

# Fusion

The smart VTOL aircraft for long distance surveys



The Fusion is a fully automatic VTOL aircraft designed for surveying missions of large distances. Thanks to its light structure, the Fusion can scan important environments in a single flight. It is also very easy to carry thanks to its detachable wings.

## Key Features

- Fully Safe automated Vertical Take Off & Landing
- Long Range high precision imagery
- Centimeter grade GSD imagery resolution
- GCP free RTK georeferencing
- Lightweight and small wingspan

| Operation                |                                       |
|--------------------------|---------------------------------------|
| Type:                    | VTOL airplane                         |
| Setting Up and Start:    | Less than 5 minutes                   |
| Takeoff and landing:     | Full Automatic (or manual)            |
| Flight Management:       | Full Automatic (or manual)            |
| Detachable Wings:        | YES                                   |
| Endurance:               | Up to 60 minutes                      |
| Cruise Speed:            | 47 km/h to 70 km/h                    |
| Maximum Speed:           | 120 km/h (75 mph)                     |
| Flight height (typical): | Up to 150m / Above ground level (AGL) |
| Crossing Distance:       | Up to 70 km                           |
| Wind resistance:         | 50 km/h (31mph)                       |
| Temperature Range:       | -10 °C to +45 °C                      |



| Hardware & Communication |  |
|--------------------------|--|
| Material:                | Composite structure, carbon propellers |
| Dimensions:              | 2.000 m x 0.500 m x 1.400 m            |
| Wingspan:                | 2 m                                    |
| Weight without payload:  | 5.2 kg                                 |
| Max Take-off Weight:     | 5.5 kg                                 |
| <b>Radios</b>            |  |
| Remote Control:          | 2.4 GHz and others (please ask)        |
| Telemetry:               | 433 or 868 or 915 Mhz                  |
| Video (Option):          | 5.8 Ghz and others (please ask)        |

| Data Collection & Software |  |
|----------------------------|--|
| Typical Scanning Area:     | 227 ha (561 acres)   |
| <b>Software</b>            |  |
| Mission Planning           | HASK- Planner  |
| GNSS Processing            | HASK - Geoprocessor  |
| <b>Output Data</b>         |  |
|                            | Image Files, log data<br>Densified cloud 3D data (LAS, LAZ, PLY, XYZ)<br>3D textured mesh (FBX, OBJ, DXF, PLY, 3D PDF)<br>Orthophotos (GEO TIFF)<br>DSM & DTM (XYZ, LAS, LAZ)<br>Contour lines (SHP, PDF, DXF) |

