

NaviSmart

Real-Time Tactical Sailing Telemetry

Accessible tactical insights for the modern competitive sailor

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The Problem



Missing Telemetry

Lack of real-time data deprives sailors of critical insights.



Technical Inconsistency

Inefficient analysis and inconsistent performance due to data fragmentation.



Subjectivity

Decisions based on intuition, lacking objective and quantitative metrics.



Cost Barrier

Professional telemetry systems are expensive, limiting access for most clubs and sailors.

Our Solution



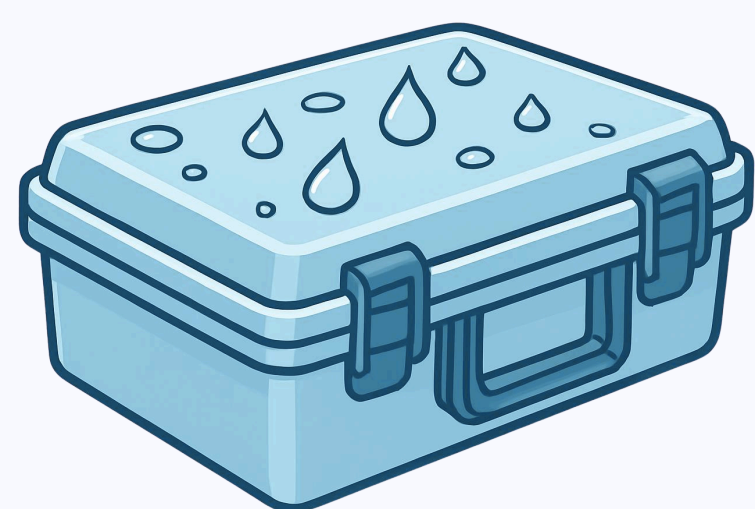
Concept

Integrated system nodes for both athlete and coach, enabling immediate data exchange.



Innovation

Coach monitors live data to provide instant tactical and technique feedback.



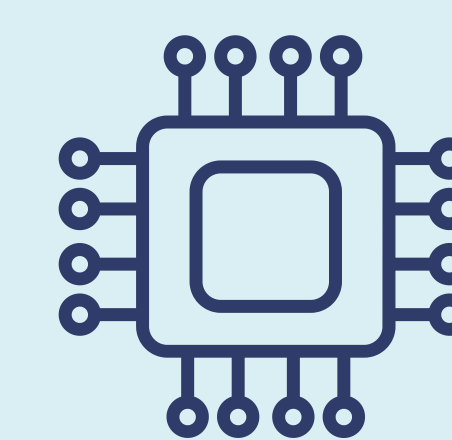
Zero-Hole Architecture

Robust, sealed polycarbonate case provides IP67 protection from water ingress and impact.

Tech and Hardware



Processing:
ESP32-S3 (Dual-Core) & ESP32-C3



Sensors:
BNO055 (Attitude) & NEO-8M (GNSS)



RF Communication:
nRF24L01+PA+LNA
Radio Bridge



Interface:
4.3-inch High-Brightness IPS Display

Test and Metrics

Attitude Precision:
±1° error margin

GPS Accuracy:
± 2m

Visual Data Refresh:
20 Hz

LOS Range:
± 1 km over water

Display Brightness:
> 800 cd/m²

Data Integrity:
Packet loss < 1%

Transmission Latency:
< 200ms

Robust Autonomy:
≥ 4 hours quaranted

Wireless Data Rate:
250 kbps

Viewing Angle:
± 175°

IP Rating:
IP67

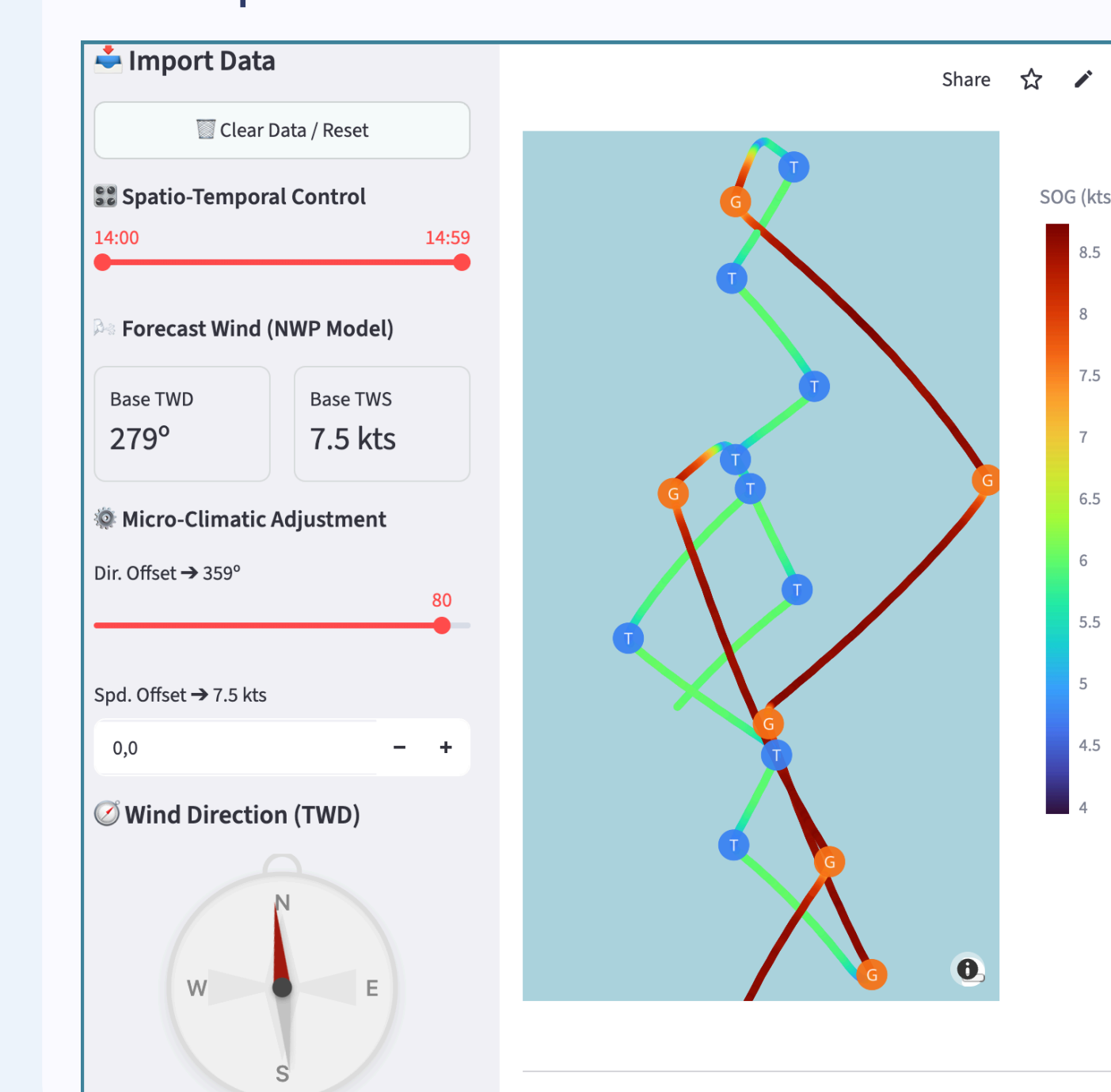
Thermal Operation:
-10°C a +60°C

NaviSmart Competition

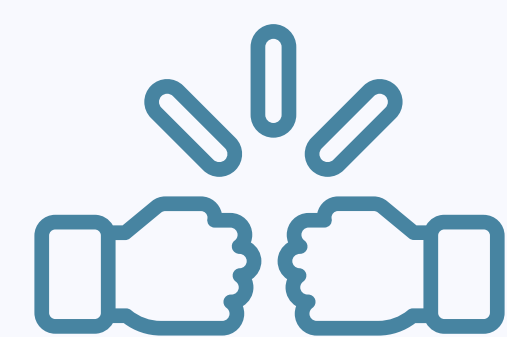
Feature	B&G Sailing (Pro)	Vakaros Group (Atlas 2)	NaviSmart (Our Solution)
Estimated Cost	≈ €2000	≈ €1000	< €300
Live Telemetry	Not Native	Yes (Via Cloud/App)	Yes (Direct RF Link)
Data Logging	Yes	Yes	Yes (Local MicroSD)
Architecture	Closed	Closed	Open & Modular

Results

Our post-workout dashboard.



Beneficiaries



Competitive Sailors



Coaches



Sailing Schools & Clubs



Partners



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