

H I V E



***UNLEASHING
THE FULL
POTENTIAL
OF DRONE
TECHNOLOGY***



*365 DAYS A YEAR
WITH THE HIVE*



1 Have you ever thought about a drone docking station for your industrial facility? HIVE is an automated drone hangar with a specially developed HIVE battery kit. We can easily adapt third-party drones (multicopters and fixed-wing aircraft) with the HIVE battery pack so that they are compatible with the HIVE.



2 The HIVE and its associated drones are arguably the most advanced form of automated unstaffed aerial vehicle technology. Modifiable sensors make the system suitable for any industrial application with drones. We promise you: premium quality and highly efficient technology – MADE IN GERMANY.

THE HIVE

DRONE IN A BOX

YOUR NEW 24/7 EMPLOYEE

3

The HIVE combines a take-off, landing, and battery exchange platform: Drones (multicopters and fixed-wing aircraft) are ready for take-off after just three minutes. Depending on the application, they can be equipped with RGB/thermal cameras, CO2 sensors, or LiDAR systems.



RELIABILITY
PERFORMANCE
MODULARITY
SAFETY

= HIVE



RELIABILITY

PERSISTENCE

The entire system has a lifetime of at least 10 years.

WEATHER PROTECTION

Insulated housing as well as integrated thermal system from -40 to 85°C .

REDUNDANCY

Battery exchange system with up to 32 battery packs, including physical data transfer.

SENSORS

Integrated weather station and in-house camera system.



PERFORMANCE

SPEED

60 km/h

FLIGHT TIME

40 min

RADIUS

15 km

PAYLOAD

up to 20 kg

BATTERY CHANGE TIME

3 min



HIVE version 10 feet

MODULARITY

CONCEPTION

The modular concept of the HIVE allows you to integrate different types of drones (multicopters and vertical take-off fixed-wing aircraft).

FORMAT

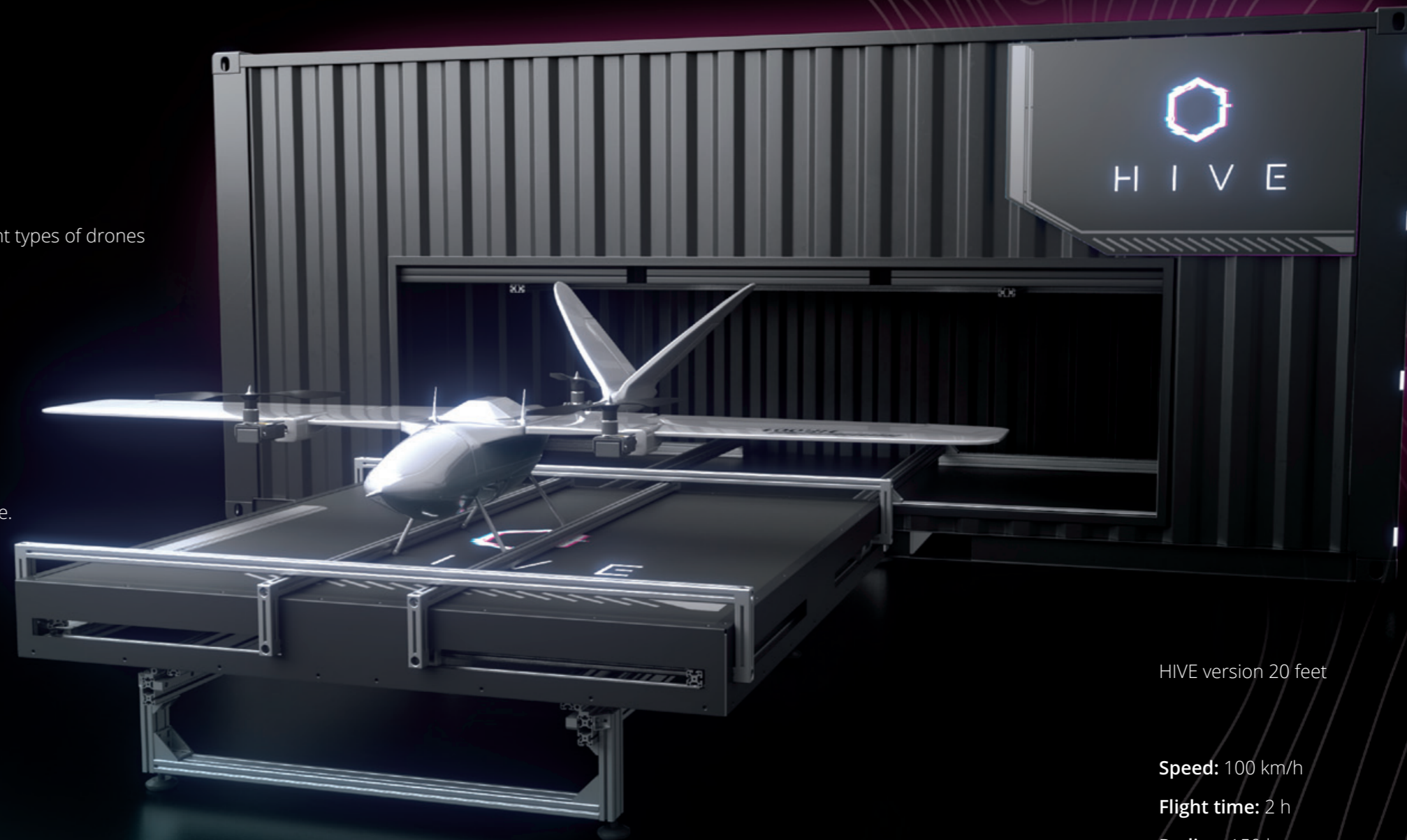
The HIVE is available in container sizes of up to 40 feet.

VERSATILITY

Multiple launch platforms allow the use of several drones at once.

ADAPTION

The adaptive HIVE battery kit is suitable as an interface for different types of drones.



HIVE version 20 feet

Speed: 100 km/h

Flight time: 2 h

Radius: 150 km

Payload: 5 Kg

Battery change time: 3 min

SAFETY

DATA PROTECTION

The HIVE stores locally collected data on your servers.

AVIATION SAFETY

The system complies with all legal aerospace requirements.

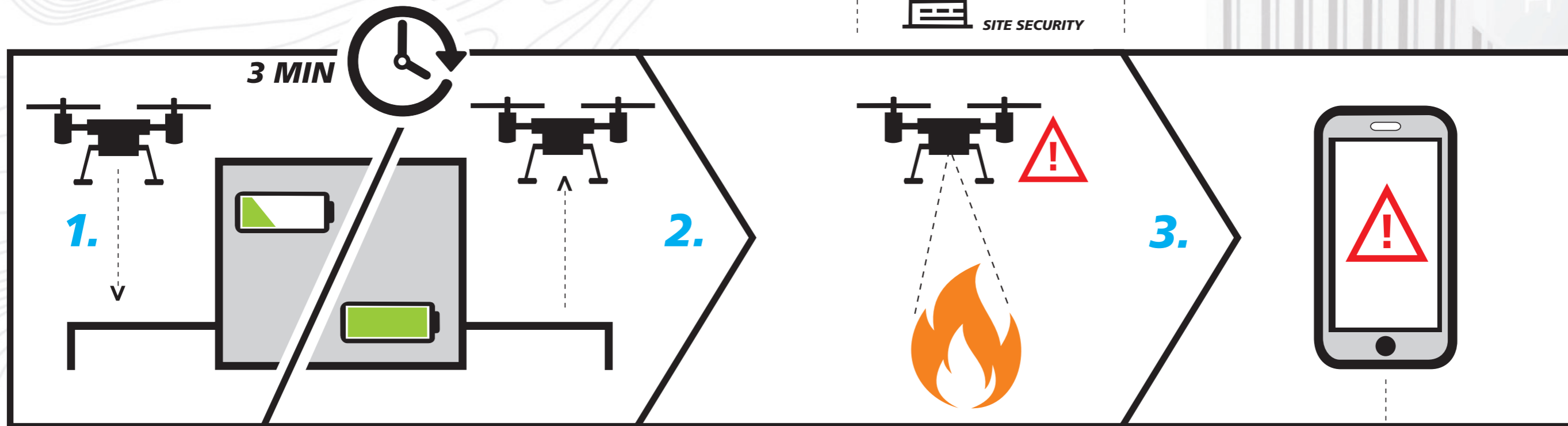
MADE IN GERMANY

Developed and manufactured in Nuremberg .





H I V E

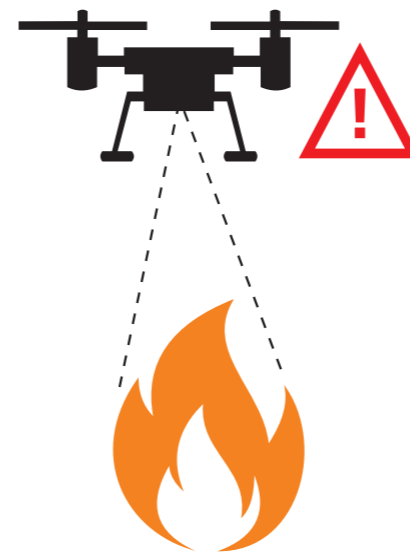


1. The drone returns from its task with empty batteries.
2. The system changes the batteries within three minutes in the HIVE. The drone takes off again and carries out its next task.
3. The HIVE AI detects a fire and reports it to the customer, the site security, or the security service provider.

The drone can also be used for either site security or inspection and documentation tasks.



SITE SECURITY



3.



INSPECTION



MEASUREMENT



DOCUMENTATION

- **SECURITY SERVICE**
- **FIRE BRIGADE**
- **POLICE**

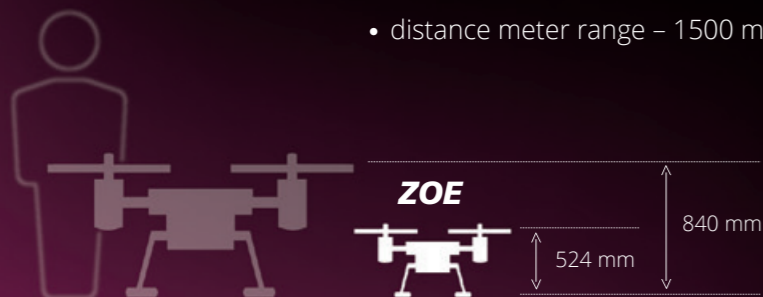
ZOE+ THERMAL IMAGING CAMERA

- payloads of up to 6 kg
- ready to fly in windy conditions up to 61 km/h
- weather-protected up to 10 mm/h precipitation
- up to 40 min flight time (28 min with thermal imaging camera)
- redundancy – upgrade to Octocopter possible
- data transmission AES 256 bit encrypted

PAYLOAD

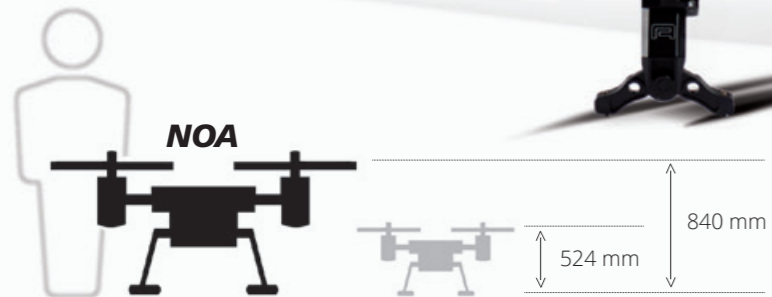
Works well WIRIS Enterprise dual camera

- thermal image – for the visual detection of heat sources
- thermal image sensor resolution – 1266 × 1010 pixels
- colour camera resolution – 16 MP/Full HD 30 × zoom + night vision
- distance meter range – 1500 m



Auterion
READY

You can find more information at: mostrobotics.com



NOA+LiDAR SCANNER

- Payloads of up to 20 kg
- ready to fly in windy conditions up to 65 km/h
- weather-protected up to 10 mm/h precipitation
- up to 60 min flying time (25 min with LiDAR scanner)
- Payloads changeable
- Data transmission AES 256 bit encrypted

PAYLOAD

YellowScan VX20 laser scanner

- LiDAR - for highly accurate 3D cartography
- scanner hardware - Riegl miniVUX/Applanix APX-20
- precision/accuracy - 2.5/1 cm
- colouring of the point cloud possible

You can find more information at: mostrobotics.com



ADDITIONAL PAYLOADS

GAS METER - GT5000 SPEAKER

- up to 50 gasses can be measured
- simultaneous measurement possible



PARACHUTE



SPEAKER



MULTI-SPECTRAL CAMERA – ALTUM-PT

- Ideal for plant analysis
- Channels: RGB NIR RE/LWIR



RGB CAMERA - A7R IV

- Full-format sensor
- 61 MP (Megapixels)



HEADLAMP

If your desired payload is not included, simply contact us. We will check whether integration is possible.

You can find more information at: mostrobotics.com

***MAKE
INCALCULABLE
COSTS CALCULABLE!***



YOU CAN REST ASSURED...

...You have a flying employee who is on duty 24/7 – without performance fluctuations, holidays, or sick leave.

THE HIVE AI...

...triggers an alarm when it detects intruders and fire development. It forwards the alarm with live image directly to you, your site security, or your security service provider.

CRITICAL SECONDS...

...so you can save your employees and your company from unnecessary damage.

REDUCE YOUR INSURANCE PREMIUMS AND EASE THE BURDEN ON YOUR EMPLOYEES WITH THE HIVE OPERATIONS PACKAGE.

SITE SECURITY PACKAGE

- 24/7 use of the system to protect your site
- individually plannable routes
- according to time intervals, in random mode, or individually executable
- individually plannable camera angles or live camera access
- integration into your existing security system: linking of security-relevant interfaces such as fences, doors, and windows – in the event of an alarm, direct flight to the respective location
- integrated headlamps for additional deterrence at night

FIRE PROTECTION PACKAGE

- 24/7 use of the system to protect your site
- individually plannable routes
- according to time intervals, in random mode, or individually executable
- individually plannable camera angles or live camera access
- AI-supported fire detection with the help of infra-red and/or carbon monoxide/dioxide sensors

INSPECTION PACKAGE

You can also book the inspection package and simply let your new "employee" take care of inspections, documentation, measurement, volume calculation, and inventories.

HIVE FULL SERVICE

For all companies that need 24/7 protection –
but not the hassle that comes with it.

***Purchase of the HIVE complete system,
including the operation packages of
your choice:***

- “Site security” package
- “Fire protection” package
- “Inspection” package
- ... including
- support and maintenance contract
- spare parts

You can obtain our prices on request by calling
0911/ 981 12 20 or sending an email to info@hive-systems.de



HOW TO ORDER

1.

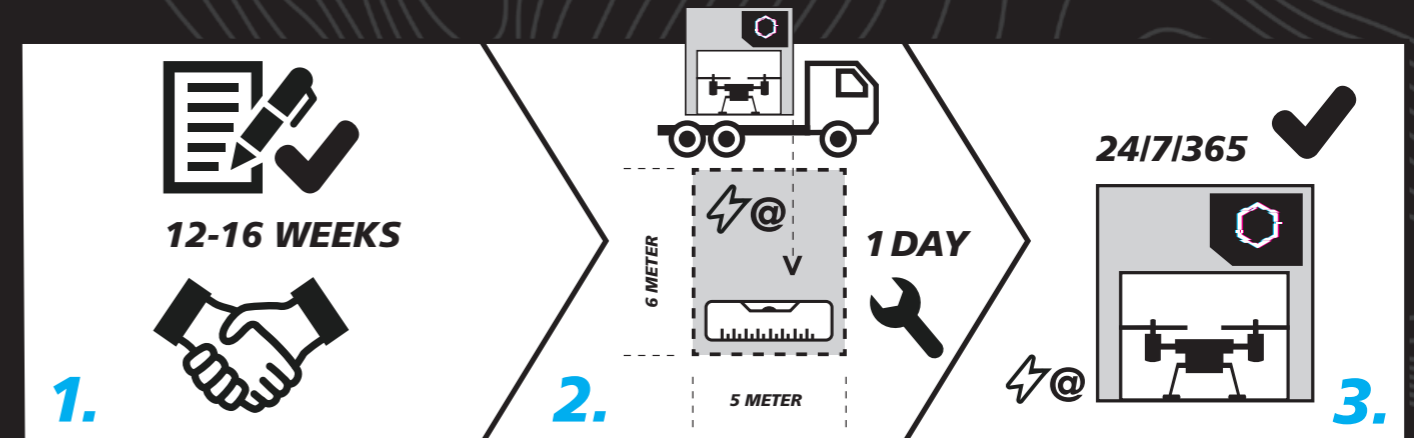
Once the contract is signed, we will deliver your HIVE system within 12–16 weeks.

2.

- Determination and establishment of a 30 m² area – as the location and base for the HIVE system
- Creation of a concreted and horizontal foundation
- Fencing of the foundation
- Assembly, mounting, and installation of the HIVE by HIVE-Systems GmbH
- Power connection (three-phase alternating current/16 A)
- Internet connection (100 Mbit download rate/40–50 Mbit upload rate)
(We can also supply the HIVE with a Starlink system)

3.

Commissioning of the HIVE system – 24/7 and 365 days a year



1. HOW DO YOU ORDER THE HIVE?

HIVE Systems places a great emphasis on personalisation. We build every new HIVE system – including equipment – individually to order.

After a preliminary discussion, we offer you a custom-fit solution adapted to your individual needs. It is therefore not possible to order via the online shop. Has our offer piqued your interest? Simply contact our sales team at info@hive-systems.de or 0911/981 12 20 for a non-binding offer. We will be happy to advise you regarding your specific application needs.

2. IS IT POSSIBLE TO SEE THE HIVE IN ACTION BEFORE BUYING?

Yes! If, after looking at our images, videos, and brochures, you would like to learn more about the HIVE, you are cordially invited to get to know our system in a personal demonstration together with our development team. We would also be happy to present you our product directly at your premises.

3. WHAT IS THE DELIVERY TIME?

When ordering a basic HIVE system without custom integrations or modifications, the delivery time is usually 12–16 weeks. Note: Additions or modifications to a basic HIVE system can lead to longer development and delivery times. **Do not hesitate to get in touch with us on this matter.**

FAQ

1. WHAT ARE THE APPLICATION AREAS OF HIVE?

Repetitive tasks such as site security, fire protection, and inspections can be done by the HIVE, thereby allowing your employees to take care of more important matters. This approach reduces costs and offers comprehensive protection for both your premises and employees. The HIVE is designed to allow the drone to spend 95% of its time in the air thanks to the automated and low battery set-up time. Your drones can thus carry out their tasks 24/7, 365 days a year.

2. DO YOU HAVE TO CONTROL AND/OR OPERATE THE SYSTEM YOURSELF?

No. The routes and tasks are pre-programmed and automated. The routes and tasks can be adjusted at any time via remote access (Internet) by our HIVE support team. You or your site security or security service will have full access to the data collected.

3. DO YOU BUY THE HIVE WITH DRONE AND CAMERA?

Yes. You purchase the complete system. For additional flight operations as well as support and maintenance services, you will receive a monthly invoice with a fixed price.

4. DO YOU HAVE TO TAKE CARE OF OFFICIAL PERMITS AND FLIGHT LICENCES?

No. You are owner of the system. However, the operator is HIVE Systems. As the operator of the HIVE, HIVE Systems procures all permits. You do not need a flying licence.

5. IS AUTOMATED DRONE FLIGHT PERMITTED BY LAW?

Yes. As of 1 January 2021, flights beyond the visual line of sight (BVLOS; i.e. controlled via the Internet) are permitted throughout the EU under certain conditions. The HIVE team will clarify all the necessary regulations in advance and obtain the corresponding permits in order to ensure smooth operation.

6. FOR WHICH TERRAINS IS THE HIVE SUITABLE? AND WHAT ARE THE REQUIREMENTS FOR USE?

The HIVE is suitable for almost all sites and open-cast mining areas as well as agricultural and forestry areas. The prerequisite for installing the HIVE is a paved, level area of 30 m² as well as an electrical (400 V, 16 A CEE socket) and internet access on your premises.

7. IS THE SYSTEM DATA COMPLIANT?

Yes. The data are stored on the server of the client or the client's security service provider. The HIVE system stores the video data only at the express request of the customer.

8. WHAT HAPPENS DURING RAIN AND STORMS?

Through permanent weather tracking, the system can react to changes in weather and protect the drone in the HIVE from inclement weather. In moderate to severe weather conditions, the drone can still be used.

9. HOW CAN THE HIVE ECOSYSTEM BE USED BY A UAV HARDWARE AND/OR SOFTWARE MANUFACTURER?

Our vision is holistic air-traffic management. The HIVE is therefore intended to function as the link between as many aviation stakeholders as possible. Our approach is therefore based on an open API ecosystem. We have created both software and modular hardware interfaces in order to support your products and services with the HIVE.

Do not hesitate to get in touch with us.

We look forward to collaborating with you!

With kind regards, Tristan Scheler and Jan Suk



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