CUSTOMER STORY

GNNS Solution

HEX, Taiwan



Additional Resources: • NEO-M8P

Drone navigation with high precision RTK GNSS technology

HEX is a world's leading open source hardware manufacturer which produces one of the best open source drone autopilots in the world. The company is keen to provide developers and customers with best resources and tools to help them innovate.

Challenge

According to Goldman Sachs, the drone market should surge to a $100 billion market by 2020, as demand for commercial drones is on the rise. At the same time, there is a clear demand for accurate positioning and navigation at an affordable cost level. HEX's goal is therefore to promote open source drone technology to a larger community and assist drone companies with affordable accessories.

The u-blox solution

HEX Taiwan chose the NEO M8P high precision RTK GNSS module for its new drone navigation kit: Here+. The Here+ RTK GNSS kit is supported by Ardupilot out of the box. It consists of a round rover designed to be mounted on the drone and is connected to the flight controller using the supplied 8 pin CLIK Mate™ connector (for the autopilot Pixhawk2) or an optional 4pin+6pin DF13 connector (for the Pixhawk1). The base station with its smaller GNSS receiver and an external antenna complete the equipment. Embedded in Here+ is the u-blox NEO-M8P module series. It is the smallest, lightest and most energy efficient high precision GNSS Real Time Kinematics (RTK) module available on the market, bringing centimeter level positioning accuracy to the mass market. It is also a complete and versatile solution thanks to its base and rover variants.

Gene Wu, Managing Director of HEX explains: "Here+ is the result of our collaboration with Ardupilot, and will contribute to bringing the open source drone industry to the next level. We chose u-blox because its GNSS technology is one of the best on the market. It is an affordable RTK GPS/GNSS solution for drone navigation without compromising on performance. We hope to continue our collaboration for future projects, first and foremost for the second version of Here+ later this year."

The Here+ navigation kit can be used in a wealth of applications, such as agricultural drone, powerline inspection, precision farming, logistics, or 3D mapping, etc.

Key benefits

- Affordable RTK GPS/GNSS solution.
- The best GPS available on the UAV market.
- High performance and high position accuracy.

About u-blox

Swiss u-blox (SIX:UBXN) is a global leader in wireless and positioning semiconductors and modules for the automotive, industrial and consumer markets. u-blox solutions enable people, vehicles and machines to locate their exact position and communicate wirelessly over cellular and short range networks. With a broad portfolio of chips, modules and software solutions, u-blox is uniquely positioned to empower OEMs to develop innovative solutions for the Internet of Things, quickly and cost-effectively. With headquarters in Thalwil, Switzerland, u-blox is globally present with offices in Europe, Asia and the USA. (www.u-blox.com)