



SVR-Lazartigue trimaran — Photo © Thomas Deregnieaux / QAPTUR

## SailControls brings real-time 3D sail-shape tracking to the SVR-Lazartigue trimaran for the 2026 Route du Rhum

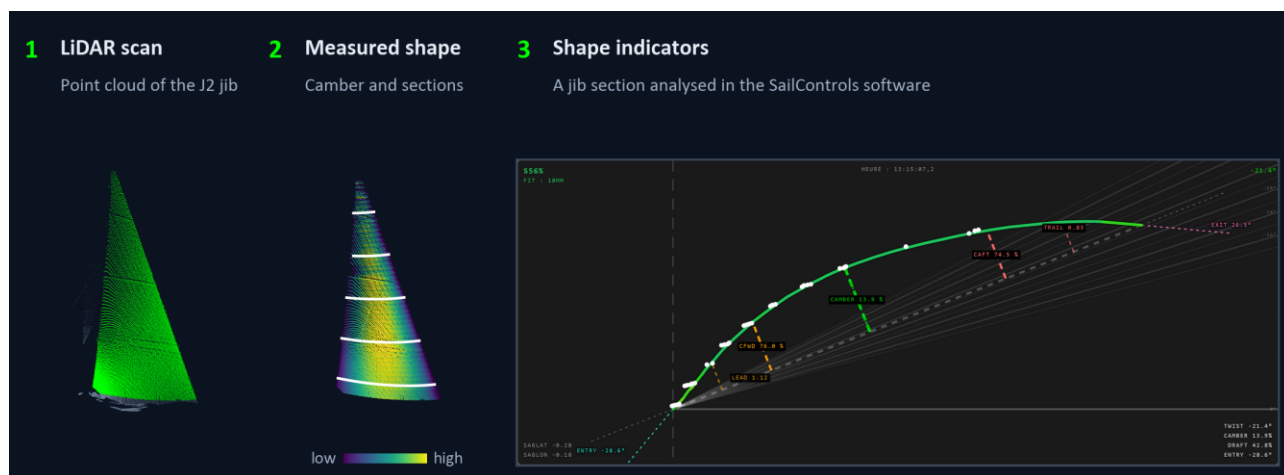
**Using LiDAR technology and algorithms developed by Perception4D, SailControls continuously measures the actual shape of the sails, turns every training session into lasting knowledge and gives the skipper objective references. A valuable asset for single-handed offshore racing.**

**Saint-Malo, 27 October 2026.** Developed since 2017 by professional sailor Éric Péron (RP4 YOU), and now in partnership with Perception4D, SailControls equips the Ultim trimaran SVR-Lazartigue, skippered by Tom Laperche, for the Route du Rhum – Destination Guadeloupe, which starts on 1 November. Onboard LiDAR sensors and 3D reconstruction algorithms measure the actual geometry of the sails several times per second and turn it into indicators that can be used in real time.

### Measuring the actual shape, not just the settings

Knowing the length of a sheet or the position of a traveller car does not tell you the actual shape of the sail. Between the setting and the resulting geometry come sailcloth deformation, rope stretch, the bending of the mast and of the trimaran's beams, and aerodynamic loads. Two identical settings can therefore produce different shapes.

**SailControls directly measures the actual 3D shape of the sail**, rather than inferring it from the settings: camber and draft position, twist and luff sag, taking rig deformation into account.



SVR-Lazartigue's J2 jib measured by LiDAR (1, 2) and a section analysed in the SailControls software (3) — © SailControls

## Learning in training, references in the race

- **Building knowledge:** every outing adds to a history of measured shapes, compared with the conditions and the performance achieved. The team identifies the shapes that work and turns them into references, for each sail and each wind range.
- **Real-time references:** shape indicators are displayed against these references. At a glance, the skipper sees where the sail stands relative to the target shape and can return to a proven setting. Sailing solo, and at night when the sail can no longer be read by eye, these references are invaluable. The sailor remains the sole judge of the trim.

## LiDAR, day and night

LiDAR measures distances directly using laser pulses, whereas a camera has to infer 3D from images. The measurement does not depend on lighting and continues at night. Depending on where the sensors are installed, the system tracks several sails and parts of the rig. Non-intrusive, it can be retrofitted to an existing boat and works with every sail, with no sensors built into the sailcloth.

## A living digital twin, developed with Perception4D

Perception4D, a specialist in 3D vision and LiDAR, developed the algorithms that turn point clouds into sail geometry and indicators. The result: **a living digital twin of the sail**, continuously updated. At 32 metres long, with a 36-metre mast and a 250 m<sup>2</sup> mainsail, SVR-Lazartigue is a particularly demanding test bed.

## What they said

Éric Péron, professional sailor and founder of SailControls

“We can measure a huge number of things on board, but we still struggled to know the exact shape of the sails under load. With SailControls, we can record the best configurations and find them again from one outing to the next. When sailing solo, these reference shapes become valuable cues for the skipper, day and night.”

**Bastien Jacquet**, president and co-founder of Perception4D

“A sail is a fascinating challenge for 3D vision: a flexible surface, constantly deforming, observed from a boat that is itself in motion. LiDAR makes it possible to measure this physical reality, day and night. SailControls perfectly illustrates our approach to the living digital twin: continuously measuring the real world to make better decisions.”

**Gauthier Guillou**, performance manager of the SVR-Lazartigue trimaran at MerConcept

“On an Ultim, the shape of the sails is constantly changing. With SailControls, we measure the shape they actually take, and every training session enriches our reference shapes. In the race, they become objective references to help Tom find the right settings again, alone on board, day and night.”



SVR-Lazartigue trimaran — Photo © GLEBEC

Beyond offshore racing, continuous sail measurement opens up new possibilities for sail lofts, naval architects and autopilot systems.

**A new approach to performance: no longer just trimming the sails, but continuously measuring and optimising the shape they actually take.**

**About SailControls / RP4 YOU.** Born from a research programme on LiDAR sail measurement launched in 2017 by professional sailor Éric Péron, and proven at sea since 2019 from the Figaro to the Ultim, SailControls provides three-dimensional sail measurement solutions for performance analysis and optimisation under sail. [www.sailcontrols.com](http://www.sailcontrols.com)

**About Perception4D.** Founded in 2022, Perception4D is a French company specialising in LiDAR technologies, 3D/4D vision and living digital twins. [www.perception4d.com](http://www.perception4d.com)

**About the SVR-Lazartigue trimaran.** Developed by MerConcept and launched in 2021, SVR-Lazartigue is an Ultim-class trimaran skippered by Tom Laperche and backed by the Kresk group and its brands SVR and Lazartigue. [www.trimaransvrlazartigue.com](http://www.trimaransvrlazartigue.com)

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