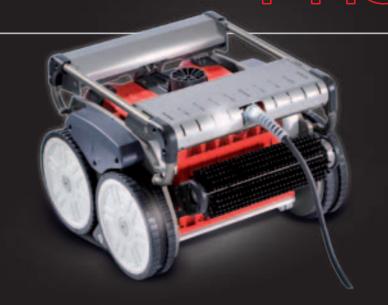
### **REVOLUTIONIZING HULL CLEANING...**

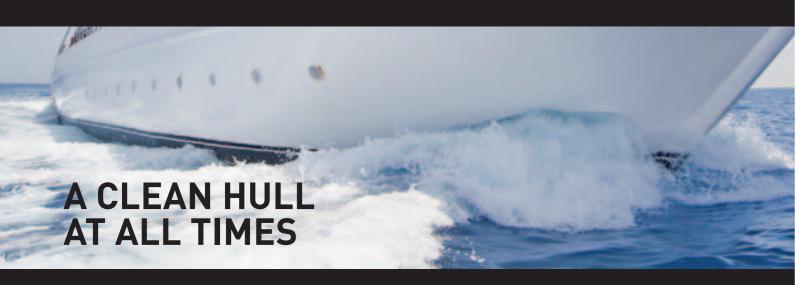


## HULLTIMO PRO



The robot for fast in-water hull cleaning





## WHY REGULAR HULL MAINTENANCE IS IMPORTANT ?

As most boat owners know, a boat's hull becomes dirty very quickly. So apart from the few weeks just after an annual maintenance haul-out, most boats sail with a fouled hull. Add to that the regulations restricting biocide usage in antifouling paints, plus the proliferation of microorganisms linked to rising in sea temperatures, and the problem worsens.

On an immersed hull, a biofilm is formed quickly, which then colonizes, favoring the growth of algae and other marine organisms. After only a few months in the water, according to climate and water quality, the build-up can increase drag by 10-15%. For motorboats, the result is higher fuel consumption; for sailboats a significant loss of performance.

#### HULLTIMO, THE COMPANY



Hulltimo was founded to address these problems. After in-depth research and development, the company has launched the first robot for in-water hull cleaning of recreational boats: the Hulltimo Pro. The innovative robot is designed for more regular cleaning of both sailboats and motorboats – no matter their size or design. Targeted at boat maintenance professionals, the Hulltimo Pro is opening up a whole new market for more frequent hull maintenance. This fast-growing market is boosted by the need for more eco-friendly boat cleaning solutions, to help reduce marine pollution and meet strict environmental regulations.

## HULLTIMO PRO, THE ECO-FRIENDLY SOLUTION

The Hulltimo Pro is an innovative solution that meets today's environmental regulations\*. As the robot cleans the hull, any waste is filtered and collected inside the robot via a special bag. Also, the robot uses new patented technology to clean the hull, without the need for chemical cleaning products. Simple, fast and very effective, the Hulltimo Pro meets the environmental guidelines set by harbormasters and port commissioners.

\*The Hulltimo Pro meets stringent environmental protection laws, such as European directives 2000/59/CE and 98/8/CE governing the disposal of waste in the sea and biocide usage, the International Convention on the Control of Harmful Antifouling Systems on Ships and the US Clean Water act.

HULLTIMO

# HULLTIMO PRO: EASY TO USE AND VERY EFFECTIVE

With a Hulltimo Pro robot on board you can maintain a clean hull at all times, whether you docked in a harbor or moored elsewhere.

A Hulltimo cleaning service is available from official Hulltimo Service Points in ports and marinas around the coast. The cleaning operation is performed at your mooring by a trained professional. Regular maintenance agreements are available upon request.

No need to move your boat or organize a haul out, the job is done when and where you want. The Hulltimo Pro can be operated from the quay or on board the boat. It is also incredibly fast – only one hour to clean a 34' hull.

The Hulltimo Pro robot was developed by Hulltimo, a French company located near to Grenoble. Hulltimo has already received multiple awards for this innovation, including Product Innovation of the Year 2010, Innovation 2011, and Innovative Process 2011





#### EASY AND VERY EFFECTIVE...

The Hulltimo Pro can be operated from the quay or by a user on board the boat. Stored is a specially designed transport case, the robot is easy to move, and very simple to set up and use. The main robot is connected to a wireless remote control with a high-quality screen. Onboard camcorders and LED lighting let the user monitor the robot's movements and the effectiveness of the cleaning operation in real time. To start the cleaning operation, the user simply places the robot in the water next to the boat. The integrated technology enables the robot to find the correct balance and move towards the hull. The Hulltimo Pro presses firmly against the boat throughout the whole cleaning operation.

As simple as child's play, the remote control has buttons controlling the robot's movements. By moving the robot back and forwards, and to the sides, the user can cover even the most complex hulls. Not forgetting the water line, which is thoroughly cleaned by the robot's rotating brush.





## ACTIVE TECHNOLOGY

#### SIMPLE TO USE

The wireless remote control, assisted by sensors inside the robot, makes using and guiding the robot very simple. In no time, you can cover the complete hull.



#### EASY TO MONITOR

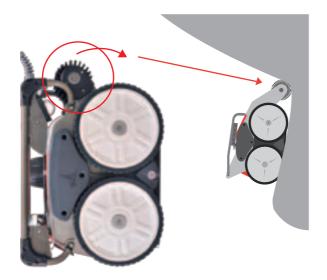
Real-time visual monitoring of the cleaning operation is enabled by front and rear camcorders on the robot, back by a powerful LED lighting system.



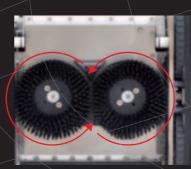


#### **GREAT RESULTS**

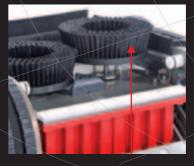
The user can control both the position and the tilt of the leading brush on the robot. This capability ensures the effective cleaning of the hull, even for the most difficult angles, such as the keel and the strakes. It also allows thorough cleaning of the water line.



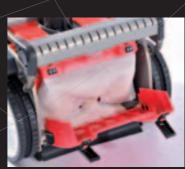
# CARES FOR BOATS AND THE ENVIRONMENT



Two soft brushes ensure thorough cleaning without the risk of damaging the hull or the antifouling coating.



A self-adjusting brush for maximum efficiency, no matter the shape of the hull.



Any debris removed during the cleaning operation is filtered and collected in a removable bag inside the robot.





#### **HULLTIMO PRO:**

- Dimensions (length x width x height): 47cm x 43cm x 33cm
- Weight: 20kg
- 2 brushes made of polyamide bristles (0.3 mm thick)
- A roller brush with polyamide bristles (0.3 mm thick)
- 2 PAL camcorders, providing a viewing angle of 150°
- 4 LED spotlights
- 1 filter bag

#### Ergonomic remote control:

- Tablet PC with a 7.7" screen, a built-in battery (6-hour battery life; 4-hour charge time)
- Additional battery for an extra 2 hours of battery life (3 hours to charge)
- Integrated controls : 8 buttons for functional and directional control of the robot
- Protective cover with lens hood

#### Power & communication box :

- Input voltage: 110-220 VAC
- Low-voltage (30VDC) robot power
- Power : 450W max
- Wireless communication between the robot and the remote control

