

YellowScan Fly & Drive.

**Fly when you can,
Drive when you must.**

The YellowScan Fly & Drive LiDAR solution is a versatile land vehicle-mounted or UAV-mounted mobile mapping system.

It combines high resolution laser scanning and accurate positioning to collect geo-referenced point clouds for a wide range of applications.



Key features

- ▶ Multi-purpose mobile (ground) and UAV (airborne) mapping systems
- ▶ Precision positioning using high end GNSS and IMU coupled system
- ▶ Easy to use, lightweight, and low power consumption
- ▶ Installation on any kind of UAVs and vehicles



Integrations

- ▶ Multirotor drones
- ▶ Fixed-wings
- ▶ Land vehicles

System integration options.

Lidar unit ⁽¹⁾	YellowScan Surveyor	YellowScan Surveyor Ultra
Type	Velodyne VLP-16	Velodyne VLP-32
Precision ⁽²⁾⁽⁴⁾	4cm	10cm
Accuracy ⁽³⁾⁽⁴⁾	5cm	5cm
Scanner field of view	360°	360°
Maximum range	100m	200m
Shots per second	300k	600k
Typical driving speed	25km/h	50km/h
IMU / GNSS		
GNSS-Inertial solution	Applanix APX-15	Applanix APX-15
Multiconstellation	GPS, GLONASS, GALILEO, BEIDOU	GPS, GLONASS, GALILEO, BEIDOU
Dual dynamic model	Airborne / Mobile mapping	Airborne / Mobile mapping
Antenna	GNSS L1/L2 survey grade	GNSS L1/L2 survey grade
General specifications		
Weight: Airborne config.	1.6 kg battery included	1.7 kg battery included
Weight: Mobile config.	5.6 kg battery included	5.7 kg battery included
Dimension: Airborne config.	L 16 x W 10.5 x H 14 cm	L 18 x W 10.5 x H 14 cm
Dimension: Mobile config.	L 35 x W 57 x H 48 cm	L 35 x W 58.5 x H 48 cm

(1) For more information about each LiDAR system, please refer to their respective datasheets.

(2) Precision, also called reproducibility or repeatability, accounts for the variation in successive measurements taken on the same target.

(3) Accuracy is the degree of conformity of a measured position to its actual (true) value.

(4) Post-processed solution, without GNSS outage.

GNSS antenna

GNSS L1/L2
survey grade

Car pod

Aluminum chassis and
fiberglass aerodynamic pod

LiDAR unit

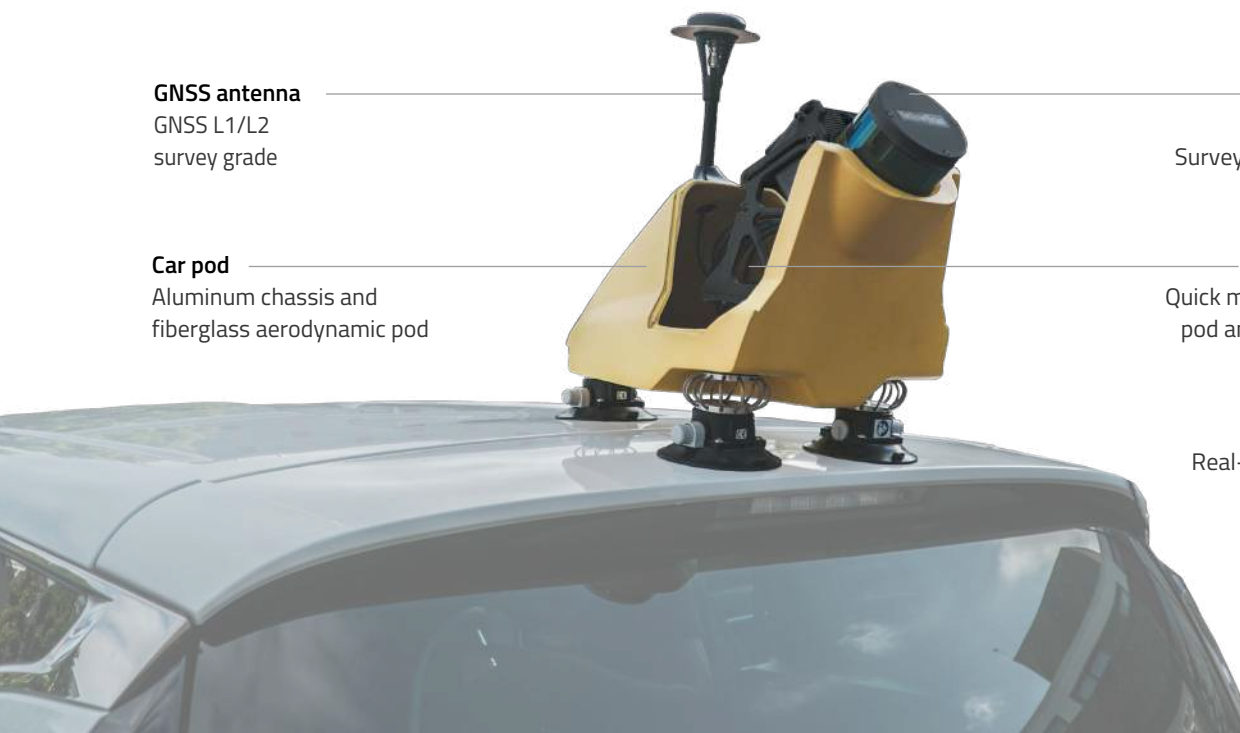
Choose between
Surveyor or Surveyor Ultra

Mounting bracket

Quick mount for Fly & Drive
pod and DJI M300 / M600

⊕ LiveStation

Real-time in-flight LiDAR
monitoring solution



Package configuration.



▶ Open air

Ideally suited for mobile scanning scenario in open air area.



▶ Canyon

Optimized for urban area with canyoning GNSS critical signal.



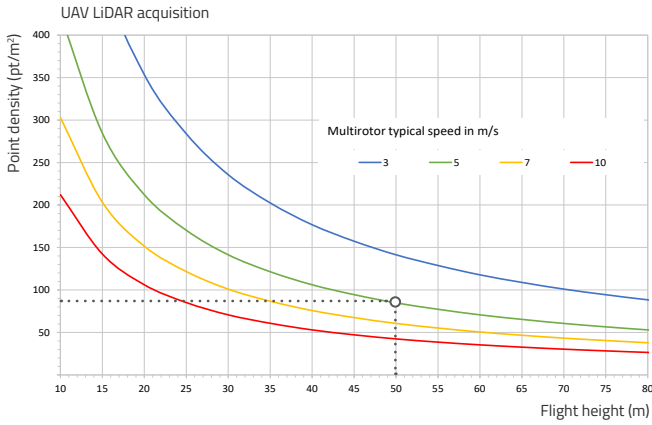
▶ Full

Complete solution for mobile scanning even in GNSS denied scenario.

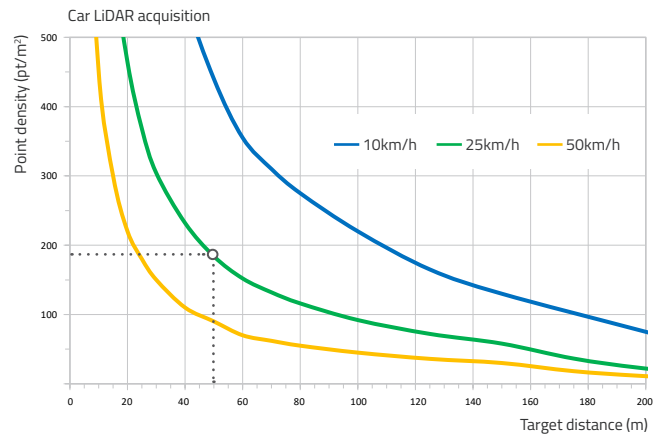
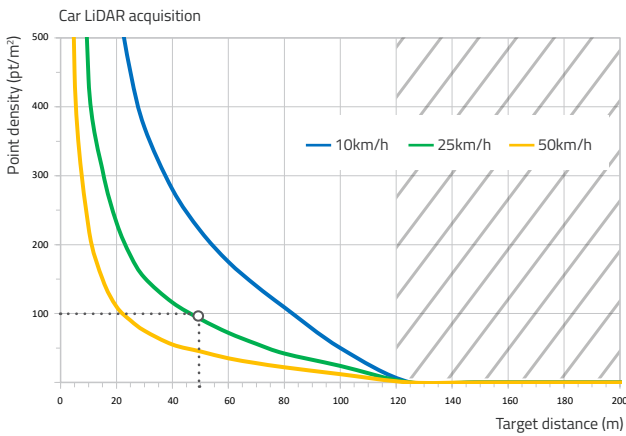
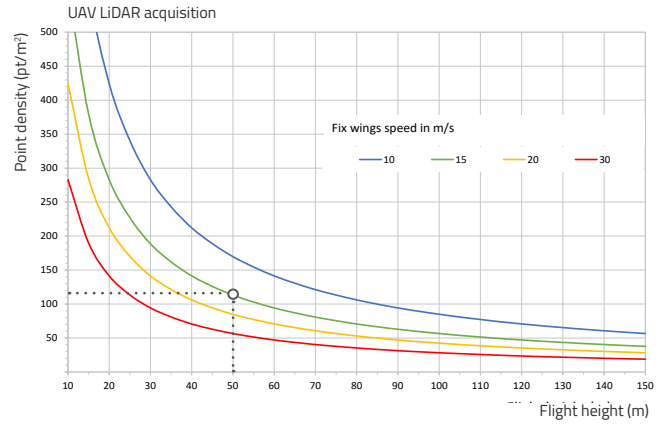
FLY&DRIVE PACKAGE	OPEN AIR	CANYON	FULL
▶ LiDAR unit			
Surveyor or Surveyor Ultra	✓	✓	✓
▶ UAV & vehicle add-ons			
UAV M300 / M600 mounting bracket	✓	✓	✓
Hooks for M300 / M600	✓	✓	✓
Car Pod suction cups	✓	✓	✓
Odometer (DMI)	✗	✗	✓
Roofbars adaptor for Fly & Drive POD	Option	Option	Option
▶ Software included			
CloudStation (yearly license)	✓	✓	✓
Strip Adjustment module for CloudStation (yearly license)	✓	✓	✓
LiveStation	✓	✓	✓
POSPac UAV	✓	✗	✗
POSPac MMS	✗	✓	✓
LiDAR MMS APX-15 firmware	✗	✓	✓
▶ Typical scenarios			
Basic open area mobile scanning	✓	✓	✓
Urban area with canyoning GNSS critical coverage	✗	✓	✓
Stop and Go (traffic lights)	✗	✗	✓
Tunnels (GNSS denied areas) by car	Up to 100m	Up to 100m	✓

Typical mission parameters.

► Surveyor - Point density graphics



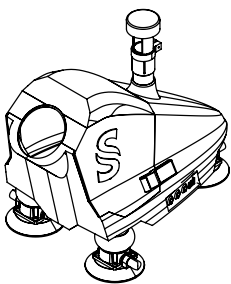
► Surveyor Ultra - Point density graphics



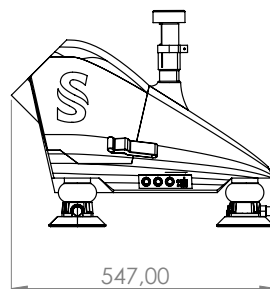
Dimensional drawings.

ⓘ Dimensions expressed in millimeters

► Perspective view



► Side view



► Back view

