Ag++ Flight Controller

Powered by AeroGCS Software Stack

&

NamoAG

(Navigation for Modern Agriculture)

Ag++ Flight Controller

Ag++ revolutionizes agriculture drone spraying with a faster processor, higher memory, and superior drone performance. It offers precision spraying algorithms for greater efficiency. Upgrade to Ag++ for smarter and more reliable agriculture operations.

Key Specifications:

Superior Processing Power

Ag++ is powered by the STM32H743VIT main processor, featuring a 32-bit Arm® Cortex®-M7 core running at up to 480 MHz and providing 1027 DMIPS for real-time computations. Coupled with the STM32F103 IO processor operating at 72 MHz, Ag++.

Enhanced Sensors for Precision

Ag++ features a highly advanced sensor suite, including ICM-20649, BMI088, and ICM-42688 accelerometers/gyroscopes for precision motion detection. The aerospace-grade MMC5983 magnetometer and dual MS5611 barometers ensure high accuracy in altitude and orientation measurements.

Advanced External Sensor Support

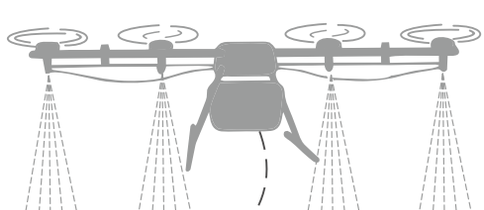
Ag++ supports CAN-based front and back obstacle avoidance radars, allowing your drone to navigate complex environments with ease. Additionally, the CAN altimeter provides precise terrain-following capabilities, ensuring stable and accurate flights even in rugged or varied landscapes.

Broader Connectivity for Flexibility

Ag++ offers 8 PWM outputs for motors, 4 auxiliary PWM/GPIO outputs, and 2 CAN buses for complex configurations and seamless connectivity. The dedicated R/C inputs for PPM and S. Bus signals ensure compatibility with a wide range of external systems, giving you ultimate flexibility in customizing your drone setup.

Future-Ready Design

Ag++ is built to handle the growing needs of precision agriculture and advanced drone operations. Its compact design and weight, makes it lightweight and easy to integrate into a variety of drone systems. The aerospace-grade metal body not only adds durability but also provides enhanced shielding against electromagnetic interference, ensuring reliable performance in diverse environments.

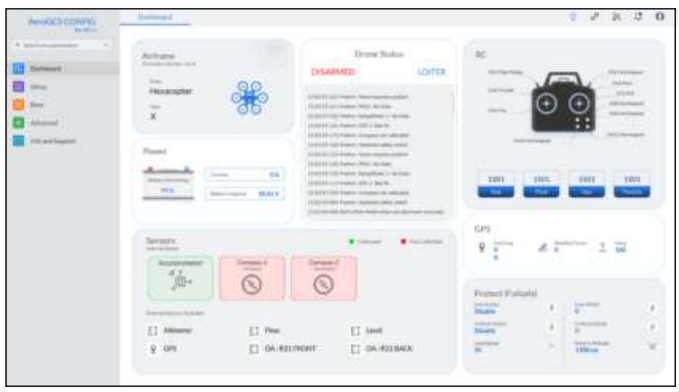


AeroGCS Config

AeroGCS Config is specialized software in the AeroGCS suite, designed for manufacturers. It offers settings to customize drone operations, allowing manufacturers to configure parameters for specific operational and performance requirements.

Configurations Include

- Calibration Sensors and Payloads: Integrates and calibrates sensors (GPS, IMUs, RC, ESC, Power) and payloads (cameras, spraying systems).
- **Safety Settings:** Configures geofences, return-to-home (RTL), and fail-safe mechanisms.



AeroGCS GREEN Software

AeroGCS GREEN, India's first IV&V-certified precision spraying software, ensures uniform spraying, simplifies mission planning, and boosts efficiency with features like obstacle avoidance, spray flow monitoring, and detailed reporting.

Key Features

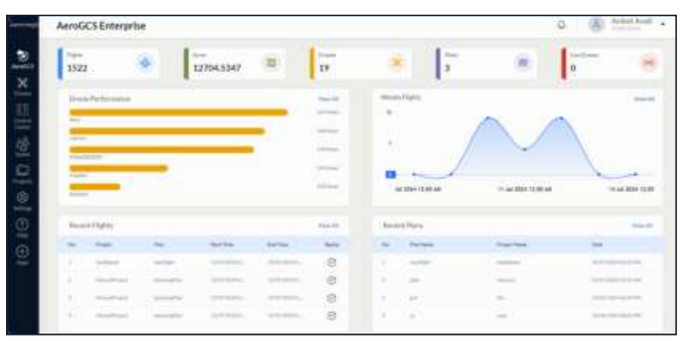
- Precision mapping and exclusion zones
- Real-time spray flow monitoring
- Obstacle avoidance and auto-exclusion areas
- Detailed field reports with actionable insights
- Integrated with AeroGCS Enterprise for smart
- insights.

AeroGCS Enterprise

AeroGCS Enterprise enables real-time drone tracking, detailed logging, and seamless fleet management. It can be seamlessly integrated with AeroGCS GREEN for efficient data synchronization.

Key Features

- Operational insights: locations, acreage, and revenue tracking
- Real-time drone and fleet management
- Comprehensive performance reports for accurate billing



About NamoAG

Introducing NamoAG by PDRL, an Indigenously developed Agri-Drone Navigation device. Designed with the unique challenges of agriculture fields in mind, NamoAG delivers high-accuracy navigation, multi-constellation satellite support, and seamless pairing with Ag++ Flight Controller. From wide-open farms to complex terrains, fly with confidence.

Key Features:

Multi-Constellation Satellite Support
Simultaneous tracking of GPS, GLONASS, Galileo, BeiDou, SBAS, and QZSS for superior signal availability.

High Navigation Accuracy
Enhanced positional accuracy with 1.5m – 3m CEP (Circular Error Probable), ideal for precision drone applications.

Built-in SAW Filters and LNA (Low Noise Amplifier)
Improves signal clarity and reduces interference for noise-resilient performance.

Compact and Lightweight Design
Small form factor (61.82 x 61.82 x 19.81mm ~30g) for easy integration into lightweight UAV and drone frames.

High-Sensitivity Compass with ±8 Gauss Range
Enables precise heading detection and performance stability even in strong magnetic field environments.

DroneCAN Communication Protocol
Offers noise-resistant, interference-free, and real-time data transmission between GPS, compass, flight controllers, and other drone peripherals.

PDRL

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