UART_RX	
DN	Upgrade Port	UART_TX	
DP		GND	SBUS Port
GND		SBUS	
		ANT	Antenna Base (IPEX Generation 1)

III. Prepare remote controller

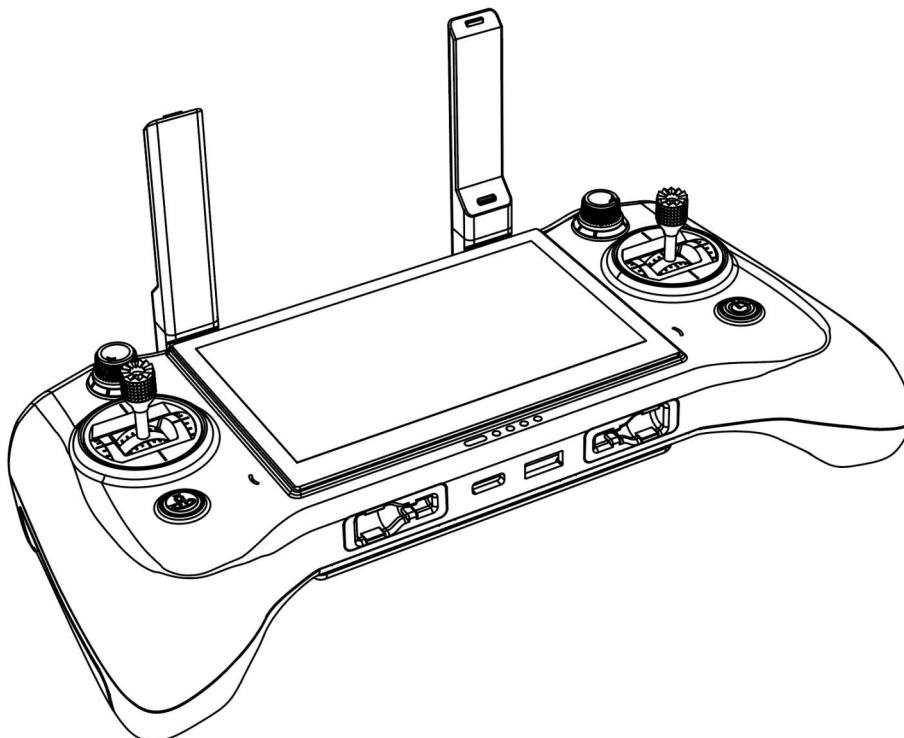
1. Remote controller charging

It takes about 3 hours to fully charge with the original charger.



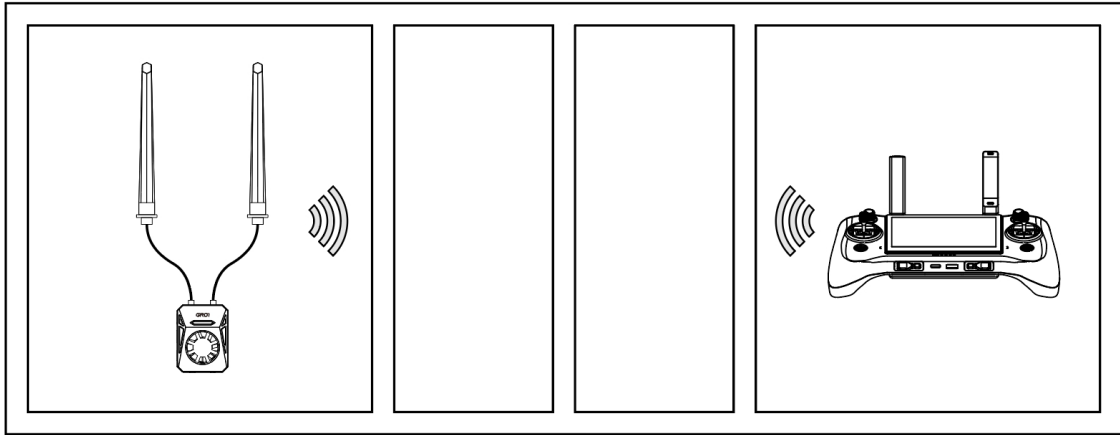
Please charge the device with the original charger. To maintain optimal battery health of the remote controller, fully charge the battery once every month.

2. Open the antenna correctly

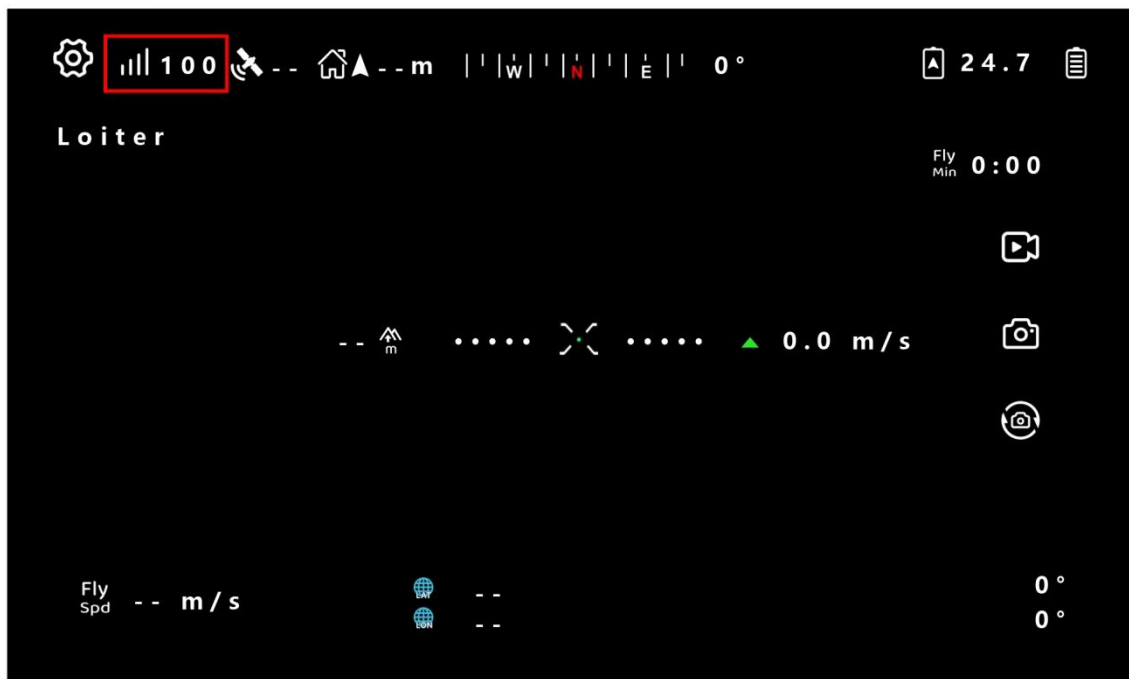


3. Indoor Range Test

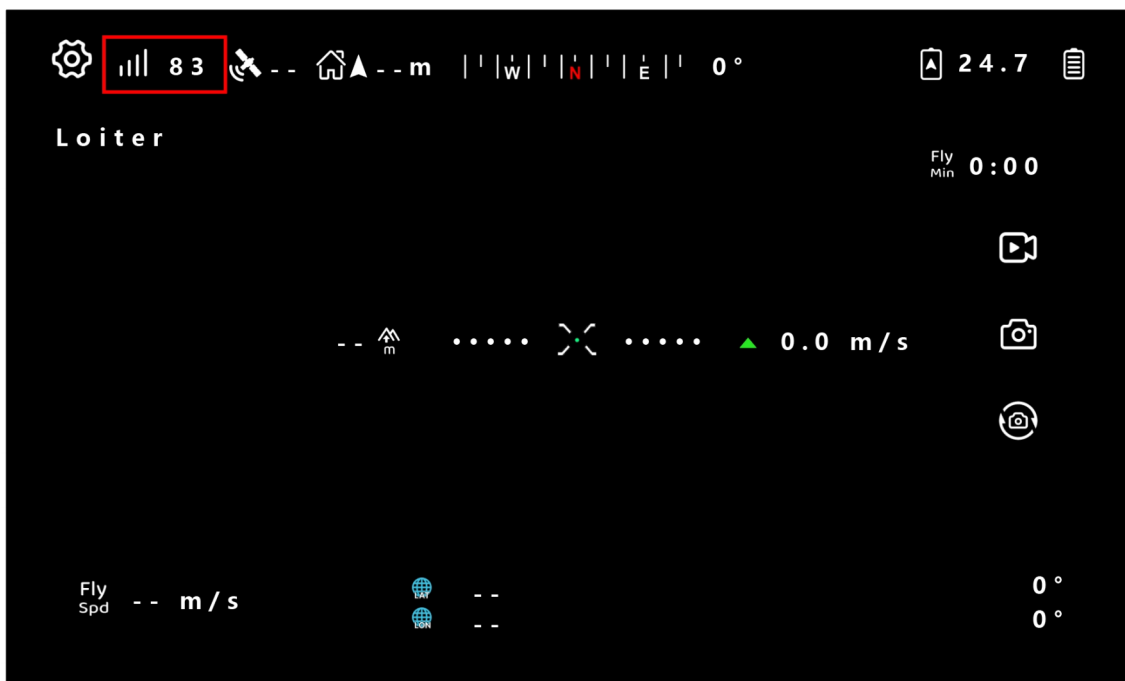
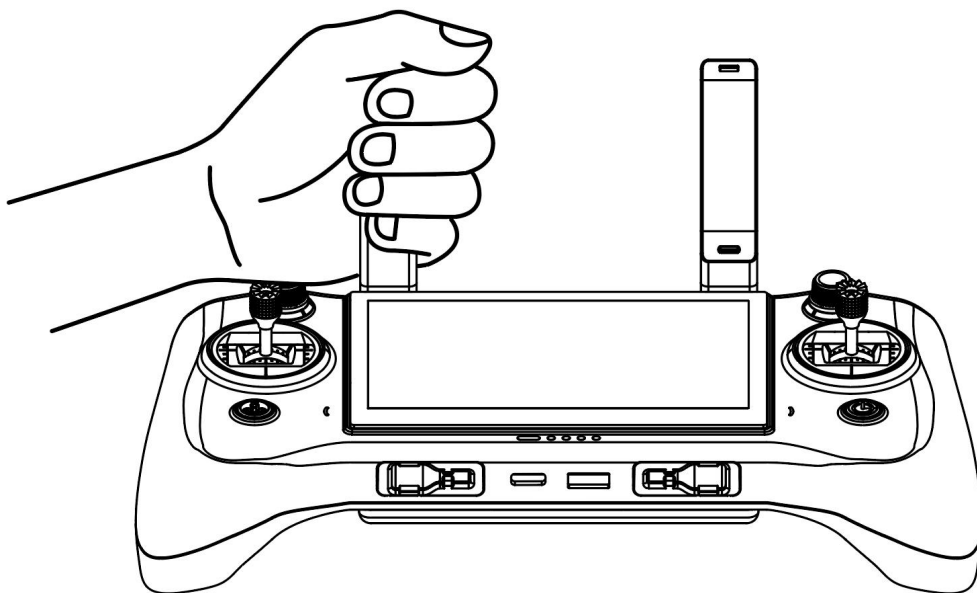
(1) Test Scenario: Separate the remote controller and receiver by 3 to 4 walls.



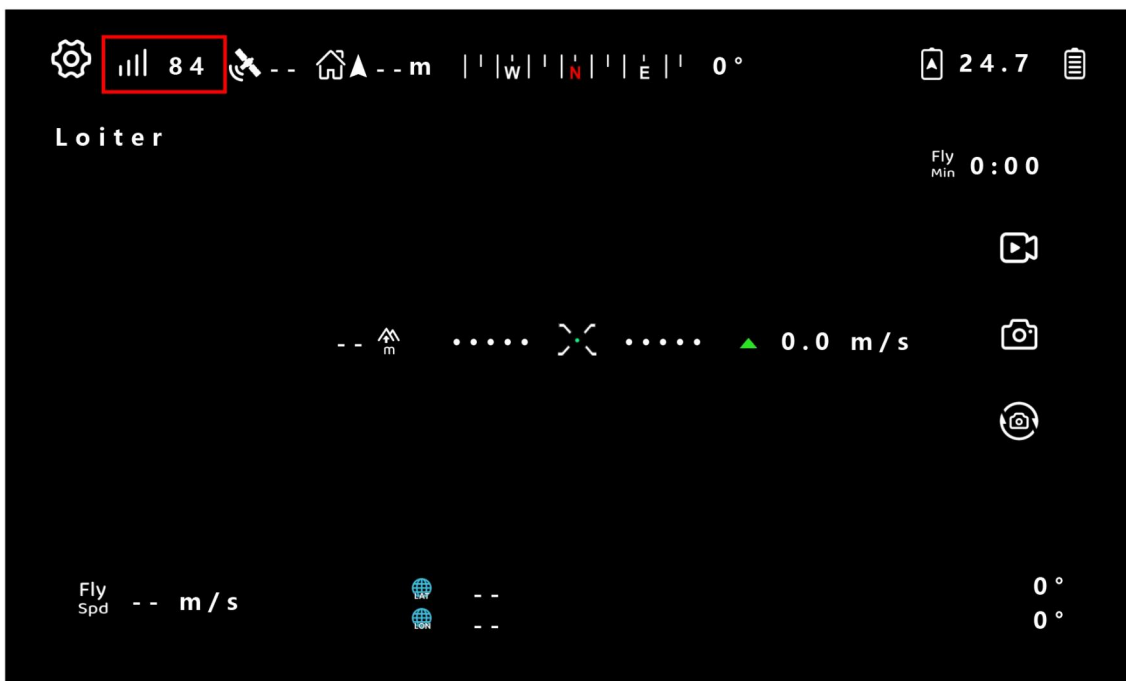
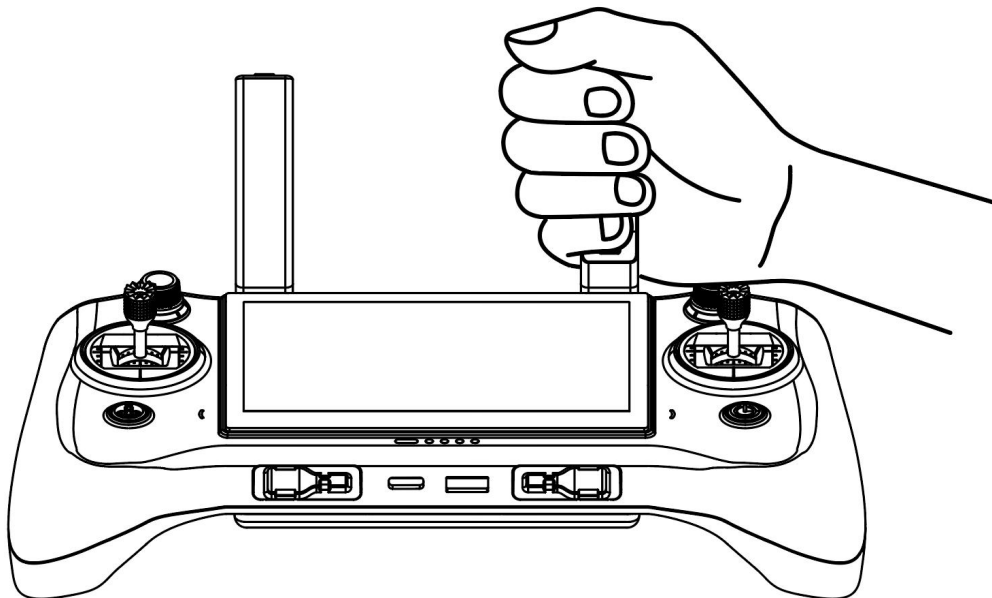
(2) Signal strength is shown in the figure below when there is no obstruction blocking the antennas.



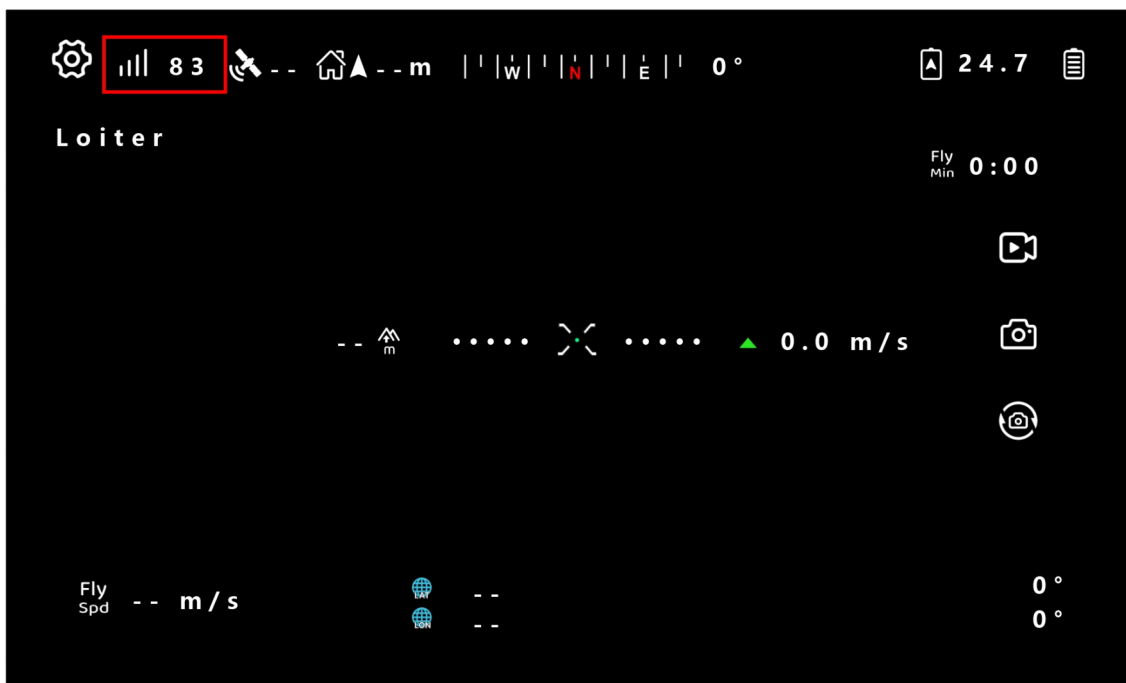
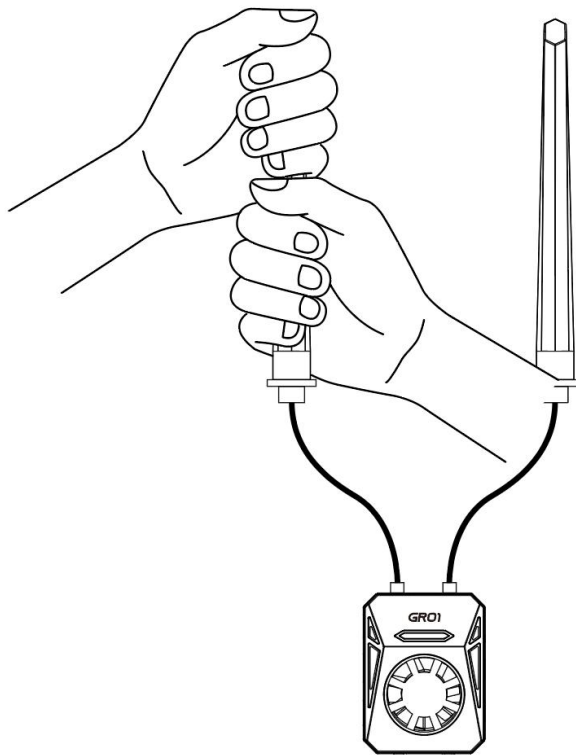
- (3) The signal strength is as shown in the figure below when firmly gripping the left antenna of the remote controller.



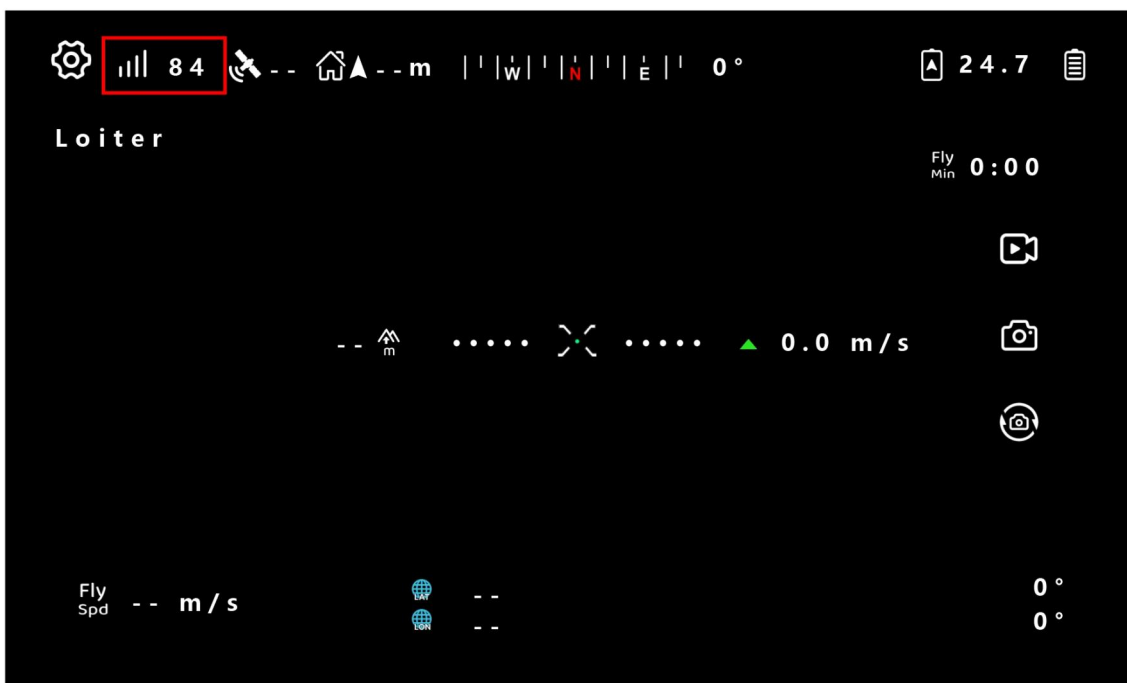
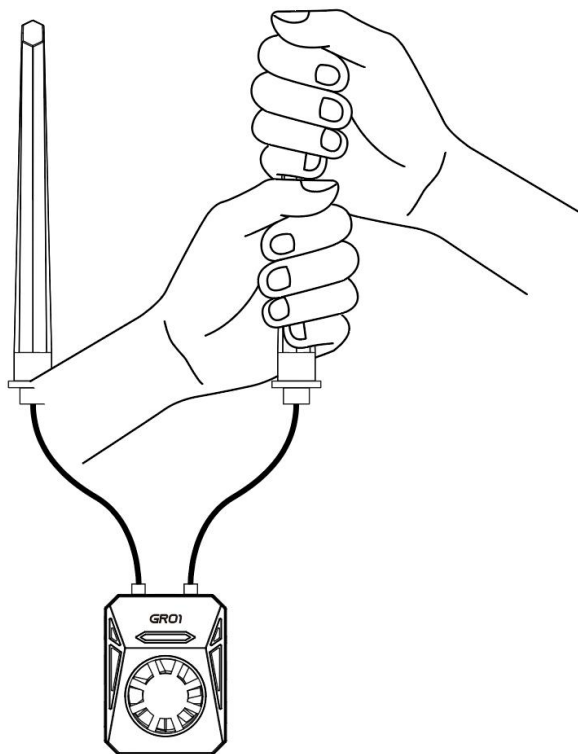
(4) The signal strength is shown in the figure below when firmly gripping the right antenna of the remote controller.



(5) The signal strength is displayed as shown in the figure below when firmly gripping the left antenna of the receiver.



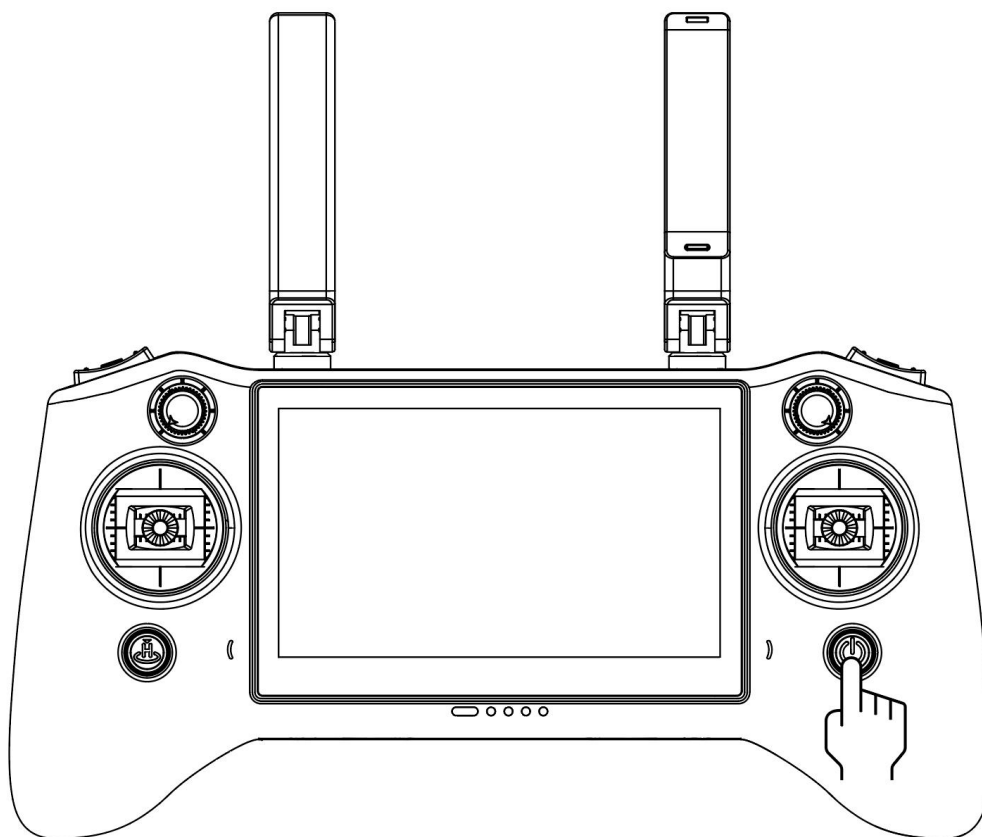
(6) The signal strength is shown in the figure below when firmly gripping the right antenna of the receiver.



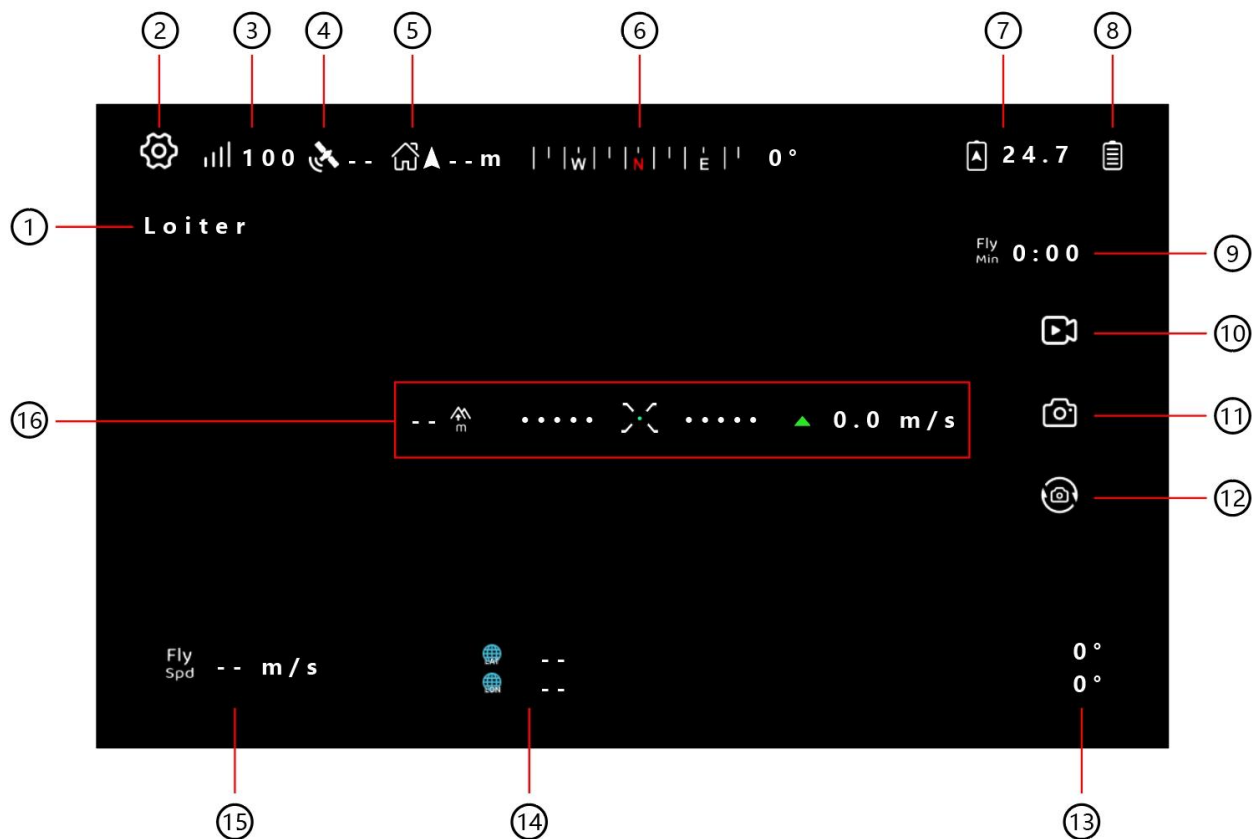
IV. Usage and Operation

1. Power On and Power Off the Remote Controller

Short press and long hold the power button to turn on the remote controller; repeat short press and long hold the power button to turn it off.



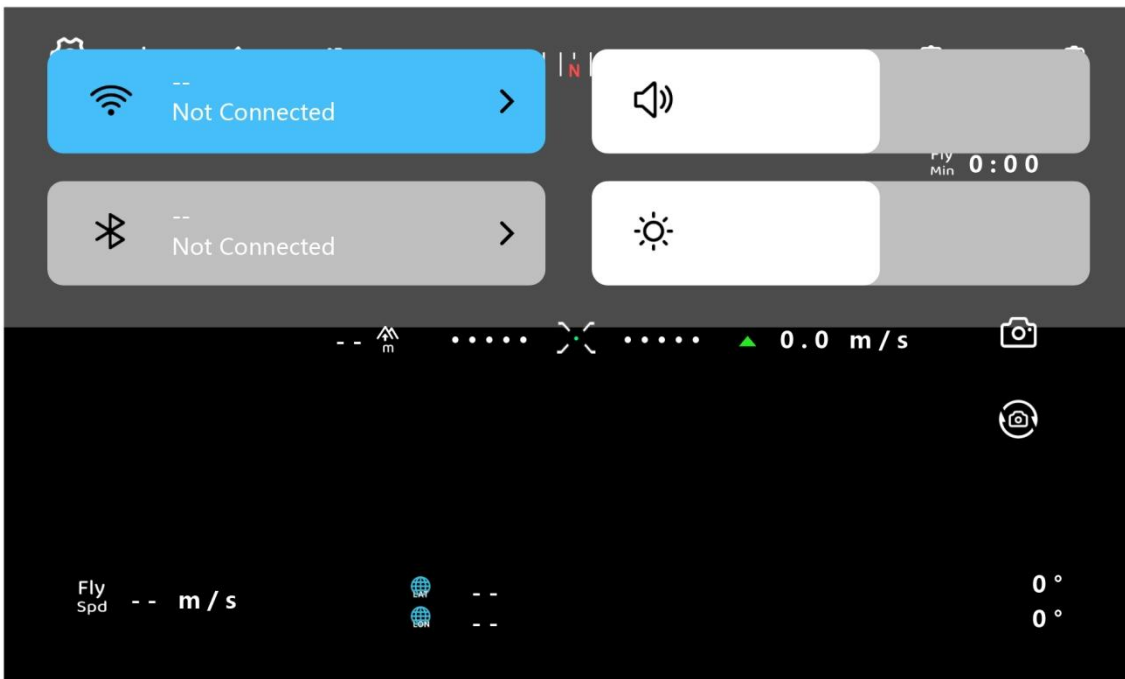
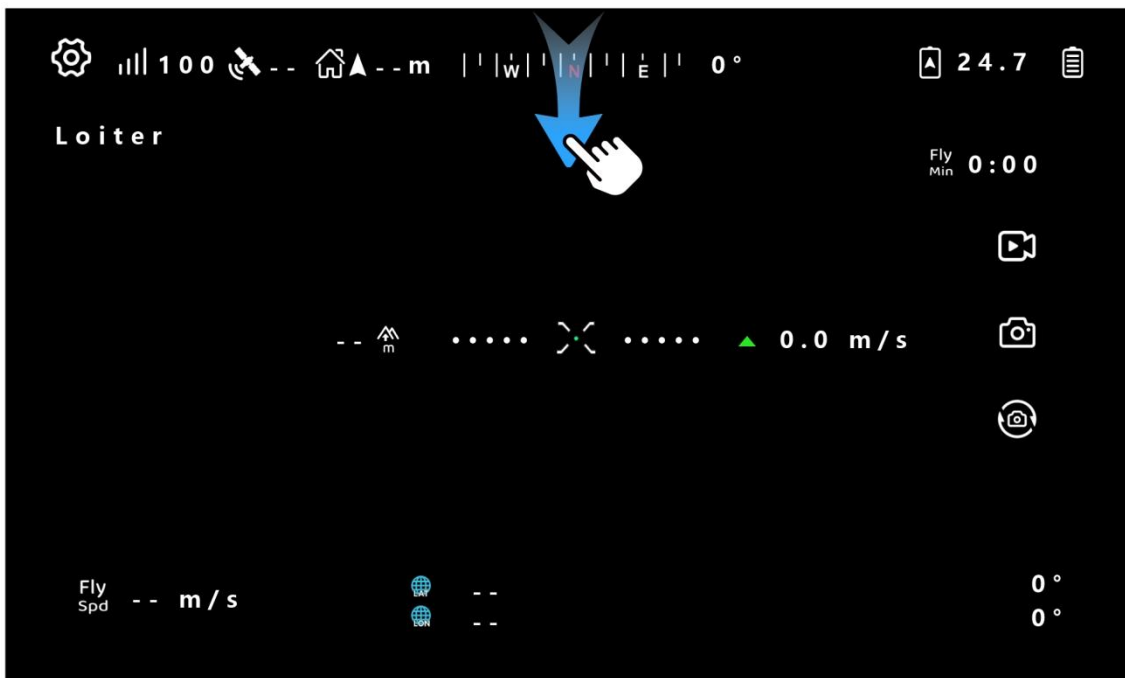
2. System Desktop



No.	Description	No.	Description
1	Flight Mode	9	Flight Time
2	Settings	10	Video Recording
3	Signal Strength	11	Photo Capture
4	Number of GPS Satellites	12	Screen Switching
5	Distance from Home Point	13	Pitch Angle & Roll Angle
6	Heading	14	Longitude & Latitude
7	Aircraft Battery Voltage	15	Flight Speed
8	Remote Controller Battery Level	16	Flight Altitude, Attitude & Climb Speed

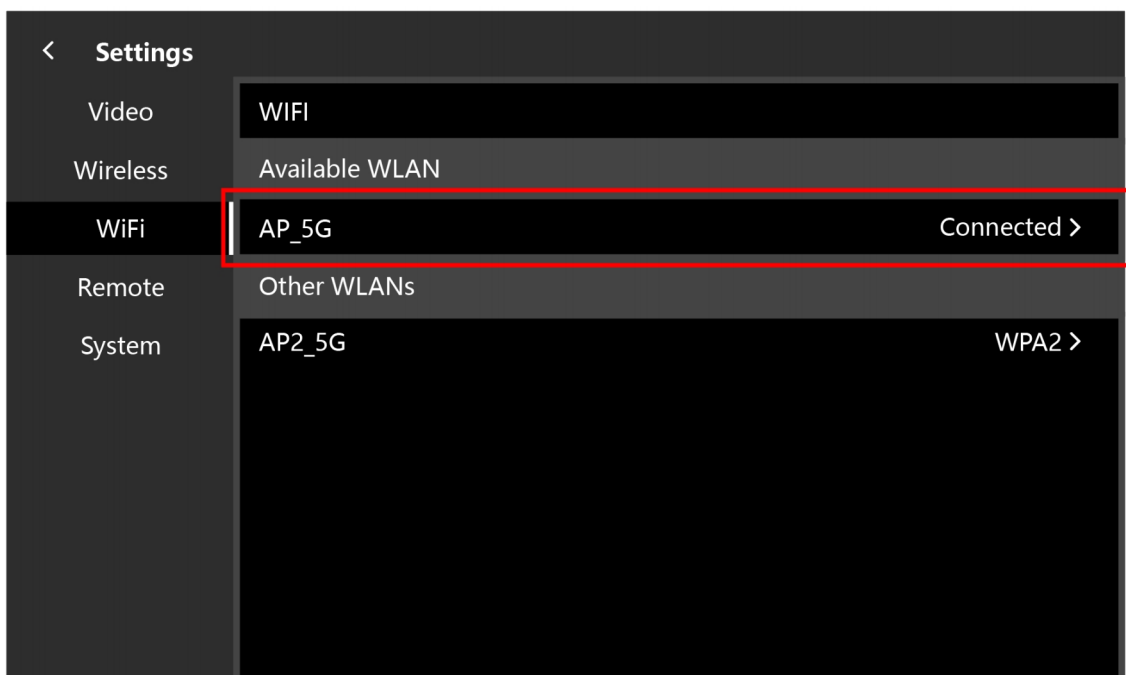
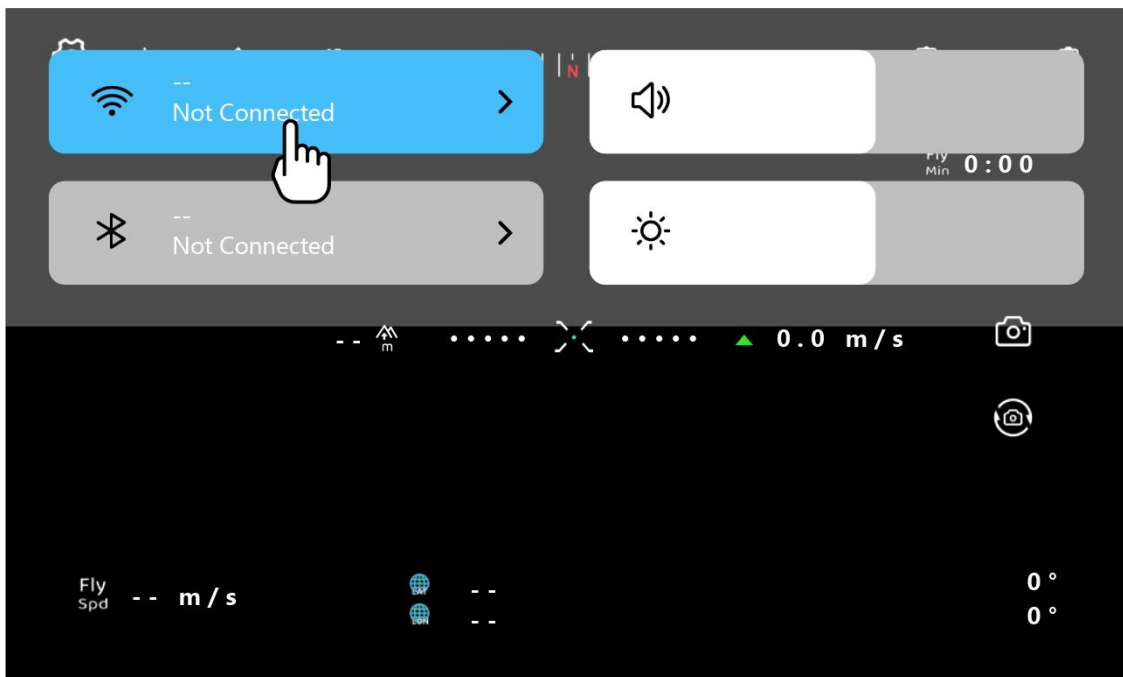
3. Control Center

Swipe down from the top edge of the screen to open Control Center.



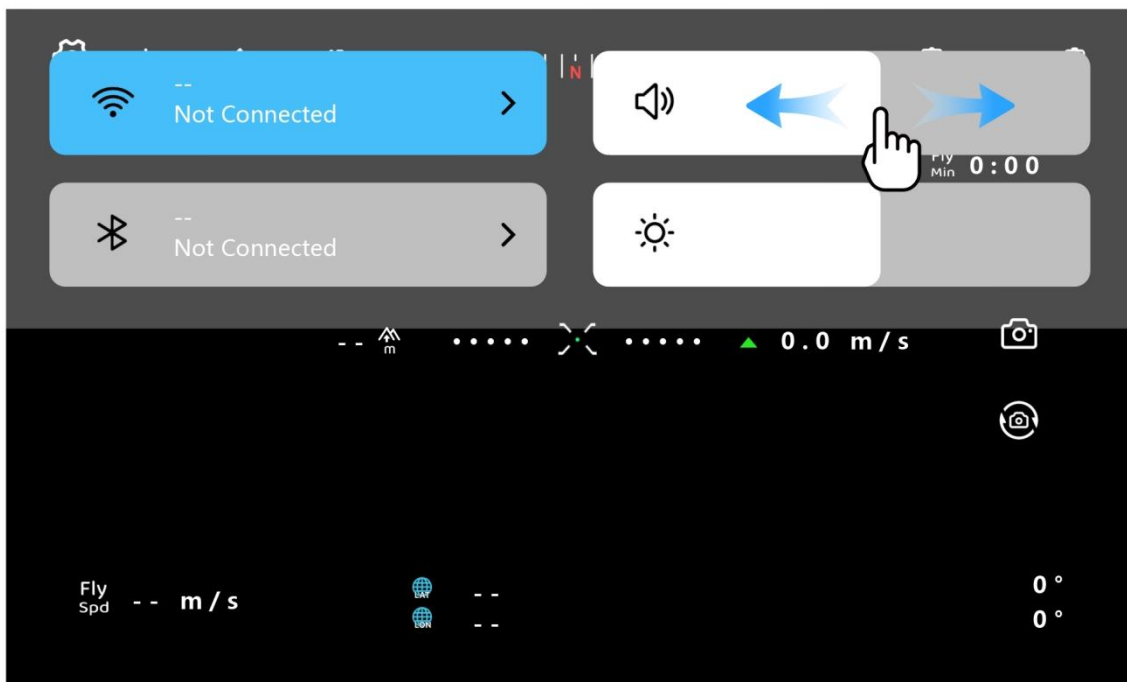
4. Wi-Fi Settings

Tap Wi-Fi to turn it on or off. Long-press Wi-Fi to access the Wi-Fi settings page.



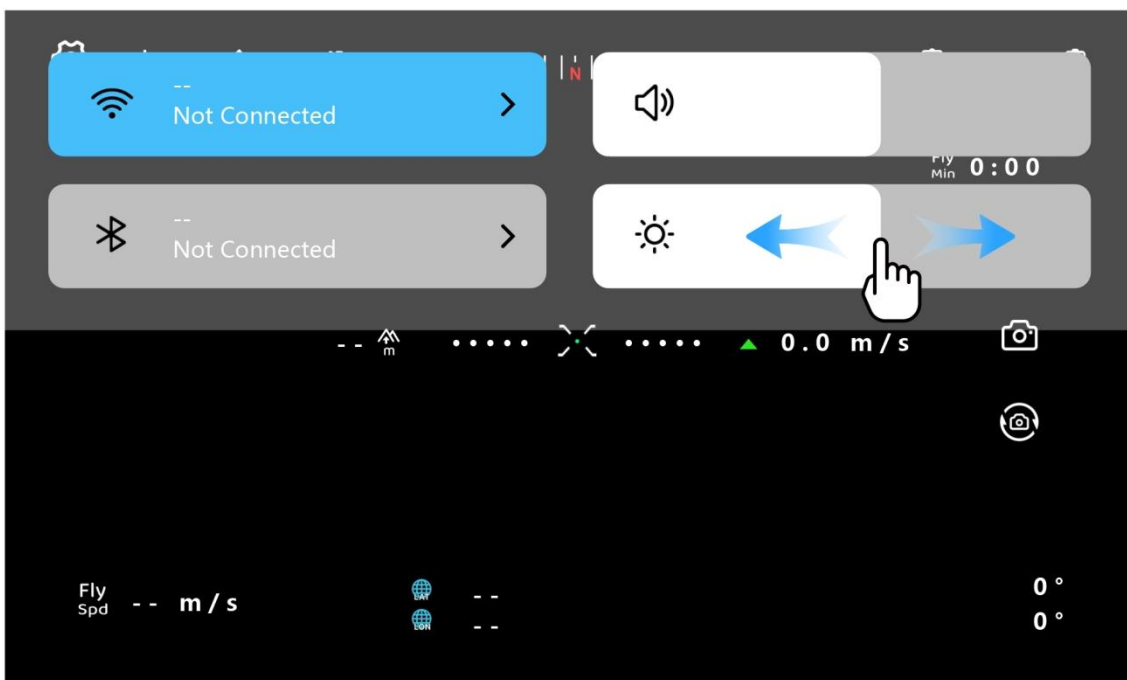
5. Volume Adjustment

Drag the volume bar to adjust the volume.



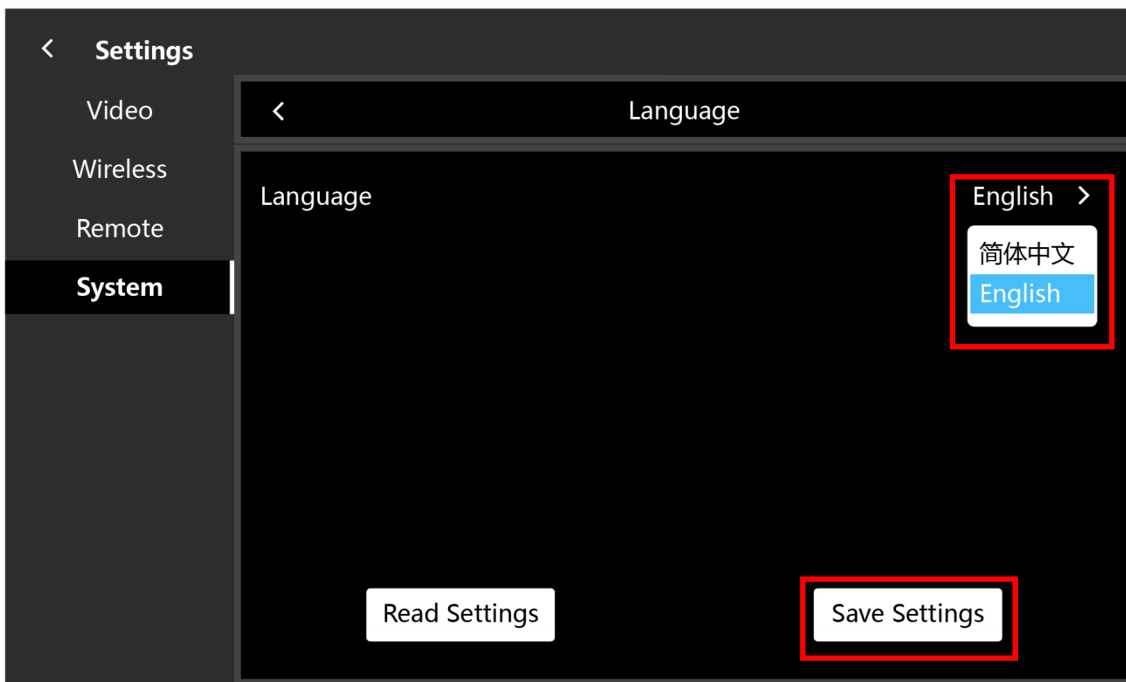
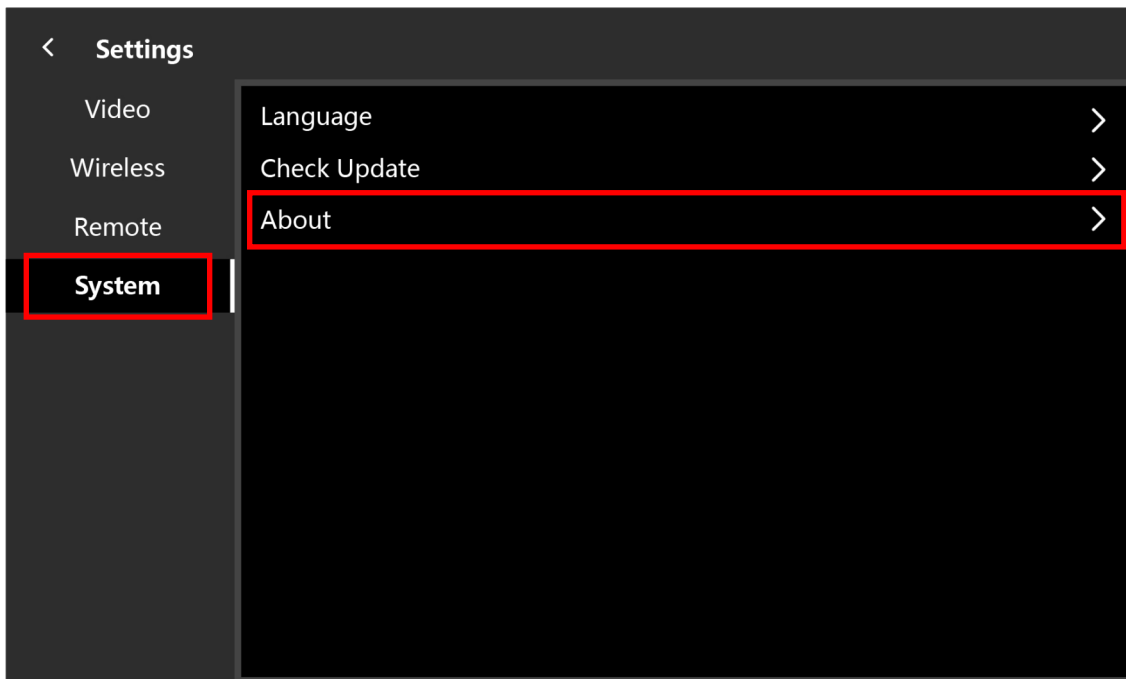
6. Brightness Adjustment

Drag the brightness bar to adjust the screen brightness.



7. Language Settings

Tap Settings  to enter the settings page.

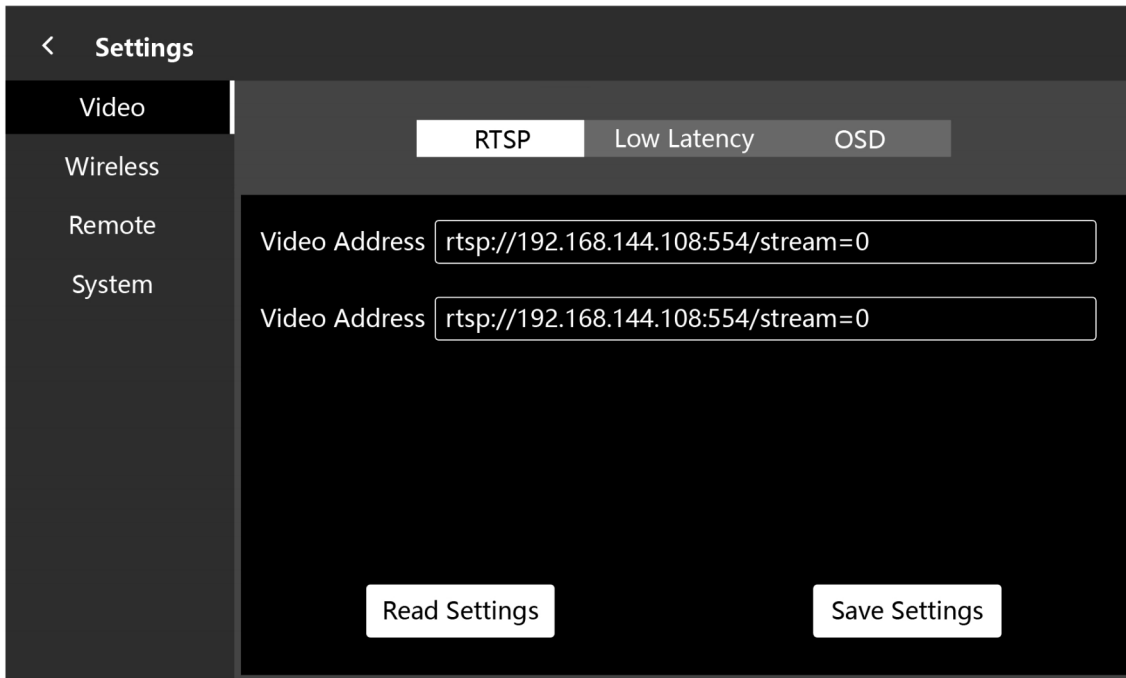


8. Video Settings

Click the settings  to enter the settings page, then select Video Settings.

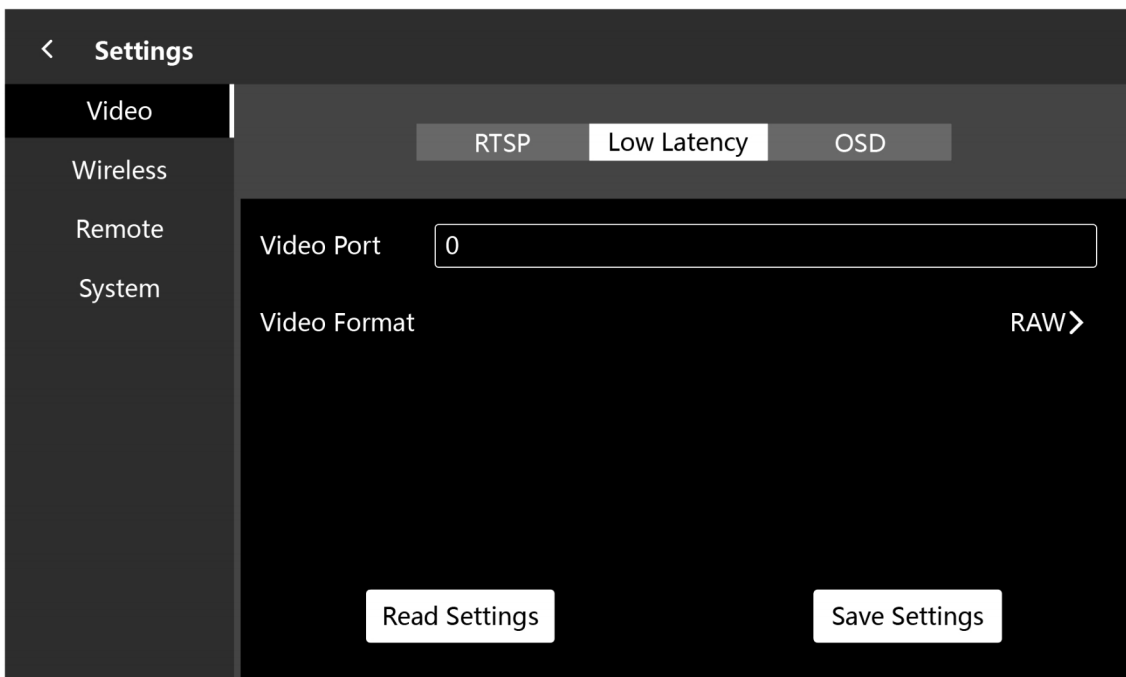
8.1 RTSP

The video stream address can be configured here.



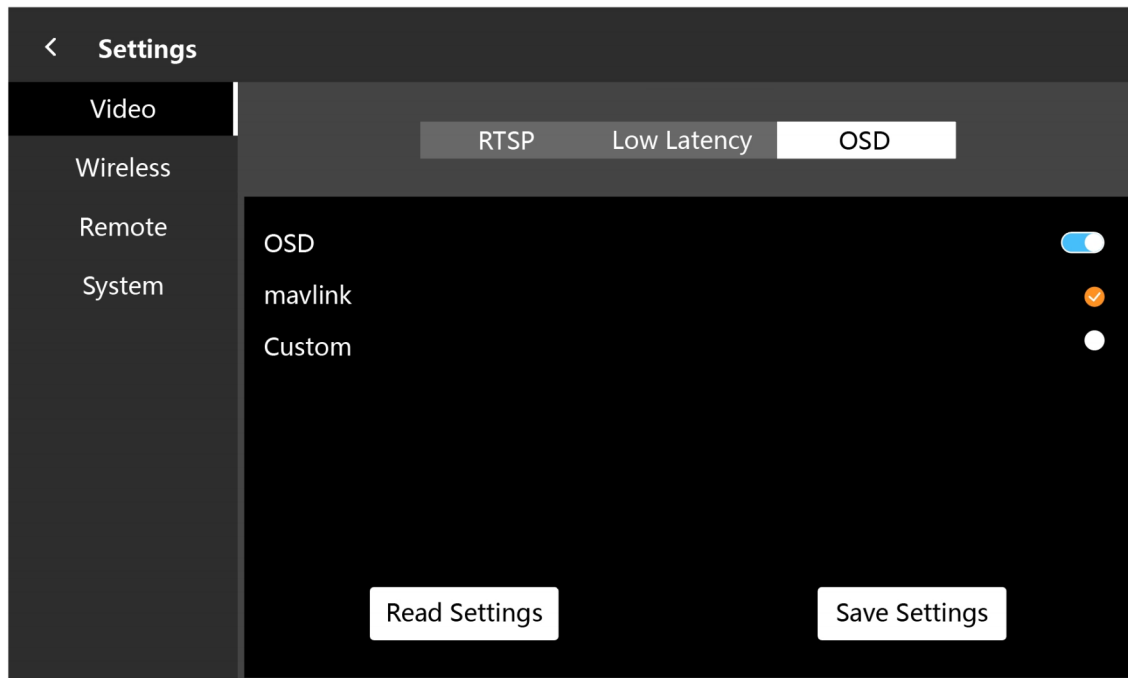
Supports reading, modifying the video address and saving configurations.

8.2 Low Latency Mode



User can set the video port and video format for low latency mode (special camera protocol support is required).

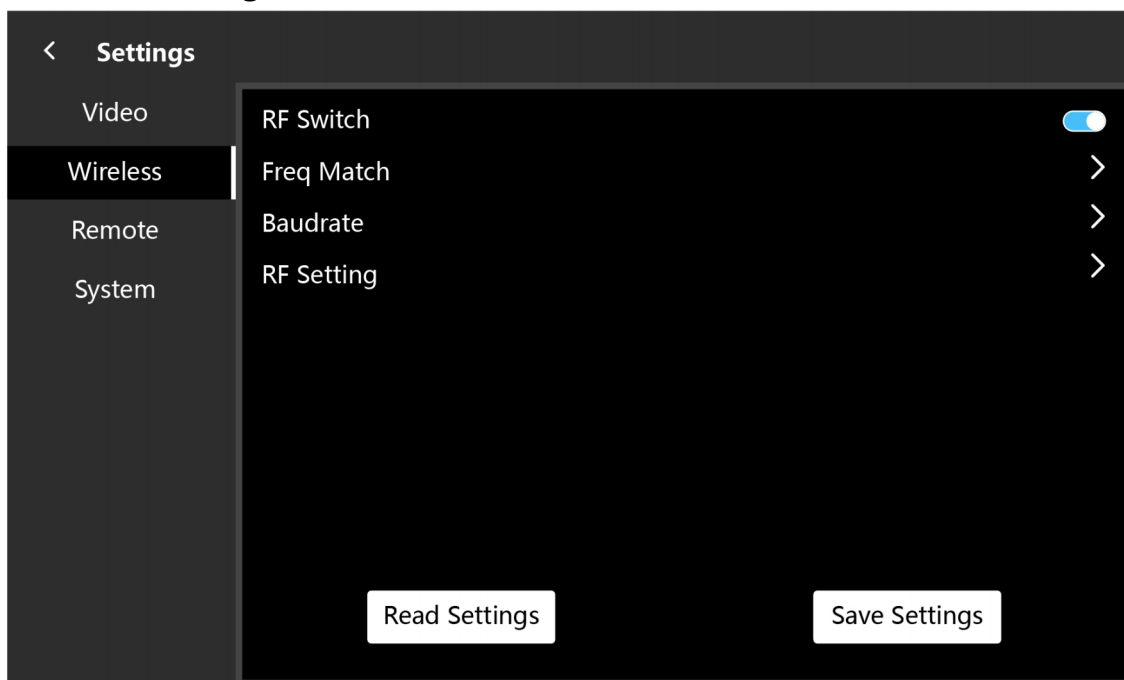
8.3 OSD



User can toggle the OSD switch.

User can set the data source for OSD display: MAVLink/Custom.

9. Wireless Settings



9.1 Binding Switch

Toggle the RF signal of the remote controller on or off.

9.2 Frequency Binding

Check frequency binding status and binding information.

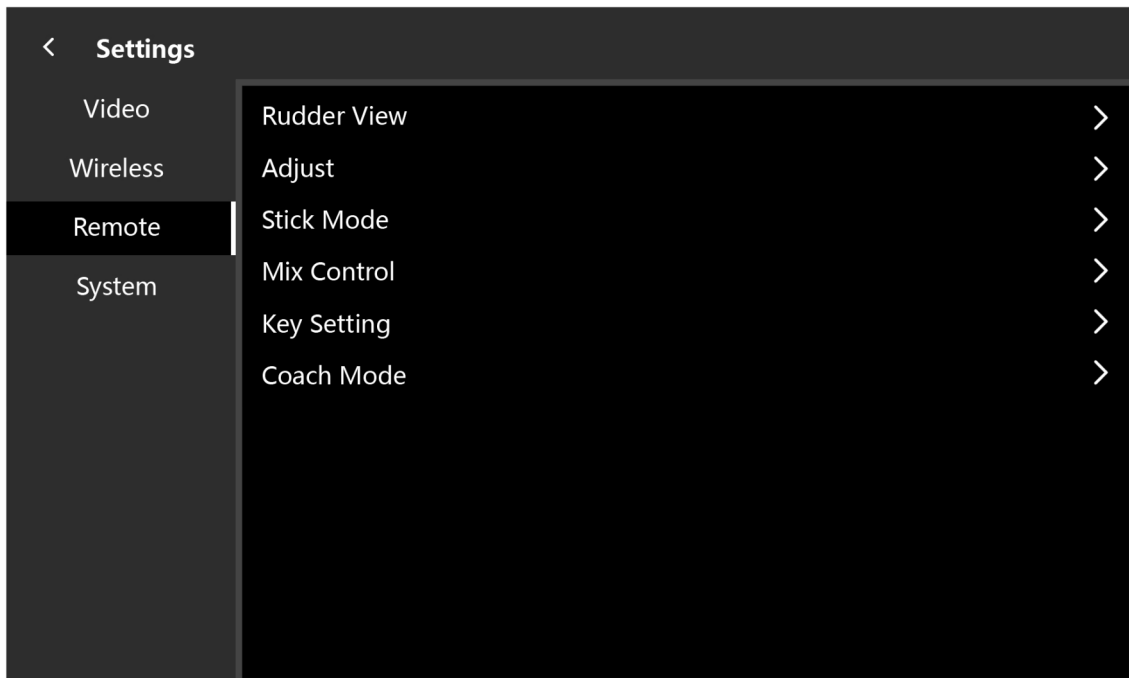
9.3 Baud Rate

Modify the serial port baud rate of the receiver.

9.4 RF Settings

Configure RF parameters.

10. Remote Control Settings



10.1 Servo Value Monitor

View real-time servo output values of each remote channel.

10.2 Remote Controller Parameter Adjusting

Customize button channels, set channel reverse, and adjust maximum & minimum servo travel limits.

10.3 Transmitter Mode

Select transmitter stick mode; US Mode is default.

10.4 Throttle Mixing

Enable/disable mixing switch and configure throttle dead zone.

10.5 Button Configuration:

Button Tone: Turn button sound on/off

Long Press Function: Assign actions for long key press

Button Latch: Set latch/momentary mode for buttons (e.g. B1)

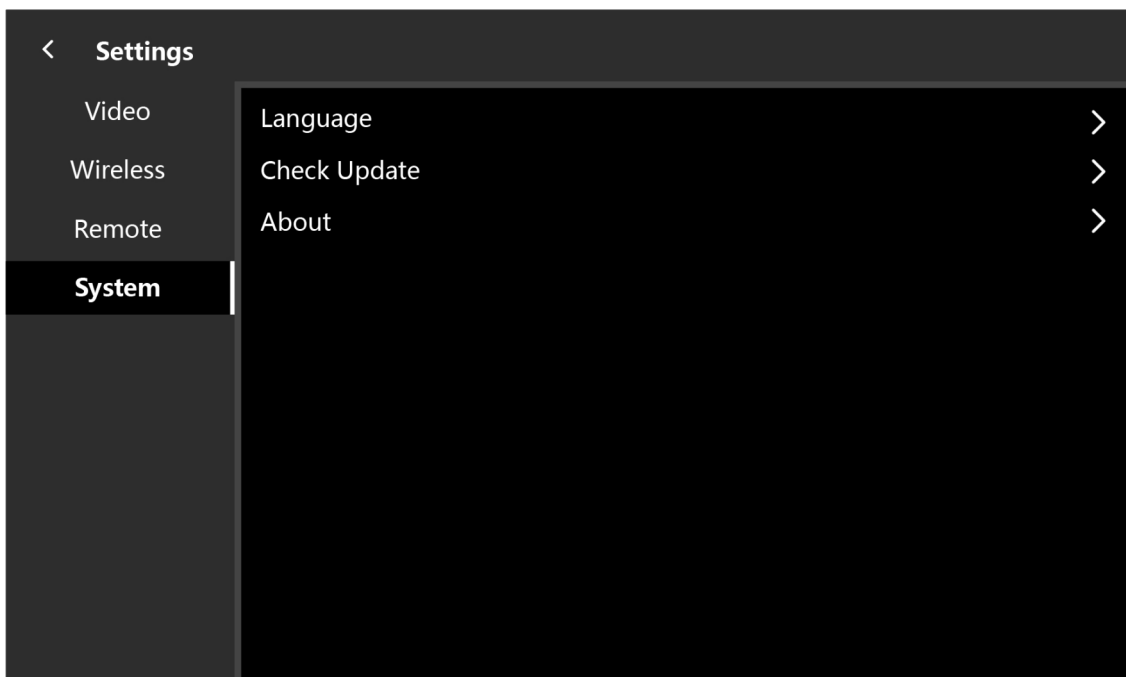
Power-off Retention: Save button configurations after power loss.

Scroll Wheel Mode: Absolute value or incremental value mode.

10.6 Trainer Mode

Set PPM output or enable trainer controller mode.

11. System Settings



11.1 Language Settings

System language can be changed.

11.2 Check for updates:

①System Upgrade

Update the system firmware version.

②Remote Controller Wireless Module Upgrade

Upgrade RF firmware of the remote controller;

③Receiver Wireless Module Upgrade

Wirelessly upgrade RF firmware of the receiver;

④Remote Controller MCU Firmware Upgrade

Upgrade MCU firmware for remote joysticks.

11.3 About Device: View the device SN code.

12. Remote Controller Frequency Binding

Receiver 1: GR01

Method 1:

- ①Power on the remote controller and supply power to the receiver. After power-up, the green light stays solid on, the blue light blinks intermittently, and the fan rotates periodically.
- ②Long press the frequency binding button on the receiver until the blue light flashes rapidly, then release the button.
- ③Tap Settings  --> Wireless Settings --> Frequency Binding --> Start Frequency Binding, confirm the operation and wait for binding success prompt.
- ④Once binding is successful, the receiver's blue light will stay solid on.

Method 2:

- ①Cycle the receiver power four times quickly; it will automatically enter binding mode on the fourth power cycle with blue light flashing rapidly.
- ②Tap Settings  --> Wireless Settings --> Frequency Binding --> Start Frequency Binding, confirm the operation and wait for binding success prompt.
- ③Once binding is successful, the receiver's blue light will stay solid on.

Notice: Maintain a distance of less than 50cm between the transmitter and receiver while performing frequency binding.

Receiver 2: G12 RX

Method 1:

- ①Power on the transmitter and supply power to the receiver. After power-up, the red LED stays solid on while the green LED flashes intermittently.
- ②Short-circuit the GND pin and KEY pin on the receiver, and release the short circuit once the green LED flashes rapidly.
- ③Tap Settings  --> Wireless Settings --> Frequency Binding --> Start Frequency Binding, confirm the operation and wait for binding success prompt.
- ④Once binding is successful, the receiver's green light will stay solid on.

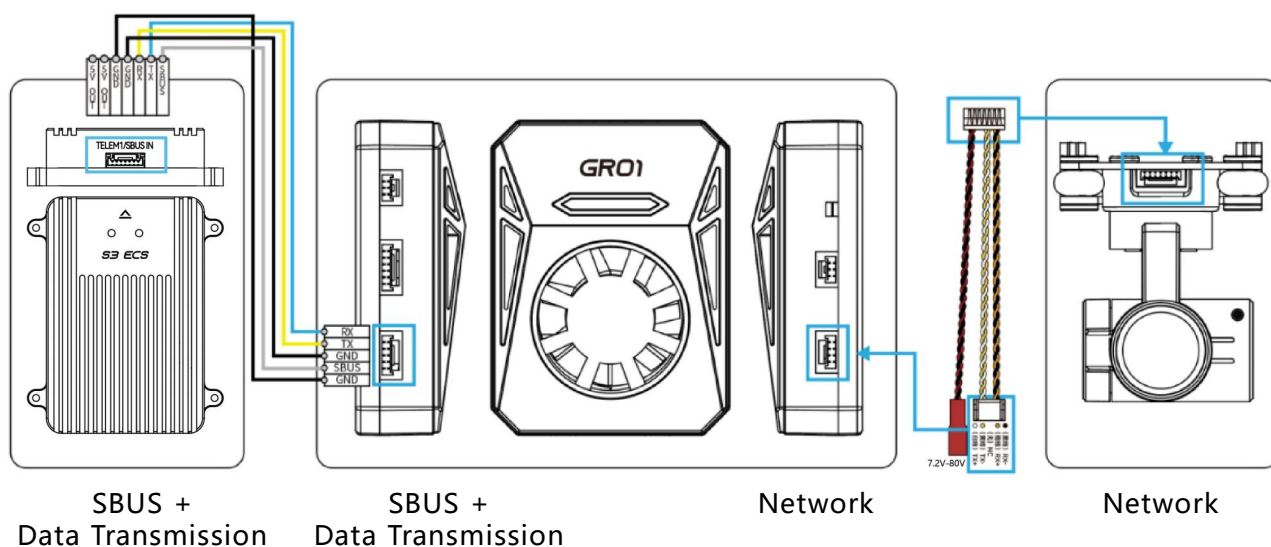
Method 2:

- ① Cycle the receiver power four times quickly; it will automatically enter binding mode on the fourth power cycle with blue light flashing rapidly.
- ② Tap Settings ⚙️ --> Wireless Settings --> Frequency Binding --> Start Frequency Binding, confirm the operation and wait for binding success prompt.
- ③ Once binding is successful, the receiver's blue light will stay solid on.

Notice: Maintain a distance of less than 50cm between the transmitter and receiver while performing frequency binding.

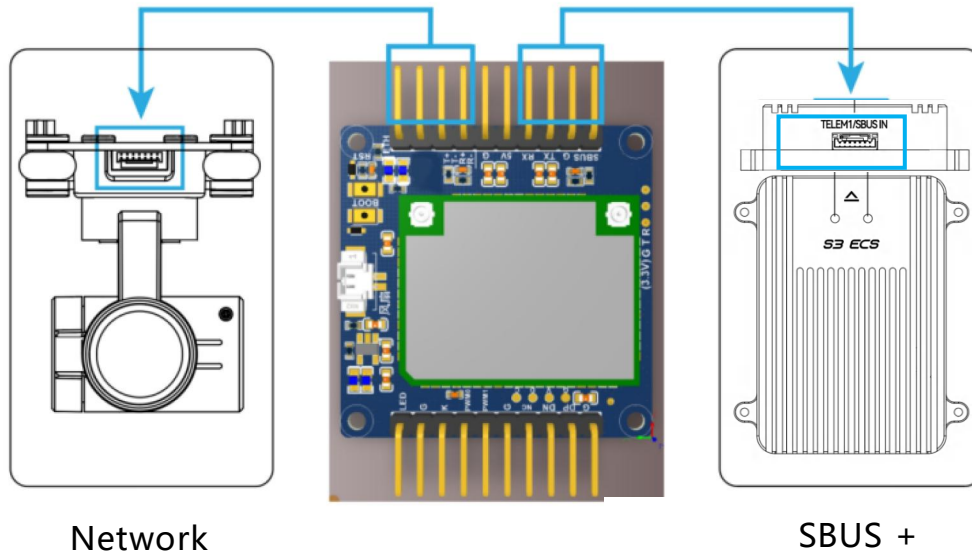
13. Video & Data Transmission Connection

Receiver 1: GR01



Wire according to the diagram above. Connect the SBUS & data transmission port of the receiver to the SBUS & data transmission port of the S3 flight controller, and connect the LAN port of the receiver to the LAN port of the gimbal camera. (**Note:** For device power supply and other wiring connections, please refer to the respective user manual.)

Receiver 2: G12 RX



Wire according to the diagram above. Connect the SBUS & data transmission port of the receiver to the SBUS & data transmission port of the S3 flight controller, and connect the LAN port of the receiver to the LAN port of the gimbal camera.

(1) Video & Image Transmission

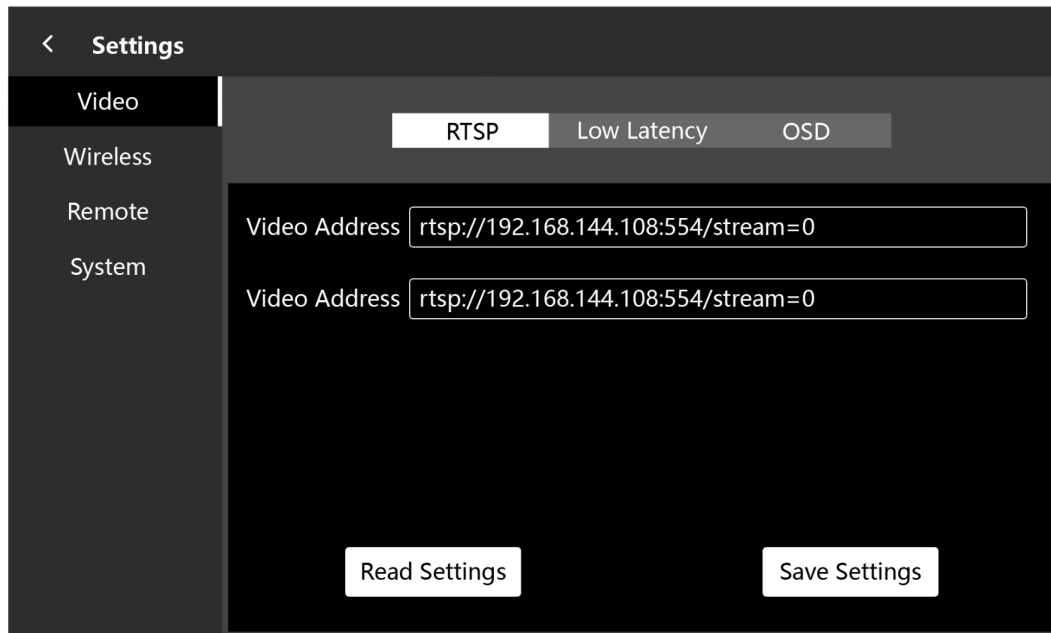


Take Skydroid C10 Pro as an example: power on the camera and connect it to the LAN port of the receiver, then the video feed will be displayed.

If a third-party camera is used, its network segment must be set to the 144

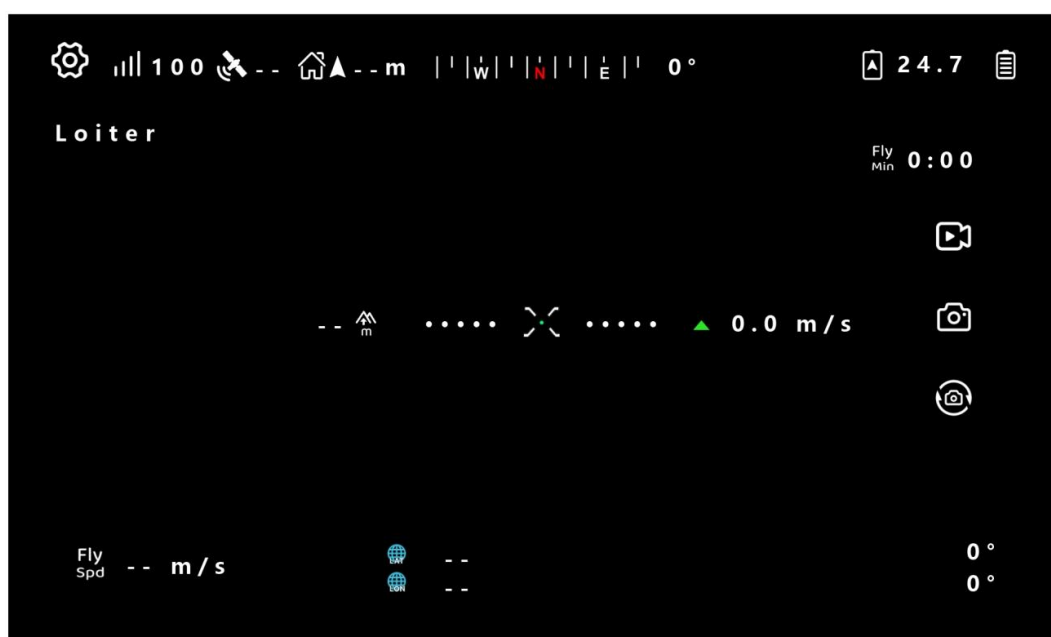
segment (192.168.144.XXX). Tap Settings  to enter the settings page, select RTSP, tap Read Settings, enter the RTSP pull stream address of the camera, then save the settings. (Refer to Section 8 Video Settings in this manual.)

Note: The RTSP address of third-party cameras shall be provided by the manufacturer.



(2) Data Transmission

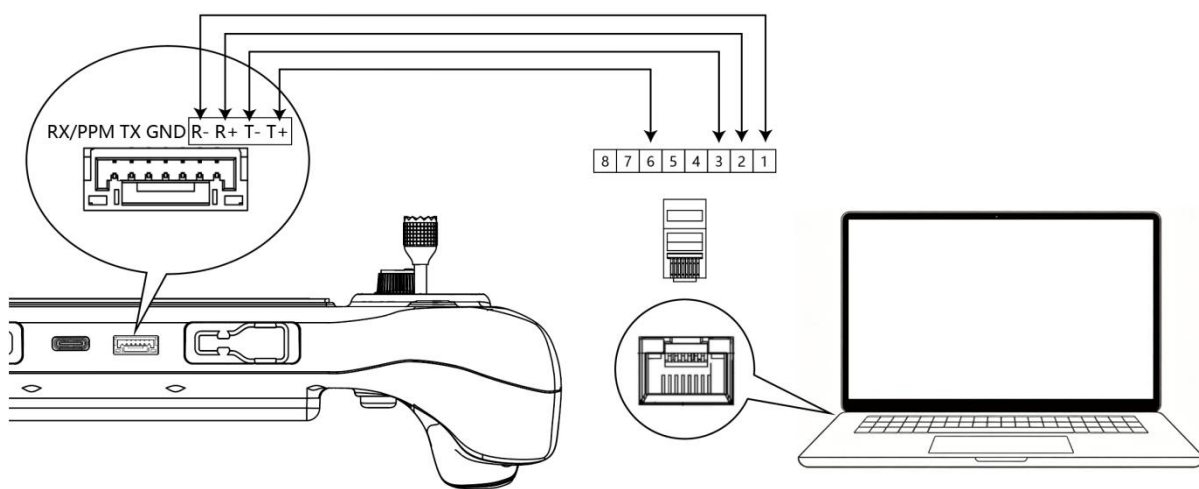
When data transmission cable and baud rate both set correctly, the flight controller data transmission will be automatically connected.



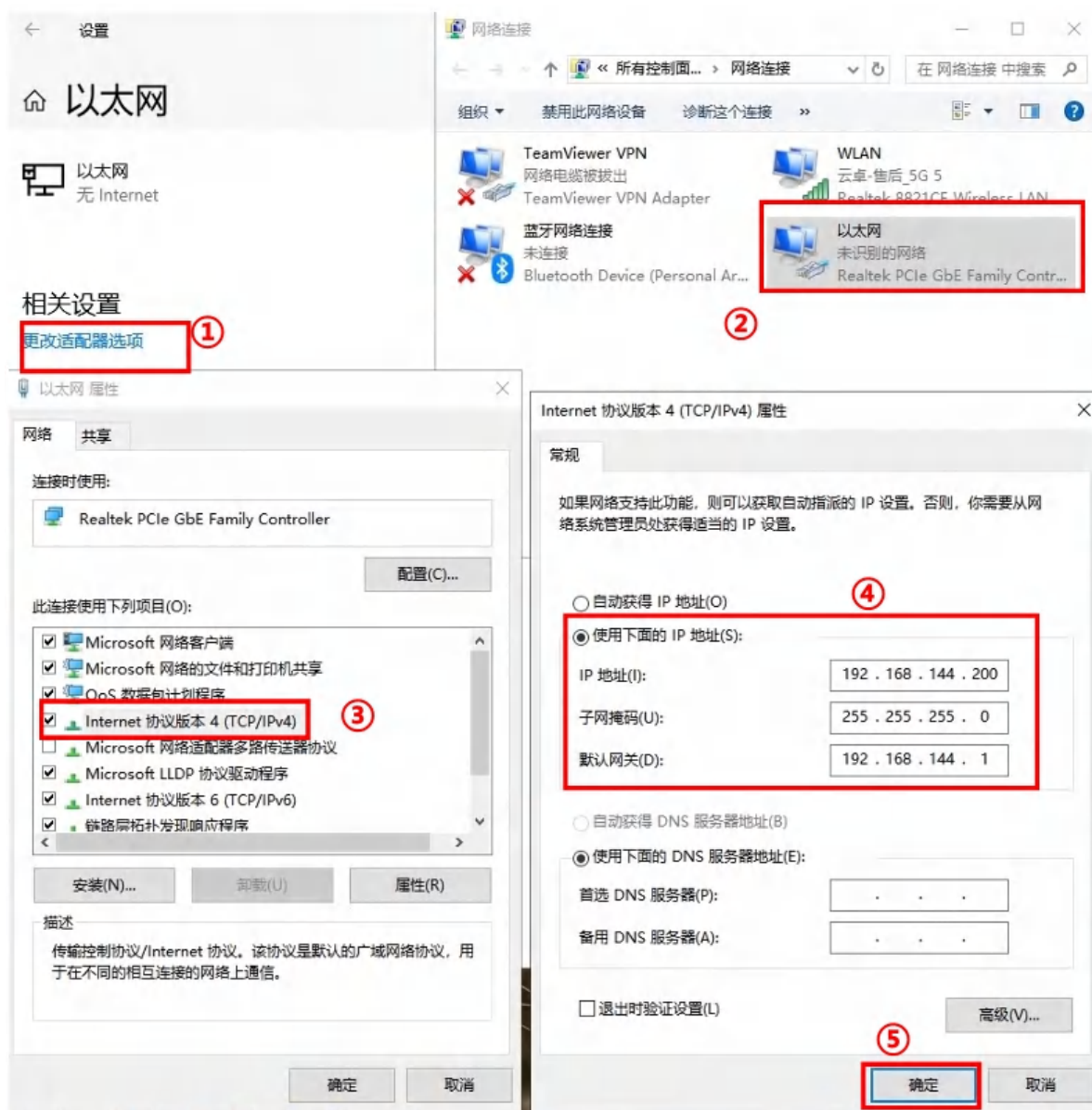
Note: If the connection fails, please check the following:

- ① Whether the serial port baud rate of the receiver matches the baud rate of the flight controller's data transmission port (The baud rate of S3 flight controller is 921600).
- ② Whether the wiring definition of the data transmission is correct (RX connects to TX).

14. Connect the Remote Controller to Windows PC for Data & Video Transmission Sharing

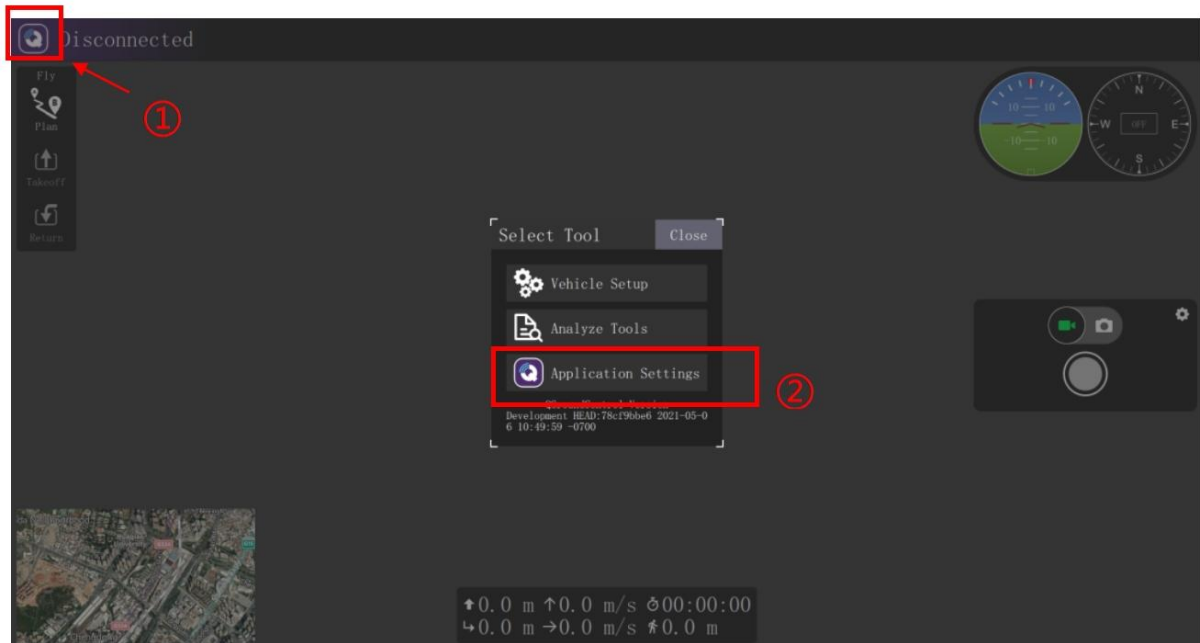


Connect the LAN port of the remote controller to the PC Ethernet port using a self-made GH1.25 7P to RJ45 crystal head cable (twisted-pair cable required).
Configure the PC Ethernet adapter to the 144 network segment:
Open PC Settings → Click Change adapter options → Select Ethernet → Select IPv4 Protocol → Choose Use the following IP address → Enter parameters as shown in the figure → Click OK (see figure below).

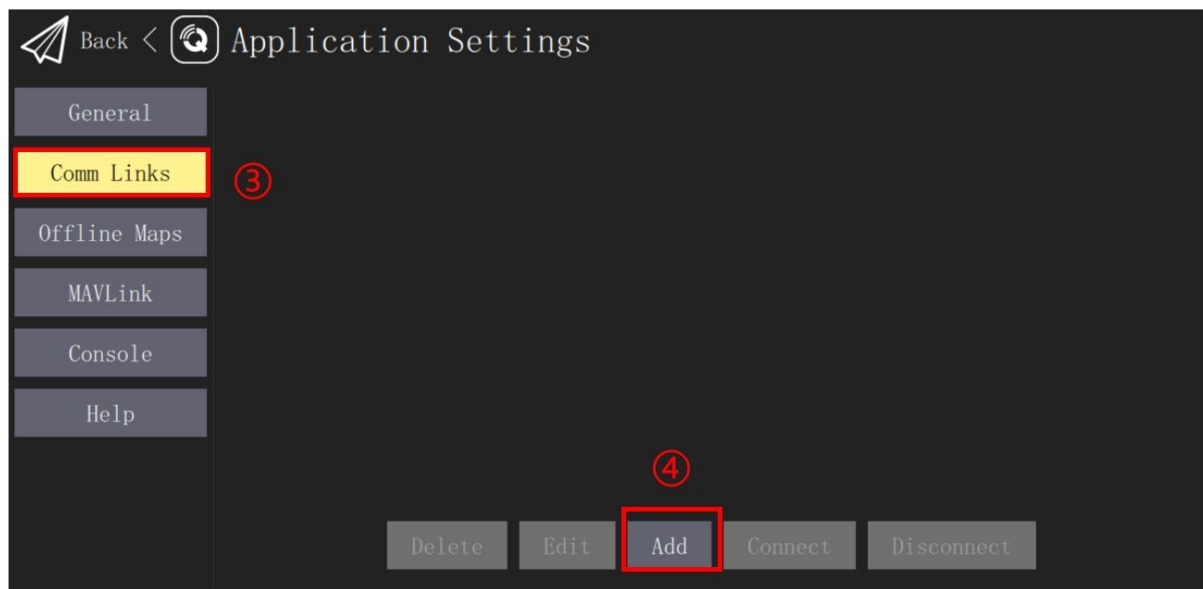


14.1 Shared Data Link – Connect Data Link via QGC

Open the QGC software.->①Click the Q icon in the upper left corner.->②Select Application Settings in the pop-up dialog box.



③Select Comm Links.->④Click Add.

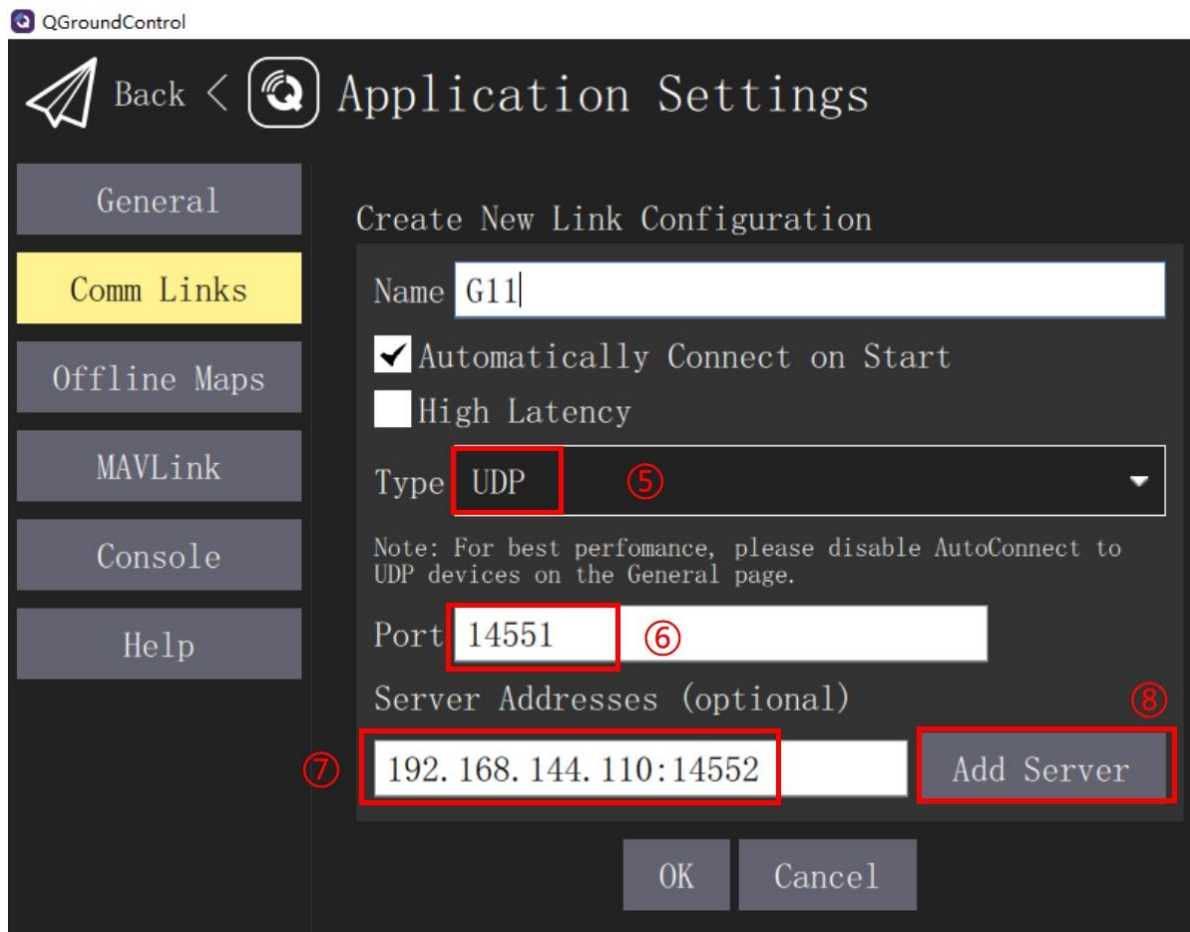


⑤Set Type to UDP.

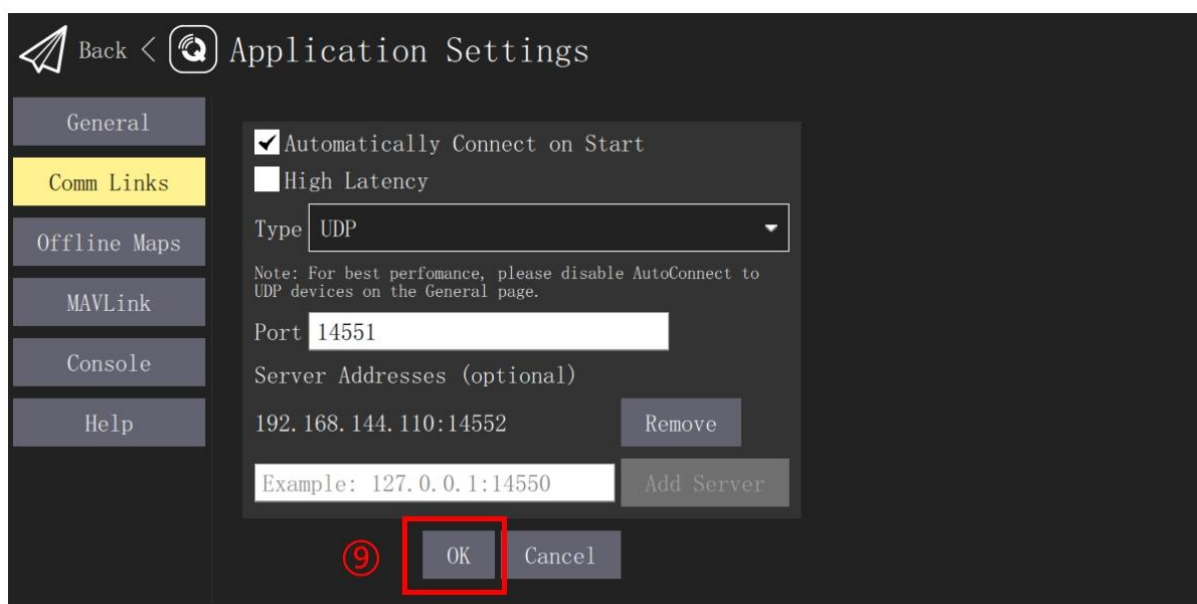
⑥Set Port to 14551.

⑦Set Server Addresses to 192.168.144.110:14552.

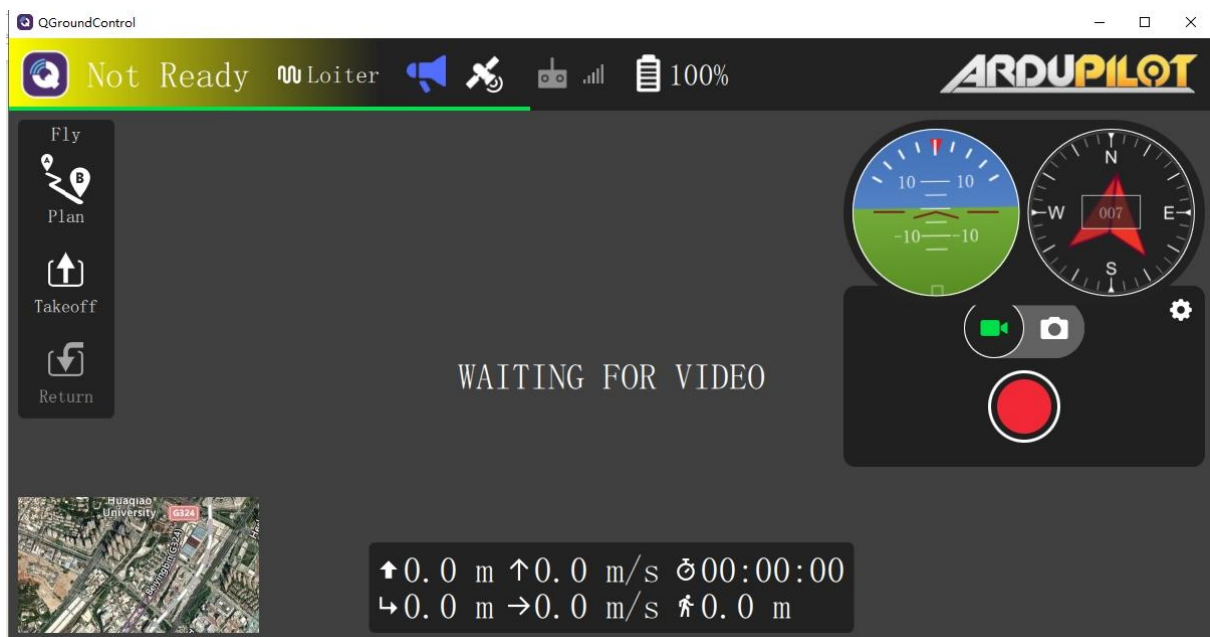
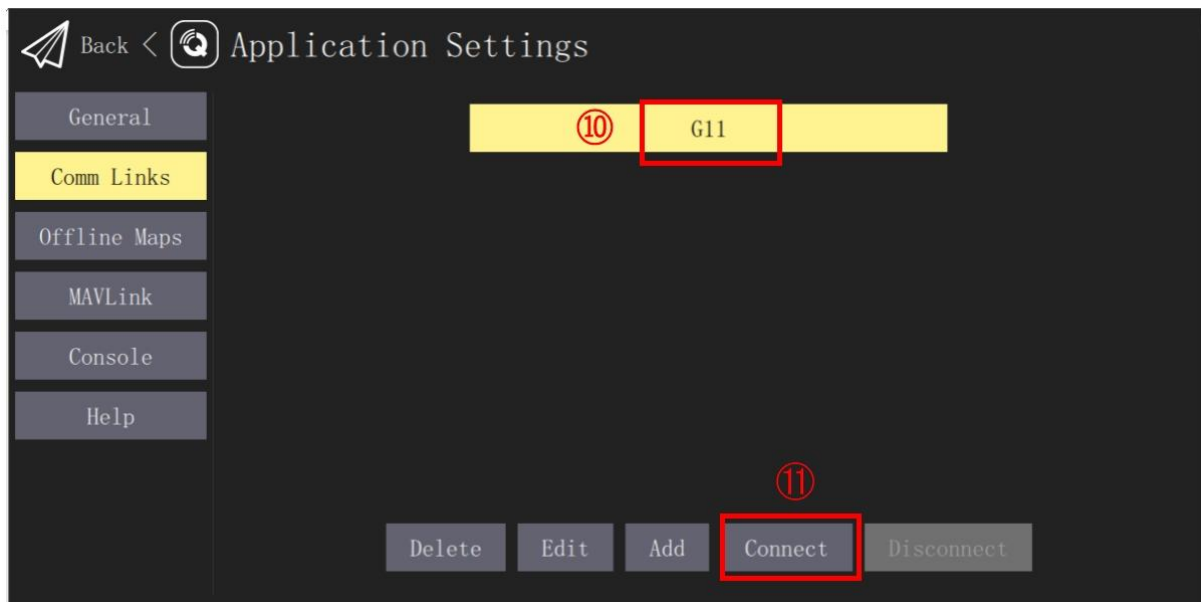
⑧Click Add Server to add the address.



⑨Click OK to confirm.



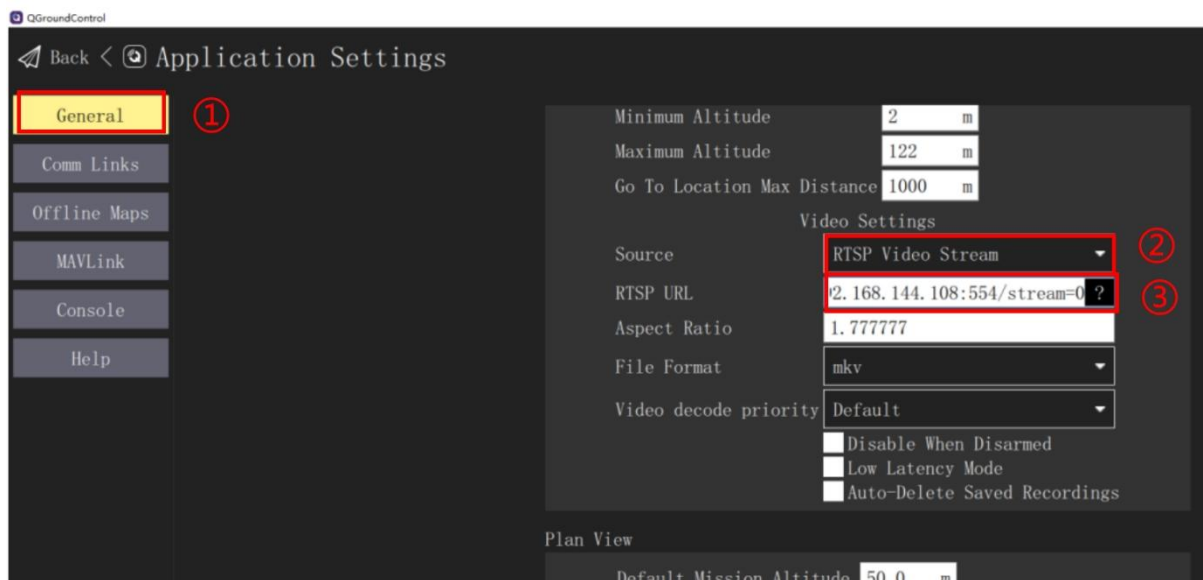
⑩Select the newly added G11 option.->⑪Click Connect to establish the data link connection.



14.2 Shared Video Transmission

Display shared video transmission using QGC.

Simply enter the camera RTSP stream pulling address as shown below.



For C10 / C10PRO / LAN port 3-axis Gimbal / LAN port Single-axis Gimbal:

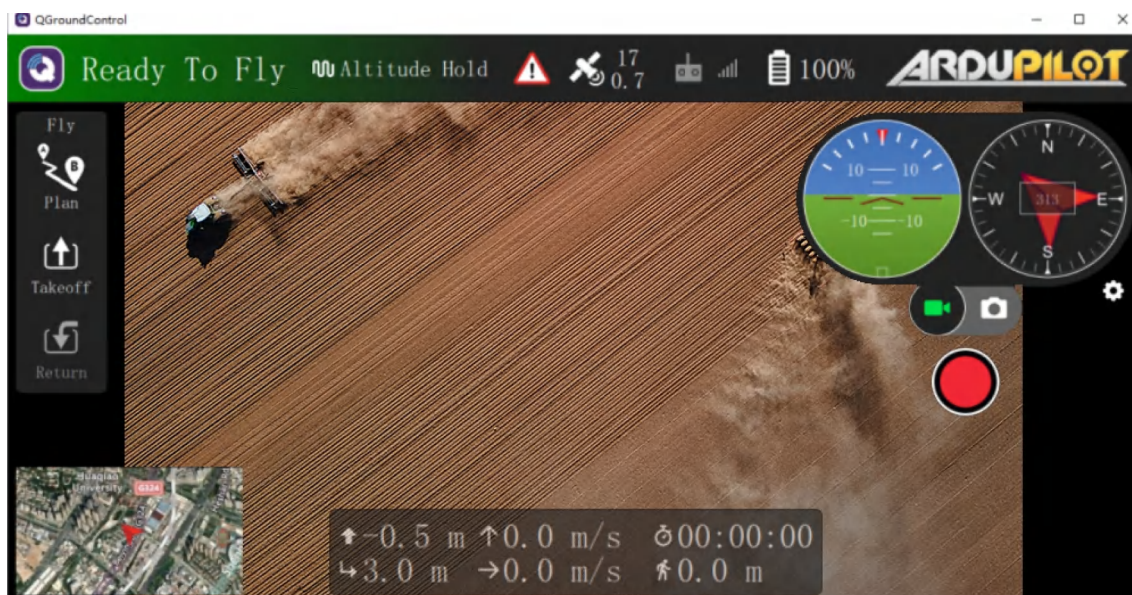
rtsp://192.168.144.108:554/stream=0

For dual-light C12 / C13 / C14PRO:

rtsp://192.168.144.108:554/stream=1

rtsp://192.168.144.108:555/stream=2

Note: When using third-party cameras, the camera RTSP address shall be provided by the camera manufacturer.



15. Parameters

G11 Transmitter Specifications			
Display Screen	4.5-inch touch screen	Resolution	1920*1080
Dimension	225.3*66.9*120mm	Operating System	Linux OS
Battery Capacity	10000mAh	Endurance	5-6 hours
RAM	128MB	System Storage	128MB
Operating Frequency Band	2.4GHz/5.8GHz	Frequency Hopping	Automatic frequency hopping
Control Range	20KM (line-of -sight, ground-to-air)	Weight	480g
Charging Port	TYPE-C	Channel Quantity	11
Operating Temperature	-10°C~50°C	RF Transmit Power	23dBm@CE/FCC
External Interfaces	PPM port, LAN port, TYPE-C port		

GR01 Receiver Specifications			
Operating Frequency Band	2.4GHz/5.8GHz	Serial Baud Rate	57600/115200/921600
Supply Voltage	7.2 ~ 80V(XT30)	Operating Current	12V/300mA
Data Transmission Port	1 channel	Air Interface Rate	Uplink 200kbps Downlink: 15Mbps
LAN Port	1 channel	Dimensions	45.5×60×21.5mm
SBUS Output	1 channel	Weight	37g
PWM Port	3 channels	Operating Temperature	-10℃~60℃
RF Power	23dBm@CE/FCC	Channel Bandwidth	1.25MHz/2.5MHz/5MHz/ 10MHz/20MHz/40MHz

G12RX Receiver Specifications			
Operating Frequency	2.4GHz/5.8GHz	Serial Port Baud Rate	57600/115200/921600
Supply Voltage	5V	Operating Current	5V/720mA
Data Transmission Port	1 channel	Air Interface Rate	Uplink 200kbps Downlink: 15Mbps
LAN Port	1 channel	Dimensions	51×40.8×23.3mm
SBUS Output	1 channel	Weight	45g
PWM Ports	2 channels	Operating Temperature	-10℃~60℃
RF Power	23dBm@CE/FCC	Channel Bandwidth	1.25MHz/2.5MHz/5MHz/ 10MHz/20MHz/40MHz

V. Maintenance and Warranty

Maintenance for Long-Term Storage:

Store the transmitter in a dry and well-ventilated area, and avoid direct sunlight to prevent battery overheating. If storage lasts more than three months, the recommended storage temperature range is 22°C to 28°C. Never store the battery in environments below -20°C or above 45°C.

VI. Transportation and Storage

Warning

Comply with all the following provisions to prevent potential injury and property loss:

Cables and small components may pose hazards to children. Keep all transmitter parts out of children's reach at all times.

Caution

- 1) Do not submerge the transmitter in water. If water intrusion occurs, wipe it promptly with a soft dry cloth and power it off immediately.
- 2) Do not subject the battery to mechanical impact, crushing or puncturing, and avoid dropping the battery.

VII. Packing List

Accessory Name	Quantity	Remarks
Bare G11 Remote Controller	1	
GR01 Receiver/G12RX Receiver/GR00	1	Select one as an option
GR01 Power Cable	1	
GR01 Feeder Cable (Default length: 50cm)	2	Max. 1.5 meters
2.4&5.8G Dual-band Antenna (RP-SMA Female)	2	
SBUS Data Transmission Cable (Select the cable matching the flight controller)	1	Select one as an option
R20 LAN Port Cable	1	
GR01-PWM (Labelled, Twisted-pair Wire)	1	
Data Cable (C-C)	1	
G11 EPP Packaging Box	1	
Non-centering Mode Modification Kit (Special-purpose)	1	

One data transmission cable can be selected when opting for the GR01 receiver

No.	Name	Specification
1	GR01-PIX Data Transmission Cable	GH5P/MX1.25 6P / Dupont 3P, L=300 mm, 26AWG
2	GR01- Weike V7 Data Transmission Cable	GH5P / Dupont 3P / 5264 4P, L=300 mm, 26AWG
3	GR01- K3A Data Transmission Cable	GH5P / Dupont 4P / Dupont 3P, L=300 mm, 26AWG
4	GR01- K++ Data Transmission Cable	GH5P / Dupont 3P / MX3.0 4P, L=300 mm, 26AWG
5	GR01- V5+V7 Data	GH5P / GH6P / Dupont 3P, L=300 mm, 26AWG

	Transmission Cable	
6	S2mini- GR01 Data Transmission Cable	GH1.25 5P (White- Yellow- Black- Orange) & GH1.25 4P (Orange- Yellow- White- Black), 30# silicone wire, twisted- pair, L=15 cm
7	GR01- K9 Data Transmission Cable	GH1.25 5P (Black- Yellow, Black- Yellow- White) & Dupont 3P (Black- Yellow), GH1.25 4P (Black- Yellow- White- NC)
8	GR01- Boying Data Transmission Cable	GH5P / MX3.0 4P / MX3.0 3P, L=300 mm, 26AWG
9	GR01- S2 mini Data Transmission Cable	GH4P / GH5P, 26AWG, L=300 mm
10	GR01- S2 Connection Cable	GH1.25 5P (Black- Gray- Black- Yellow- White) & GH1.25 7P (Gray- White- Yellow- Black- Black)

G12RX Receiver Accessories:

No.	Name	Specification
1	Standard Configuration	Bare PCB board + 2 pin headers + heat sink (Total weight: 16 g), without data transmission cable

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