

About gfai tech and the GFai

gfai tech GmbH is a subsidiary of the Society for the Advancement of Applied Computer Science (GFai e. V.), renowned for advanced solutions in sound and vibration analysis made in Germany. With over 20 years of experience, gfai tech develops powerful acoustic cameras and analysis systems in close collaboration with the GFai and industry partners, developed and built in Germany.

The company specializes in translating research innovations into practical products for applications including maritime security, environmental technology, and automotive industries. Customers worldwide trust gfai tech for its technical excellence, extensive project experience, and dedicated support for complex measurement tasks.

All our systems are 100% developed and manufactured in Germany. We provide comprehensive in-house hardware and software development, including precision calibration and system-level calibration. This allows us to fulfil unique operational requirements and adapt swiftly to evolving mission demands.

Invest now and secure your innovation lead for future maritime security.

Contact

Want to learn more? Contact our sales team for live demos, tailored advice, and customized solutions:

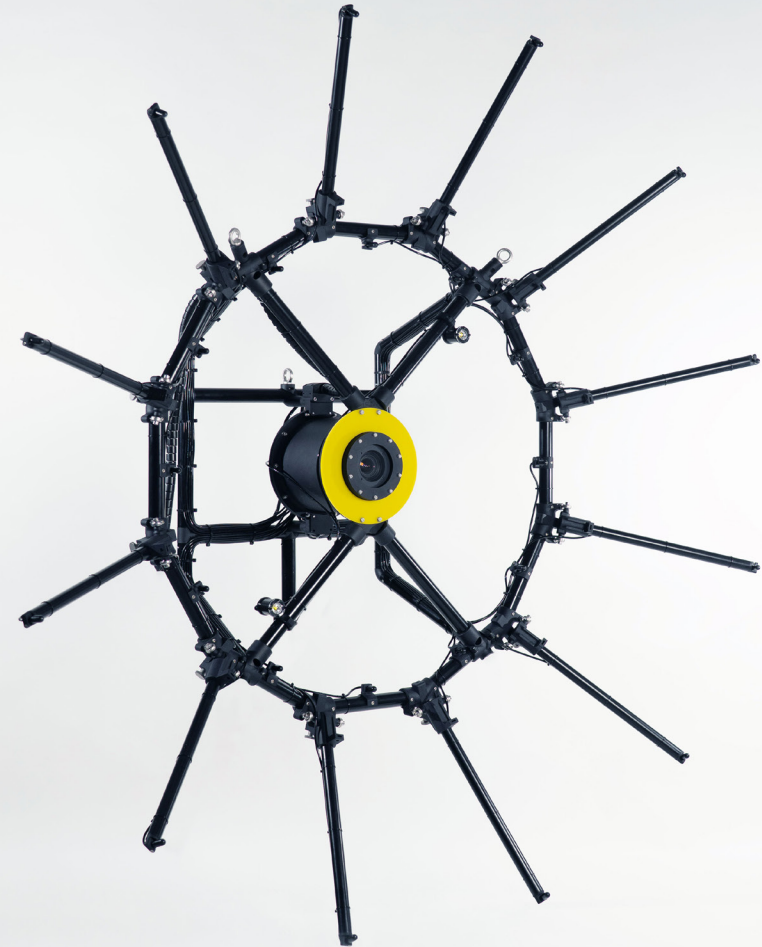
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HydroVision SeaStar24



gfai tech presents a revolutionary system for real-time localization and acoustic imaging underwater.



HydroVision SeaStar24



TECHNOLOGY & BENEFITS

HydroVision SeaStar24 operates with 100% passive technology using a dense array of hydrophones to precisely localize acoustic sources, even where traditional sonar fails.

No own emissions

Non-intrusive, untraceable, and does not interfere with marine life.

Imaging beyond optical limits

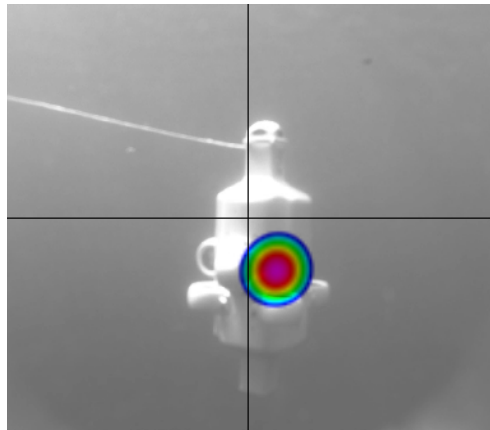
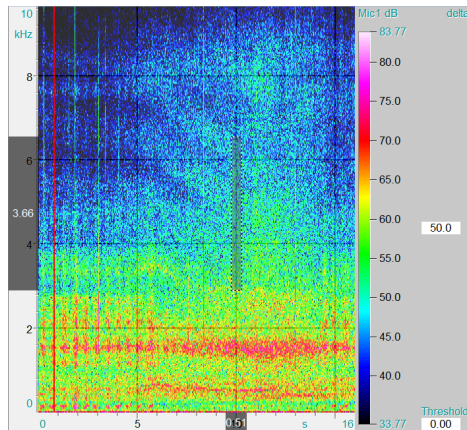
Detects sound sources in turbid water and over large distances.

Modular and customizable

Foldable 1.84 m diameter device with 24 hydrophones and adjustable geometry.

2D & 3D acoustic mapping

Real-time visualization and detailed analysis for protection, surveillance, and research.



APPLICATIONS & REFERENCES

HydroVision SeaStar24 has successfully been tested in international ports such as Perth Harbour (Australia) and Brandenburg (Germany).

- **Maritime security:**
Early detection of underwater threats and unidentified objects.
- **Infrastructure monitoring:**
Continuous observation of harbor areas and critical installations.
- **Marine life monitoring:**
Bioacoustics data acquisition without disturbing fauna.

Test data confirmed the system's capability to recognize boat engine noise, test bodies, and other acoustic patterns well beyond visual and sonar range.

FEATURE	SPECIFICATION
System Type	Passive Underwater Acoustic Camera
Hydrophones	24, double-ring array
Diameter	1.84 m, foldable structure
Test Depth	Up to 34 meters
Cable Length	30 m (Ethernet + 24-channel mic cable)
Signal Mode	Completely passive, zero signal emission
Acoustic Mapping	2D and 3D localization
Power & Recorder	Mobile data recorder, battery-powered
Modularity	Customizable geometry, channel count, size
Technology Readiness Level	TRL 7