

Wingtra

Fast and accurate survey
insights every time



Applications



Mining



Land management & urban planning



Energy & utilities



Environment & research



Construction



Agriculture & forestry

WingtraOne GEN II

Maximize efficiency

Easily conquer areas that were impossible to map before, and go faster from field to insights thanks to easy post-processing.

- ✓ Cut mapping time
- ✓ Reduce field labor costs
- ✓ Finish field work early
- ✓ Save time in post-processing

Up to

11x

faster than
multicopter drones

Up to

30x

faster than with
terrestrial survey
methods

Maximum coverage in one flight*

at 1.9 cm/px (0.75 in/px) GSD



WingtraOne RGB61

61 MP camera
310 ha (766 ac)
120 m (400 ft)



Other fixed-wing drones

20 MP camera
170 ha (420 ac)
93 m (305 ft)



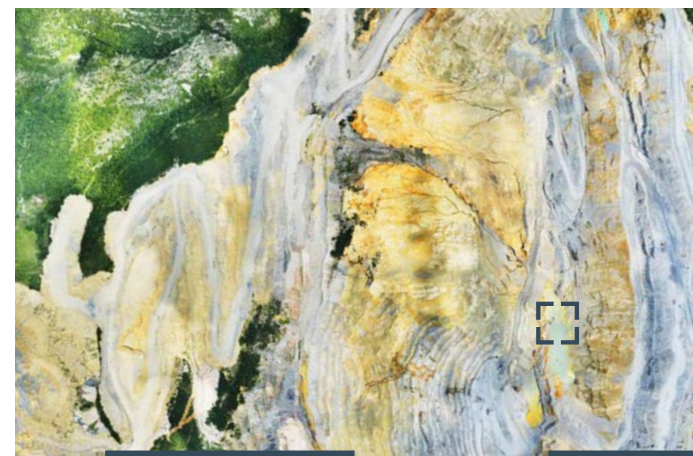
Multicopter drones

20 MP camera
29 ha (71 ac)
69 m (226 ft)



Get accurate and reliable insights

Capture every detail accurately, and always trust you'll get the job done right. Even in rugged conditions, Wingtra's robust platform delivers insights you can rely on, every single time.



PHOTOGRAMMATRY

Absolute horizontal
accuracy down to

1 cm**

(0.4 in)

GSD down to

0.7 cm/px

(0.3 in/px)

LIDAR

GSD down to

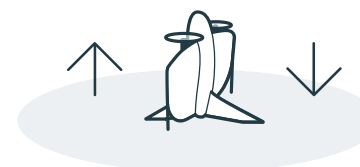
270 pts/m²

(0.3 in/px)

Absolute horizontal
accuracy down to

3 cm**

(1.2 in)



Map with ease

Focus more on projects and less on learning a complex range of tools. Our intuitive solutions ensure hassle-free data collection and processing for all levels of expertise.

- ✓ Vertical take-off and landing
- ✓ Intuitive software and full automated flights
- ✓ Pre-flight safety checks
- ✓ Complete bundle to start from day one
- ✓ Top-rated customer support

* Numbers refer to most widely used competitor drone and camera models. This number can vary depending on factors such as overlap, altitude and drone and camera model. The model takes into account data collection only. Flight planning, setting up GCPs, data processing, time to relocate between flights are not taken into account in this model.

A reliable workhorse

No matter the conditions, WingtraOne operates safely and delivers high-quality data, consistently.

Engineered and assembled in Switzerland

Each drone is subjected to more than 300 rigorous tests to ensure the highest quality standard.

Industry-leading reliability

More than 300'000 flights and 7 years of continuous testing and enhancements ensure maximum up-time for your operations.

Predictive self-diagnosis

WingtraOne self-diagnoses any component malfunctions using advanced machine learning algorithms based on thousands of flights.

Automated safety checks

Before every flight, the WingtraOne automatically checks its own sensors and actuators to make sure you can fly safely.

Sharp results, even in wind

WingtraOne can safely fly and capture data in sustained winds up to 12 m/s (27 mph) and gusts up to 18 m/s (40 mph).



Trusted by hundreds of organizations



Extended Service—wherever you are, we've got you covered



Spare drone

A redundant wing that serves as a backup for business continuity or as a replacement drone.**



Total Maintenance Plan

We pride ourselves in reliable tools, but if anything happens, you're covered with our total maintenance plan.



Training and consulting

Learn how to handle the drone, fly safely and post-process your data.



Extended warranty

A long warranty for greater peace of mind.



Accidental Damage Protection

Extra protection in case of physical breakage or failure that is not due to a manufacturing defect.**

**Conditions apply, find more information on wingtra.com/extended-services

World-class support

Integrating new technologies into existing workflows may seem a challenge at first, but Wingtra's top-rated customer support is here to help you every step of the way.



Rated 4.75 out of 5 stars



A team of trained surveyors and drone experts



Training onsite or in online video conferences



Local presence in over 60 countries via distributor network




WingtraOne GEN II Technical Specifications

Hardware		
Drone type	Tailsitter vertical take-off and landing (VTOL)	
Maximum take-off weight	4.5 kg (9.9 lb)	
Weight (with batteries)	3.7 kg (8.1 lb)	
Maximum payload weight	800 g (1.8 lb)	
Wingspan	125 cm (4.1 ft)	
Dimensions of WingtraOne	125 × 68 × 12 cm (4.1 × 2.2 × 0.4 ft) (without middle stand)	
Dimensions of Pilot Box	57 × 37 × 20 cm, 8.6 kg (1.8 × 1.2 × 1.0 ft, 19 lb)	
Battery capacity	Two 99 Wh batteries (required as a pair)	
Battery type	Li-ion, smart battery technology, UN3481 compliant	
Radio link	Bi-directional 10 km (6 mi) in direct line of sight, obstacles reduce the range	
Onboard GPS	Redundant, using GPS (L1, L2), GLONASS (L1, L2), Galileo (L1) and BeiDou (L1) Frequencies range: 1227.6 MHz / 1242.9375-1251.6875 MHz / 1561,098 MHz / 1575,42 MHz / 1598.0625-1609.3125 MHz / 1602,00 MHz	
Dimensions of travel hardcase (optional)	137 x 67 x 23 cm (54 x 26 x 9 in)	
Weight of travel hardcase including the drone	18.6 kg (41 lb)	
Operation		
Flight speed	Operational cruise speed	16 m/s (35.8 mph)
	Climb / sink cruise	6 / 3 m/s (13.4 / 6.7 mph)
	Climb / sink hover	6 / 2.5 m/s (13.4 / 5.6 mph)
Wind resistance	Max sustained wind	12 m/s (27 mph)
	Max wind gusts	18 m/s (40 mph)
	Max sustained wind on the ground	8/ms (19 mph)
	See page 5 for detailed information on how WingtraOne handles wind.	
Maximum flight time	Up to 59 min See next page or knowledge.wingtra.com/flight-time for what flight time to expect in different flying conditions	
Temperature	-10 to +40 °C (+14 to +104 °F)	
Maximum take-off altitude above sea level	2500 m (8200 ft); with high-altitude propellers it is possible to take off from up to 4800 m (15,700 ft) and fly up to 5000 m (16,400 ft) AMSL*	
Weather	IP54, not recommended to fly in fog, rain and snow	
Ground control points required	No (with PPK option); using 3 checkpoints to verify the accuracy is recommended	
Auto-landing accuracy	< 2 m (< 7 ft)	


A sensor for every job

Wingtra makes no compromises on aerial image quality. Whether you need data for orthophotos, contour lines below vegetation, digital terrain modeling, or multispectral mapping, it carries the best sensor for every application. As you exchange sensors in the field, various typed of data can be acquired with the same drone.

RGB sensors			
	RGB61 High accuracy and most efficient	Sony a6100 Most affordable	Oblique Sony a6100 3D mapping camera
Technical specifications	61 MP, full-frame sensor 24 mm lens nadir configuration	24 MP, APS-C sensor 20 mm lens nadir configuration	24 MP, APS-C sensor 12 mm lens low oblique configuration
Lowest possible GSD	0.7 cm/px 0.28 in/px	1.2 cm/px 0.47 in/px	1.6 cm/px 0.63 in/px
Horizontal absolute accuracy (RMS) with PPK (w/o GCPs)	Down to 1 cm (0.4 in)	Down to 2 cm (0.8 in)	Down to 2 cm (0.8 in)

	LIDAR System Taking ease-of-use, precision and efficiency to the next level
Sensor	Hesai XT32M2X scanner 3 returns Inertial Labs IMU
Effective point density in deliverable at 90 m AGL with 50% side overlap	Hard surface: ~110 pts/m² (single return) Low vegetation: Up to 220 pts/m² (dual return) High vegetation: Up to 330 pts/m² (triple return)
Absolute vertical accuracy down to	3 cm (1.2 in)

Multispectral cameras

	MicaSense RedEdge-P Multispectral & panchromatic sensors
Sensor	6 individual sensors Red, Green, Blue, Rededge, Near-infrared, Panchromatic
GSD down to	2.0 cm/px 0.78 in/px
Absolute horizontal accuracy down to	3 cm (1.18 in)
Absolute vertical accuracy down to	5cm (1.97 in)

What's included in the bundle?

- 1x WingtraOne GEN II drone
- 1x carrying sleeve
- 1x carrying case for accessories (pilot box)
- 1x tablet including WingtraPilot flight planning software
- 1x telemetry module (2.4 Ghz)
- 2x pairs of batteries
- 1x charging station
- 1x anemometer
- 1x SD card adapter
- 1x micro SD card reader
- 1x pair of side stands
- 1x middle stand
- 1x Torx screw driver T10
- 1x Torx T10 key



Additional products



Hardcase

For easy and safe WingtraOne drone bundle transportation



PPK licenses

A built-in multi-frequency (L1-L2 included) PPK GNSS receiver, which ensures best-in-class image geotag correction after the flight with accuracy down to 1 cm (0.4 in)

Recommended post-processing software

For a complete drone solution from data collection to post-processing



Metashape



Bentley



esri



propeller



PIX4D



Trimble



TerraSolid



global mapper



LIDAR360

Official Wingtra Partner

LOGO

Partneraddress
and
contactdata



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