

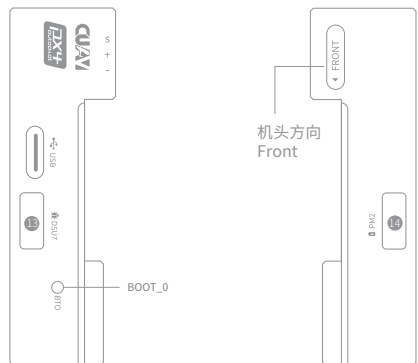
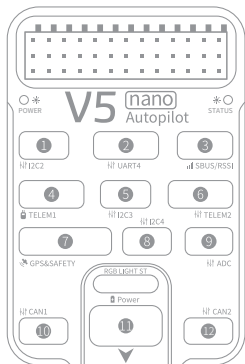
## 欢迎使用V5 nano自动驾驶仪 Thanks for using the V5 nano autopilot

### 接口定义 Interface definition

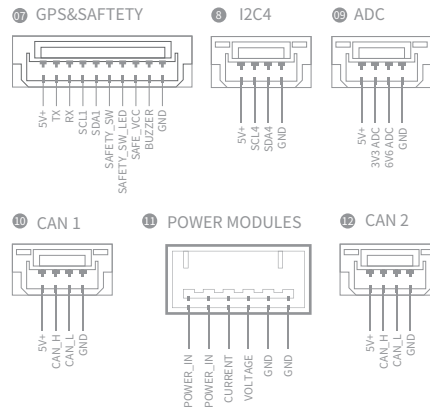
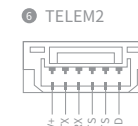
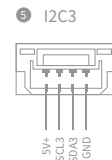
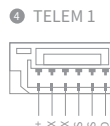
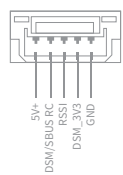
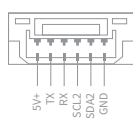
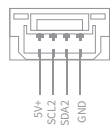
V5 nano硬件和接口的设计均采用PX4所制定的标准。可能存在与其它接口定义或者线材不兼容的问题。请仔细阅读接口定义的描述并且使用产品的原装配线（绿色端子接飞控）进行接线，**如果不按照接口定义标定的接线方式接线，因此造成的设备损坏，本公司不予赔偿。**

The V5 nano hardware and interfaces are designed to the PX4 standards. Please read the description of the interface definition carefully and use the provided cables. Use of other cables that are not compliant with the FMUv5 standards may damage the unit or peripherals. CUAV will not be responsible for damage caused by improper wiring.

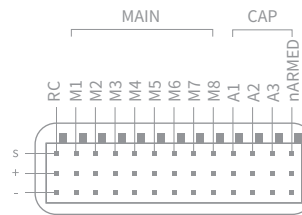
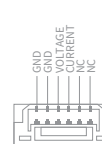
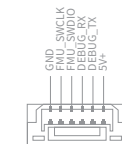
**Important: The green end of the supplied cables should be connected to the V5 nano.**



1 I2C2      2 UART4      3 DSM/SUBS/RSSI



10 DEB&UART7      11 PM2



## 地面站下载 Download Ground Control Station

### QGROUNDCONTROL

[https://docs.qgroundcontrol.com/en/getting\\_started/download\\_and\\_install.html](https://docs.qgroundcontrol.com/en/getting_started/download_and_install.html)

### Mission Planner

<http://ardupilot.org/planner/docs/mission-planner-installation.html>

### 配件清单 Parts List

V5 nano 飞控 (V5 nano Autopilot)	×1
I2C/CAN线 (I2C/CAN cable)	×2
I2C扩展板 (I2C expansion board)	×1
ADC6.6线 (ADC6.6 cable)	×1
ADC3.3线 (ADC3.3 cable)	×1
RSSI 线 (RSSI cable)	×1
DSM信号线 (DSM signal cable)	×1
SBUS信号线 (SBUS signal cable)	×1
Debug线 (Debug cable)	×1
电源检测线 (Power detection cable)	×1
电压电流线 (Voltage and current cable)	×1
杜邦线 (DuPont cable)	×2
安全开关 (Safety switch)	×1
PW-LINK模块 (PW-LINK module)	×1
USB-TYPC线 (USB-TYPC cable)	×1
16G内存卡 (16G memory card)	×1



## 规格参数 Specifications

硬件参数 Hardware parameter		
主处理器 Main Processor STM32F765 (32 Bit Arm® Cortex®-M7, 216MHz, 2MB flash, 512KB RAM)		
传感器 Sensors		
加速度计 Accelerometer	ICM-20602 & ICM-20689 & BMI055	
陀螺仪 Gyroscope	ICM-20602 & ICM-20689 & BMI055	
电子罗盘 Magnetometer	IST8310	
气压计 Barometer	MS5611	
外部接口 External interface		
UART	5	GPS / 数传 / 调试等 GPS / Radio/Debug, etc.
I2C	4	罗盘 / 空速计 / 超声波等 Compass / Airspeed meter / Ultrasonic, etc.
CAN	2	GPS / 智能电池等 GPS / Smart battery, etc.
ADC	2	模拟信号检测 AD signal detection
PWM out	11	舵机 / 电调 / 马达等信号输出 Signal output of Steering Gear / ESC / Motor
PWM in	4	编码器 / 热靴反馈等信号输入 Signal input such as Encoder / Hot shoe feedback
PPM in	1	遥控器信号 Remote control signal
DSM/SBUS/RSSI	1	遥控器信号/信号强度输入 Remote control signal/Signal strength input
电源 1 POWER MODEL 1	1	4.5 - 5V 电源输入 & 电压电流AD检测 4.5 - 5V power input & voltage and electricity AD detection
电源 2 POWER MODEL 2	1	电压电流AD检测 Voltage and electricity AD detection
安全开关 Safety switch	1	解锁开关 Unlock switch
蜂鸣器 Buzzer	1	声音提示器 Buzzer warning
USB-TYPE-C	1	USB供电调试 USB power supply debugging
TF卡槽 TF slot	1	存储日志信息 Store log information
支持功能 Support function		
固件 Firmware	PX4 / Ardupilot	
机型 Model	多旋翼/固定翼/直升机/VTOL垂直起降/无人船/无人车等 Copter/Plane/Helicopter/VTOL/unmanned vehicle/Rover, etc.	
Working environment		
PM工作电压 PM working voltage	4.5 ~ 5.5V	
USB工作电压 USB voltage	5V ± 0.25v	
伺服输入电压 Servo Rail Input	0-36v	
工作温度 Operating temperature	-40 ~ 85°C	

尺寸和重量 Size&Weight	
尺寸 Size	40×60×17.8mm
重量 Weight	41g

## 产品认证 Product certified



产品已通过  
CE安全认证

The product has passed CE  
safety certification



产品已通过  
ISO 9001质量管理体系认证  
The product has passed ISO 9001  
quality management system  
certification

## 产品使用注意事项

- 请遵守当地法规，勿在禁飞区内飞行。
- 飞行高度请低于120m。
- 机场8km范围内禁止飞行。
- 禁止在人、房屋或车辆上方飞行。
- 禁止在雨、强风或雾中飞行。
- 禁止在场馆上方飞行。

## Product use precautions

- Please comply with local regulations and do not fly in the no-fly zone.
- Flight height should be less than 120m
- Flight is prohibited within 8km from the airport.
- It is forbidden to fly above people, houses or vehicles.
- Do not fly in rain, strong winds or fog.
- It is forbidden to fly above the venue.

## 相关资料

产品使用教程及固件下载请访问官方文档中心：  
<http://doc.cuav.net>  
\*注：说明书如有更新，恕不另行通知。

## Relevant information

Product tutorials and firmware downloads please visit the official documentation center:  
<http://doc.cuav.net>  
\*Note: The manual is subject to change without prior notice.

# V5 nano

使用说明书  
User Manual

