12 Years MikroKopter

Sieger 2017 mittelstand

MISSION: INNOVATION.

GPS GLONASS Galileo BeiDou

EN

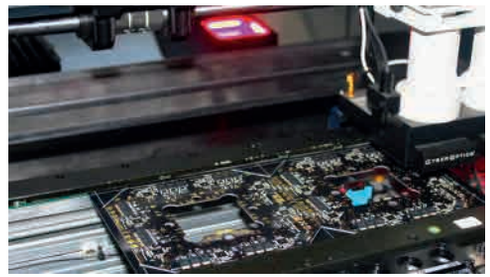
Product Overview - MK8-2500

Mikrokopter.de

Mikrokopter.de

Professional drones & flying robots

Location Lower Saxony
strengthen the region



HiSystems
High Tech from Lower Saxony

Since 2006 **HiSystems** develops and distributes hardware and software for MultiKopter under the name **MikroKopter**.

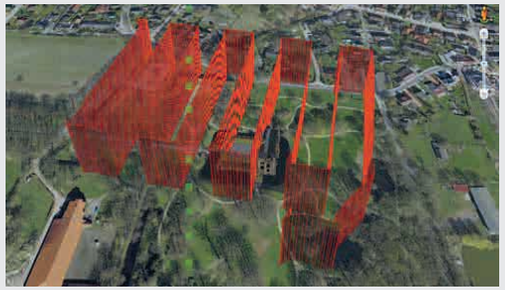
By now there are many more MultiKopter systems available on our **MikroKopter** electronics (OEM) are based. From north-west Germany we ship **MikroKopter** components and complete solutions worldwide.

Another field of activity of **HiSystems GmbH** is the development and production of electronics for industrial applications.
In 2015 and 2016, products in which we participated in the development were awarded the Innovation Prize and the Federal Craft Prize.
Furthermore, in 2017 we were awarded the "Innovation Prize IT".

The development, the final assembly and testing of the MikroKopter takes place in Germany. Key components of the electronics are also made in the region.

When choosing the supplier of MikroKopter components we try, if possible, to rely on local companies.

The MikroKopter-Tool
A powerful tool



With our free software "MikroKopter-Tool" different types of waypoint flights can be planned and simulated.

Flight simulation in Kopter Tool
A planned waypoint flight can be virtually simulated in the MikroKopter-Tool and flown off. Any planning errors can be eliminated in advance.

MikroKopter
Features, safety, comfort

We continue to develop our MikroKopter technology as well as the functionality of our flight systems. The **easy handling** and the **safety** of the **MikroKopter** are always in the foreground.
So the copter can always be flown easily and safely. And if the signal is lost or the battery is used up, security systems will immediately pick up the Kopter and bring it home safely.

FailSafe

The redundancy system developed by us is the first system to receive **"D" approval in Austria**.
Thanks to the redundancy of our OctoCopter, a motor or even the main electronics can fail - the Kopter still flies safely as usual!

The most important **features** and **functions**:

Redundancy
Increased safety through dual electronics. The failure of the flight control, a battery or even an engine can be compensated.

Navigation system
Our copters use GPS, Glonass and Galileo at the same time. So a waypoint flight or a hovering flight is point accurate.

FailSafe
In the event of a "signal losst", the MikroKopter autonomously flies back to the starting point and lands there. This ensures that your aircraft safely returns to you even in the event of a fault.

AkkuSafe
If the battery voltage falls below one critical value, your MikroKopter automatically flies back towards the starting point and lands before the battery runs out

Auto Start / Land
By switch the MikroKopter starts automatically and hovers in front of you in about 1-2m height. After the flight the KMopter can be landed by switch just as

Telemetry plus voice output
An extra display shows telemetry data such as voltage, altitude, distance, etc. Important messages such as a battery warning are announced automatically.

GPS-flight assistant / Autopilot
Functions like PositionHold or ComingHome are as standard in your MikroKopter as the autonomous departure of waypoints.

Logbook / Flight recorder
The data of the flight will be saved on a SD-card. Logged will be GPS position, height, speed, voltage, switch position, flight attitude and much more.

The MK8-2500

Compact, lightweight, cost-efficient, reliable

Proven technology even more compact - the MK8-2500

Thanks to the telescopic boom, the MK8-2500 only needs a small 600x600mm space for transport. For the flight, the booms are then pulled out. This makes the MK8-2500 powerful and easy to fly.

Whether photo camera, measuring sensors or special solution. A universal holding device allows you to decide freely about the payload to be carried.

So you can customize the scope of supply according to your needs - we are happy to advise you!

The basic features:

- Extendable arms
- Payload up to 2,5kg
- Long flight time
- High, stable landing gear (about 28cm passage height)
- Power and efficiency through new powerful motors and control units
- More safety through AutoComingHome / AutoLanding at lower LiPo power or reception loss
- redundancy due to 2-way design of the control (optional)

The MK8-2500 ***THERMO***

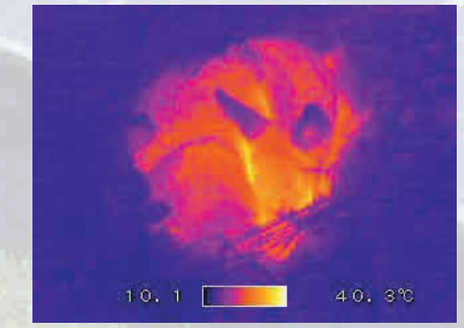
New perspectives with different eyes

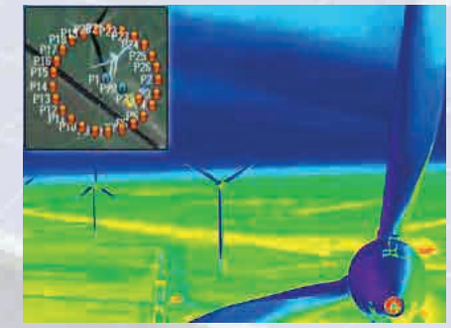
Whether industrial applications, research and technology, nature and wildlife observation or agriculture. The field of thermography has become an important part of multicopter applications in recent years.
For us as a multicopter manufactory, the combination of our **MikroKopter** with thermal imaging cameras from Optris or Flir is therefore more than logical.

With the ***THERMO*** extension, we have created the perfect diagnostic tool to create completely new perspectives in this field of application.

Application areas

- Inspection of solar systems
- Inspection of wind turbines
- Inspection of high voltage power lines
- Inspection of pipelines
- People search / rescue
- Fawn rescue



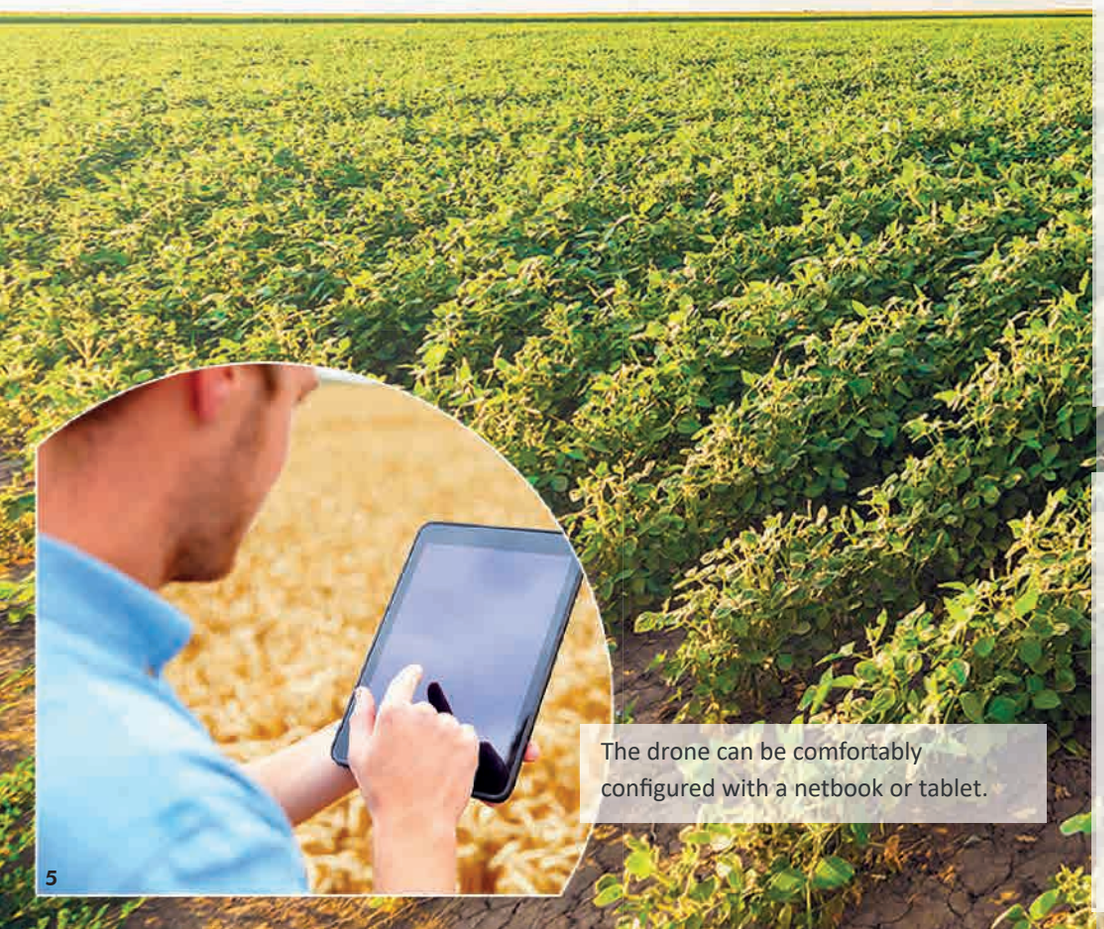


The MK8-2500 ***AGRAR***

Precision Farming with the MikroKopter

The analysis of the cultivated fields from the air is becoming increasingly important.

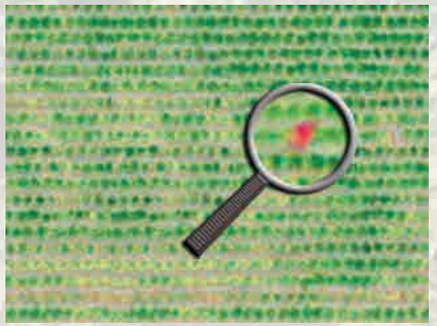
For example, a multi-spectral camera can be used as an ***AGRAR*** extension. Hereby the vitality of the plants can be measured and analyzed by determining the amount of light. An optimization of the fertilization process, a more precise needs analysis for pesticides and the analysis of the plants after irrigation can be carried out quickly with the **MikroKopter**.



The drone can be comfortably configured with a netbook or tablet.

Application areas

- targeted actions against pests
- efficient fertilizer deploy (economic, prevent over-fertilization)
- Analyse the vitality of plants (multispectral cameras)
- Optimization of fertilizer application
- Shedding of parasitic wasps for pest
- Visual inspection of areas (FPV camera)



The MK8-2500 *GEO*

The complete solution in the field of surveying and geodesy

You have to carry out evidence safeguards? Need a 3D model of a terrain? Or want to perform volume calculations?

The ***GEO*** extension allows quick and easy data acquisition from the air. So with the **MikroKopter** also the measurement of hard-to-reach objects is easily possible. And if necessary also reproducibly as often as you want.

The pictures created with the ***GEO*** and an appropriate software determine the volume of the desired areas.

Application areas

- Creation of large-scale orthofotos
- Generation of detailed height and volume models
- Creation of 3D models
- Land surveying and cartography






MikroKopter.de

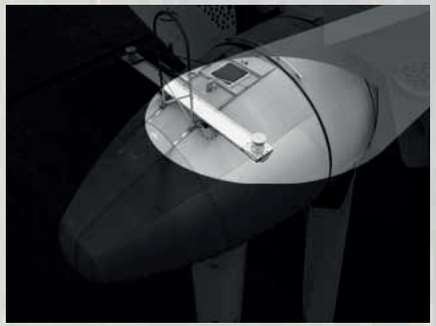
The MK8-2500 *LIGHT*

We bring light into the dark

It does not matter if it's a rescue mission, assistance with searching for a person, the illumination of filming locations or as a mobile lamp.
With our LIGHT extension you bring light into the dark wherever you need it right now. Depending on the application, the luminosity can be adjusted and, if necessary, extended by further luminous bodies. For example, e.g. ultra-bright 43200 lumens just as feasible as only 4000 lumens.

Application areas

- Illumination of application areas
- Assistance in searching for people in the night
- Lighting of locations
- Mobile lighting



The MK8-2500 ***Special***

... and everything fits

With our ***SPECIAL*** extension you are even more flexible than before.
Whether special sensor, transport solution, rescue equipment or special request, we also manufacture special mounts and special mounts for your application.
And every special solution is as quick and easy to change as the standard solutions under the **MikroKopter**.

Application areas

> Wherever normal solutions do not work

Optional equipment for the MK8-2500

Ground station

The ground station is an transmitter from Graupner. Incl. Special transmitter console, live image monitor and real-time telemetry with voice output.

Charging technology

With the Polaron charging station, 2 batteries can be charged simultaneously. Part of the **MK8-2500 standard** are 4 high-performance 6S 4500 mAh lithium polymer flight batteries.

Servo Gimbal

Lightweight and universal servo camera stand for small and big ones Cameras. The holder can be manually adjusted in pitch and roll direction. An automatic compensation takes place via the MikroKopter flight control.

Brushless Gimbal

With a brushless gimbal, you can get even better photo or video recordings. AlexMos gimbals can be controlled to the degree with our MikroKopter GimbalCtrl.

Analog video transmission

5.8 Ghz Video RX / TX solution for live image transmission including monitor and battery.

HD video transmission

The **Amimon CONNEX** is the brand-new high-end high-performance system for latency-free Full HD image transmission. With the light air unit, CONNEX is the perfect setup for professional use.

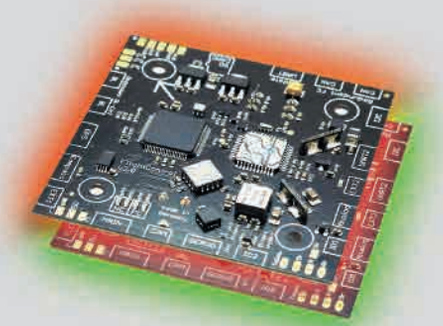
Optional equipment for the MK8-2500

Range extender

The RangeExtender connects your MikroKopter wirelessly to a Windows PC or Android tablet.
This way, a waypoint flight can be transmitted via the KopterTool and the flight can be followed live.

Cameras & Integration

We support a wide range of camera solutions on our MikroKopter.
And if the standard does not fit: We also manufacture individual special solutions.



Redundancy

Optionally, the electronics of the MikroKopter Redundant can be set up or retrofitted.
So the MikroKopter can be flown safely even if the main electronics fails.

Hot Shoe Adapter

In photogrammetry, accuracy counts.
The hot shoe adapter is used to store the exact time of the image triggering plus the exact image position in a LOG in the Kopter.

Training

We offer various possibilities to familiarize you with our drone solutions: From Aerosim simulation software to complex training sessions in our company.

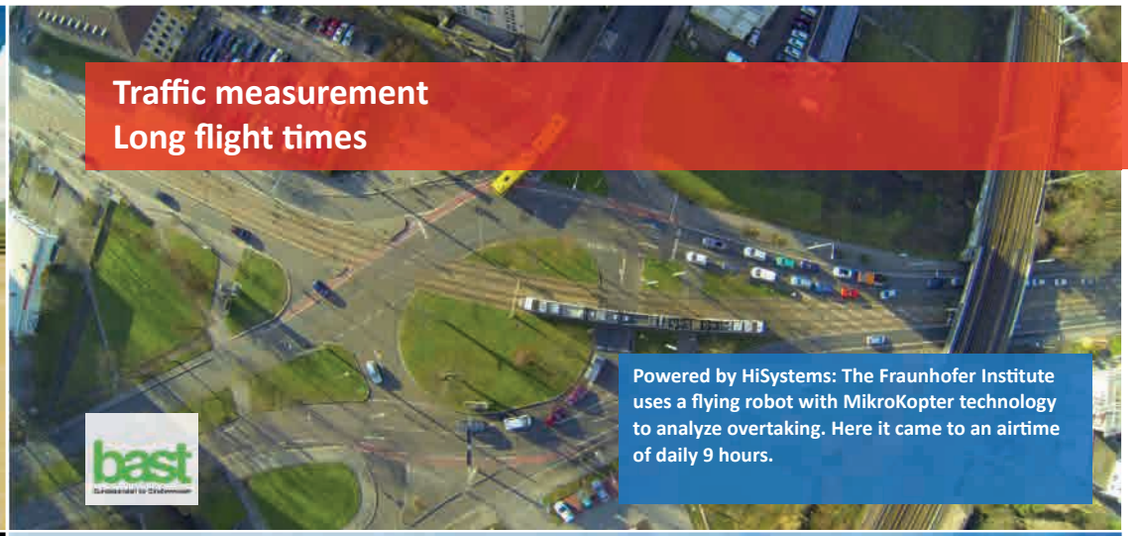
Exercise drone

Our practice drone has the same functions as the big copter. So it is perfect for first practice flights.

Chilean Plateau
Reliability even in extreme heights

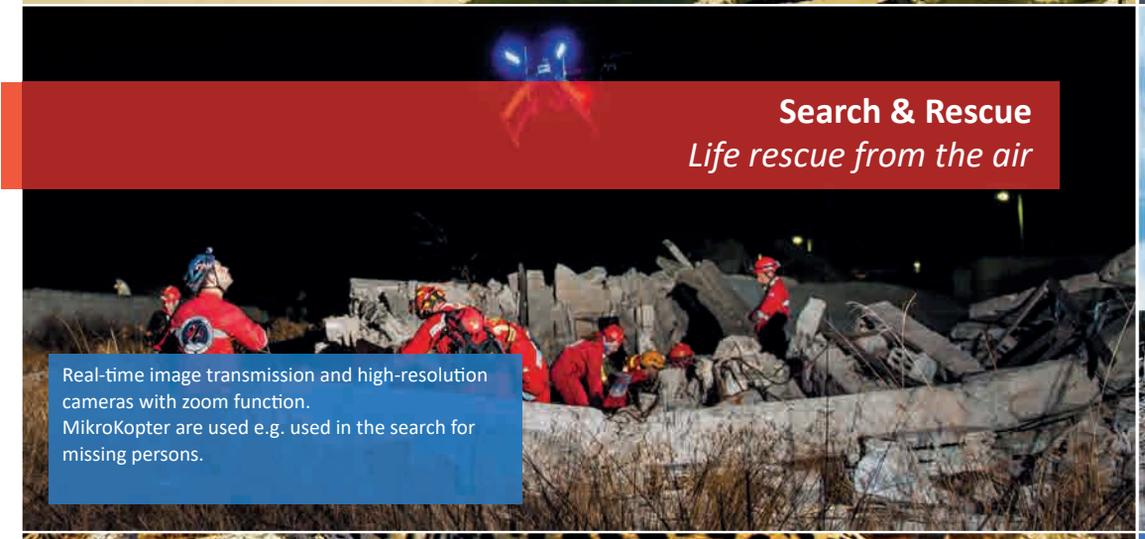
The Chilean filmmakers Company Octocam is working successfully for years with MikroKopter drones. Even under the most adverse conditions they succeed breathtaking filmings in the rough areas of the Chilean Plateau.

Traffic measurement
Long flight times



Powered by HiSystems: The Fraunhofer Institute uses a flying robot with MikroKopter technology to analyze overtaking. Here it came to an airtime of daily 9 hours.

Search & Rescue
Life rescue from the air



Real-time image transmission and high-resolution cameras with zoom function.
MikroKopter are used e.g. used in the search for missing persons.

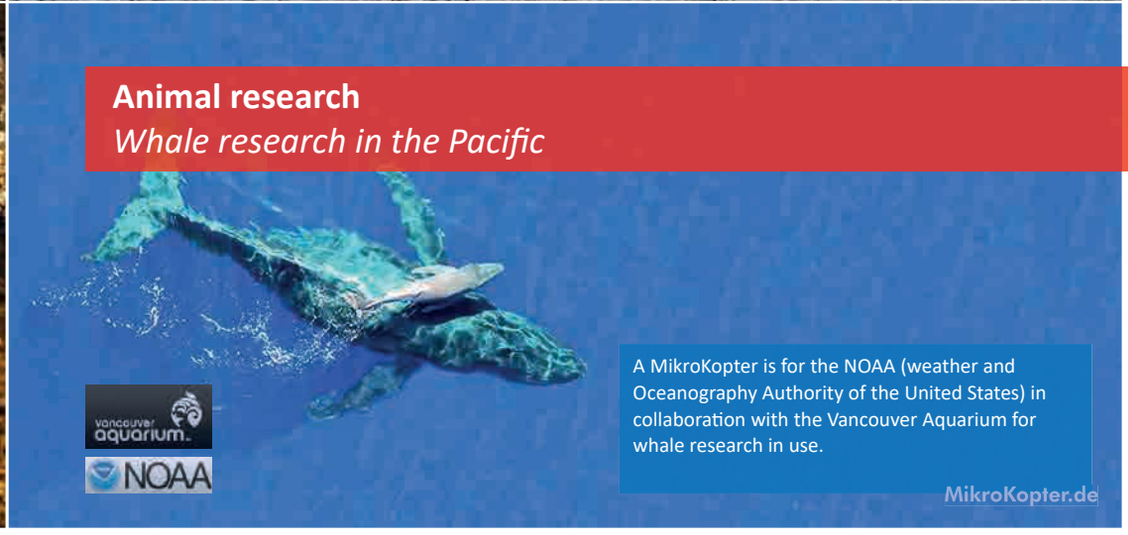
Antarctic
Reliability in harsh areas

The Thuringian Institute for Sustainability and Climate protection (ThINK) investigates changes in penguin populations in the Antarctic with a MikroKopter.

Wild life
Wildlife photography in Africa

The animal photographer Benny Rebel uses a MikroKopter to gain impressive and unique animal pictures in Africa.

Animal research
Whale research in the Pacific

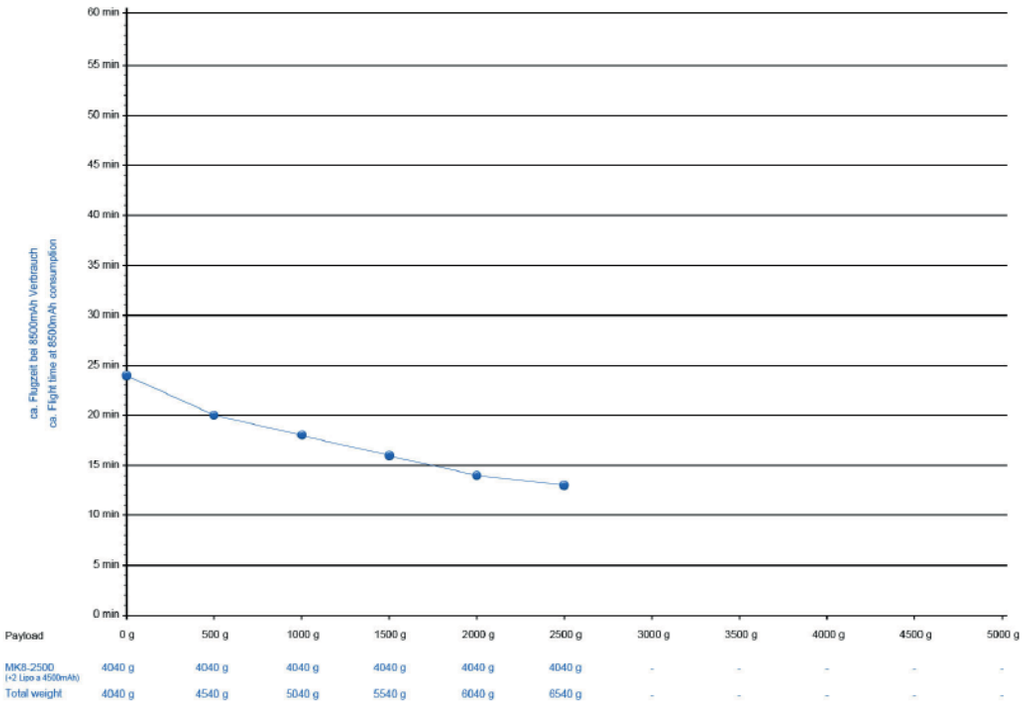


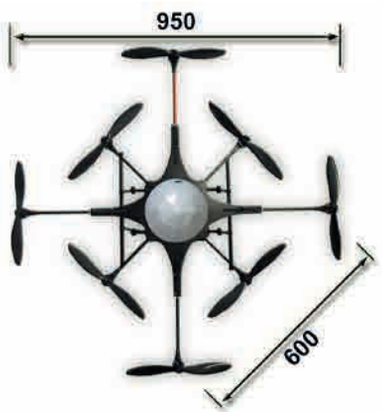
A MikroKopter is for the NOAA (weather and Oceanography Authority of the United States) in collaboration with the Vancouver Aquarium for whale research in use.

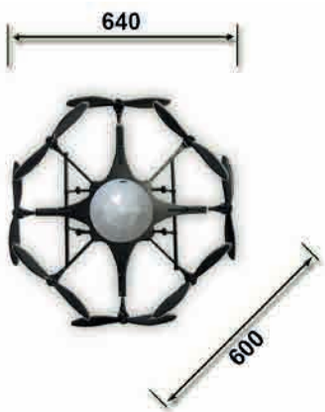
Technical data

Model name	MK8-2500
Basic weight	2660g
Basic weight incl. 2x Lipo	4040g
Max. payload	2500g
Max. total weight (MTOW)	6500g
Drive	Brushless Motor (8x)
Dimensions (Transport / ready to fly)	600 x 600 x 460 / 950 x 950x 460 (BxLxH)
Range	~ 4km (with Graupner transmitter)
Flight altitude	up to 5000m above sea level
Operating range / Temperature range	-5°C to +40°C
Max. wind speed	bis zu 6 Beaufort (from 3 bft extended flight knowledge necessary)
Flight battery	Lithium Polymer, 6S/4500mAh

Flight times







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