iAQUA TRANSFORMS WATER-JET EXPERIENCE WITH IOT

PROBLEM

Leading water jet manufacturer wanted to enter the IoT space, digitise the customer experience and remain at the forefront of market trends.

SOLUTION

- Partnered with Exaltare as their trusted one-stop development partner

- Developed highly engaging IoT waterjet interface and Android mobile app

- Agile project management, creative idea generation and rigorous testing to deliver customer empathetic solution

BENEFITS

- Comprehensive service for all app, web, IoT and IT management needs

- Responsive and collaborative development services on-budget at highest quality

- Best-in-class digital capabilities to match an award-winning waterjet company

COMPANY OVERVIEW

Waterjet Manufacturer iAQUA is a 3-year-old start-up company based in Shenzen, in the heart of Asia's Silicon Valley.

iAQUA offer a portfolio of four diver propulsion vehicles under the iAQUA SeaDart brand, designed to outperform their price tag and they have been awarded The Best Water Toy of 2021 (Yachting Pages Captains & Crew).

The entry level SeaDart Fun travels at 15km/h speed, 20 m depth and run time of 70 minutes, whereas the top of the range SeaDart Pro is made from carbon fibre and can travel at 25 km/h, a depth of 30m and a 90-minute run time on a single charge.

BUSINESS CHALLENGE

iAQUA already had great products but wanted to go even further to deliver a more comprehensive and fully engaging digital customer experience.

With this objective in mind, they partnered with Exaltare Technologies to support them in their delivery of two high visibility projects – a waterjet device app, built on Android that would become the digital interface screen on their SeadDart waterjets and a mobile user app, available on both Android and iOS.

iAQUA's partnership with Exaltare goes right back to their beginning in 2018 where Exaltare were recommended in and supported the website development and maintenance, graphic design, UI imagery and email management.

However, what really differentiated Exaltare from similar scope companies was their ability to also offer Android and App development, API and APK development and much more complex deliverables beyond websites-all through a one-stop service.
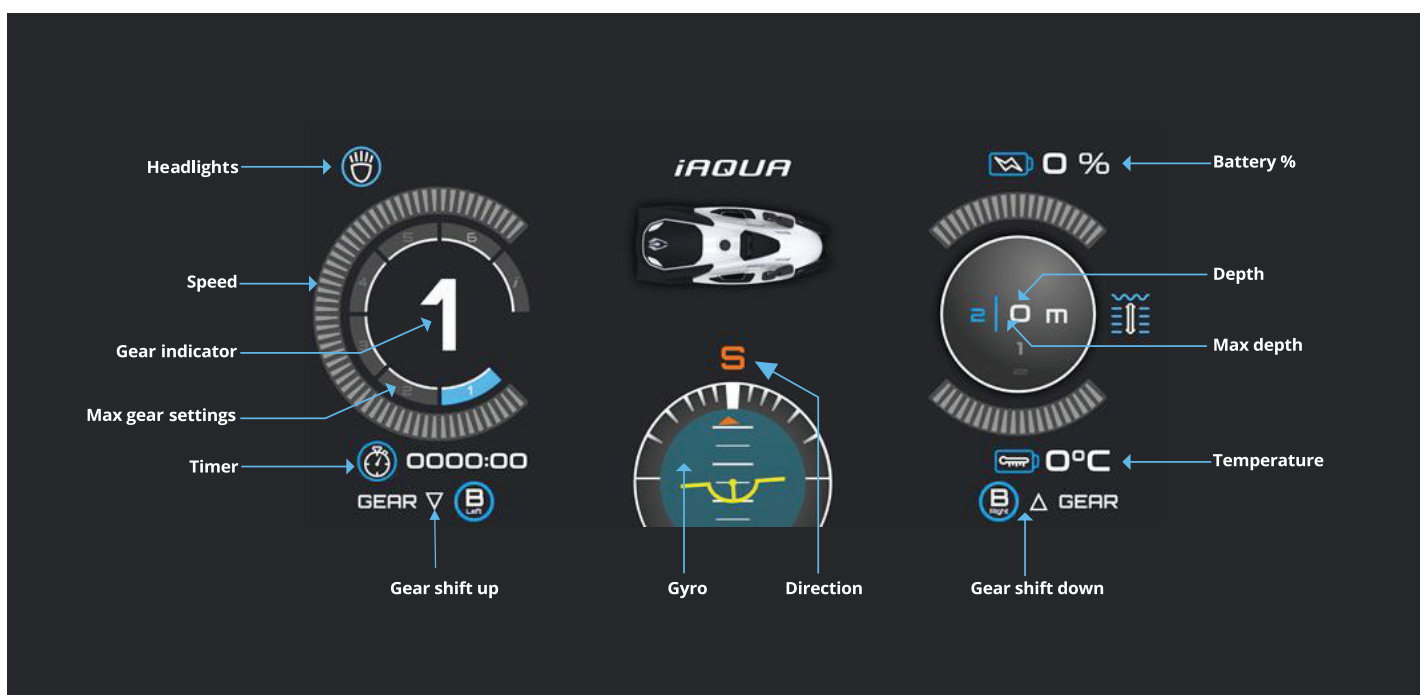
SOLUTION

WATERJET APP

iAQUA wanted to be at the heart of global trends and aspired to be at the forefront of the IoT arena. They wanted to enhance their products and make them more 'connected' using WIFI, Bluetooth and GPS functionality.

They started with the design and delivery of a simple and aesthetic appealing LCD user interface for their water jets. The display technology runs on Android and delivers a modern feature-rich user interface dashboard, which takes the vehicle user experience to the next level.

With the help of the interface design and development expertise of Exaltare, iAQUA "SeaDart 2" customers now have LCD access to real-time speed, gears, depth, temperature, battery level, direction, GPS position, session time and more all in a simple, modern dashboard.

MOBILE USER APP

Beyond the innovative device interface project, the additional User App allowed a SeaDart user to connect via their Android and iOS mobile to a specific SeaDart vehicle and obtain historical stats and updates about SeaDart rides. The vehicles use Wi-Fi to connect to servers in the cloud (AWS) where ride data is stored and this is then subsequently available to registered app users, who can obtain feature-rich historical data on previous trips such as distance, speed, duration, depth, and the actual journey route taken which they could also share on social media.

The App also allows users to see device location at any time, as is necessary for rental companies and boat captains for example, who can track the location of their rented/loaned water jets. In addition, the phone can interrogate waterjet diagnostics, which are also relayed back to iAQUA headquarters.

Exaltare consistently went above the brief and challenged the status quo with design thinking methodologies and customer empathy mapping to seek creative ways to solve problems across the entire user experience.
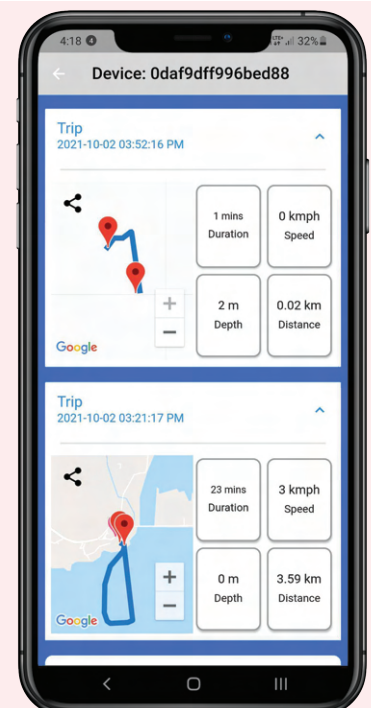
> When we provided Exaltare with only an outline of what we wanted, Exaltare came back with something tangible and in most instances better than what we had originally imagined.
>
> **– Peter Peng, Device Manager iAQUA**

For example, Exaltare recommended a novel way for users to connect their mobiles to water jets, without the need to input unique vehicle IDs. Instead, they recommended that users connect to devices using a unique device QR code on the waterjet.

THE PROJECT

Exaltare design teams collaborated with iAQUA to define requirements for both deliverables. They had to strike the perfect balance between level of detail, simplicity and design. Over a 6-week period teams from both sides actively collaborated to come up with several design pathway prototypes. Exaltare came up with 4 different design routes until they collectively agreed on an approach that obtained sign off. On the iAQUA side, a Device Hardware Manager provided commands and instructions from the device itself that were required to communicate with the Device App and the Operations Director ensured smooth project management.

Exaltare deployed a seasoned Project Manager along with an Android developer, User App Developer, Back-end Developer, and a DevOps expert. The project started in November 2019 and despite some setbacks due to Covid and people changes, is now in the final stages of testing and launch (Sep 2021). The project was run using agile methodology for multiple iterative deliverables and the requirements were dynamically fine-tuned as the project developed.

Throughout the entire project Exaltare was highly responsive and communication was always exceptional. Whenever iAQUA applied urgency and pressure, Exaltare consistently delivered against expectations and their code was always ready on time. The project was on budget as agreed and delivered against milestones.

> " If somebody only has the outline of an idea but wants to partner with a highly competent software development delivery company that can help them turn their ideas into reality and get things done, I recommend Exaltare 100% "
>
> **– German Moshes, Director of Operations iAQUA**

ABOUT EXALTARE

Exaltare Technologies helps customers across the globe achieve digital advantage, by being their one stop go-to full stack development service provider for all app, e-business, web development and IT management services.

Our highly responsive teams of professional, experienced, and passionate developers coupled with best-in-class project management deliver cutting edge solutions of the highest quality. We have already helped hundreds of customers achieve tangible solutions that innovate new value, helping them to convert their ideas into reality.

For more information visit www.exaltaretech.com