

Solarboat

Towards a digital twin of the carbon TU Delft Solar Boat

Challenge

Without realization of a smart structure by fiber integration in the carbon structure we are not able to develop a reliable digital twin model.



How

TNO has installed several Fibre Bragg Grating strain gauges inside the hull, to monitor the response of the ocean-going Solar Boat to waves. Combining this with the developed finite element model creates a digital twin that is used to better understand the behavior vessel and the loads it has to withstand.

Impact



By improving the design of future solar boats for green fast waterborne transport there will be a great future for foiling transport