



# VETAL

A Tailsitter VTOL Fly Longer and Cover More

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**HG Robotics**

# Why VETAL?

## No accuracy compromisation

Dual frequency  
PPK option

Down-to 1 cm  
absolute accuracy

## Flexible payload

RGB / Multispectral /  
Thermal

Down to 7 mm / px GSD  
with 42 MP payload

## VTOL - Vertical Take-off and Landing

Get the best of both  
worlds

- Fixed-wing flight  
efficiency
- Precise and easy to  
control multicopter  
landing

## Time efficiency

2x more coverage for the  
same size fixed-wing

14x more coverage for  
most multirotors

# VETAL

## Hardware Specification

Max take-off weight (MTOW)	<b>4.6 kg</b>
Empty weight (with battery)	<b>3.8 kg</b>
Max payload weight	<b>800 g</b>
Wingspan	<b>130 cm</b>
Dimension of drone (stand unfolded for take-off/landing)	<b>130 x 70 x 100 cm</b>
Battery capacity	
Single	<b>220 Wh</b>
Dual	<b>100 Wh</b>
Battery type	<b>Li-ion with BMS with UN3481 compliant</b>
Telemetry link	<b>2.4 GHz bi-directional up to 10 km with direct line of sight</b>
Onboard GNSS	<b>GPS, Glonass, Galileo and Beidou ready</b>



# VETAL

## Operation

### Flight speed

Cruise speed	<b>15 m/s</b>
Climb / sink cruise	<b>6 / 3 m/s</b>
Climb / sink hover	<b>5 / 2 m/s</b>

### Wind resistance

Take-off / hover	<b>Up to 8 m/s</b>
Cruise	<b>Up to 15 m/s</b>
Landing	<b>Up to 5 m/s</b>

Max. flight time (optimal condition) **Up to 60 min**

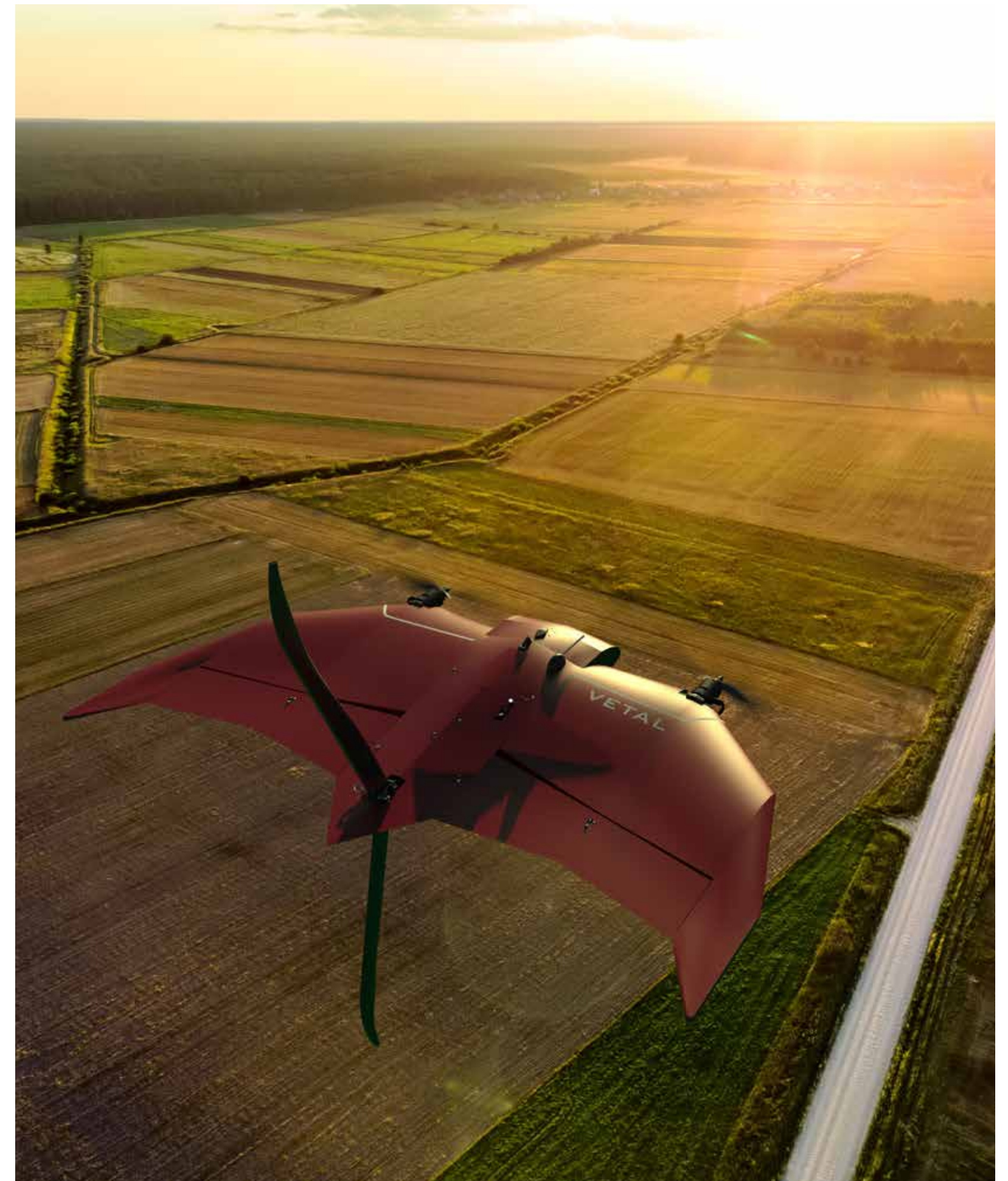
Temperature (battery operating temperature) **-10 to 60 °C**

Max. take-off altitude **2000 m AMSL**

Weather protection (not recommended to fly in fog and rain) **IP54**

Auto-landing accuracy **< 5 m**

Setup time **< 2 min**



# VETAL

## Expected Results

Max. expected coverage in one flight at 120 m (400 ft) altitude above take-off point

**> 2 sq.km. with QX1/20 mm and GSD of 2.6 cm/px**

Max. expected coverage in one flight at 3 cm/px GSD

**> 2.5 sq.km. with RX1R11**

Lowest possible GSD

**0.7 cm/px**

Mapping accuracy with PPK (w/o GCPs)

**1 cm horizontal / 2 cm vertical (absolute RMS)**

Mapping accuracy w/o PPK (w/o GCPs)

**2 - 5 m absolute RMS**

# VETAL

## Software and Tablet

Flight planning & mission control software

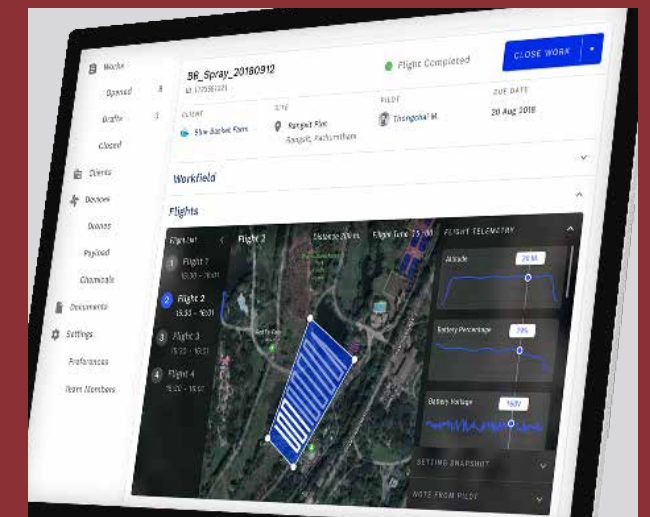
**HGMC (Mapper Edition)**

Fleet management software

**HiveGrid**

Tablet (supplied)

**Rugged Samsung Galaxy Tab Active 2 or better**



2.4 GHz

4G/5G

Internet

**VETAL**

**HGMC**

**Cloud**

**HiveGrid**

# VETAL

## Payload Options (Swappable)

GNSS payload

Standard / PPK (down to 1 cm absolute accuracy with RX1RII)

RGB camera

Sony : RX1RII (42MP, 35mm), QX1 (20 MP, 20mm), RX0M2 (15.3 MP, 24mm)

Multispectral camera

Micasense : RedEdge-MX, Altum

Thermal camera

FLIR : Duo Pro, Duo Pro R, Hadron





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