



HUGINN X1 TECHNICAL SPECIFICATIONS >>



The Huginn X1 is designed as a total solution for reaching otherwise inaccessible or dangerous areas.

Its small size allows the Huginn X1 to be transported as hand luggage on aircraft or in the back of a car and as the system is capable of vertical take-off and landing (VTOL), there is no need for any launch mechanism or landing pad. This combined with a deployment time of a few minutes the Huginn X1 is the perfect tool for reconnaissance and data collection in complex and diverse environments.

The advanced avionics in the Huginn X1 have been designed with ease of use in mind, enabling the operator to focus on the task at hand. Combined, these features make the Huginn X1 the total solution for a broad range of inspections, monitoring, surveillance and reconnaissance tasks.

The Huginn X1 stands out as it is designed to be operated after only minimum amount of training and by people with little or no technical knowledge.

Features	
Autonomous flight	Autonomous take-off, flight and landing
Fail-safes	Automatic emergency landing in case of critical battery
	Automatic return to home and land in case of lost connection
Waypoint navigation	Advanced 3D waypoint navigation
Water and dust resistant	Resists rainy and dusty weather
Assisted manual control	One hand controller to fine-adjust position, land or take-off
Lightweight and foldable	Easy to carry, fold and unfold
Look At functionality	Possibility to keep camera pointed at a POI (point of interest)
Acknowledged comm.	Retransmission of commands improves communication Range
Navigator on USB stick	The Navigator software is available on a internal USB stick in GS

TECHNICAL SPECIFICATIONS

DIMENSIONS	L x W x D	Weight
Huginn X1 (folded)	509mm x 133mm x 133mm	940g
Huginn X1 (maximum unfolded with rotor blades)	760mm x 560mm x 260mm	940g
Huginn X1 (minimum unfolded without rotor blades)	370mm x 380mm x 133mm	880g
Huginn Ground station	240mm x 105mm x 65mm	810g
Huginn Battery	110mm x 85mm x 32mm	450g
Huginn Camera Mount (Single/Dual)	92mm x 90mm x 80mm	Single 104g / Dual 208g
VIDEO		
Receiver	5.8 GHz diversity	
Transmitter	5.8 GHz 500 mW	
Antenna type	Sky-Watch dipole 5.8 GHz 1.6 dBi	
Radio frequency	5.8GHz	
Transmission range	Up to 2 km	Line of sight
Transmission power	Up to 500mW	(-3 dBW or 27 dBm)
Estimated radiation power	200mW	(-7 dBW or 23 dBm)
COMMUNICATION		
Module	868 MHz or 900 MHz encrypted 128bit duplex communication	
Antenna type	Sky-Watch dipole 868 or 900 MHz 1.5 dBi	
Radio frequency	868 or 900 MHz	
Transmission range	Up to 5 km	Line of sight
Transmission power	200 - 300 mW	
SUPPORTED ADD-ONS		
X1 Full HD video/still	1080p 60 FPS / 16 MP (containing meta data)	10 x zoom
X1 FLIR Quark 2 thermal camera	640 * 480 resolution	
X1 dual mount thermal/HD	Combined HD/FLIR lens	
PERFORMANCE		
Auto. take-off height	Selectable for each take-off	
Max hover time	25 min	With single camera
Ground Station battery time	> 10 hours	
Max cruise speed (ground speed)	6 m/s	(21,6 km/h)
Max vertical speed	6 m/s	(21,6 km/h)
Min take-off GPS accuracy	4 m	
Min flight GPS accuracy	6 m	
Maximum absolute altitude	10.000 feet AMSL	
Maximum waypoint step	10 km	
Minimum hover height	0,7 m	
Sonar range	0 - 5 m	
Maximum operating temp.	45 C °	
Minimum operating temp.	-20 C °	
Auto land battery voltage	13,7 V	
Battery charge time	< 90 min	
Charger power supply voltage	12 V	
Huginn battery voltage	14,8 V	16v when fully charged
Huginn battery capacity	5000 mAh	

UNIQUE FEATURES

FEATURE	Description
Rough weather flight ability	The Huginn X1 is build to fly in all weather conditions, which includes: <ul style="list-style-type: none"> • Snow • Rain • Strong wind • Dusty areas
"Follow-me" ability	If needed, the Huginn X1 can follow the position of the Ground Station.
Automated hand launch and retrieval	The Huginn X1 can be launched and retrieved from hand using the automated launch functionality.
Multilayer overlay map function	The Huginn Navigator can handle multiple overlay maps, such as offline map, infrastructure map or other user specific map files.
In-flight re-calibration	While flying it is possible to re-calibrate your thermal video signal
Quick removal storage system	Your photos and video materiel is quick and easily secured, as they are stored on a SD-card located on the payloads left side.
Optional Black Box	All your flight paths is recorded internally on the drones own storage system.

ACCESSORIES

ACCESSORY	Description
	<p>TACTICAL BACKPACK</p> <p>The transport backpack for the Huginn X1 is based on the CamelBak BFM. We can supply a custom backpack for field transport of the Huginn X1 kit. The backpack holds the standard content of the kit, with extra space at your disposal.</p> <ul style="list-style-type: none"> • Total Capacity: 2810 cu in / 46L • Dimensions: 21 x 20 x 14 in / 53.3 x 50.8 x 35.6 cm • Torso Length: 17.32 in / 44 cm • Fabric: 500D Cordura®
	<p>EXTERNAL VIDEO MONITOR</p> <ul style="list-style-type: none"> • Flysight Black Pearl HD • Diagonal: 7" • Resolution: 1024x600 • Contrast: 700:1 • Luminance: 300cd/m2 • Working Frequency: ISM 5.8GHz <ul style="list-style-type: none"> • Audio & Video ports: <ul style="list-style-type: none"> • RX1 AV OUT: Video, mono audio output • RX2 AV OUT: Video, mono audio output • AV IN: Video, stereo audio input • Built-in speaker