MINDPX AUTOPILOT

Highlights

- **STM32F427 based hardware, MINDPX / PX4 dual flight stack support**
- **Designed and optimized for compact space and concise mounting**
  - Unified FMU & I/O processor, smaller PCB size and lower cost
  - Built-in viberation damping
- **Up to six sonar / distance sensor interfaces**
- **Open source hardware and software**

MINDPX

PX4 autopilot

Physical

MindPX is a very powerful, high performance auto-pilot designed and optimized in a compact space (59.8 mm * 45 mm * 15.8 mm). The case is made of CNC processed aluminum alloy, which is light and solid.

Built-in vibration damping

With ingenious design MindPX packs a built-in vibration damping structure into such a compact space.
The built-in vibration damping design eliminates the need for an external vibration isolate solution, thus greatly simplified mounting and saving space.

Dual-redundancy IMU

MindPX has 2 accelerometers (MPU6500 & LSM303D), 2 gyroscopes (MPU6500 & L3GD20H), and 2 compass (HM5883 & LSM303D), for high reliability. One set of IMU is on vibration isolated IMU board, and the other set is on main board.

Sonar (distance sensor)

MindPX can physically support up to 6 pair of sonar (or distance sensor) direct connections (need MindPX firmware support). This can save an external sonar array processor, and save more frame space for mounting.

Full interface support

MindPX makes no compromise in interfaces even in such a compact space. It provides all necessary interfaces as in Pixhawk. All interfaces are lay out on the four-sides of the case so it is easy to do stackable mounting.

MindPX has a secondary USB interface to provide conveniency to connect to any external compute system.
A secondary I2C interface is also exposed, so mostly the need for an extra I2C expansion board is eliminated.

Dual flight stack support

MindPX runs MindPX flight stack. MindPX hardware is also officially supported by PX4 organization, which means PX4 flight stack releases can run directly on MindPX hardware. This makes MindPX a dual flight stack auto pilot.

More information

MindPX is open source either on hardware and software. Please visit www.mindpx.net for more detailed information about MindPX. You can also send inquiries to support@mindpx.net for any help.