



Applied Integration

Custom Built LV Control Panels

Innovative Automation For a Smarter Digital Future



MARINE SERVICES

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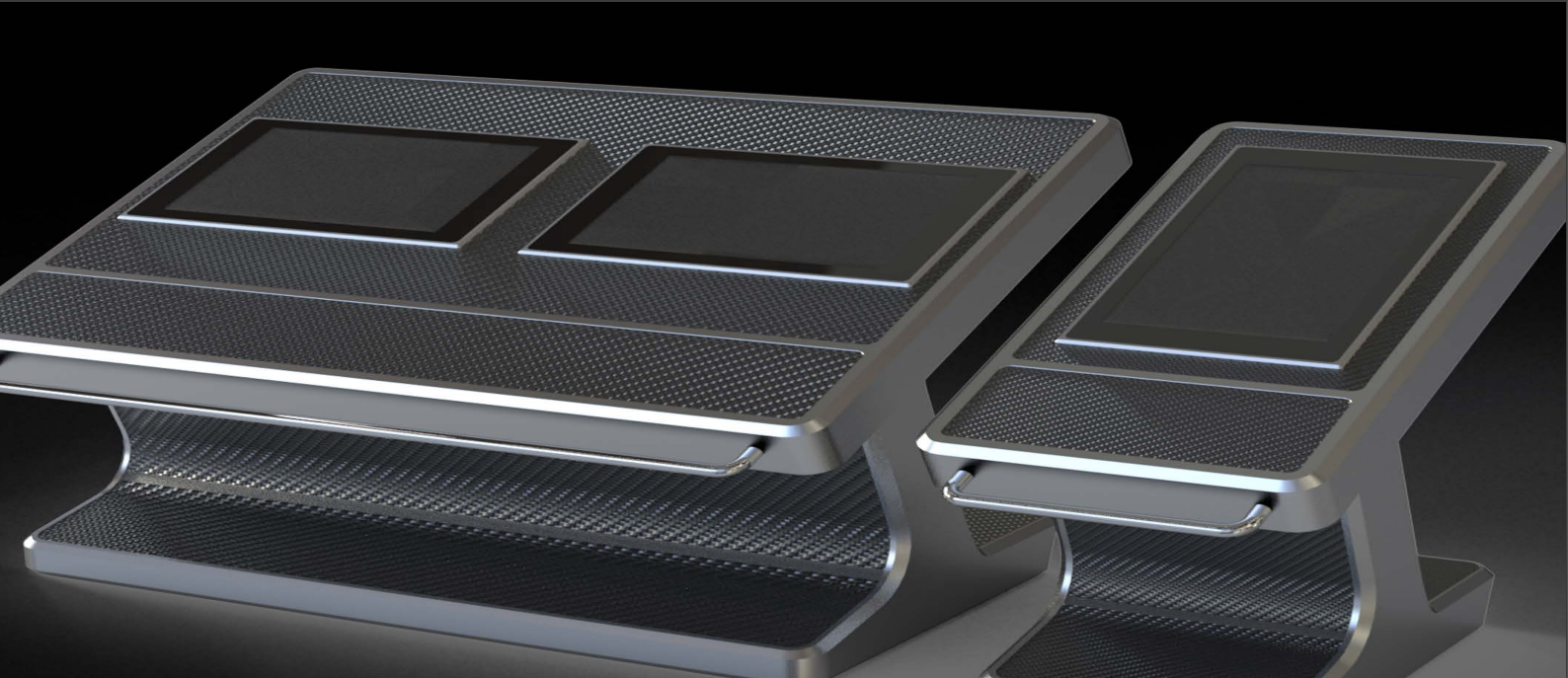
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About Us

Founded in Stokesley, North Yorkshire in 2005, Applied Integration (AI) design marine class panels, including generator control panels, distribution switchboards & switchgears, shore to ship power panels, programmable logic controllers (PLC) & remote I/O panels.



Specialising in electrical design of critical power applications in both infrastructure and marine industries, complete with both new and refit work.

Our production facilities also enable us to be fully involved in many other aspects of electrical engineering including HVAC, offshore, MoD, commercial and industrial clients.

Marine and Ports Capabilities

For many years, Applied Integration has been providing UK Marine, Renewable Sectors and Offshore Energy with automation integration, power and installation and aftersales services.

Designing ships and offshore equipment to safe and environmental regulations whilst being high performing and cost effective are just some of the challenges faced today.



Ports are continuously adopting new innovative technologies to meet the demands of an increase in vessels. One example of this is Rajant Kinetic Mesh® technology which provides an adaptable, scalable and readily deployable mobile network that can easily evolve with your connectivity demands. The Kinetic Mesh technology has military-grade security and there are no restrictions on distance as long as there are a number of devices (know as BreadCrumb®) across the area this means your port stays connected.

Other examples include:

Crane Controls

- PowerReefer temperature management
- Warehouse/Storage
- Vessel/Crane vibration
- Safe-Docking/Positioning systems
- Power Management
- IOT/Smart sensors



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Shore to Ship Power

AI can assist vessel owners and operators to comply with legislation and reduce emissions and noise when at port by upgrading your power supply to accept shore power and turn off on-board diesel generators.



We can offer:

- Shore power connection design and installation
- Automation, protection, synchronization and load transfer design
- Switchboard modification, electrical installation and system integration
- Commissioning
- Approval from Lloyds/ ABS

Intelligent Switchgear / MCC's

For Vessels with multiple generators and shore supply power inlets, determining which power source is allowed access to the main bus is critical.

Our switchgear division has created the most scalable fully automated switchgear system for the marine market.



We have the capacity to produce robust panels including fully welded, aluminium for weight saving and shock testing for the most extreme cases.

Experience in the Automation sector with the wealth of programming expertise to hand, our Switchboards and Panels can be “intelligent” with voltage sensors and circuit telemetry being constantly monitored by a PLC.

We can also monitor thermal readings from Busbars and connections to truly make your Switchboard Smart!



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Heavy Lifters and AMRs

AI can supply heavy lifters which have a load capacity ranging from 1 to 600 tons. These heavy lifters have the ability to work either independently or can be synchronized with other smart movers to up the payload. The AMRs communicate to plan the desired route effectively, selecting the optimal path.

These transporters are designed and manufactured according to our clients requirements and are perfect for the use in shipyards, windmill and off shore plants, steelmills and warehouses.



Autonomous Mobile Robot (AMRs/AGVs) solutions offer a far more efficient transparent operation. AMRs/AGVs play a major role in innovating supply chains by optimising the traceability, speed, and accuracy of routine transport operations.

AMRs make processes more efficient, working safely side-by-side with humans to reduce the risk of employee injury in dangerous situations. With the right approach and strategy, AMRs/AGVs offer a highly repeatable 24/7 operation to streamline heavy or large transports.

Case Study - Assisting Tees Components with the Commissioning of the RSS Sir David Attenborough Vessel

Applied Integration (AI) based in North Yorkshire, Stokesley have partnered with Tees Components to assist with the RSS Sir David Attenborough project.

Tees Components initially issued the commissioning of their Tees White Gill Thrusters for the polar research vessel which will be operated by the British Antarctic Survey to carry out scientific research, cargo operations and berthing in both Antarctica and the Arctic.



AI have provided the onsite commissioning support alongside their electrical and mechanical engineer. Our onsite commissioner will be heading to meet the boat for a three day Sea Trial which will be the final stage of commissioning. Once completed, the vessel will be ready to explore the oceans to complete its research in the race against climate change.

The four 60-T3S-QR azimuth thrusters can either be controlled independently or by the Dynamic Positioning System. This enables the polar research vessel to manoeuvre and position accurately allowing the researchers to carry out their procedures within the extreme weather conditions in the region of Antarctica. The thrusters will ensure the RSS Sir David Attenborough vessel will be one of the most advanced polar research vessels in the world.



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