

360° AWARENESS AT A GLANCE THE RIGHT DECISION IN EVERY MOMENT

Vision AI | Vision AI Pro | Vision AI Ultra

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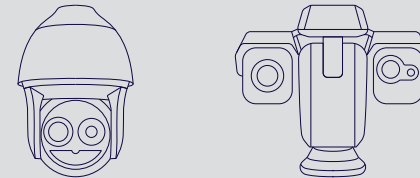
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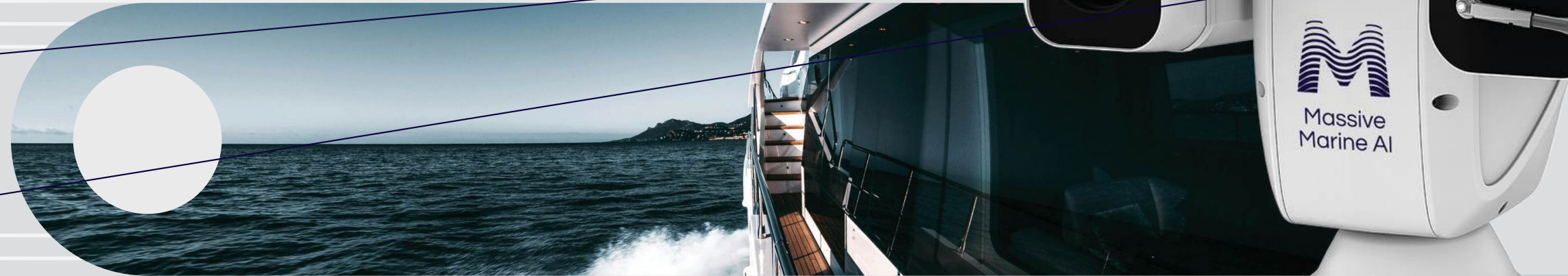
Massive
Marine AI



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360° AWARENESS AT A GLANCE THE RIGHT DECISION IN EVERY MOMENT



Onboard safety and awareness are transformed by Vision AI. It provides crews with early, reliable notifications and enables quicker, more intelligent decision-making by using artificial intelligence and advanced camera technology to recognize and categorize objects and incidents in real-time, from small boats and buoys to man-overboard emergencies.

With Vision AI on board, maritime teams gain a new level of situational awareness, reducing accidents, improving operational efficiency, and ensuring the safety of both crew and vessel.



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HOW VISION AI WORKS

Vision AI is designed to integrate seamlessly with vessel systems, processing real-time data from advanced sensors and cameras. By combining this information with intelligent algorithms, it provides automated situational awareness and predictive decision-making. Crews gain live insights on nearby vessels, obstacles, and potential hazards, enabling faster and smarter responses. Built to minimize human error and strengthen operational safety, Vision AI ensures safe and efficient navigation whether in congested ports, on the open sea, or in the most challenging maritime environments.

CARGOSHIP
1670 m | 24 kn



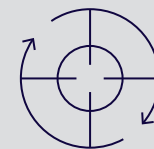
**PERSON IN WATER,
BUOY, ETC.**
150 m



SAILBOAT
2000 m | 9 kn

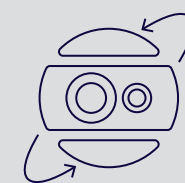


**DINGHY, RIB,
INFLATABLE**
456 m | 3 kn



FOR CREWS FASTER & SAFER DECISIONS

Crews will be able to quickly and accurately detect ships, buoys, and even people in the water using Vision AI. The system provides high reliability in low visibility conditions and crowded marine environments, guarantees continuous awareness, and safer navigational decisions.



ADVANCED SITUATIONAL AWARENESS

With a 3-spectrum camera suite, 360° rotating and stabilized cameras, AIS matching, and integrated ship sensors, Vision AI provides a complete picture of the environment, automatically classifying and prioritizing objects and hazards.



REDUCE WORKLOAD

Automation helps crews stay focused, reduce fatigue, and respond effectively empowering your team in every critical moment. Remote screens, dashboards, and recording/playback capabilities ensure that critical information is always accessible, empowering safe and timely decisions.





Vision AI Features

VISION AI



CARGOSHIP
2670 m | 24 kn



01. Collision Avoidance System

Vision AI continuously monitors the maritime environment and issues real-time alerts when potential collisions with vessels, obstacles, or floating debris are detected. By analyzing distance, speed, and trajectory through advanced AI models, it enables crews to take timely corrective measures. This capability significantly lowers the risk of accidents, especially in high-traffic routes and complex navigational conditions.

02. Detects Buoys & Floating Objects

The system continuously monitors the marine environment, automatically recognizing and classifying buoys while also detecting obstacles such as floating debris, logs, containers, or fishing equipment. By combining these capabilities, Vision AI helps guide crews along designated routes, prevents entry into restricted areas, and reduces the risk of collisions.

03. Underwater Depth Tracking & Warning

Vision AI's Underwater Depth Monitoring and Alert module continuously tracks the depth beneath the vessel by integrating with sonar and data feeds. When preset thresholds are reached, the system generates automatic alerts both visual and audible while risk zones are marked on the map and time-stamped event logs are created. These features enable captains and bridge crews to respond quickly and effectively to changing underwater conditions.

04. All – Weather & Night – Day Capability

Massive Marine's systems are engineered to deliver consistent and reliable performance in every condition. Equipped with integrated thermal imaging and tri-spectrum cameras, they detect objects and hazards in darkness, fog, and even severe weather ensuring uninterrupted situational awareness at all times.

05. 360° & 3-Spectrum Camera View

The camera system provides complete visual coverage of the vessel's surroundings with all-directional rotation, enabling uninterrupted monitoring at sea. With 360° rotation plus pan and tilt capabilities, the system eliminates blind spots and enhances situational awareness—delivering an extra layer of safety in confined or congested waters.

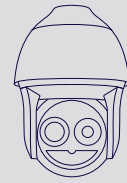


Equipped with low-light sensitive daytime cameras, high-resolution thermal cameras, and advanced infrared cameras capable of detecting infrared wavelengths, the system ensures reliable detection in all conditions. An integrated infrared laser further strengthens visibility, while automatic wipers keep the sensors clear and operational in any weather.



Vision AI Features

VISION AI PRO



01. Ship Sensor Analysis

Vision AI integrates seamlessly with all onboard sensors, validating data through its own control mechanisms before bringing it into the system. This guarantees both sensor reliability and full compatibility with the sensor package included in our solution. By intelligently interpreting data from Radar, ECDIS, AIS, IMU, Sonar, Compass, Engine, and Rudder, Vision AI transforms every input into actionable insights. Through a user-friendly interface designed for captains and crews, the entire process can be monitored effortlessly delivering confidence, clarity, and complete situational awareness at a glance.

02. Man-Overboard Detection

Vision AI's Man-Overboard Detection leverages advanced AI-powered video analytics to elevate onboard safety. The system continuously monitors all camera-covered areas, detecting and tracking crew members on deck. If someone falls overboard, it instantly triggers both visual and audible alarms, alerting the crew without delay. To ensure a rapid response and maximize safety, Vision AI records the exact location of the fall and calculates drift and radius based on local currents, waves, and weather conditions—determining the optimal search and rescue area. Each incident is automatically logged, with video securely stored for review, analysis, and reporting.

04. Remote Screen, Smart Dashboard

Vision AI enhances both comfort and operational awareness by enabling remote screen access, allowing crews to securely monitor the vessel's interface from smartphones or tablets. Its integrated recording and playback feature captures RGB and thermal video streams together with navigational and ship system data creating a complete record of every critical moment. Through the intuitive dashboard, captains and operators can easily review past events, analyze crew response times, and generate data-driven insights. This not only strengthens safety but also reduces risks and improves navigational discipline over time.

03. Human Detection in Water

By combining AI-enabled cameras with thermal imaging, Vision AI provides reliable detection of people in the water even under low-visibility conditions or during nighttime operations. This advanced capability ensures crews can respond quickly in critical situations, supporting safer operations and increasing the chances of successful rescue.

05. Optic Zoom

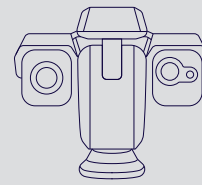
Vision AI is equipped with powerful optical zoom additional to digital zoom, enabling clear observation at long distances. This feature allows the system to identify and track distant targets, read fine details, and maintain precision even under challenging sea conditions. By extending the visual range without digital distortion, Vision AI gives crews a powerful tool for navigational accuracy, surveillance, and threat detection.



Vision AI Features



VISION AI ULTRA



The Vision AI Ultra model connects to all cameras on board, providing coverage of every area.



01. User & Vessel Behavior Analysis

Vision AI tracks and analyzes vessel and crew behavior in real time. By integrating radar, AIS, GPS, and other sensor data, it evaluates both the vessel's movements and the crew's operational decisions. The system automatically detects situations such as dangerous passages, deviations from the route, or inappropriate maneuvers and sends instant alerts to the captain. This increases operational safety, minimizes risks, and optimizes fleet performance.

02. Advanced Multi-Camera Support

The Vision AI Ultra model connects to all cameras on board, providing coverage of every area. Critical incidents that a single camera might miss can now be monitored from multiple angles, as the system also integrates additional camera feeds and analyzes their data. This ensures comprehensive safety monitoring, rapid incident detection, and complete recording. The integration allows monitoring both from the bridge and remotely from the operations center, maximizing operational safety and response capabilities.

03. Fleet Management

Massive Marine AI's Fleet Management feature enables instant monitoring of vessel location, speed, and direction across the entire fleet. By integrating radar, AIS, and GPS data, the AI analyzes potential risks in advance and issues automatic alerts for dangerous passages, shallow waters, or high roll conditions. Daylight cameras combined with thermal cameras for night vision provide 24/7 visual coverage, which together with sensor data offers autonomous decision support for crews and operators.

The early warning system also optimizes routes to reduce fuel consumption and lower CO₂ emissions. All critical events, such as close passes, CPA/TCPA violations, and No-Go Zone breaches, are automatically recorded and can be seamlessly used for training, post-voyage analysis, or regulatory reporting.