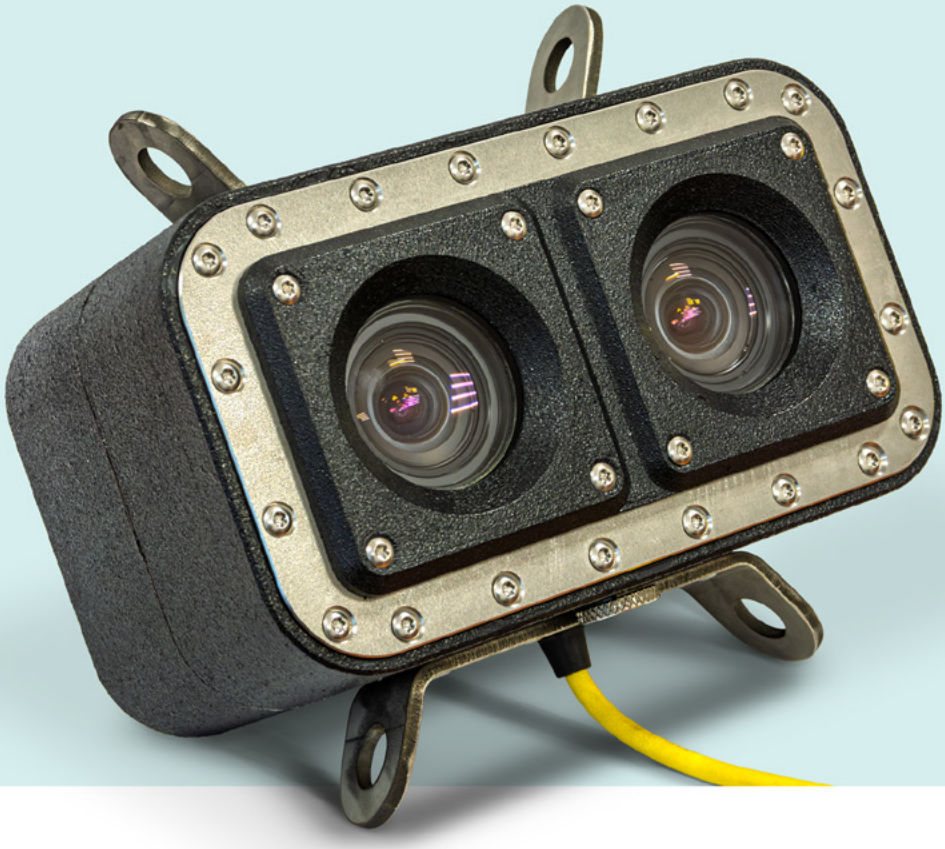
KATRAN²

Stereoscopic underwater camera

MADE IN RUSSIA

PRECISE MONITORING
& INTELLIGENT ANALYSIS
IN AQUACULTURE°



Aquaculture digitalization tool with artificial intelligence (AI) on board°

- Real-time fish weighing
- Health Analysis & Triage
- Autonomous operation and video analytics on board
- Management via Telegram

In vitro vision°

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KATRAN²

NOT JUST A CAMERA – **INTELLIGENT INSPECTOR AT DEPTH°**

ACCURATE WEIGHING WITHOUT CONTACT

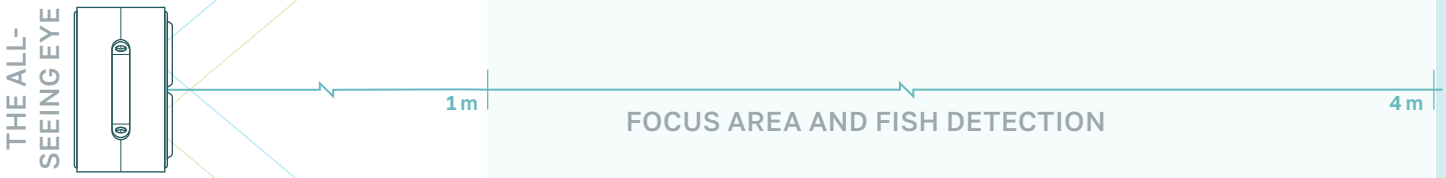
Determination of fish weight with an accuracy of 95%

Growth and effective feeding control

HEALTH DIAGNOSTICS

Detection of early signs of diseases (spots, ulcers, fin lesions)

Sorting fish by size and condition



GLOBAL SHUTTER

Clear images of fast-moving objects without distortion

HIGH LIGHT SENSITIVITY

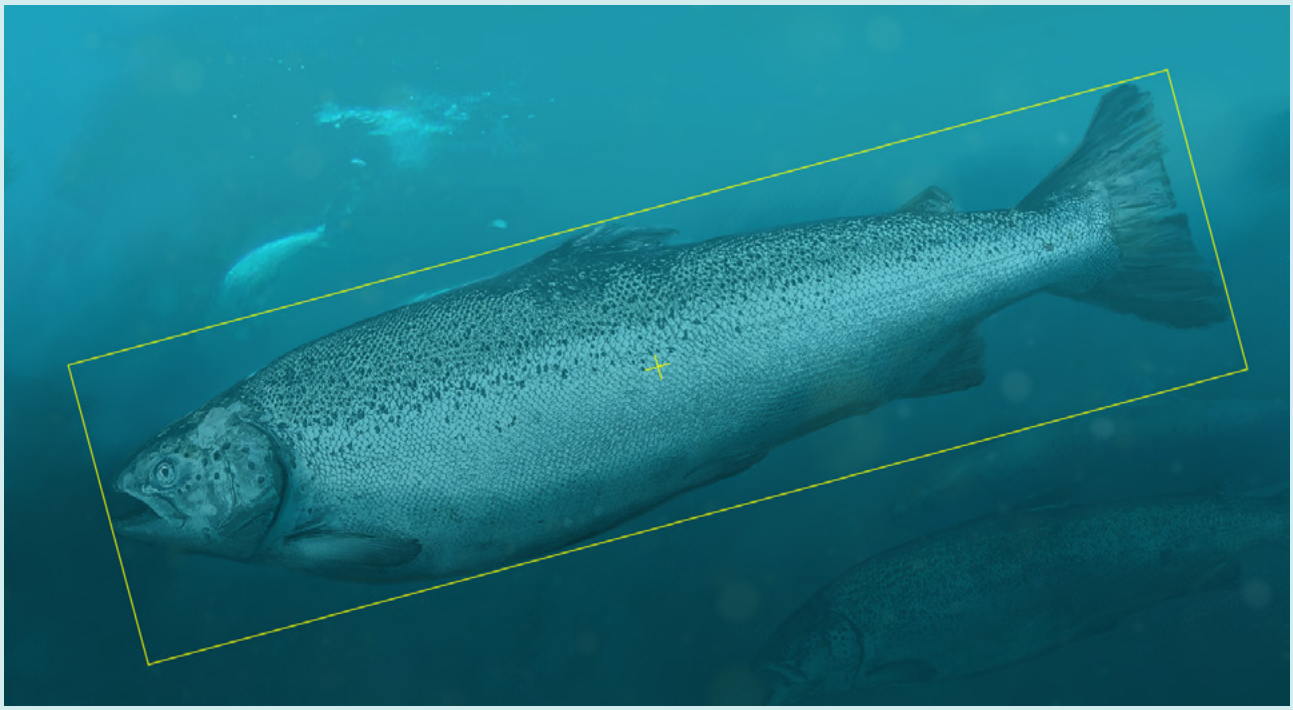
Image quality, noise reduction in low light

HARDWARE HDR

Perfect detailing in both cage shadows and illuminated surfaces

In vitro vision°

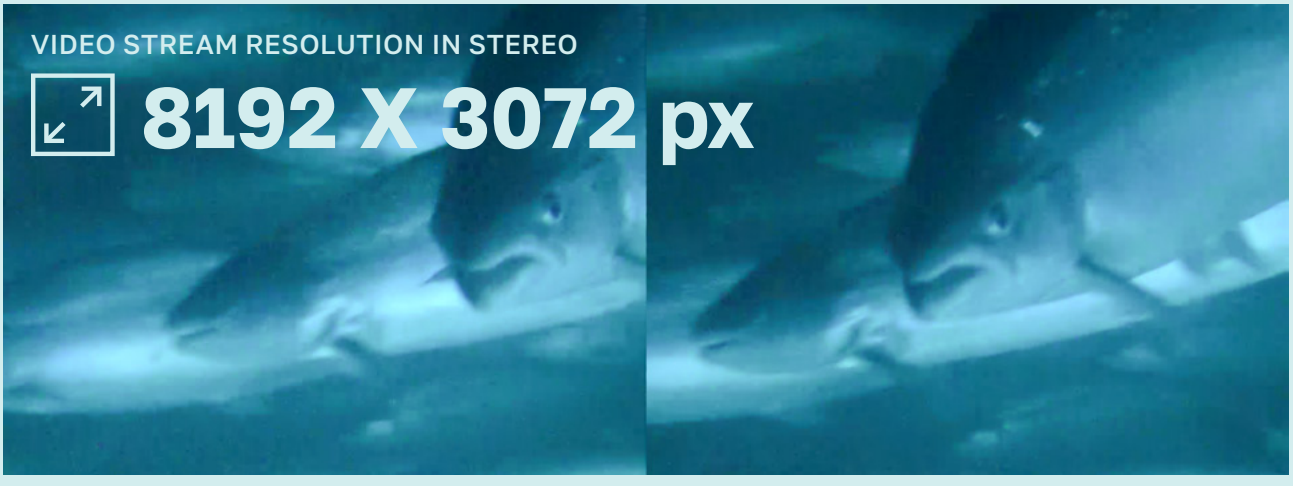
ARTIFICIAL INTELLIGENCE & MACHINE VISION°



Determination of the geometric parameters of fish

Control and monitoring of biomass in fish farming

Underwater surveillance



Applying AI at the Camera Hardware Level

Own hardware for artificial intelligence tasks

Real-time depth: from simple recognition to complex analysis°

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AUTONOMY, TELEMETRY AND CONTROL°

Power

Powerful multi-core processor performs calculations and analysis on site: Save on expensive and unreliable broadband — only results and events are transmitted°

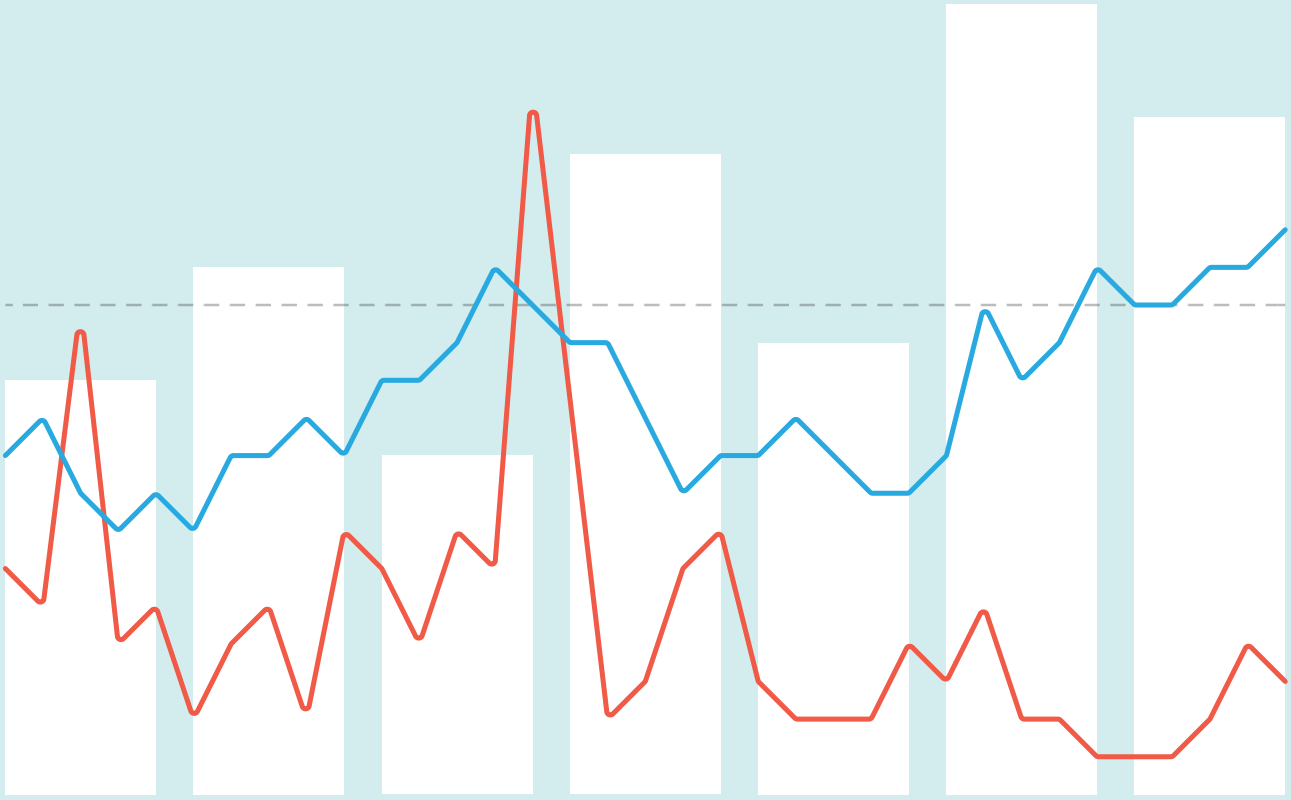
Data

Remote Monitoring of Camera Status: data on water pressure, humidity and temperature. Instant notification via messenger°

Availability

Camera control and configuration from anywhere in the world°

ACCURATE DATA →
TIMELY ANALYSIS →
THE RIGHT DECISION°



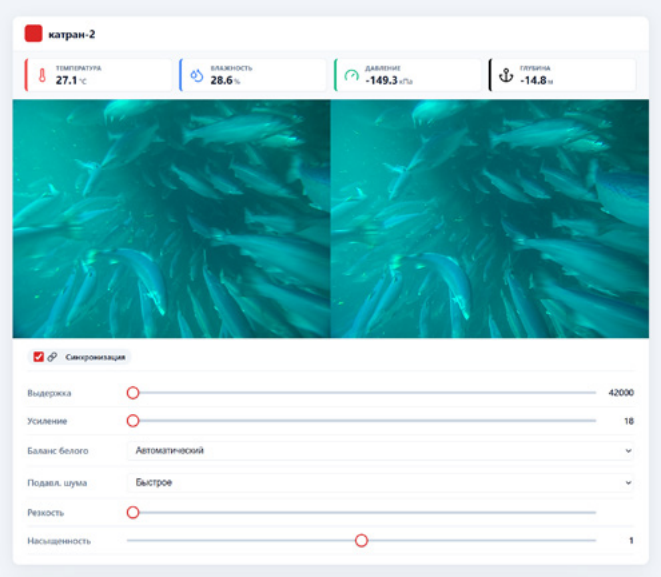
In vitro vision°

SOFTWARE°

Smart optics

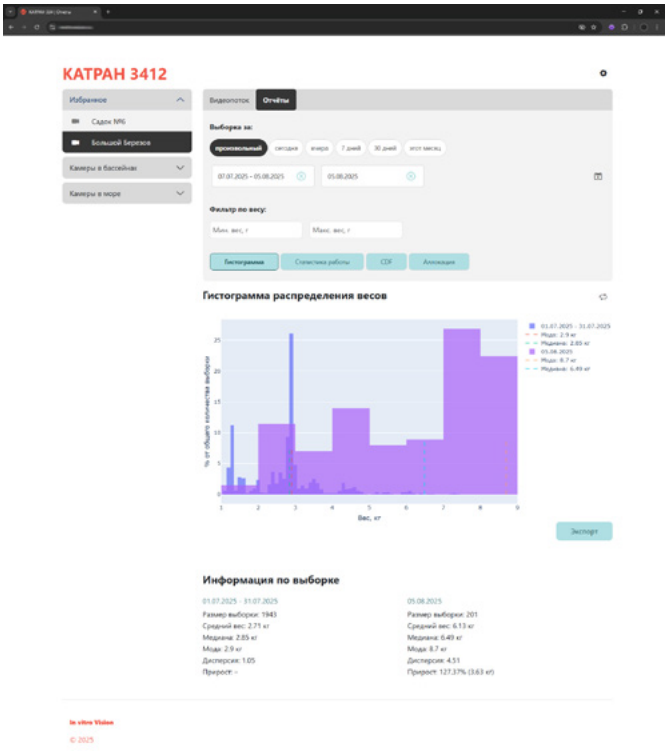
The mechatronic system automatically adjusts the aperture and focus to ensure sharpness in changing conditions.

User-friendly web interface for setting parameters of the video image transmitted in real time°



On-demand reporting

A wide range of reports (Histogram, CDF, Allocation) and statistics with the ability to select several time periods at the same time. Filtering the selection by weight allows you to narrow the data to a specified range°



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KATPAH 334

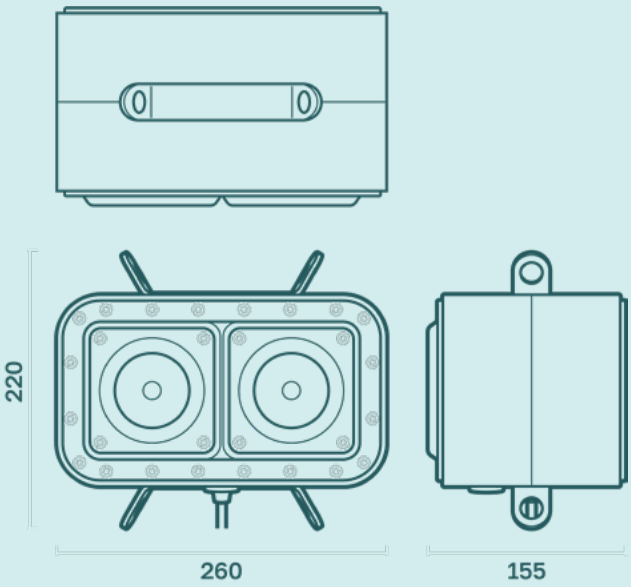
SPECIFICATION°

The camera is equipped with a special self-supporting cable designed for use in seawater at depth. The cable design is a twisted pair with zero buoyancy.

The device is cooled by the external environment°

Sensor Manufacturer	Gpixel GMAX 3412
Sensor type	CMOS
Resolution	4096×3072 px
Stereo Imaging	8192×3072 px
Sensor size	14.0 x 10.5 mm
Shutter type	Global Shutter
Frame rate	30
Chromaticity	RGB
Color depth	10/12 bits, HDR

Power	50 W or less
Camera Electronic Module Supply Voltage	12 V
Power over Ethernet (PoE)	PoE IEEE 802.3af 36-57 V (60 W)
Hardware frame synchronization between sensors	Available
Video Transmission Protocol	TCP
Codec	H.264, H.265
Platform	Nvidia Jetson
Operating system	Linux
Temperature sensor	Available
Humidity sensor	Available
Pressure Sensor	Available
LED Backlight	Optional



In vitro vision°

OPERATIONAL CHARACTERISTICS°

Seawater resistant case

Water temperature

-2°C до +26°C

Depth

Up to 30 m

Dimensions

260×220×155 mm

Weight

9.7 kg

Body Material

Steel AISI 316Ti, Plastic

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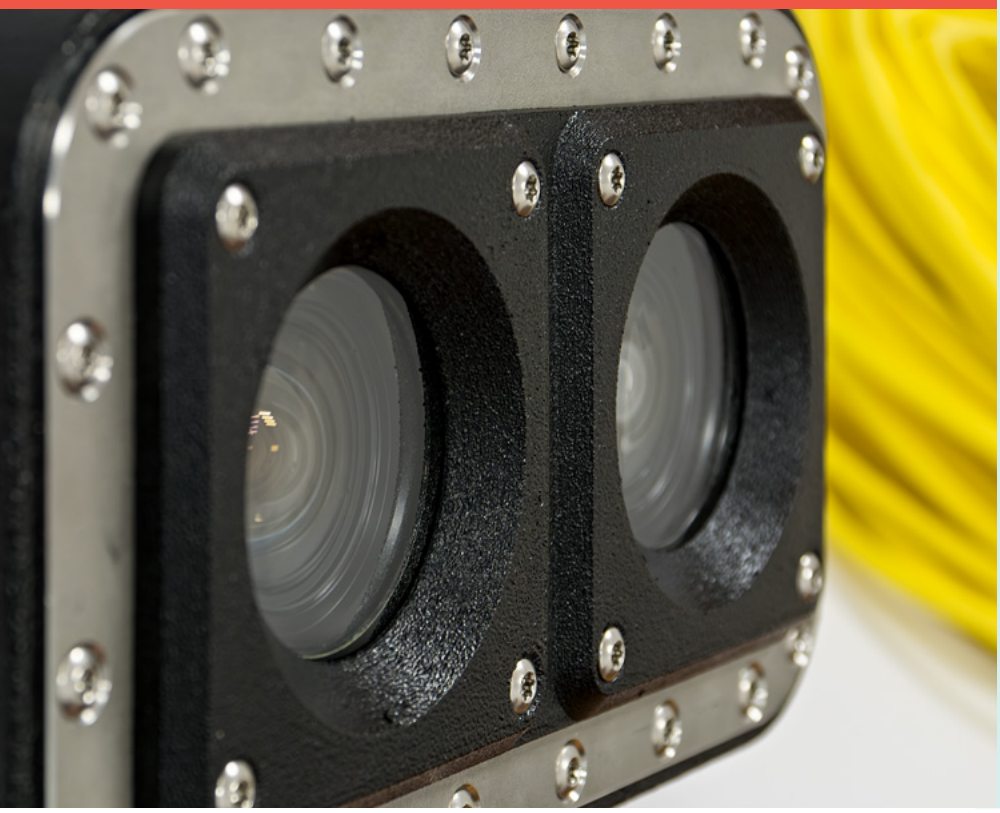

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