



AUTOPILOT SUPPORT

OFFICIAL PX4 DRIVER

OFFICIAL ARDUPILOT DRIVER

SERIAL AUTOPILOT INTERFACE

AUTOPILOT INTEGRATION

VECTORNAV IMU, AHRS, AND GNSS/INS FOR ANY FLIGHT STACK

VectorNav sensors integrate directly with both PX4 and ArduPilot, enabling users to replace or augment onboard navigation sensors with VectorNav’s field-proven inertial navigation solutions.

VectorNav maintains drivers for both autopilot ecosystems, working closely with the PX4 and ArduPilot development communities to ensure ongoing compatibility and performance. Integration is achieved through VectorNav’s native binary messaging interface, providing access to high-rate inertial, attitude, and navigation data.

Whether deployed on a Cube Blue, Pixhawk, or other flight control hardware capable of running PX4 or ArduPilot, VectorNav sensors can be integrated with minimal effort, delivering reliable navigation performance across a wide range of autonomous systems.



100,000+

SYSTEMS DEPLOYED WORLDWIDE

800 Hz

MAX IMU DATA OUTPUT

<1 WEEK

INDUSTRIAL LEAD TIME

WHY ADD VECTORNAV TO YOUR AUTOPILOT

INDIVIDUAL UNIT CALIBRATION

Across -40°C to +85°C, not batch-averaged. Every sensor performs to datasheet specs from first power-on, giving your fusion engine accurate error models it can trust.

VERIFIED INDEPENDENT NAV SOURCE

Decoupling navigation from flight control gives system architects a verified, independent reference alongside vision and other aiding systems.

BETTER INERTIAL = MORE RESILIENCE

Tactical-grade sensors maintain position accuracy through gaps in VIO, VBN, or GNSS that would cause consumer-grade IMUs to diverge.

SCALABLE PRODUCT ARCHITECTURE

Prototype with industrial-grade, upgrade to tactical for production. Same interface. Works across open-source and commercial flight stacks.

HOW IT WORKS

Sensor Input Augment your autopilot’s internal estimator VectorNav publishes calibrated accel, gyro, mag, baro, and GNSS data into your autopilot’s sensor pipeline. The autopilot’s own estimator runs normally with VectorNav’s superior, individually calibrated sensor data. BEST FOR Incremental upgrades where the internal EKF is sufficient but onboard sensors bottleneck performance.	External INS VectorNav becomes the navigation authority VectorNav’s proven sensor fusion runs on dedicated hardware, outputting attitude, position, and velocity. Your autopilot consumes the navigation solution directly. VectorNav can also accept aiding inputs, making it the hub of a multi-sensor architecture. BEST FOR Maximum performance, GNSS-denied operations, multi-sensor fusion architectures, defense programs.
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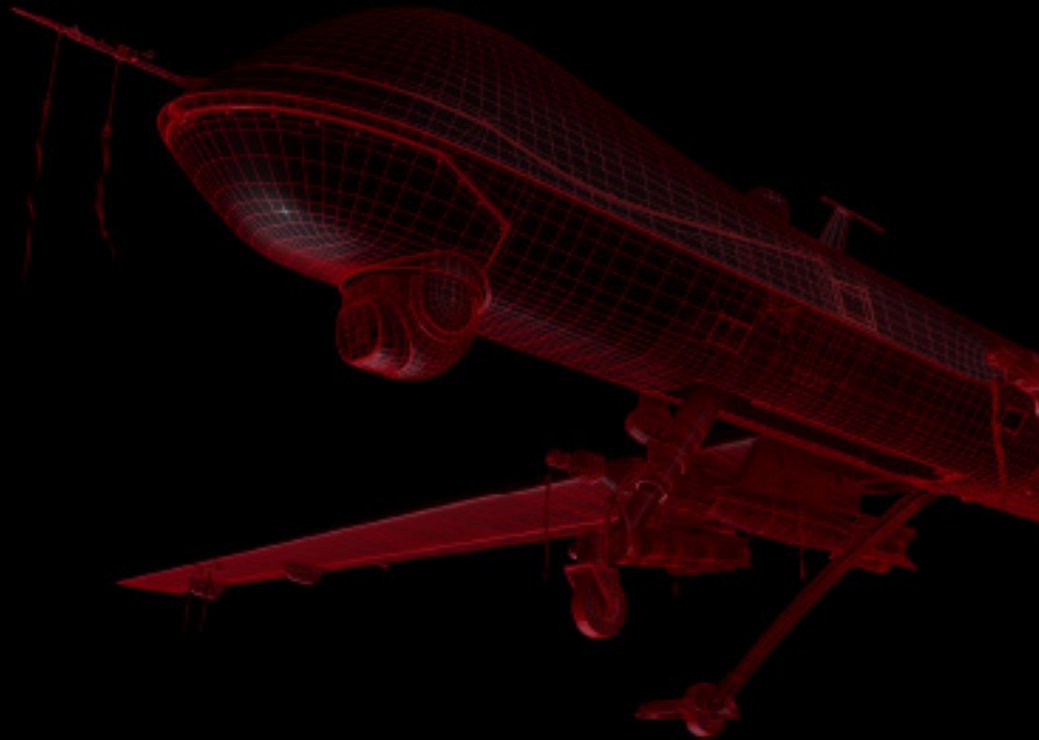
PLATFORM COMPATIBILITY

					
Supported	Supported	Compatible	Compatible	Compatible	Compatible

Supported: Official drivers, documented setup, and verified performance. **Compatible:** Accepts standard VectorNav NMEA outputs via serial. Integration support available.

RECOMMENDED PRODUCTS

PRODUCT	TYPE	GRADE	BEST FOR	INTEGRATION MODES
VN-100	IMU / AHRS	Industrial	Development, commercial drones	Sensor input + ext AHRS
VN-110	IMU / AHRS	Tactical	Defense, precision, harsh environments	Sensor input + ext AHRS
VN-200	GNSS/INS	Industrial	Fixed-wing (heading from motion)	Sensor input + ext INS
VN-210	GNSS/INS	Tactical	Defense fixed-wing, high accuracy	Sensor input + ext INS
VN-300	Dual GNSS/INS	Industrial	Multicopters, VTOL, hover platforms	Sensor input + ext INS
VN-310	Dual GNSS/INS	Tactical	Defense multicopters, precision hover	Sensor input + ext INS



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