



SkyView | EasyPilot 3.0

Contents

We offer two different products which can be combined for a complete solution to get your unmanned vehicle flying. The solution consists of both an autopilot to steer the vehicle in-air and a software guaranteed to work with the autopilot. Both the software and the hardware communicates through open standards meaning no more hassle with vendor specific protocols!

The solution is a very cost-effective solution, and is aimed for miniature unmanned vehicles. This is achieved through agile and responsive development, which gives the customer the most value for the money.

The solution consists of the following components

Hardware - EasyPilot 3.0

The hardware solution consists of a easy to use autopilot for unmanned vehicles called SkyView EasyPilot 3.0. The hardware consists of COTS components and includes integrated components necessary to control a vehicle, including GPS navigation, a long range modem daughter board connector, expansion ports. Air and Ground Modem is available as option. The on-board software has several mathematical algorithms integrated, allowing it to make much better use of its sensors and the data it collects for a safer and more efficient flight.



Software - SkyView GCS

SkyView GCS is a very easy to use Ground Control Station software. The GCS software together with the SkyView EasyPilot 3.0 does all the background processing needed to fly the vehicle.

SkyView GCS is fully NATO STANAG 4586 compliant which means easy integration into allied networks.



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Specifications

- Board size 80 mm x 52.5 mm x 17 mm
- Ca. 28 gram + 17 gram optional long range air modem
- Multiple fail safe functions such as:
 - Communication timeout
 - Loss of GPS signal
 - Return to home
- 9 DoF digital Inertial Measurement Unit , 1200 degrees/s maximum
- Internal 3-axis magnetometer
- Dual processor for
 - Sophisticated sensor fusion (IMU, Magnetometer, GPS, Altimeter, Airspeed etc)
 - Flight management and communication (Control or Navigation algorithms, Payload management, Communications, etc)
- Altimeter sensor (Absolute pressure), 0 - 15000 m
- Airspeed sensor (Dynamic pressure), 0 - 250 knots
- Minimal latency GPS, NMEA and Raw Format, Update rate 5 Hz.
- 4x analog ports (12 bits)
- 8x digital IO ports
- 1x I2C bus
- 1x SPI bus
- 1x CAN bus
- 1x I2C bus or serial port for payloads
- 2x serial port for payloads
- 1x serial port for external/internal data modem
- 1x serial port for external/internal GPS module
- 12 directly connectable servos
- Up to 36 connectable servos with an external boards
- Up to 100 Hz servo update rate
- Input voltage ranging from 7.5V to 28V
- Power consumption is about 2-3W with data modem active
- ESD protection on all inputs and outputs
- -20° - 85° C
- Multiple battery monitoring capability
- Payload control capability
- Control by Joystick or SkyView GCS
- Optional Air and Ground Modem Available in 2.4 GHz, 869 MHz and 900 MHz versions
- Optional SkyView GCS software and SkyView Portable Ground Control Station



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