



TERRAHAWK T-32

The TerraHawk is the first fixed-wing UAV aircraft to offer LiDAR with real time point clouds. Ideal for applications that require large scan areas, these systems can be used for ground & airborne mobile mapping. Optional post-processing software can be used to compute forward & reverse solutions, recovering an accurate & smooth trajectory in cases of satellite connection losses.



FEATURES

- » Map up to 11 square kilometers per flight
- » 3 hour flight time
- » Photogrammetry Options (RTK) - RGB & NIR
- » 75m scan range
- » High efficiency VTOL takeoff - no runway required
- » Autonomous flight via waypoints
- » Optional RTK Photogrammetry stand-alone solution available
- » Optional upgrade to the Sony A7R
- » Easy & quick aircraft assembly



AERIAL MOUNT

QUICK SPECS

Absolute Accuracy
55mm RMSE @ 50m Range

PP Attitude Heading RMS Error
0.019 / 0.074° IMU options

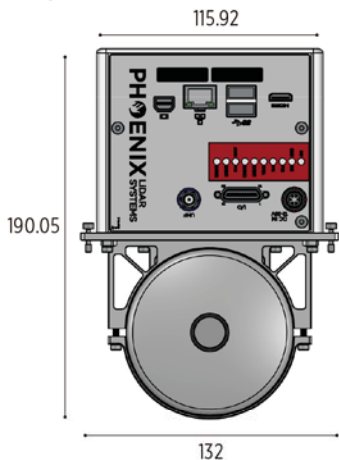
Weight
2.3kg / 5lb

Dimensions
15.3 L x 13.2 W x 19 H (cm)

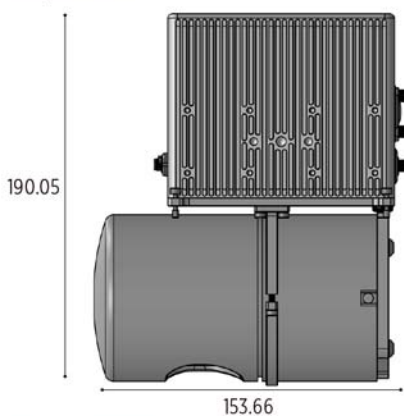
Laser Range
107 m @ 60% Reflectivity

Scan Rate
700k shots/s, up to 2 returns

T-32 | Front View



T-32 | Side View



Values in millimeters

PLATFORM

OVERALL DIMENSIONS	153 x 132 x 190 mm
OPERATING VOLTAGE	12-28 V
POWER CONSUMPTION	-40 W
WEIGHT	2.3 kg
OPERATING TEMPERATURE	-10° - 60° C

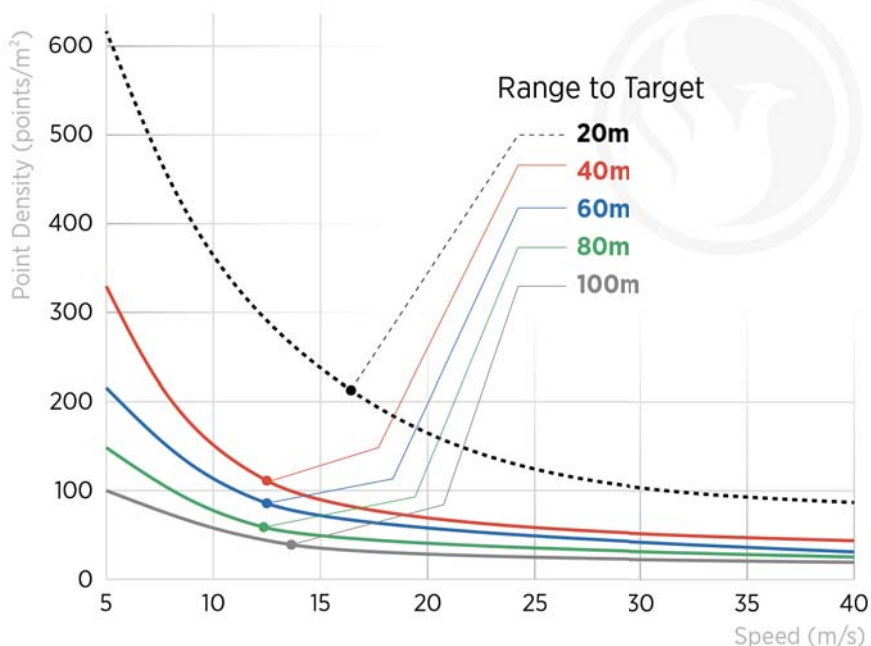
NAVIGATION SYSTEM

CONSTELLATION SUPPORT	GPS, GLONASS
SUPPORT ALIGNMENT	Kinematic, Dual-Antenna
OPERATION MODES	Real-time, Post processing optional
ACCURACY POSITION	1cm + 1ppm RMS horizontal

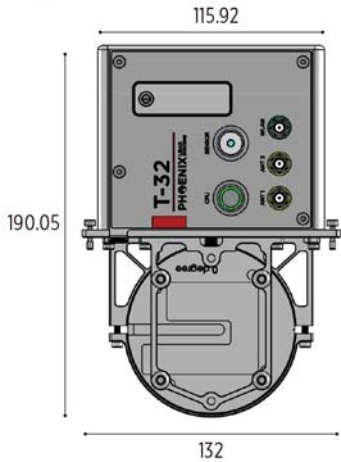
LIDAR SENSOR

LASER PROPERTIES	Class 1 (eye safe)
RANGE MIN / MAX / RESOLUTION	1.0 m / 120 m / 2mm
RMS RANGING ERROR	20 mm
SCAN RATE	700k shots/s, up to 1.4 mio points/s
FIELD OF RANGE	+10°, -30° Vertical / 360° Horizontal FOV
MULTIPLE ECHOES	2
NUMBER OF LASERS/PLANES	32
RECOMMENDED SCANNING HEIGHT AGL	20 - 60 m

Pointcloud Density



T-32 | Back View



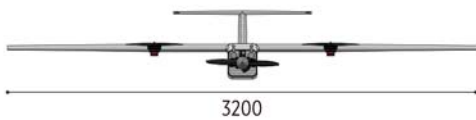
AIRCRAFT SPECIFICATION

MTOW	25 kg
EMPTY WEIGHT	19 kg (EXCL. FUEL & PAYLOAD)
WING SPAN	3.2 m
FUSELAGE	1.8 m
POWER PLANT	Electric Motor + Gas Engine
STANDARD LOAD	3 kg
TAKEOFF/LANDING METHOD	Vertical Takeoff

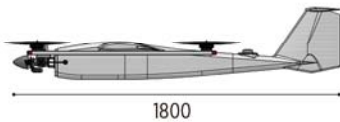
PERFORMANCE

ENDURANCE	3 hours
CRUISE SPEED	25 m/s
MAX SPEED	40 m/s
WIND RESISTANCE	12 m/s

TerraHawk | Front View

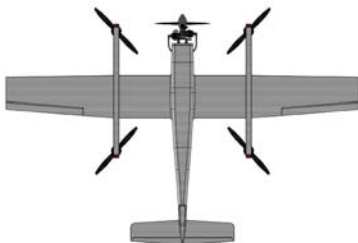


TerraHawk | Side View

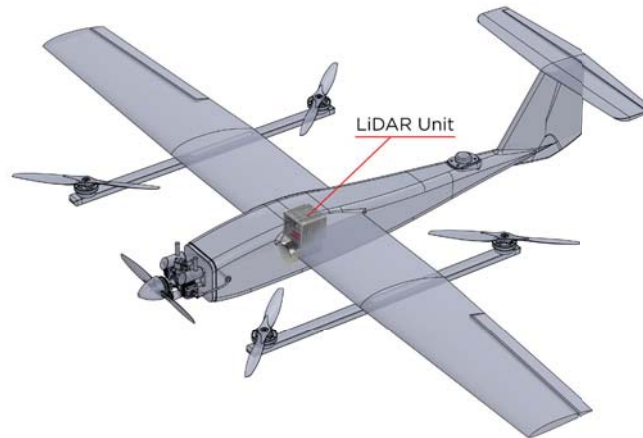


Values in millimeters

TerraHawk | Top View



TerraHawk & Sensor Placement | Top View



TerraHawk & Sensor Placement | Bottom View

