

# Z-Lab LiDAR-eco

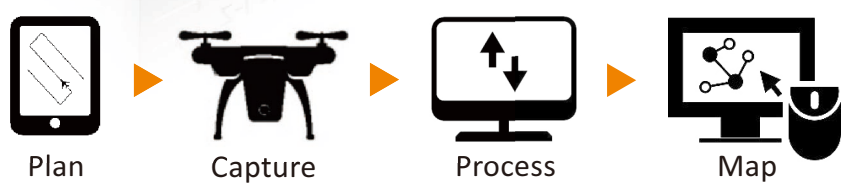
*An Economical Solution Tailored to LiDAR Beginners*

- scanner accuracy down to 2 cm optimal
- measuring range up to 260 m maximum
- scan rate at maximum 480,000 pts per sec



*“With remarkable scanning range, point density and measuring accuracy, Z-Lab LiDAR-eco is an economical UAV-based solution suited to those dedicated surveyors starting LiDAR business, as it features amazing performance at a comparably affordable rate.” said Dr. Ruofei Zhong, CEO of Z-Lab LiDAR.*

( V. 2020AUG )





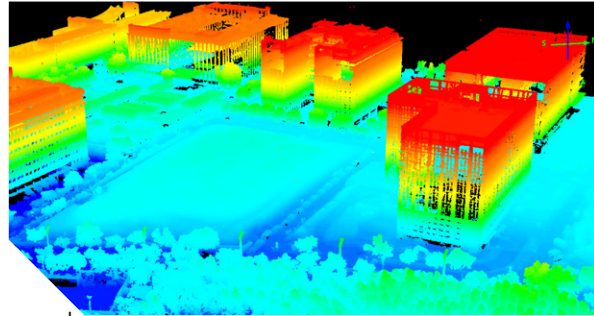
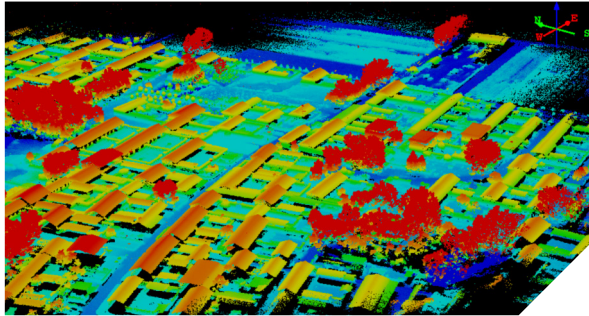
Option 1: DJI Matrice 600 Pro  
(to fit LiDAR-eco + camera)



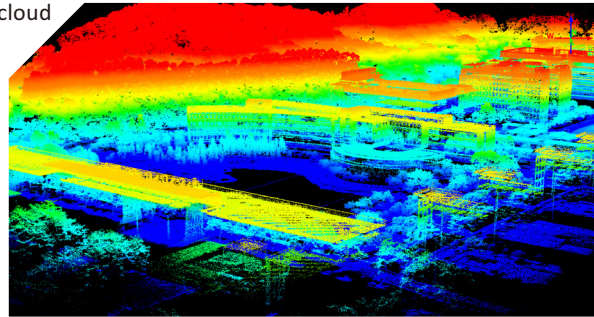
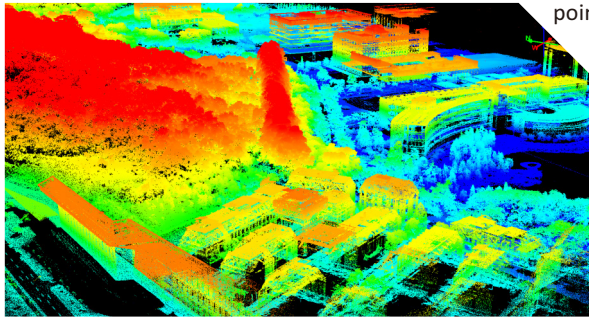
Option 2: DJI Matrice 200 V2  
(to fit LiDAR-eco only)



Option 3: DJI Matrice 300 RTK  
(to fit LiDAR-eco only)



geo-referenced  
point cloud



*Model Code*..... LiDAR-eco  
*Application Mode*..... UAV-based recommended  
*Field of View*..... 81.7° (H.) × 25.1° (V.)  
*Net Weight (w/o camera)*... approx. 1.59 kg  
*Dimensions (LxWxH)*..... 77 x 115 x 208 mm  
*Power Consumption*..... 20-50 W  
*Input Voltage*..... DC 12-30 V  
*Operating Temperature*..... 0°C up to +40°C  
*Storage Temperature*..... -20°C up to +50°C  
*Constellation Support*..... GPS/Glonass/Beidou  
*Gyroscope Bias Stability*..... ±3 deg/hr  
*Gyroscope Range*..... ±490 deg/sec in all axis  
*Accelerometer Range*..... ±16 g in all axis

*Scanner Type*..... solid state sensor  
*Laser Safety*..... Class 1 (IEC 60825-1:2014)  
*Laser Wavelength*..... 905 nm  
*Scanner Ingress Protection*... IP 67  
*Scanner Precision*..... optimal 2 cm <sup>①</sup>  
*Absolute Accuracy*..... down to 5cm, typical 10-20 cm <sup>②</sup>  
*Angular Resolution*..... <0.05 deg (1σ)  
*Measuring Range*..... max. 260 m @ 80% reflectivity  
*Scanning Height*..... typical 10-200 m, best below 100 m  
*Number of Echoes*..... max. 2 returns  
*Measurement Rate*..... 240,000 pts per sec (single return); 480,000 pts per sec (dual return)

The specification above will be subject to change without prior notice.

**Note:**

- ① It was obtained in an environment of 25°C with a target of 80% reflectivity 20 meters away. The result might vary under different actual conditions.
- ② The performance will vary depending on the flight altitude, pulse reflectivity, vegetation density, terrain feature, etc.

