

SEA-KIT WORK WITH IJYI ON NEW CONTROL PANEL FOR THEIR FULLY REMOTE CONTROLLED UNCREWED SURFACE VESSEL

SEA-KIT are a world-class provider of high technology solutions to the maritime and research industries. In 2019 SEA-KIT won the **Shell Ocean Discovery X-Prize** to build an autonomous ship that could operate over the horizon.

SEA-KIT collaborated with industry partners to produce it's 12m remotely-controlled X-Class Uncrewed Surface Vessel

THE PROCESS

IJYI's role in this exciting project was to build a new manual control panel from scratch working alongside a partner organisation who built new on-board systems. IJYI worked in close collaboration with both SEA-KIT and partners to create a new dashboard capable of interacting with the on-board system via satellite link no matter where the boat was on the planet.

Using Agile methodologies IJYI worked collaboratively with SEA-KIT and their partners and adopted a rapid prototyping approach. Daily update calls and ongoing dialogue throughout enabled accurate progress tracking for the

management team.

Collaboration is key to the success of any project and IJYI clients are always invited to work closely with the team on customer projects.

THE TECHNOLOGY

The IJYI solution was built on .Net and Angular technologies that ran within the secure SEA-KIT control room. This provided the SEA-KIT mission controller the ability to perform common functions such as setting the course, putting the boat into a hover mode as well as turning on and off various systems such as lighting, on-board cameras and the engines themselves.

After meeting the IJYI team for the first time and discussing our future plans, it quickly became clear that they were a natural choice to help us produce the command and control systems for ships of the future.

We were particularly impressed by the ease of communication and on-going interaction throughout the project and their willingness to go above and beyond when required.

We are delighted to continue to work closely with the IJYI team as we add further capabilities to our vessels

Ashley Skett Director of Operations SEA-KIT











The team at IJYI were truly excited to be involved in this project. To be part of a project to launch a fully remote vessel was a fantastic experience.

The team at SEA-KIT are highly professional and fully embraced Agile working practices which enabled IJYI to successfully deliver this complex project

Alan Jackson COO IJYI

Additionally, it also controls the doors and conveyor belts associated with launching and retrieving the on-board AUV. The AUV is an automated submarine that provides the ability for SEA-KIT's vessels to perform detailed underwater surveys.

OUTCOMES

IJYI delivered this project over a period of 3 months in parallel with the creation of the new on-board systems and the first successful sea trial happened in July 2020. The vessel spent 22 days at sea

completing offshore survey operations and returned to Plymouth on Friday 14 August 2020.

This exciting first launch was **featured on the BBC** as a showcase for innovation and cutting-edge green technology.

Whilst at sea the vessel was remotely controlled around-the-clock from SEA-KIT's Remote Operation Centre in Essex and it completed the mapping of over 1000sq km of ocean floor off the European continental shelf. This was a segment of seafloor that had essentially no modern data registered with the UK Hydrographic Office.



Picture credit: Rich Edwards, ENP Media

Why IJYI?

SEA-KIT required a partner who would be able to work seamlessly with their team and partner organisations. This required excellent communication and collaboration across teams.

IJYI's breadth of expertise in .NET and Angular technologies combined with our rapid prototyping approach meant that we were able to successfully deliver the project to critical deadlines.

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