



Greensea Systems Inc. introduces robotic hull cleaning system company, Armach Robotics at Oceanology International

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## **Greensea Systems Inc. introduces robotic hull cleaning system company, Armach Robotics at Oceanology International Booth H551**

**Richmond, VT Tuesday 15<sup>th</sup> March 2022** - Marine robotics technology specialist Greensea Systems Inc. recently launched spin-off company Armach Robotics at the AMPP Conference & Expo in San Antonio, Texas on Monday 7th March 2022.

The business capitalises on Greensea's digital expertise to offer a subscription model robotic hull cleaning system using autonomy, intelligence and data fusion.

On announcing the new business, Ben Kinnaman, CEO of Greensea Systems Inc and Armach Robotics said: "We have long recognised shipowners' requirements for 100% hull cleaning coverage and realised that an autonomous, robotic solution was insufficient unless it was backed by an accurate navigation solution. We began working with the Office of (US) Naval Research back in 2018 on just a system to make proactive in-water cleaning with a robotic solution a reality for the first time. But we couldn't find a manufacturer or vehicle partner that would enable us to enter this industry and achieve the level of potential that we saw. So we have spun the Greensea technology out into this new entity, Armach Robotics."

Armach provides a subscription service for clean hulls and hull intelligence to vessels in the commercial, cruise and military environments using its own hull cleaning robots. The Armach hull cleaning robot has a small platform to get it into tighter spaces on the hull and make it one-man-portable. It features caterpillar tracks which are kinder to hull coatings and a non magnetic adhesion to the hull which is suitable for military vessels and non steel hulls.

Alongside its design, is the accurate navigation and hull intelligence systems, powered by Greensea's open architecture software platform, OPENSEA®. With accurate navigation, robots can be autonomous, data can be referenced to the hull, and 100% coverage can be assured in the quickest and most efficient way possible.

As the robot cleans, the software operating it builds up an inch perfect 'mental map' of every feature of the hull so it can be more efficient next visit and it does so without the human input of divers or operators.

Rob Howard, VP Growth and Strategy at Armach Robotics says: "Hull drag is time and money in the shipping business. The system we have devised represents the closest any company has got to fully autonomous hull cleaning. With our navigation solution, the robot's route across the hull is optimised to within inches ensuring no areas are missed or over cleaned, so we can be efficient and fast in performing our service."

Shipowners signed up for the Armach service can be confident that their vessels will always have clean hulls, with all the attendant benefits that brings from slashing fuel consumption by up to 10% to regaining complete control over invasive species.

Because the Armach system is so scalable and efficient, cleanings can be performed more regularly, so it's only ever slime that the robot has to tackle. The use of a thoroughly tested brush system that is non destructive to the hull coating with the built-in system intelligence means it won't overwork the coatings - adding yet another cost benefit.

The system also saves costs by reporting back to the shipowner with valuable information, effectively creating a hull condition survey every time it cleans a hull. Any damage or corrosion is picked up early by the robot's cameras and sensors, so a decision can be made on whether rectification is necessary or whether ongoing monitoring will suffice.

Armach is currently in the 'Build it prove it phase'. This key phase will allow Armach to build, develop and iterate the robotics platforms and prove that the technology and model work in the real world. The company is also working with first adopter partners towards a wider roll-out of pilot programs in 2022.

Ends

[For further information on Armach Robotics please contact:](#)

Rob Howard, VP Growth and Strategy

Armach Robotics

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### **About Armach Robotics**

Incorporated in November 2021 as a spin-out company from Greensea Systems Inc., Armach offers shipowners a proactive, autonomous in-water robotic cleaning solution. Our service simply offers shipowners a constantly clean hull and following each cleaning operation provides an accurate georeferenced hull condition survey.

The technology is not coating specific and is based on a state-of-the-art system, powered by Greensea's autonomy, intelligence and data fusion technologies. Our business model provides resident cleaning robots to ships, ports, harbours and established service providers on a monthly subscription basis.

[www.armachrobotics.com](http://www.armachrobotics.com)

### **About Greensea Systems**

Greensea Systems Inc. was founded in 2006 to design and create a commercially available open architecture software platform to break down siloed technology in the AUV and ROV environment. The resultant open architecture software, OPENSEA® with its a central library software suite, is the most powerfully integrated control and navigation technology available in the market today that is easy to use, easy to maintain, robust, and portable.

The company works with leading OEMs throughout the world providing the OPENSEA platform on hundreds of installations to the offshore and military industries.

To learn more about Greensea, visit [www.greensea.com](http://www.greensea.com) or call +1.802.434.6080

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