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Sounding Better!

Announcing the HYPACK LiDAR Payload

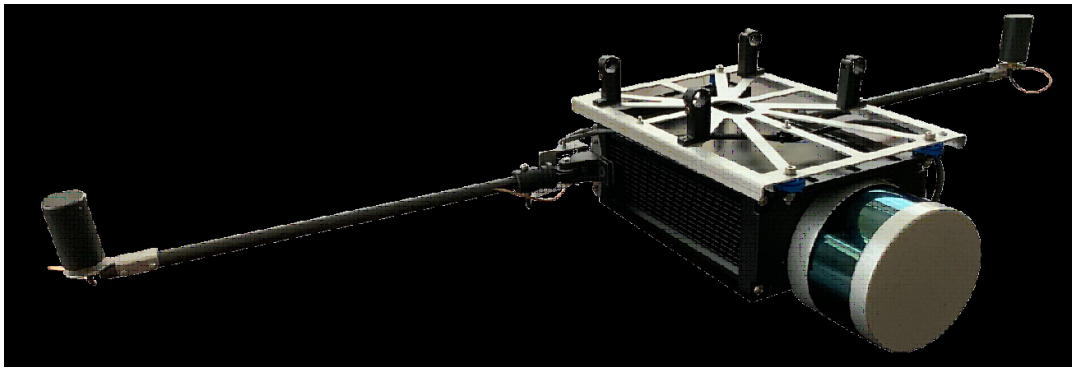
By Hannah Marshburn

The rapid technological advances in UAV and LiDAR surveying require flexibility and innovation. In order to accommodate the dynamic nature of these industries, HYPACK has teamed up with Presco Engineering, a Connecticut-based engineering and manufacturing firm, to produce the HYPACK LiDAR Payload. The payload is a stand-alone and cost effective LiDAR surveying solution that features a VLP 16 Puck Lite LiDAR sensor, an SBG Ellipse 2D INS/GNSS system, HYPACK® Max/HYSWEEP® licensing, and a Pico 500 mini PC. The unit is self-powered through a battery insert and boasts a 3 hour run time. The power autonomy of the payload is a great advantage for UAV users with increased run time and mission efficiency.

The enclosure of the payload is IP67 rated and suited to withstand inclement weather; perfect for marine surveying or field work in rugged environments. The payload weighs about 7 pounds and features mounting clamps that attach to the DJI Matrice line, with the potential to adjust to compliment the UAV of your choice. The back panel of the payload easily slides out to display a rack-mounted mini-PC for quick access and data transfer. USB adapters provide extra inputs so that you may record GNSS data for postprocessing. GNSS antennas on the payload are on adjustable arms that extend to a separation distance of 1 meter for accurate heading. The adjustable arms fold in for ease of transport, and lock into place when they are extended; reducing set up and calibration time in the field. The HYPACK® Max/HYSWEEP® package tightly integrates the LiDAR and GNSS data to produce data accurate to within 3 cm and provides tools for LiDAR survey planning, data processing, and final product export.

While the payload was designed with UAVs in mind, the stand-alone nature of the tool makes it a great solution for surveying in any environment. Some potential applications for the unit are shoreline/obstruction charting for navigation, pipeline mapping, infrastructure assessments, beach erosion surveys, vegetation surveys, bare earth analysis, corridor mapping, and defense and military applications.

FIGURE 1. *The Hypack LiDAR Payload*



Questions and comments about our new payload are welcome: sales@hypack.com!