

Hydromea's EXRAY aims to propel underwater inspection robotics



Hydromea, an industry leader in high-speed subsea communications and portable underwater inspection robotics, introduced a groundbreaking product at Oceanology International 2024 in London. The event marked the official commercial launch of EXRAY – an underwater inspection robot equipped with the innovative proprietary wireless communication technology LUMA.

The Hydromea team has dedicated significant time and resources to develop a robot that would transform the landscape of inspection and monitoring of submerged assets. The proprietary wireless communication technology LUMA not only ensures seamless communication between the robot and the operator but also enhances the efficiency and speed of inspection and monitoring jobs performed underwater.

High-end cameras and sensors

Hydromea's underwater inspection robot, known as EXRAY, boasts several key features. It offers real-time wireless data streaming, enabling operators to receive real-time data and video feeds wirelessly, thereby facilitating immediate decision-making and response to underwater conditions. Additionally, it features high-resolution imaging capabilities, thanks to high-end cameras and sensors that provide excellent clarity in capturing images and videos of underwater structures and environments.

The robot's versatility and manoeuvrability are also notable, as it is designed to navigate through tight spaces and challenging underwater terrains, offering a wide range of applications for confined flooded spaces. Moreover, its highly modular build allows for the integration of various sensors required for asset integrity inspections, and it provides automated data analytics and reports.

At the official unveiling of EXRAY in London, industry professionals, researchers and stakeholders had the opportunity to witness the robot in a water tank and were able to pilot it wirelessly in a mock-up submerged infrastructure setting.

Igor Martin, CEO at [Hydromea](#), commented: "Our underwater inspection robot with LUMA wireless technology is a testament to our commitment to pushing the boundaries of what is possible in submerged infrastructure integrity assurance. We believe that this technology significantly reduces the cost of integrity assurance of submerged assets. Beyond that, EXRAY truly demonstrates what our proprietary high-bandwidth wireless communication technology LUMA can provide to the industry. It can connect various mobile autonomous inspection systems to offshore submerged assets, making it a critical enabling link on the path to reducing reliance on supply vessels for such jobs in the future, driving down cost and CO₂ emissions."



The EXRAY wireless ROV is designed to conduct underwater inspections. (Image courtesy: Hydromea)