



DRONE MANAGEMENT PLATFORM

DRONE USE - MADE EASY



Drone use - made easy

OECON Emergency Hawk has been specifically designed for use by emergency rescue services and police agencies. Without complex preparations, pilots can launch their drones and deliver video or other sensor data from the scene.

Emergency Hawk is a platform for “beyond visual line of sight” (BVLOS) ad hoc drone missions. By complying with all legal regulations governing the operation of drones and no-fly zones, Emergency Hawk provides precisely the kind of information that was previously difficult to identify, for example through a top-down view of the incident:

- the exact location of a fire
- location and position of injured persons at the site
- an overview of an accident situation
- an existing traffic incident

By using algorithms from the field of Artificial Intelligence (AI), the software can independently identify and point out danger areas. Operations management and on-site personnel are perfectly informed at all times by the possibility of forwarding the information (pictures, video data, ...).



The OECON Hawk product family

The OECON Hawk product family is a drone management system that offers tailor-made solutions for a variety of tasks.

Drone users, drone operators and drone service providers can easily and safely integrate their drones into urban airspace, including “beyond visual line of sight” (BVLOS) and “visual line of sight” (VLOS) planning, as well as receiving permits to fly in accordance with international and local regulations.

• Guided Hawk

for site monitoring with scheduled, recurring surveillance missions and delivery of video streams and high-resolution images.

• Emergency Hawk

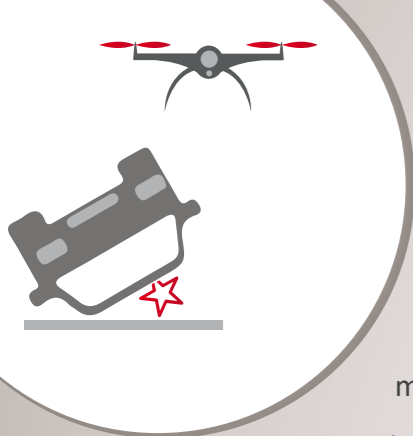
for ad hoc drone missions for rescue services and police with the ability to share the video stream with those involved and to control the drone on-site by emergency services.

• Environment Hawk

for use in the context of environmental protection, for example, the taking of water samples for quality determination or the dropping of tree seeds for reforestation.

All members of the family are built on a single framework, the OECON Hawk Core® Platform.





Typical application scenarios

An emergency is reported via 112/911 ...

- The dispatcher activates the drone management system and sets up a monitoring mission.
- The drone will follow the calculated route in compliance with applicable regulations and no-fly zones in relation to the aviation area.
- At the scene of the incident the drone sends a video stream.
- The video stream can be forwarded to affected persons (crisis staff, rescue personnel on site ...). In addition, high-resolution images taken by the drone can be disseminated.
- An AI-controlled algorithm allows the identification of objects of interest.

A major traffic event is reported ...

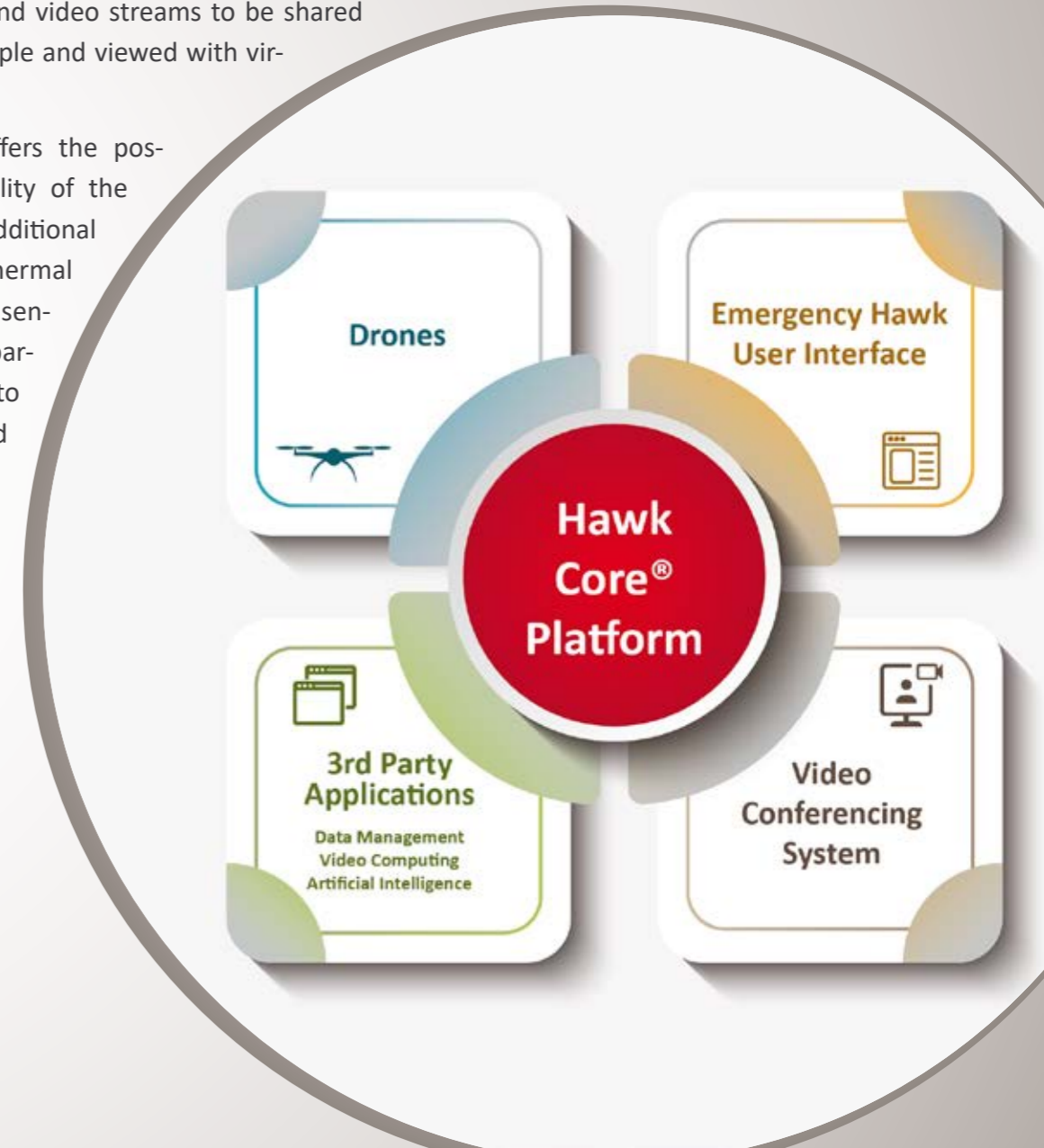
- The responsible employee activates the drone management system and sets up a monitoring mission.
- The drone will follow the calculated route in compliance with applicable regulations and no-fly zones in relation to the aviation area.
- At the scene of the traffic event, the drone circulates and sends a video stream.
- The video stream can be forwarded to affected persons (police, local staff ...).
- In addition, HD images recorded by the drone can be distributed via Video Conferencing systems.
- AI-controlled algorithm allows the identification of objects of interest and shows the traffic density.



Open interfaces

Emergency Hawk works with various video sharing platforms. This allows images and video streams to be shared with responsible people and viewed with virtually no delay.

Emergency Hawk offers the possibility of expandability of the drones through additional sensors (such as thermal imaging camera, gas sensors, ...) and third-party processing due to open, documented interfaces.





Legal regulations

BVLOS flights, as offered by OECON's Hawk product line, require unconditional compliance with legal frameworks that go far beyond anything known in the hobby flight environment. Emergency Hawk has therefore been developed specifically for this particular legal environment. This includes:

- **Compliance with No-Fly Zones:**

Virtually every city has static no-fly zones where drones are forbidden. These include, for example, larger streets, government districts, the larger environment of airports, public squares, police and rescue service locations, hospitals, crowds, facilities such as prisons or industrial areas. In addition to this dynamic no-fly zones may appear, for example when a rescue helicopter is in use. Approvals are required for the controlled overflight of such zones. Emergency Hawk knows exactly the static and dynamic no-fly zones and uses them to calculate 4D flight routes. A complete set of documents of the planned flight will be prepared for subsequent submission to the Federal Aviation Authority.

- **"Pilot in Command":**

Professional drones, especially those in the BVLOS mission, may only be operated by trained pilots. Emergency Hawk reviews the approval and only allows authorized pilots to operate the drone.

- **Compliance with European standards:**

Currently, the operation and use of drones in Europe is not uniformly regulated, especially concerning BVLOS flights. Emergency Hawk knows and observes the regulations of the individual countries.



Configuration options

Emergency Hawk is optionally available as a control software for existing drones or as a complete platform of software and suitable drones.

- **Control software:**

If the customer wants to use his own drones, then he can purchase only the control software. OECON's Emergency Hawk control software connects to existing or customer-selected drones. There is already a catalogue of supported professional drones from different manufacturers (6- and 4-wing). Other drones can be integrated quickly and easily thanks to the open interfaces. The system can be hosted either at the customer or in OECON's data centre.

- **Complete package:**

The complete package, which OECON provides, includes the Emergency Hawk software and a suitable drone. Attractive monthly prices include the use of the software and a maintenance contract for the drone. Defective drones are repaired or replaced by us, so that our customers always find a working operational system. The system will be hosted by OECON in this case, of course, in compliance with all data protection regulations.

Integration into existing IT environments and video conferencing systems is possible. Please contact us.





Contact

OECON Products & Services GmbH
Hermann-Blenk-Str. 22 a • 38108 Braunschweig • Germany
+49.531.35444.10 • www.oecon-line.de • info@oecon-line.de