

SPH Engineering Presents Third Generation of UgCS SkyHub Hardware



SPH Engineering has announced the third generation of the UgCS SkyHub hardware and released the largest update of the UgCS SkyHub software ever. The development accumulates five years of knowledge of supporting diverse drone and sensor integrations for geophysical and hydrographic purposes.

The UgCS SkyHub hardware is an unmanned aerial vehicle (UAV or 'drone')

onboard computer to support the collection of data from diverse sensors. The first generation version of UgCS SkyHub was developed in 2017 to integrate a low-frequency GPR system with a DJI M600 Pro drone. Since then its functions have been constantly improved, connectivity possibilities have been extended and support for more types of drones and sensors have been added.

Collecting Data from a Wide Range of Sensors

As of today, the functions of UgCS SkyHub allow to maintain flights of UAVs with a mounted sensor (like a magnetometer, echosounder, metal detector, etc.) and to collect data from sensors like GPR, methane detector, gamma radiation counter, etc. which don't have an internal data logger. Data is recorded in CSV format as well as in the formats compatible with specialized software for sensor data processing (SEG-Y, NMEA-0183, etc.). The True Terrain Following mode allows to automatically keep constant elevation over surface using real-time data from radar or laser altimeter while the Grasshopper mode allows to fly between waypoints at safe altitude and make measurements.

"The third generation of UgCS SkyHub, thanks to its five serial ports, Ethernet, Bluetooth and Wi-Fi connections, provides virtually endless capabilities for sensors integration. The first generation of SkyHub born back in 2017 had only one port for an external sensor, and much less computation power and memory. Latest hardware will be our basement for integration and custom solutions for the next few years until we create something even more powerful and exciting," commented Alexey Dobrovolskiy, CTO at [SPH Engineering](#).

The UgCS SkyHub hardware is compatible with all popular commercial-off-the-shelf enterprise drones and platforms, including the DJI M300 and M210 series as well as Pixhawk-based drones with ArduCopter and PX4 firmware like Hexadrone Tundra. Power for [UgCS SkyHub](#) is provided from the drone's main battery. UgCS SkyHub eliminates the need to have a separate battery or power circuit for the sensors.



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