

# Create autonomous drones faster



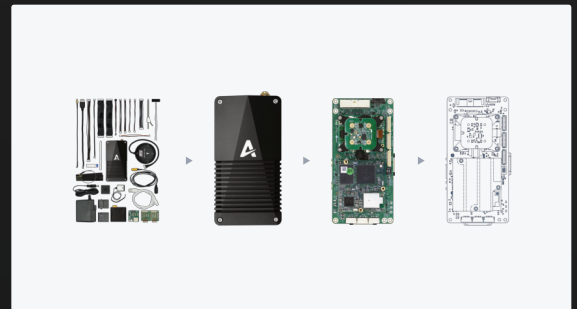
Skynode™ is the quickest way to power any drone with the Auterion software platform and turn it into an autonomous system. Skynode Gov offers the same benefits of Skynode Enterprise, but with a focus on the needs of Defense and Federal Government customers.

Its compact design combines flight controller and mission computer with U.S. Government certifications, hardening and flexibility. Built on open standards and made in the U.S., Skynode™ is flexible, extensible and allows customers to leverage compatible software and hardware components from our rich ecosystem. Skynode™ is fully compliant with the 2020 National Defense Authorization Act, Sec 848.

## Benefits:

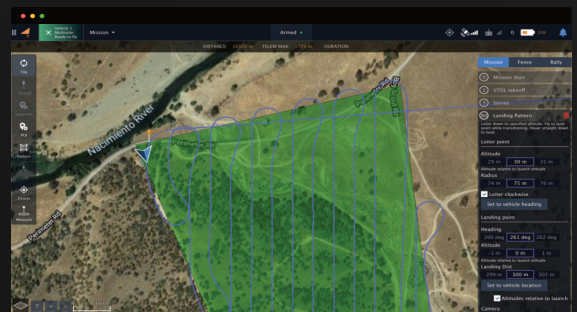
- **Faster go to market**  
With tested and validated hardware and software, you can accelerate every step of your development cycle
- **Plug and play integration**  
Control multicopter, fixed-wing, VTOL drones as well as rovers or boats. Plug payloads and sensors and components like an FPV or depth camera directly into Skynode's external interfaces
- **Simple and intuitive UI**  
Offer solutions that require minimal training: easy and confident mission planning, efficient execution, live video stream and camera controls in Auterion Mission Control
- **AI and apps on board**  
Easily deploy apps and algorithms in Docker containers and extend Skynode™ with additional compute power when needed
- **Optional LTE connection**  
Enable drones to send real-time data from the field to the cloud. Follow remote operations, access flight analytics and benefit from cloud-based predictive maintenance. Configurations with the LTE chip removed and WiFi disabled are available as required.

## Skynode journey



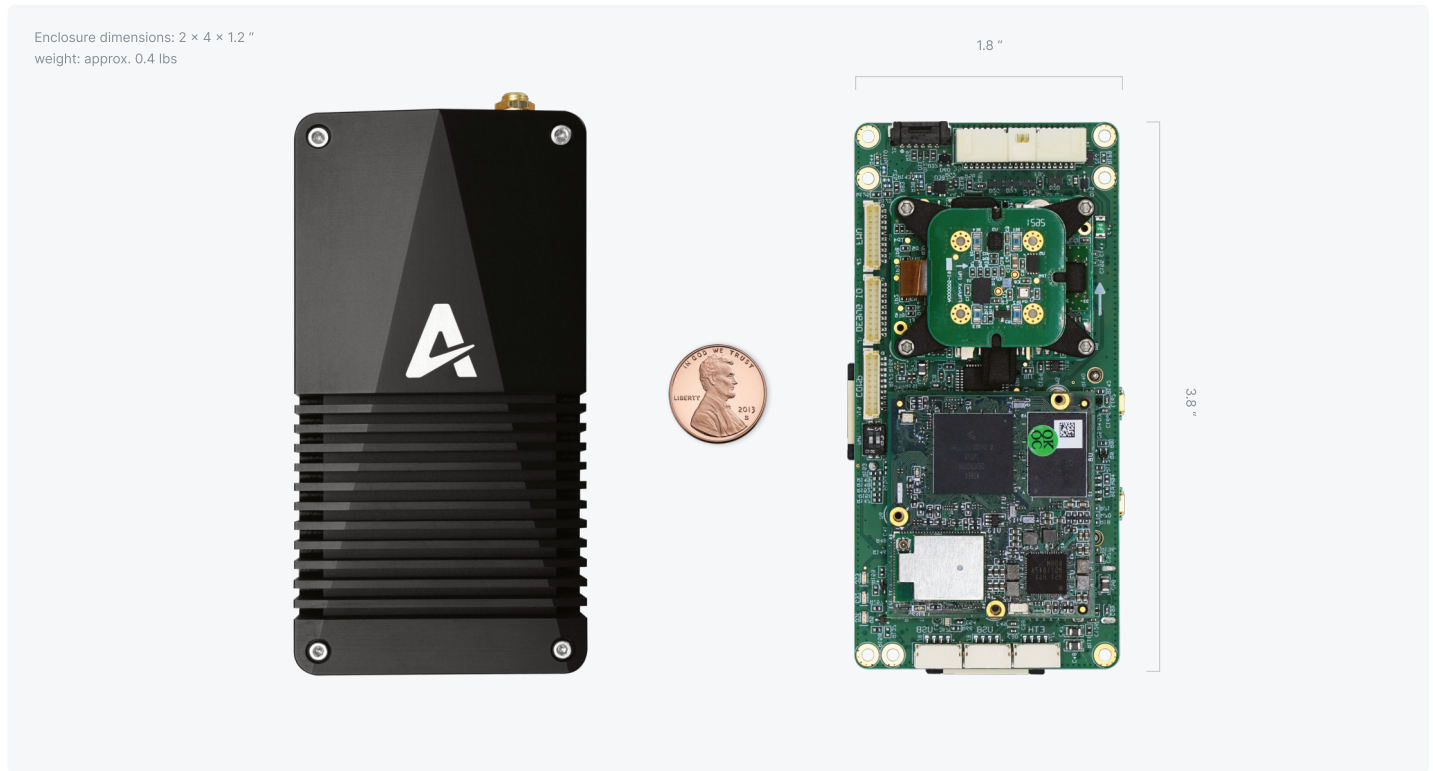
Skynode™ supports every step of your development journey: start prototyping with our Evaluation Kit, enable tight integration with OEM lightweight modules and create your own hardware based on our reference design.

## Auterion Mission Control



Simple and confident mission planning and execution with intuitive controls

# Specifications



## Reference design

(To facilitate integration with Auterion)

Flight Controller built on the foundation of FMUv5x:

- Triple-redundant sensor architecture
- High-end vibration filtering algorithms
- Ethernet
- Quadcore 1.8 GHz A53 mission computer

Full software capabilities:

- Auterion Enterprise PX4 (on dedicated HW)
- ROS2 (in Docker containers)
- Payload / camera control
- Rich connectivity
- WiFi / Bluetooth (optional)
- 4G / LTE cellular (optional)
- Port for ethernet radios (e.g. Microhard)
- Unrestricted flight time

## Power interface

- Voltage: 5 V DC
- Typical current at 5 V: 3.5 A
- Maximum current at 5 V: 5 A

## External interfaces

Flight control:

- 2x GPS + I2C for mag sensor
- 2x CAN
- 2x UART (one with flow control)
- SPI with DRDY, reset and sync
- SBUS input and output
- 16x PWM channels
- Safety switch, LED and buzzer

Mission computer:

- OTG USB 2.0 (Type-C)
- MIPI camera interface
- WiFi / Bluetooth
- 4G / LTE with external antennas
- 100Base-T Ethernet
- 2x USB 2.0 (high-speed)

## Flight management unit

(Based on FMUv5x)

- Cortex M7 Core
- Triple-redundant sensors
- 8 kHz sensor readout

## Mission computer

- 1.8 GHz ARM A53 Quadcore
- 4 GB RAM
- 16 GB eMMC storage (+upgrades)
- 32 GB data partition
- 1080p60 H.264 hardware encoding
- RTC
- MIPI CSI Camera Interface (HDMI possible)
- 4G / LTE module on-board (incl. SIM slot)
- Auterion Enterprise Software Distribution

## Pixhawk Payload Bus

- 100Base-T Ethernet
- USB 2.0 (high-speed)
- UART
- CAN
- Trigger
- GPS PPS