



INDUSTRY BRIEF

Automotive

Robot and line control that keeps production safe, traceable and at rate.

 MATRIX



What matters most

Uptime at line rate

Lines run to takt, and a stoppage costs output by the minute. Control systems must be reliable, with faults that are quick to diagnose and recover from.

Robot and operator safety

Robots, conveyors and people share the same space. Cells need guarding and safety functions that are designed, validated and documented to current standards, and that operators have no reason to bypass.

Quality and traceability

Every part must be traceable to the process that made it, with the process data your customers and your IATF 16949 audits expect to see.

Launches without disruption

New models, variants and engineering changes arrive on tight timelines. They have to be brought in during short shutdowns, without putting current production or quality at risk.

The standards that shape your project

Standard	What it covers
IATF 16949	Quality management for automotive production and service parts organisations, built on ISO 9001.
ISO 10218-1 and -2 (2025)	Safety of industrial robots, and of robot applications and cells, including collaborative applications.
BS EN ISO 13849-1	Safety-related parts of machine control systems, rated by performance level (PL).
BS EN 60204-1	Electrical equipment of machines: wiring, control circuits, emergency stops and documentation.
VDA 6.3	The German automotive industry's process audit, used by many manufacturers to assess suppliers' production processes.
OEM controls standards	Vehicle manufacturers' own specifications for PLCs, robots, HMIs, safety and code structure.

The standards listed are those most often relevant to control-system work in this sector. Which apply to your project, and how, is agreed with you at specification stage.

From specification to long-term support



Production cannot wait for commissioning. We prove robot cell and line logic against a simulation before site, then install and commission in planned shutdowns, with agreed fall-back positions. Your engineers get the documentation and training to keep the line running and to make changes safely.

Systems we engineer

- Robot cells and robot integration
- Assembly and conveyor line control
- Machine and robot safety systems
- Part tracking and traceability
- Line HMIs, alarms and production reporting
- Maintenance reporting and diagnostics

PROJECT EXPERIENCE

Automotive robot control

Matrix delivered robot control and integration for an automotive production process. Every project we deliver follows the same approach: requirements and standards agreed up front, logic tested against a simulation before site, and full documentation at handover.

The evidence you receive at handover

✓ Functional design specification

✓ I/O list and cause-and-effect

✓ Alarm list and HMI interface

✓ FAT and SAT records

✓ As-built drawings and source code

✓ Method statements for common faults

Why customers choose us

Standards first

An ISO 9001 certified quality system, designing to the standards your sector demands, plus any you specify.

You own the system

Clear structure, open interfaces and complete documentation, so you can support it yourself or with any vendor.

Tested before site

Control code is version-controlled and tested against a simulated plant before factory and site acceptance.

Multi-vendor

Siemens, Rockwell, ABB, Schneider, Mitsubishi, Beckhoff, Emerson, Honeywell and GE platforms.

In it for the long term

For us a project is not finished until the control system is decommissioned. 24/7 support is available under a support agreement.

OUR PROMISE

Standards-led, fully documented control systems that you own and can support.

GET IN TOUCH

Talk to us about your project

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