

# WingtraOne

The VTOL drone  
for mapping &  
surveying



## Applications



Surveying &  
GIS



Mining &  
aggregates



Construction &  
infrastructure



Environment &  
research

# Why Wingtra?

## Eight reasons for surveying with WingtraOne



### Down to 1 cm (0.4 in) absolute accuracy

Using an L1/L2 PPK GNSS receiver, WingtraOne delivers best-in-class absolute accuracy down to 1 cm (0.4 in). This level of accuracy is achievable under optimal conditions, on hard surfaces, using well-marked, highly visible, manually measured control points and well-established stations.



### Take off and land vertically (VTOL)

Fly everywhere and avoid damaging your drone in belly landings. WingtraOne is able to take off and land like a helicopter and fly like a fixed-wing aircraft.



### 42 Megapixels / 0.7 cm (0.3 in) GSD

Best image quality in the industry for the highest map quality and accuracy.



### Save time

Up to 80% faster surveying operations compared to terrestrial methods and multicopters.



### One drone, many applications

Multiple exchangeable payloads for one drone to produce all types of drone data.



### Improve drone ROI

Longer drone lifetime and reduced operating costs.



### Learn operation in 1h

Easy to use from fully-automated flights to PPK processing.



### Robust and safe

Engineered in Switzerland, sturdy even on gravel and in rough weather conditions.

# WingtraOne Bundle



## What's in the WingtraOne Bundle?

- + WingtraOne drone and a carrying sleeve (backpack)
- + A fully integrated payload cameras of choice
- + A tablet with WingtraOne pre-installed mission planning software WingtraPilot
- + Remote control and telemetry units
- + Charging station, 2 sets of smart batteries
- + Pilot case for accessories & spare parts (1 pair of propellers, 1 pitot tube)



## Swiss support 365 days a year

- + Free online support & live chat
- + Languages: English, Chinese, German and Spanish
- + Extensive knowledge base
- + Video tutorials & best practices



## WingtraPilot

WingtraPilot is the intuitive mission planning software deeply integrated with the drone and its payloads. Among other features it offers KML import, terrain following and corridor mapping.



## Smart Batteries

WingtraOne's Li-ion smart batteries are shock, over/undervoltage, temperature and short circuit protected. They also have a state-of-charge indicator and are fully UN compliant.



## Additional Products



### Hardcase

For easy and safe WingtraOne drone bundle transportation



### PPK module

For precision mapping and surveying with accuracies down to 1 cm (0.4 in)



### Photogrammetry software

For a complete drone solution from data collection to post processing



# Modular WingtraOne payloads



**RGB cameras**

**Sony RX1R II**  
The highest quality payload for subcentimeter GSDs and accuracy down to 1 cm (0.4 in)



**Sony QX1**  
Professional payload for surveying



**Sony QX1 15 mm (0.6 in)**  
A high quality lens for 3D reconstruction and largest coverage

**Technical specifications**

42 MP  
Full-frame sensor  
35 mm (1.4 in) lens

20 MP  
APS-C sensor  
20 mm (0.8 in) lens

20MP  
APS-C sensor  
Voigtlander lens  
15 mm (0.6 in) lens



**Specialty cameras**

**MicaSense RedEdge-MX—multispectral payload for precision farming, forestry and environmental research**

**Technical specifications**

5.5 mm (0.22 in) lens  
5 individual custom sensors multispectral

## WingtraOne Technical Specifications

<b>Drone type</b>	Tailsitter vertical take-off and landing (VTOL)
<b>Weight (empty)</b>	3.7 kg (8.1 lb)
<b>Max. payload weight</b>	800 g (1.8 lb)
<b>Wingspan</b>	125 cm (4.1 ft)
<b>Battery capacity</b>	99 Wh (a pair of batteries required)
<b>Flight planning &amp; mission control software</b>	WingtraPilot
<b>Tablet (supplied)</b>	Samsung Galaxy Tab Active 2, Android pre-installed
<b>Updates</b>	free
<b>Operational cruise speed</b>	16 m/s (35.8 mph)
<b>Wind resistance</b>	12 m/s (28 mph) in cruise 10 m/s (22 mph) for landing
<b>Maximum flight time</b>	Up to 55 min, depending on payload, flight plan, and flying conditions
<b>Min. space for take-off and landing</b>	2 m × 2 m (6.6 ft × 6.6 ft)
<b>Designed temperature range*</b>	-10° C to 40° C (14° F to 104° F)

