



LEISURE CAPABILITY STATEMENT

COMPANY BACKGROUND

Fairfield Control Systems is a highly innovative systems integrator. The main core of our business is developing unique electrical control and instrumentation solutions to suit modern industrial requirements. Whilst our projects are many and varied, at the very core of the business is innovation.

We specialise in instrumentation, control and automation (ICA) solutions for clients in the UK and overseas. As well as designing, installing and commissioning advanced control systems, we often provide ongoing post-project operational support, preventative maintenance and emergency call-out services. We pride ourselves in the resilience and sustainability that we build into our designs.

We also work in a variety of other industry sectors including:

- Bridges
- Energy
- Materials handling
- Metals
- Moving structures
- Pharmaceuticals
- Waterways

Since we were established in 1987, Fairfield Control Systems has successfully completed many projects worldwide in the leisure sector for numerous clients. These projects include roller coasters, dark rides, water rides, observation wheels, scenic railways and incline lifts. We are committed to quality in design and manufacture of ride control systems and seek to provide the most appropriate solutions for our clients whilst utilising the best equipment in terms of reliability, operability and safety. Through our “turn-key” approach we can offer a complete range of services to our customers.

When designing ride control systems, we aim to achieve a great guest experience while at the same time ensuring that members of the public are kept safe by means of robust safety measures. Our systems are designed to relevant safety standards, which can include ISO 13849, IEC 61508 and EN 13814. We work closely with the Park Safety Assessors from concept to completion with the benefit that authorisation and approval of the rides for public use is obtained at the earliest possible opportunity.

Our control system designs are founded on the core principles of reliability, availability, maintainability and safety (RAMS). We work through a process from the HAZOP Study and design risk assessment through to safety verification, simulation and commissioning.



Creating Exceptional Performance



We aim to achieve a great guest experience whilst ensuring that members of the public are kept safe by means of robust safety systems.

CONTROL SYSTEMS FOR NEW RIDES

The ride control systems that we have installed range from small hard-wired systems to complex networked PLC based systems.

We endeavour to provide simple and intuitive controls for use by the ride operators. We frequently work alongside and train the maintenance staff to ensure they have the necessary knowledge and skills to manage the ride control systems and deal promptly with any system issues.

We also work closely with the ride designers to maximise guest throughput while maintaining the highest levels of safety, often by incorporating blocking systems. We have developed our own unique patented ride blocking system which, from experience, reduces the cost of installation and minimises the equipment required in the control panel.

Our bespoke solutions often incorporate one or several of the following:

- Drives and motion control (AC/DC)
- PLC systems (standard/redundant/safety)
- Supervisory systems (SCADA/HMI/MIS)

- Industrial networks
- Control panels (MCCs/Desks)
- Database solutions
- Instrumentation

UPGRADE & MAINTENANCE OF EXISTING RIDES

Unlike many of the ride manufacturers, Fairfield Control Systems offer a niche service in providing independent assessments of existing ride control systems and, if necessary, carry out upgrades. These upgrades can include replacement of obsolete equipment, bringing rides up to the latest safety standards or enhancing the ride control system. In addition, we offer preventative maintenance services for ride control systems and access to our on-call engineers on a 24/7 basis in order to minimise ride down-times.

INTEGRATED PARK MANAGEMENT SYSTEMS

As well as designing ride control systems, we also develop supervisory control systems that can bring equipment and assets from several manufacturers and suppliers together, giving a single,

integrated safe and robust control, management and reporting system. This system can be used to provide a single point of control for a ride operator or to provide Park Managers an overview of their assets. This service includes the management and control of interfaces between different manufacturers and often requires complex networked systems, including wireless solutions.

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I've had the pleasure of working with Fairfield's on a number of projects over the last few years and have seen them develop into one of the foremost safety related control system designers in the leisure industry.

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Daniel Cox
Managing Director, ESIS Ltd.

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