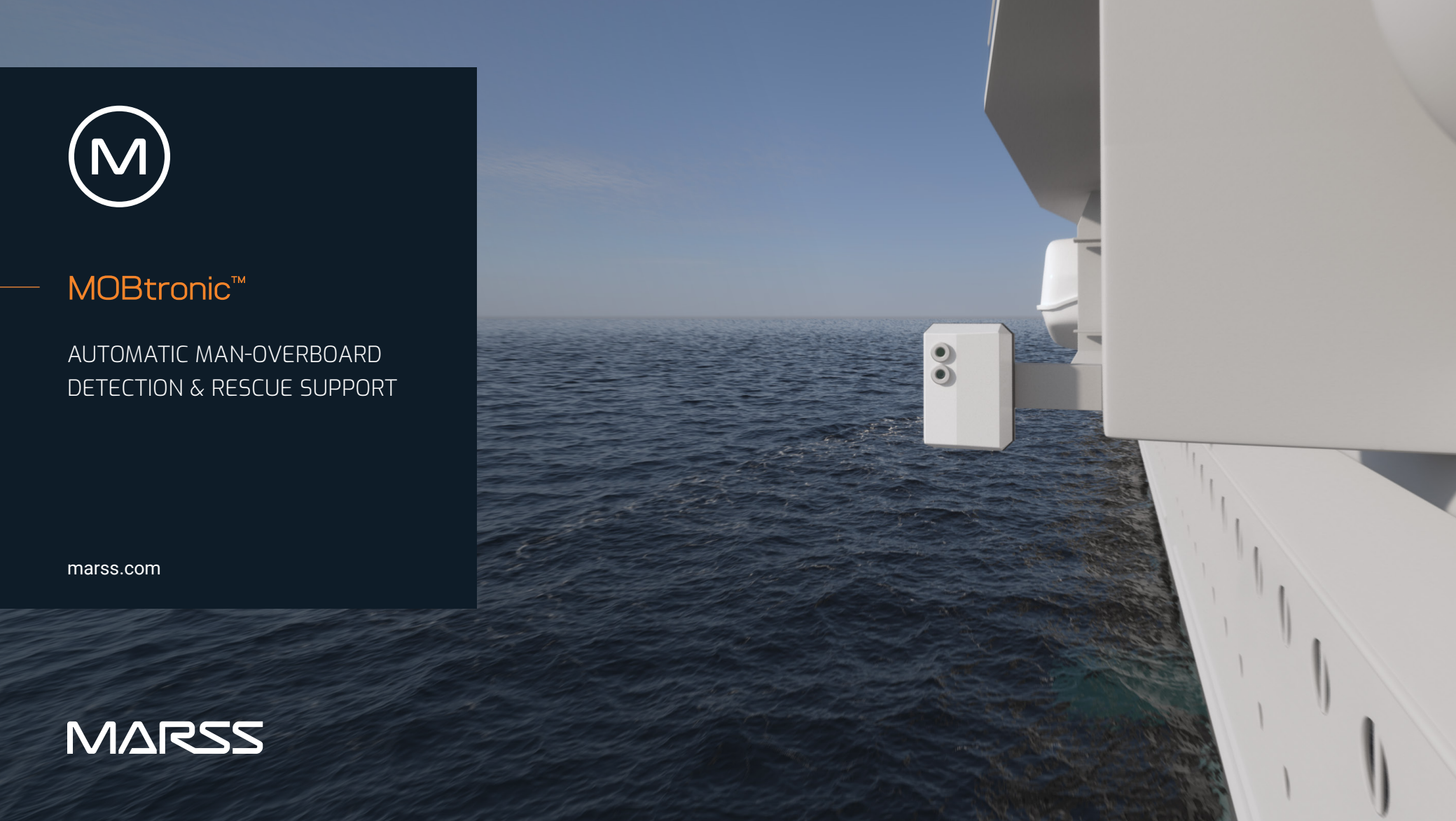

MOBtronic™

AUTOMATIC MAN-OVERBOARD
DETECTION & RESCUE SUPPORT

marss.com

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MOBtronic™

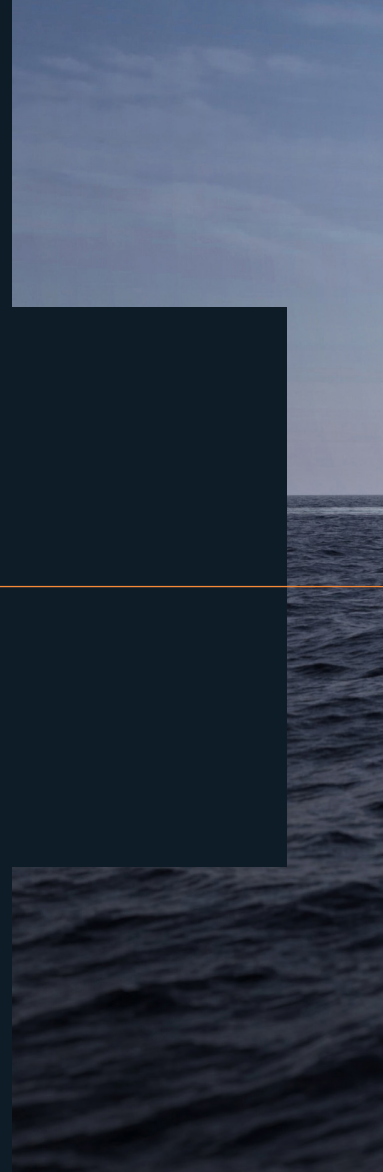
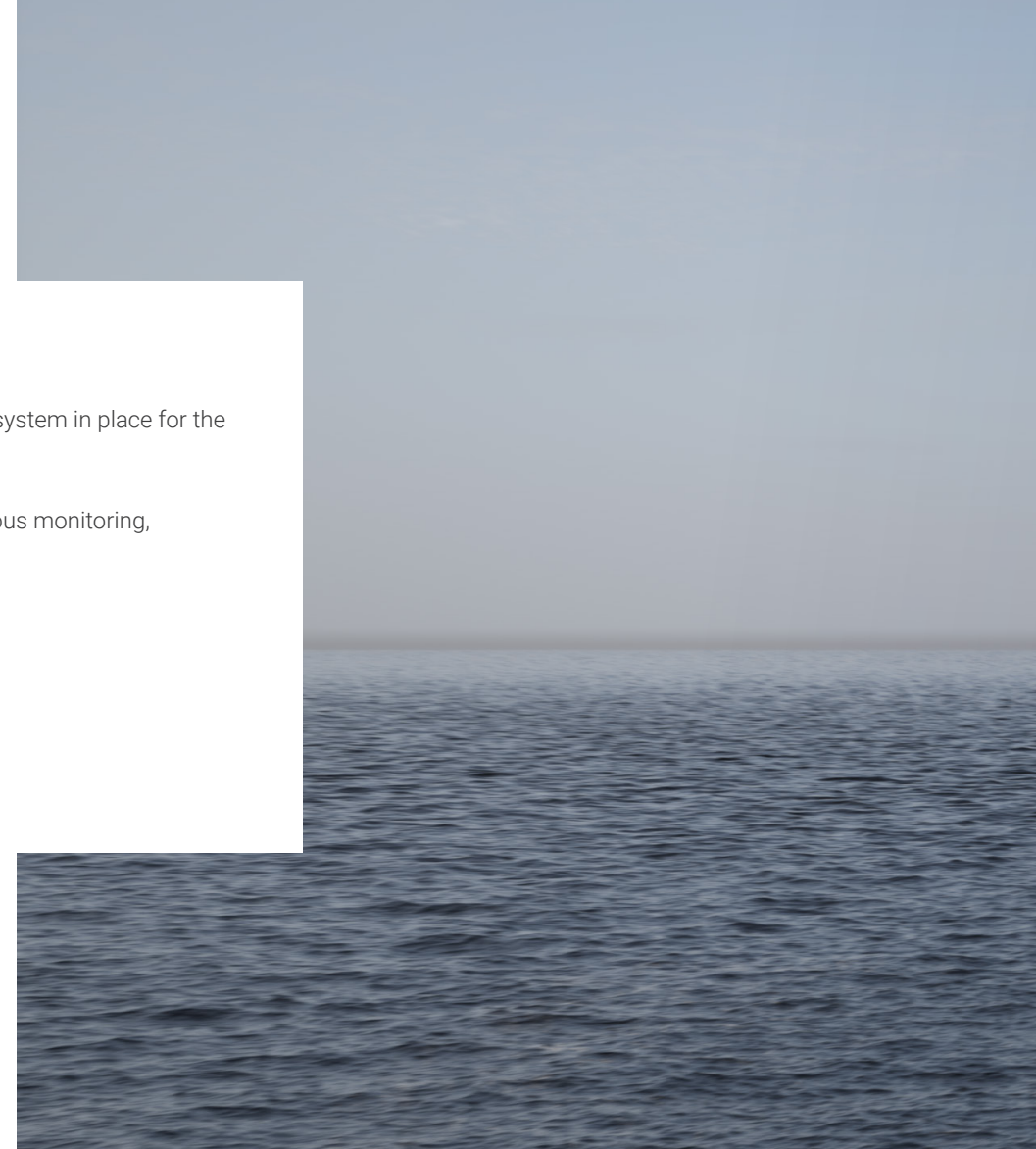


*Image used for illustration purposes only

INTELLIGENT MARITIME PROTECTION FOR WHEN IT MATTERS MOST

Millions of people travel via water every year. Vessels need to have the correct safety system in place for the protection of those on board.

MOBtronic provides a multi-layered approach for on-board safety with 24/7 autonomous monitoring, detection, tracking and response support of all persons falling overboard.



ALL-IN-ONE MAN OVER-BOARD DETECTION SYSTEM

OVER 95% PROBABILITY OF DETECTION

MOBtronic is an automated man-overboard system for the instant detection, classification and rescue support of a person falling overboard a vessel or maritime structure.

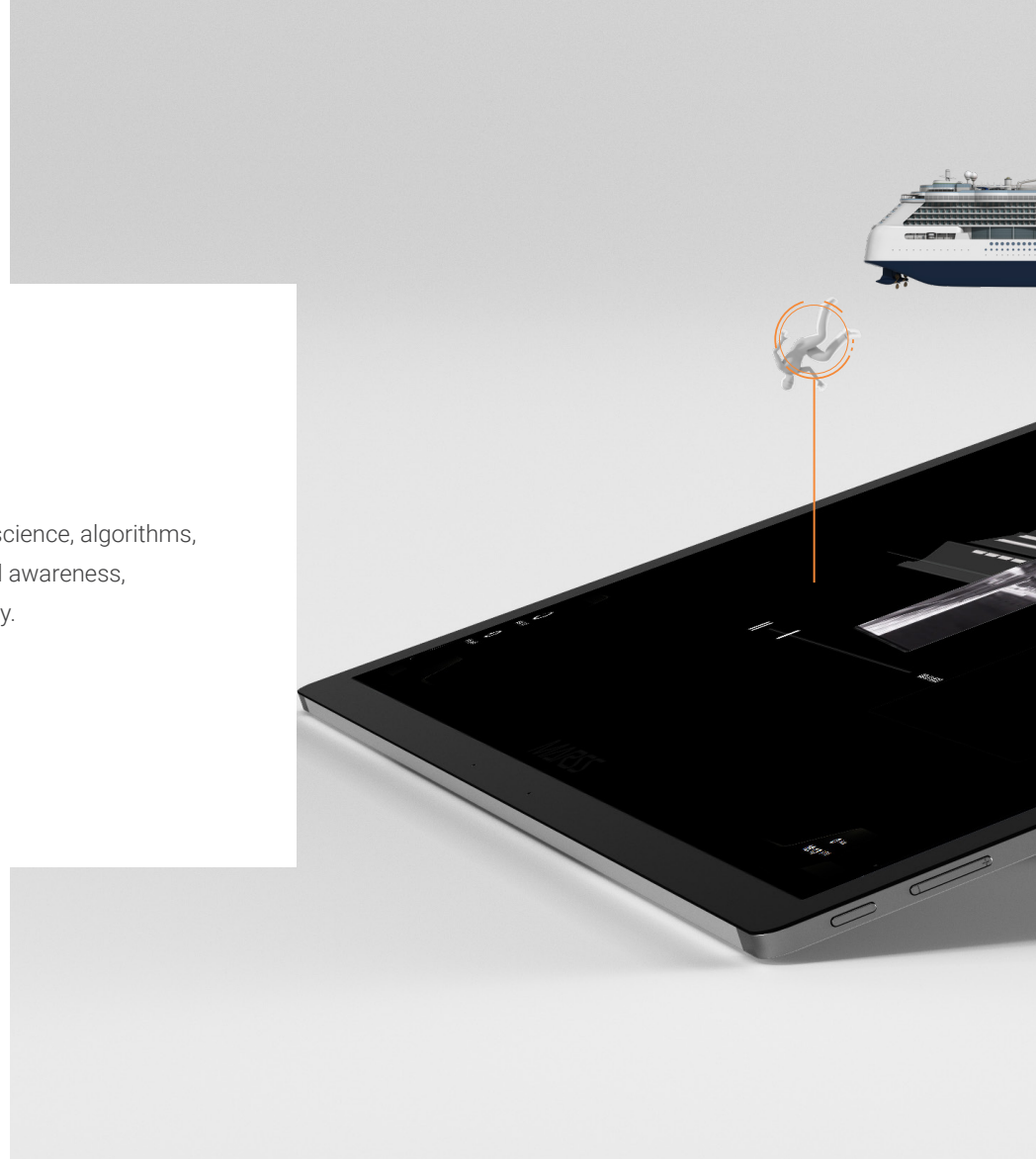
Each MOBtronic unit is self contained and includes micro radars, thermal cameras with video analytics and automatic data processing. The system has been tried and tested extensively and provides a high level of accuracy with less than 1 nuisance activation per day, on average in normal conditions.

MARSS owns full intellectual property of the system, which is protected by 4 patents worldwide.

POWERED BY NiDAR CORE

THE AI-POWERED INTERNET OF THINGS (IOT) PLATFORM AT THE HEART OF ALL MARSS SOLUTIONS

NiDAR CORE uses intelligence from multiple sources including operational logic, data science, algorithms, video analytics, AI, ergonomics and user experience to produce unparalleled situational awareness, outperforming traditional security and safety software without compromising on quality.



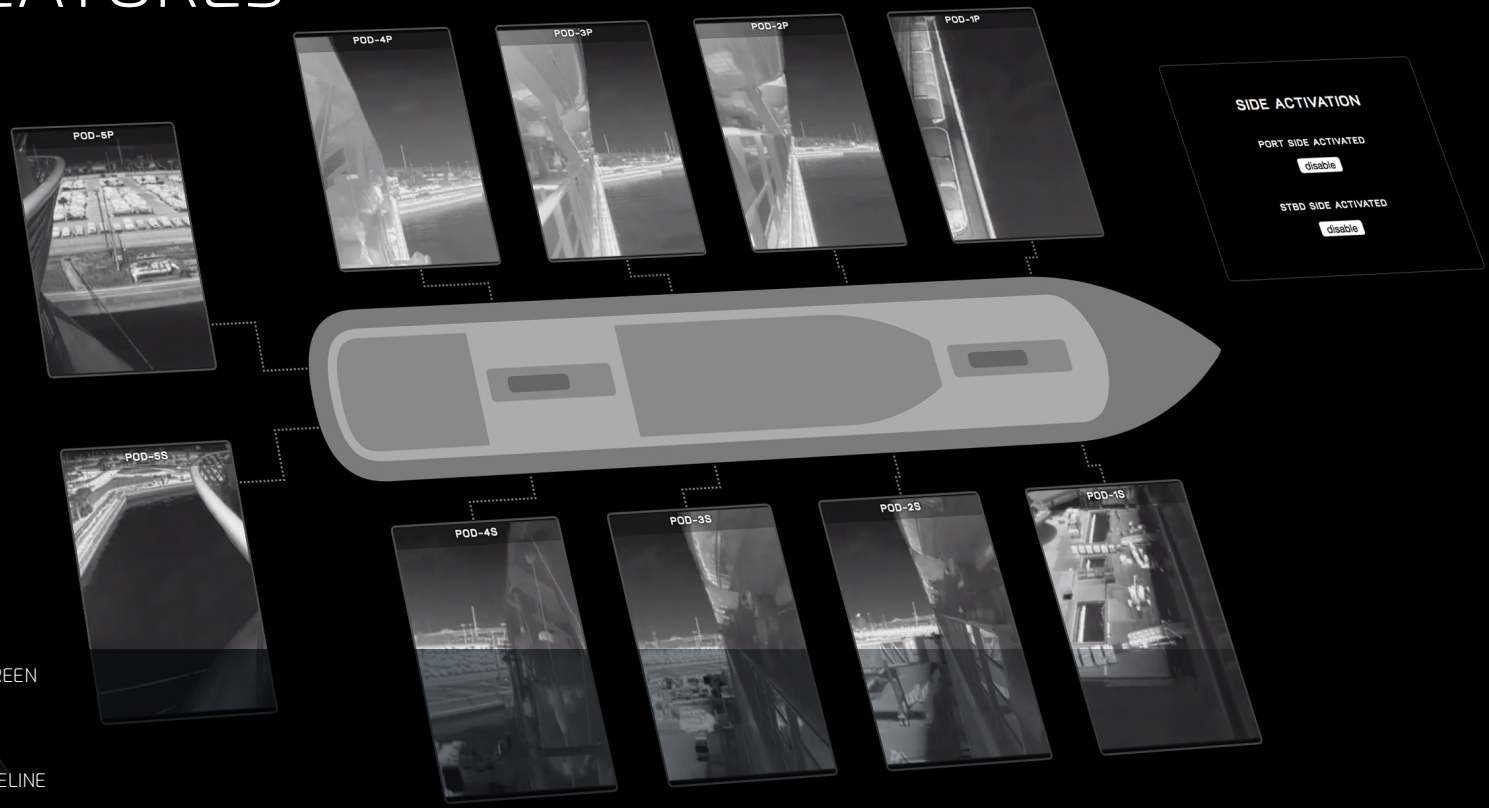
OUR ‘HYBRID INTELLIGENCE’ SOLUTIONS COMBINE AI WITH TRADITIONAL ALGORITHMS AND HUMAN INTELLIGENCE TO CREATE AN UNRIVALLED IoT PLATFORM.

MOBTRONIC COVERAGE

UP TO 80M
Long range detection for each
MOBtronic unit

360°
Coverage for maximum security

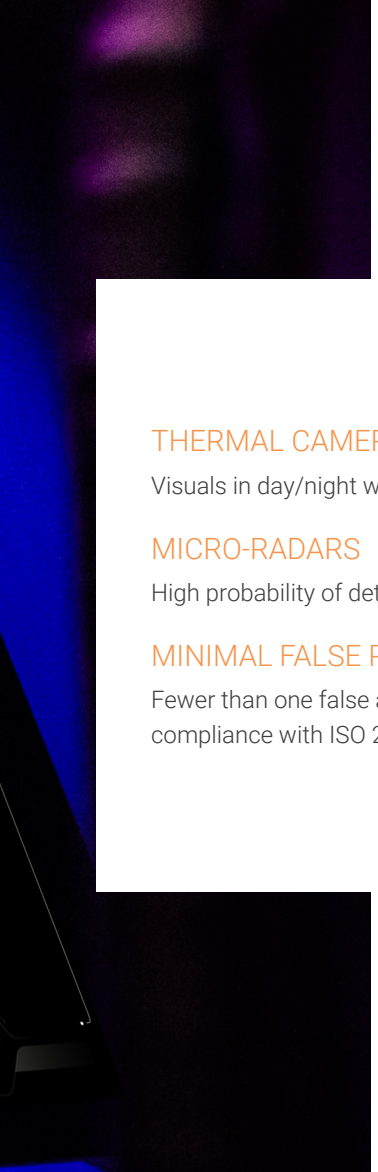
KEY FEATURES



TOUCH SCREEN

EVENT TIMELINE

CROSS PLATFORM



THERMAL CAMERA

Visuals in day/night with video analytics

MICRO-RADARS

High probability of detection for MOB

MINIMAL FALSE POSITIVES

Fewer than one false alarm per day (in compliance with ISO 21195:2020)

SINGLE BOARD COMPUTER

For automatic data processing

IP66 MARINISED UNIT

Integrated heat sink for passive cooling and shield against waves

FALL AND CLIMB DETECTION

Detect persons falling from or scaling up specific locations

WORKING TO ISO REQUIREMENTS

Developed in accordance to CVSSA and ISO 21195:2020 requirements

DATA RECORDING & REPLAY

Store events for 120 days for reporting and replay

OVER 300,000 HOURS OF OPERATION

The largest MOB dataseet worldwide, for the best learning, surveillance and reliability

LAYERED PROTECTION

360º SURVEILLANCE FOR 24/7 MAXIMUM SECURITY AND OPTIMISED SAFETY

MOBtronic installations consist of multiple sensors mounted around a vessel at strategic locations. Events are tracked and classified according to motion, AI image classification and IR signature.

Only potential human falls raise alarms, significantly reducing false positives.

DETECT

MOBtronic detects and tracks all movements in an envelope around the vessel

VERIFY

MOBtronic verifies that objects of interest are person/s, and monitors movement, also allowing control to observe via live camera feeds.

ALERT

Only if a person falls from vessel or structure is security or control alerted of any incident.

RESPOND

MOBtronic records fall location and reports coordinates to control for rescue operations.

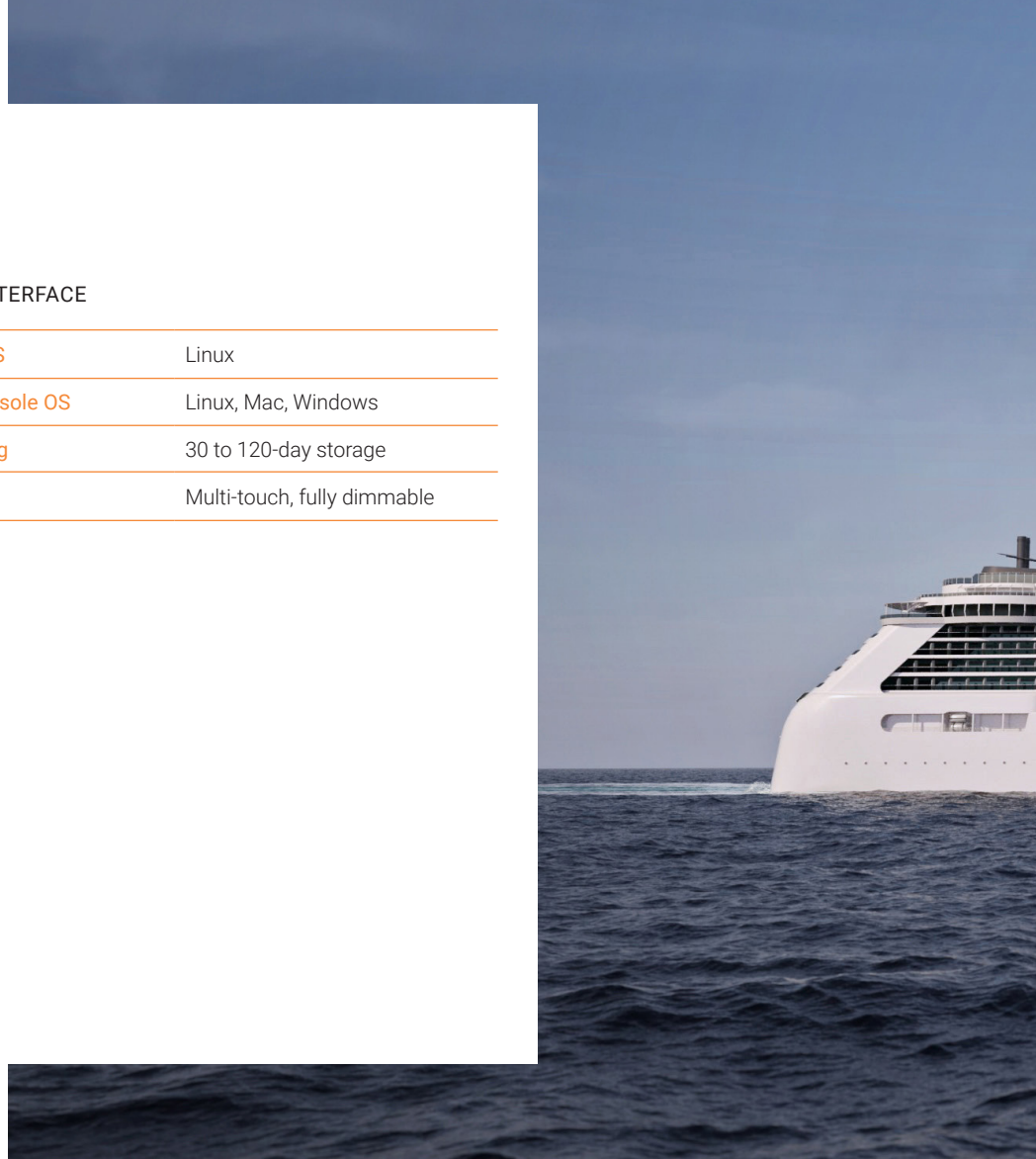
TECHNICAL INFO

CAPABILITY

Probability of detection	95%
Weight	6 kg
Dimension	358mm x 254mm x 92mm
Detection range along hull	80m
Operating temp	-25° to +55°
Ingress Protection	IP66
Power Consumption	40W
Voltage	24VDC
Certifications	ISO 21195:2020 (Certification in progress) EN 60945
Wiring	Composite cable (power and CAT7 data), 3m of cable included to the nearest junction box
MOB Event Detection	Automatic, no need of wearable devices
Technology	High resolution solid state radars paired by 30Hz infra red thermal cameras

USER INTERFACE

Server OS	Linux
User Console OS	Linux, Mac, Windows
Recording	30 to 120-day storage
Display	Multi-touch, fully dimmable



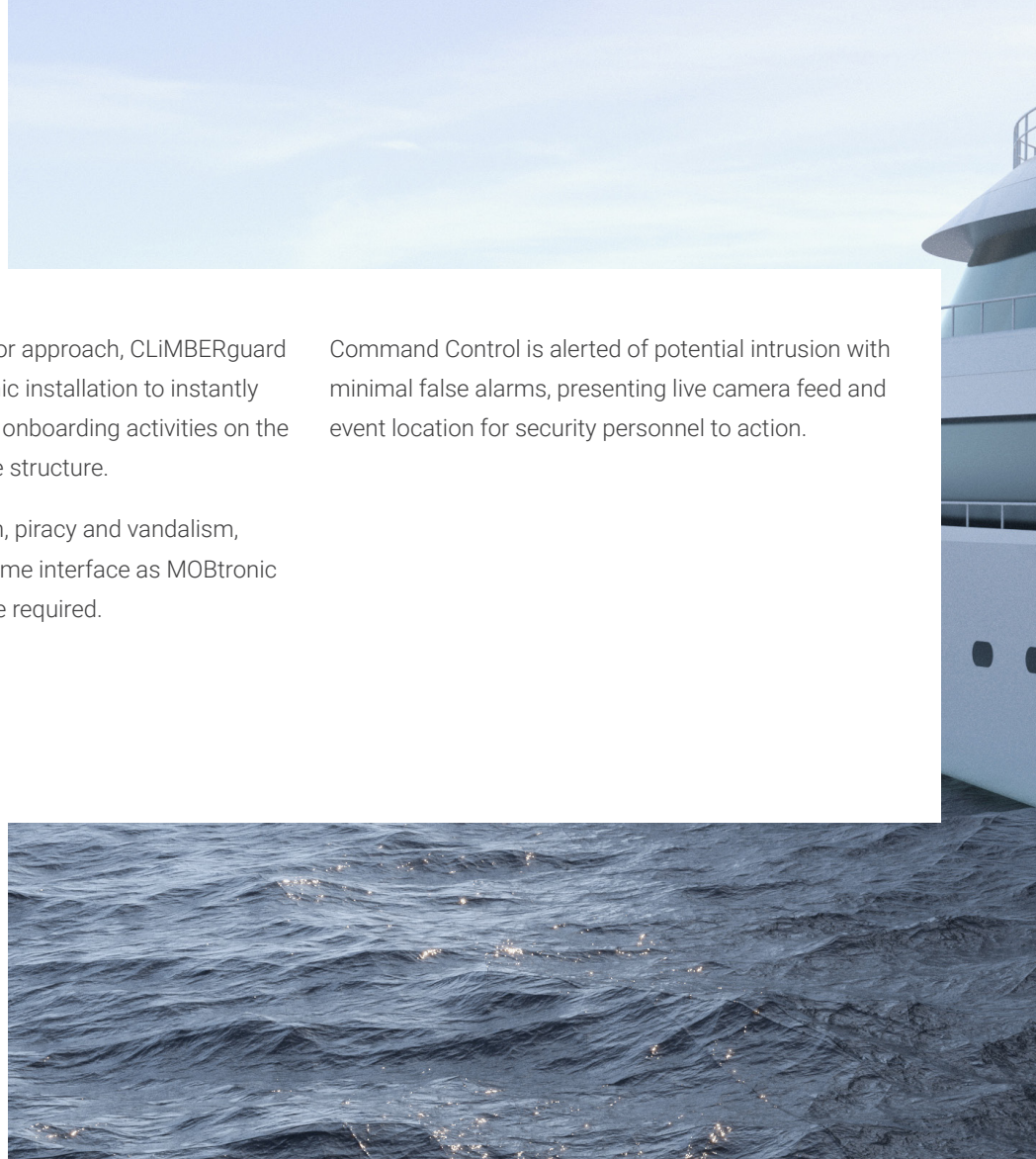
CLIMBER DETECTION WITH CLiMBERguard

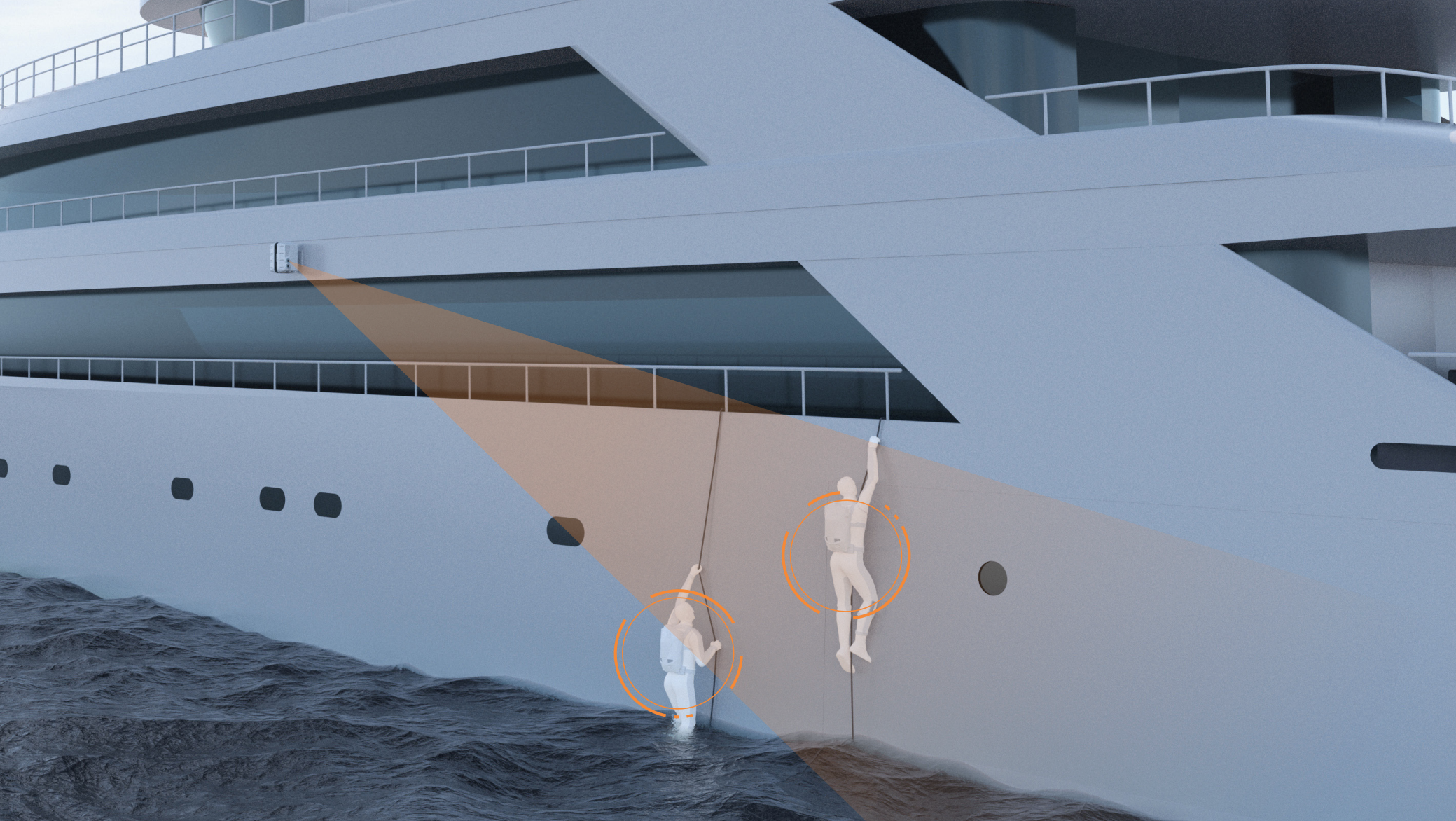
AUTOMATICALLY DETECT, TRACK AND CLASSIFY INTRUDERS SCALING THE SIDE OF A VESSEL OR STRUCTURE

Using the same multi-sensor approach, CLiMBERguard can be added to a MOBtronic installation to instantly detect, classify and alert of onboarding activities on the side of a vessel or maritime structure.

Protecting against intrusion, piracy and vandalism, CLiMBERguard uses the same interface as MOBtronic so no additional devices are required.

Command Control is alerted of potential intrusion with minimal false alarms, presenting live camera feed and event location for security personnel to action.





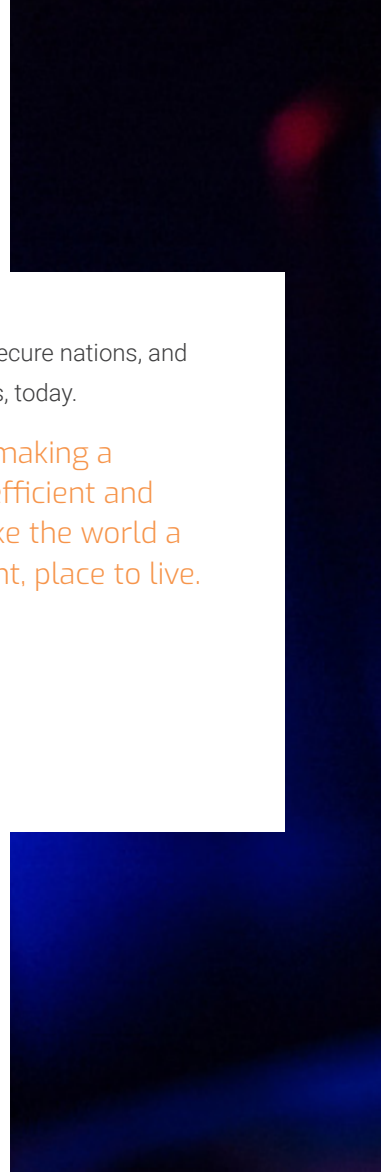
LEADING SECURITY TECHNOLOGY

HELPING NATIONS AROUND THE GLOBE PROTECT WHAT THEY VALUE MOST.

At MARSS, we are helping our customers to strengthen their security and modernise their cities. Trusted globally, our systems protect millions of lives against a wide range of evolving threats from land, sea and air.

Driven by innovation, we are committed to investing in the research and design of new technology to save lives. Our AI-powered IoT platform NiDAR fuses intelligence from multiple sources with the latest tech, sensors and countermeasures to create a single tactical picture for optimal situational awareness and control. The continuous development of our NiDAR platform is helping to create smart and secure nations, and protecting against future threats, today.

MARSS is committed to making a difference and creating efficient and intuitive solutions to make the world a safer, and more intelligent, place to live.



MARSS

We have over ten years of research, development and testing to ensure MOBtronic operates to the highest standard of safety, should an incident occur. We are proud knowing this system is installed across the globe and is protecting lives every day.

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