

WingtraOne

GEN II

The next level of drone worksite reliability and mapping versatility



Applications



Surveying & GIS



Mining & aggregates



Construction & infrastructure



Environment & research



Agriculture

WingtraOne GEN II

WINGTRAONE GEN II

Map faster

WingtraOne's unique set of features empowers you to minimize your time flying and get more work done, be it another project in the field or analyzing your data at the office.

Data collection speed

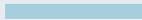
WingtraOne RX1R II



Other fixed-wing drone



Multicopter drones



Up to

8x

faster than
multicopter drones

Up to

2x

faster than standard
fixed-wing drones

Average based on our coverage and labor cost calculator. This number can vary depending on factors such as overlap, camera model and altitude. The model takes into account data collection only. Flight planning, setting up GCPs, data processing, time to relocate between flights are not taken in account in this model.

Efficient fixed-wing flight

Fly at 16 m/s (36 mph) for up to 59 minutes per flight for large coverage.

42 MP camera

WingtraOne can fly higher than drones limited to 20 MP cameras, so you capture more ground and more detail with every picture and a larger area per flight.

No more GCPs, checkpoints only

With an onboard high-precision PPK GNSS receiver you no longer need to lay out ground control points (GCPs). Use as few as three checkpoints to verify your map quality.

Lower image overlaps

High-quality optics means you can reconstruct your map reliably even with lower overlaps. This means more new ground covered per flight line and maximum coverage per flight.

Maximum coverage with one flight

at 1.2 cm/px (0.5 in/px) GSD

WingtraOne RX1R II

42 MP camera

110 ha (272 ac)

93 m (305 ft) altitude

**Other fixed-wing drones**

20 MP camera

70 ha (173 ac)

57 m (187 ft) altitude

**Multicopter drones**

20 MP camera

8 ha (20 ac)

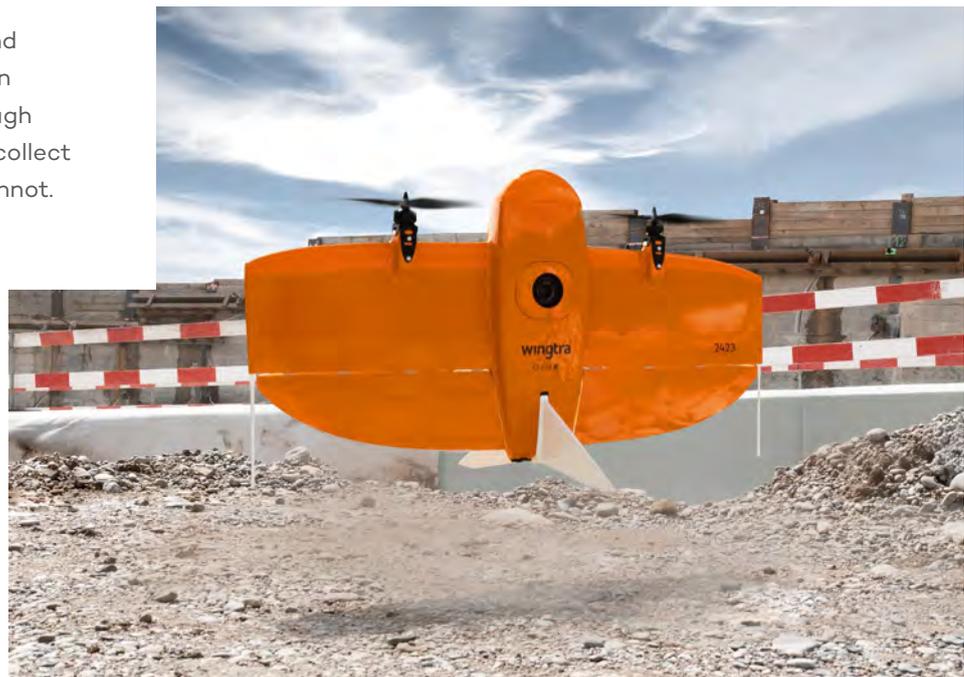
44 m (144 ft) altitude

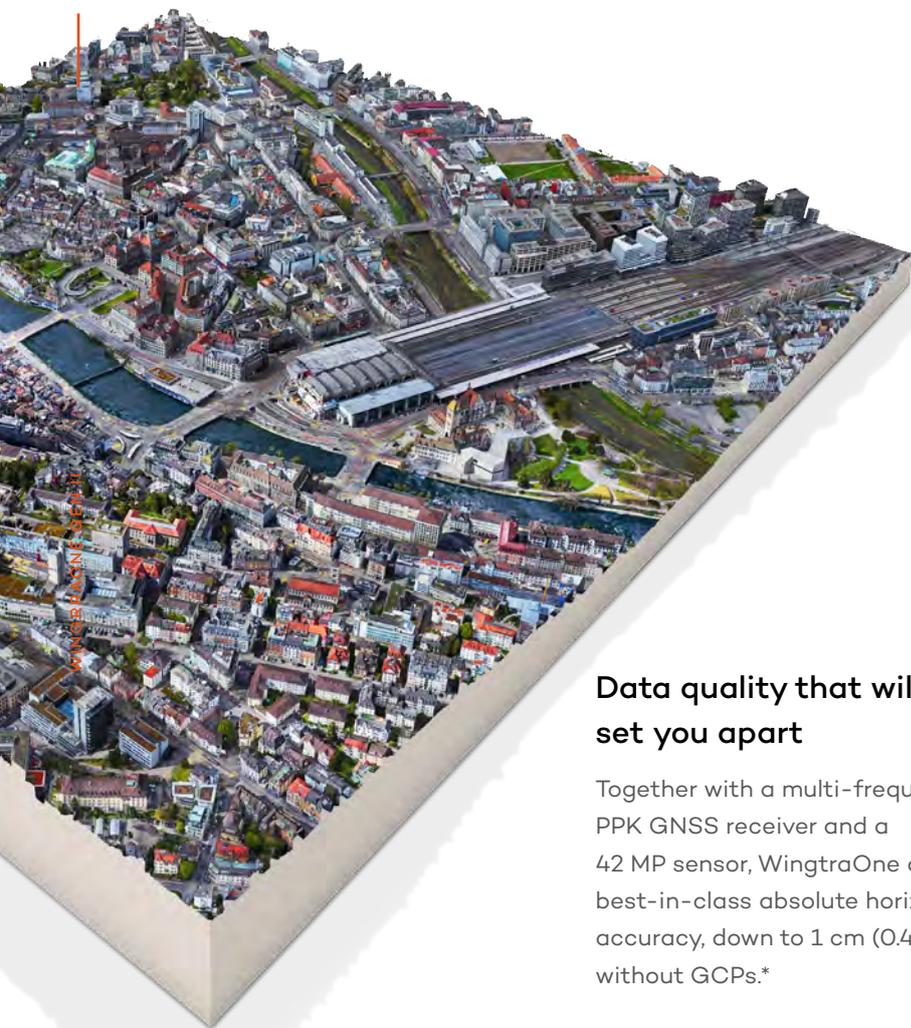
**Map larger**

Whether it's a highway, an industrial complex or a mine, you can now take on large projects that were previously impossible to map with a drone. And it takes you just a few hours.

Map anywhere

Thanks to its VTOL design, WingtraOne can take off and land almost anywhere—even in confined spaces or on rough terrain. This enables you to collect data where other drones cannot.





Data quality that will set you apart

Together with a multi-frequency PPK GNSS receiver and a 42 MP sensor, WingtraOne delivers best-in-class absolute horizontal accuracy, down to 1 cm (0.4 in) without GCPs.*

Absolute horizontal accuracy down to

1 cm*

(0.4 in)

GSD down to

0.7 cm/px

(0.3 in/px)



A reliable workhorse

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

WingtraOne is engineered and assembled in Switzerland. It demonstrates sharp results—even in wind—bolstered by predictive self-diagnosis and automated safety checks.

Cut costs

Faster data collection and expanded coverage equals fewer people in the field for less time.

This lowers the man-hour costs associated with data collection.

*Using the Sony RX1R II camera and a PPK module. This level of accuracy is achievable under optimal conditions, on hard surfaces, using a well-established base station or correction data from CORS network. The results can be validated with high-accuracy checkpoints.

Extended Services



Spare drone

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



Total Maintenance Plan

All-in-one maintenance solutions for your drone fleet.**



Training and consulting

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



Extended warranty

A longer 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 (empty)	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 × 67 × 23 cm (54 × 26 × 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)
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 camera for every job

WingtraOne makes no compromises on aerial image quality. Whether you need data for orthophotos, 3D models or multispectral mapping, it carries the best camera for every application.

As you exchange cameras in the field, various types of data can be acquired with the same drone.

RGB cameras nadir



Sony RX1R II
Highest precision
and most popular



Sony a6100
Most affordable Wingtra
bundle

Sensor	Full-frame sensor 42 MP	APS-C sensor 24 MP
GSD down to	0.7 cm/px (0.28 in/px)	1.2 cm/pxx (0.47 in/px)
Absolute horizontal accuracy down to	1 cm (0.4 in) ^{1,2}	2 cm (0.8 in) ^{1,3}
Absolute vertical accuracy down to	2 cm (0.8 in) ^{1,2}	4 cm (1.6 in) ^{1,2}

RGB cameras oblique



Oblique Sony a6100
3D mapping camera

Sensor	APS-C sensor 24 MP
GSD down to	1.6 cm/px (0.63 in/px)
Absolute horizontal accuracy down to	2 cm (0.8 in) ^{1,3}
Absolute vertical accuracy down to	4 cm (1.6 in) ^{1,3}

Multispectral cameras



MicaSense Altum
Multispectral &
thermal sensors



Micasense RedEdge-MX
Most affordable
multispectral sensor

Sensor	5 sensors Blue, green, red, red edge, near-infrared (NIR) and Thermal sensors Thermal infrared 8-14um	5 sensors Blue, green, red, red edge, near infrared (NIR)
GSD down to	3.4 cm/px (1.3 in/px)	6.7 cm/px (2.6 in/px)
Absolute horizontal accuracy down to	4 cm (1.6 in)	8 cm (3.1 in)
Absolute vertical accuracy down to	8 cm (3.1 in)	15 cm (5.9 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)

Agisoft Bentley®

PIX4D

propeller

esri

Recommended

photogrammetry software

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



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