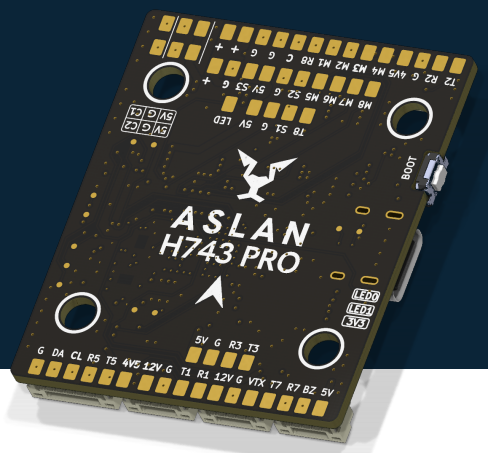
FLIGHT CONTROL · STM32H7 PLATFORM

Aslan **H7 Pro Flight Controller**

An STM32H743 flight controller built around clean power delivery, sensor isolation, and an IO layout that survives contact with a real airframe.



STM32H743	2×	12V / 5V · 3A	14.3 g
PRIMARY MCU	ICM-42688-P IMUS	INDEPENDENT RAILS	BOARD WEIGHT

DESIGN INTENT

The H7 Pro is intended for builders integrating complex payloads on commercial, research, and training platforms, where a flight controller has to be both quiet enough for sensitive sensors and honest about its continuous ratings. Power isolation, thermal headroom, and connector access were treated as first-order design constraints, not afterthoughts.

CORE ARCHITECTURE

- **STM32H743** MCU with **16 Mb** onboard flash for logging and configuration
- Dual **ICM-42688-P** IMUs for redundant attitude sensing and filtering flexibility
- **DPS368** barometer for stable altitude reference
- Runs **Betaflight, ArduPilot, or PX4**: the airframe chooses the stack, not the board

POWER & PROTECTION

- Independent **12 V / 3 A** and **5 V / 3 A** rails rated for continuous peripheral load
- **3.3 V / 2 A** sensor supply for reliable operation in extreme environments
- Dedicated ultra-low-noise regulator feeding the IMUs, isolated from switching noise
- TVS diode clamps harmful voltage transients at the input; thermal design sized for sustained operation

INTERFACES & INTEGRATION

- **6 × full UARTs** and **1 × I²C** for barometer and magnetometer peripherals
- **8 motor** PWM channels, **3 servo** PWM channels, and a dedicated LED strip channel
- Solder pads and JST GH connectors on the same signals: plug in or wire direct
- USB power support for GPS and receiver, so bench configuration needs no flight battery
- 30.5 × 30.5 mm M3 mounting with silicone grommets

VIDEO & FIELD CONTROL

- Dual analog camera inputs with **CAM1 / CAM2** switching on PINIO 2
- **VTX power switching** on PINIO 1: cut the transmitter without pulling a lead
- Native analog OSD support
- All onboard status and power LEDs can be switched off for night filming, wildlife survey, and light-sensitive work

SPECIFICATIONS

SKU **101081** · RETAIL **$99.84 / ea.**

MCU	STM32H743
ONBOARD FLASH	16 Mb
IMU	2 × ICM-42688-P
BAROMETER	DPS368
FIRMWARE	Betaflight / ArduPilot / PX4
UART / I²C	6 full UARTs · 1 I²C
PWM CHANNELS	8 motor · 3 servo · 1 LED
POWER RAILS	12 V/3 A · 5 V/3 A · 3.3 V/2 A
MOUNTING	30.5 × 30.5 mm, M3 + grommets
SIZE	50 × 43 mm
WEIGHT	14.3 g
VIDEO	Dual analog in · OSD · VTX switch

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