

## Problem

Nacra is a catamaran builder focused on racing catamarans. Due to Covid-19, catamaran regattas are canceled, and the racing catamaran market paused. Meanwhile, sales of recreational catamarans have surged up at competing companies. Nacra wants to strengthen its relatively small foothold in the market of recreational catamarans by modernizing their leisure catamarans. The Nacra 500 is on the top of this list.

Customers view Nacra as a racing catamaran brand. Their catamarans are light, stiff, reactive, and powerful. This results in fast and agile catamarans. However, the lightness also makes the catamarans fragile. Moreover, the catamaran's speed and agility are overwhelming for beginning catamaran sailors.

## Goal

To use Nacra's brand identity effectively, the new version of the Nacra 500 must have a high-performance look and feel. For recreational sailors, it must be robust and more accessible to sail.

Therefore, the design goal is to develop a solution that makes Nacra's recreational catamarans accessible but look and feel high performance.

## Approach

The brand-driven innovation approach of Abbing(2010) is used. This approach combines the values of the company and the customer to define design opportunities.

We first define the brand image of Nacra as well as their company values. What does Nacra stand for?

Second, potential customer group's values are obtained. What do customers find important in their respective usage scenarios?

Why is it difficult to sail a Nacra?

# High performance catamarans for all

## Design of a recreational catamaran control area

Thirdly, the focus is brought into the project by selecting a more specific target group and design focus. Sailing schools are selected. These schools require a robust boat that gives an excellent sailing experience to beginners and advanced sailors alike. Lastly, design solutions are created that allow recreational sailors to sail a Nacra.

## Result

The project results in a more accessible catamaran for novice sailors and sailors without prior experience on a catamaran without tampering with the boat's performance.

By moving the mainsheet and crossbar forward, sailing the catamaran resembles most other entry-level sailboats. This setup makes the transition to a catamaran easier for the novice catamaran sailor. Who now has a feeling of control over the boat earlier.

The boat is made more robust by adding a nose guard.

The ease of use of the boat increases through several solutions.

By applying the pro grip further forward, it is now easier to get on board. Towing the catamaran becomes straightforward due to the towing line. Plus the catamaran can be righted faster by mounting the righting line to the bottom of the trampoline.



Fig.1 Final concept



Fig.3 The two setups of the crossbar. Left the original setup. The crossbar can be moved forwards by attaching two s shaped tubes.

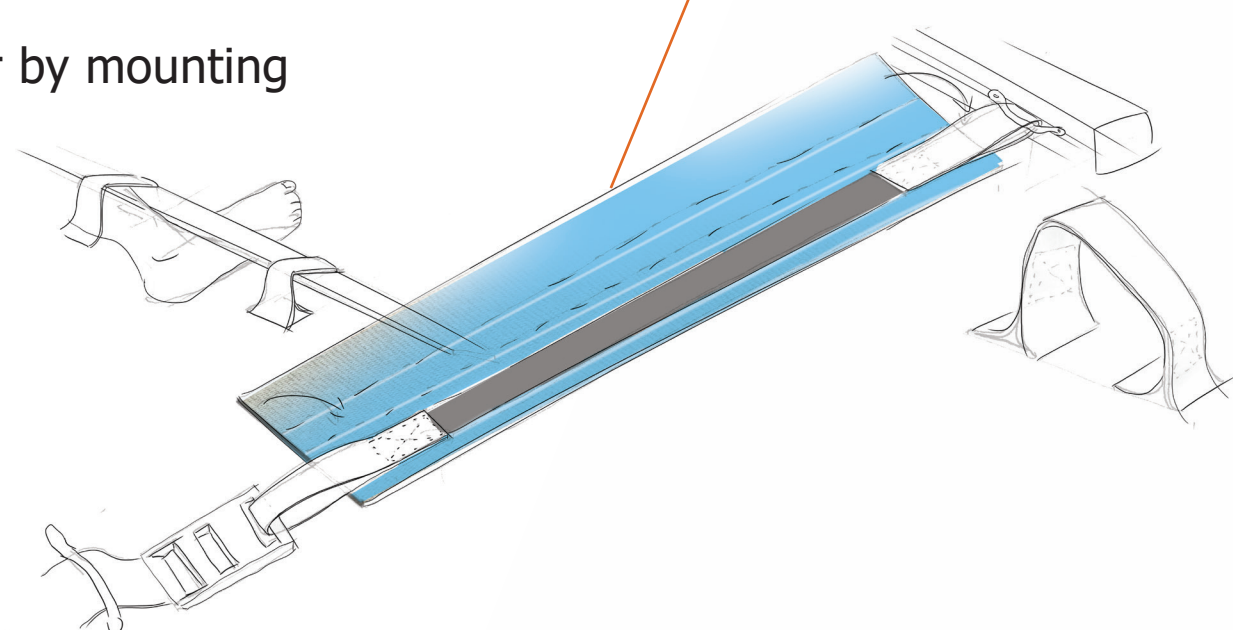


Fig.4 The remodeled padded hiking strap

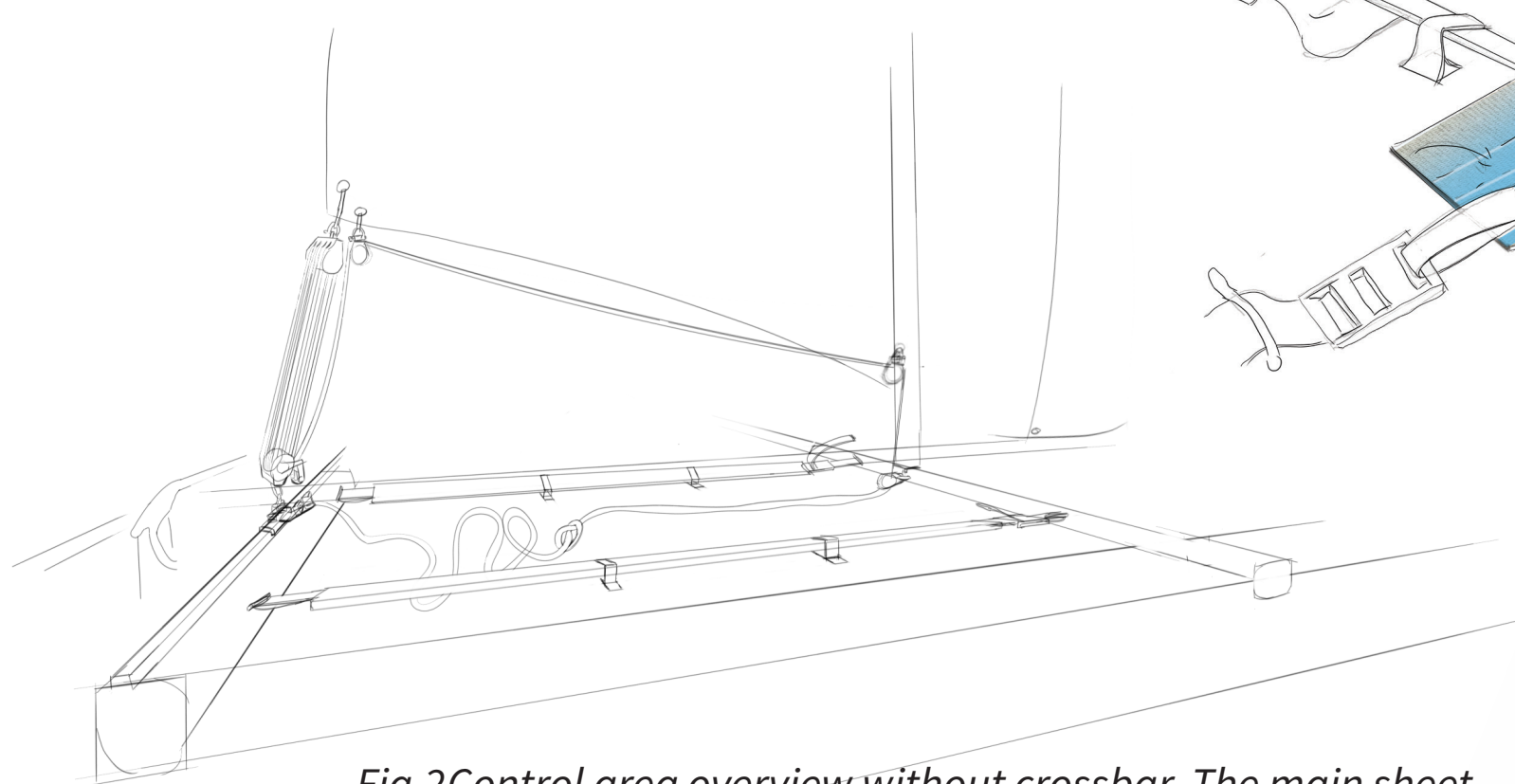


Fig.2 Control area overview without crossbar. The main sheet goes to the front of the boat via the sail.

## Conclusion

The resulting catamaran concept solves the stated design problem. The solution is feasible to implement in the coming half year. The relatively low implementation cost and unique product placement in the recreational market make the concept viable. Moreover, sailing school owners verified the desirability of the concept. "It precisely answers my fear of people breaking my boats and it fits the boat nicely." A.Loven(2020).

A.Loven (2020) december, Product manager Vinea sailing schools, Interview

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### Committee

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