Automate UK Robot Integrator Standard (UK-RIS)

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UK Robot Integrator Standard

1. Purpose & Scope

The **UK Robot Integrator Standard (UK-RIS)** is a nationally recognised benchmark developed by Automate UK (AUK), the voice of the UK robotics community.

It raises the quality and consistency of robotic integration projects, solutions, and services delivered to UK manufacturers.

This document defines the criteria you must meet to achieve **certification for delivering robotic integration services**. It helps you:

- Demonstrate compliance with relevant safety legislation and standards
- Consistently plan, engineer, and deliver fit-for-purpose robotic systems
- Evidence robust project, risk, and quality management
- Strengthen customer confidence and win work through recognised best practice

2. Who This Document Is For

This standard applies to **organisations integrating robotic equipment in industrial and manufacturing settings**, regardless of size or product focus. It is aimed at:

- Robot integrators seeking UK-RIS certification
- Auditors assessing compliance with this standard
- Buyers and stakeholders evaluating supplier capability and risk
- Directors, project managers, engineers, and safety leads responsible for the delivery and lifecycle of robotic systems

3. How This Document Works

This document's sections follow the format below:

- **Requirement**: what is expected for certification
- **Evidence**: what you must provide to demonstrate compliance
- **Guidance**: best practice tips and helpful context

4. Documented Evidence

All evidence must be **revision-controlled** and **date-stamped**, in line with your internal document control policy. Where applicable, **provide cross-references** (for example, to URS, risk assessments, or test plans) to aid traceability.

Not sure what evidence to provide? Look for the **Evidence** heading within each section below.

5. Glossary Of Terms

- **BS EN ISO 10218**: Robotics safety requirements (industrial robots and systems)
- **FAT/SAT**: Factory Acceptance Test / Site Acceptance Test
- **IEC 62061**: Safety of machinery: functional safety of electrical, electronic, and programmable electronic control systems
- **ISO 12100**: General principles for machinery safety risk assessment
- **ISO/TS 15066**: Collaborative robot (cobot) guidance
- **OLP**: Offline Programming
- **PL/SIL**: Performance Level (ISO 13849-1)/Safety Integrity Level (IEC 62061)
- **PUWER**: Provision and Use of Work Equipment Regulations
- **RAMS**: Risk Assessment and Method Statement
- **SISTEMA**: Safety calculation tool for ISO 13849-1
- **SRS**: Safety Requirements Specification
- **UKCA/CE**: UK/European product conformity marking
- **URS**: User Requirement Specification
- **V&V**: Verification and Validation

6. Certification Criteria

6.1 Insurance

Requirement

Hold insurance **appropriate to the scope of work** and the **level of risk involved**. As a minimum, this should include **public liability, product liability**, and **employers' liability insurance**.

Evidence

Please provide evidence of:

- **Public Liability (£2 million or more)**: to cover damage to property or bodily injury relating to third parties
- **Product Liability (£2 million or more)**: to cover damage to property or bodily injury relating to third parties caused by your product
- **Employers' Liability (£10 million or more)**: to cover employee injury or sickness caused by working for your company (legal requirement for all UK employers)
- **Professional Indemnity (Optional; see Guidance below)**: to cover claims made against you for negligence relating to errors and omissions where your client has suffered a loss

Guidance

If you provide software or design services, consider **Professional Indemnity insurance** (£250k or above). Make sure to **maintain continuous cover, and review limits annually** or when your risk profile changes.

6.2 Project Feasibility (Pre-order)

Requirement

Demonstrate robust feasibility for **three distinct projects in the past 12 months**. In each case, outline the steps you have taken to **mitigate project risk** including (where possible) any no-go decisions and rationale.

Evidence

Please provide evidence of:

- User Requirement Specifications (URS)
- User product criteria (including pass/fail examples)
- Feasibility tests and results
- Special customer requirements (e.g. location, environment, delivery and post-delivery considerations, payment terms)
- Project risks and mitigation
- Quotes and proposals to clients

Please support your evidence with a **final project recommendation** and **detailed cost estimate**. These should align with the **customer's URS** and be ready for their approval and order.

Guidance

When assessing feasibility, consider **task type**, **product variation**, and the **environment**. Validate cycle time, payload, and robot sizing early. Undersizing can shorten lifespan and slow performance, while oversizing can incur unnecessary cost.

6.3 Robot Project Management

Requirement

Demonstrate you have a **defined end-to-end project management process** with clear internal ownership and customer communication.

Evidence

Please provide evidence of:

- Design
- Build
- Installation
- Commissioning
- Planning
- Scheduling
- Resourcing
- Payment planning
- Internal and client communications

Guidance

Consider upskilling your project management team with **PRINCE2®** or **APM** (Association for Project Management) accredited courses.

6.4 Health & Safety (People)

Requirement

Protect the health, safety, and wellbeing of staff and contractors through appropriate policies, procedures, and training.

Evidence

Please provide evidence of:

- Health & Safety Policy (mandatory for five or more employees)
- Employee safety training records
- Safety risk assessment records
- Accident/incident reporting
- RAMS documentation for site works
- PUWER documentation compliance records for in-house equipment

Guidance

Consider **SafeContractor™ (or equivalent) accreditation**, which simplifies on-site working processes for you and your customers. For some sectors, this accreditation is a **mandatory requirement** for on-site work.

6.5 Machinery Safety & Compliance (Systems)

Requirement

Show how your supplied robotic systems **comply with relevant legislation and standards** – from concept to final handover.

Evidence

Please provide evidence of:

- Documented risk assessment (e.g. ISO 12100) and Safety Requirements Specification (SRS)
- Functional safety design and architecture (ISO 13849-1/IEC 62061), including PL/SIL calculations (e.g. SISTEMA)
- Verification & Validation (V&V) reports for safety-related control parts (including proof tests)
- Use of harmonised and BS EN standards (BS EN ISO 10218-1/-2, guarding standards, ISO/TS 15066 for collaborative systems, where applicable)
- Test records confirming that the built system meets the defined risk assessment and SRS
- Technical construction file and marking dossier (UKCA/CE) as required

Guidance

The **UK Supply of Machinery (Safety) Regulations** and the **EU Machinery Directive/Machinery Regulation (2027)** share similar aims, but apply to different markets.

Robot integrators should also apply **ISO 10218-2** and other relevant application-specific standards. Consider **certified machinery safety training** for engineers with responsibility for design and compliance.

6.6 Risk Management

Requirement

Detail your processes for identifying and mitigating project and business risks.

Evidence

Please provide evidence of:

- User Requirement Specifications (URS) review
- Feasibility testing
- Quoting and commercial terms

Guidance

Pay particular attention to product control and handling, presentation to the robot, grip forces, payload inertia, cycle times and collision/overload strategies.

6.7 Factory & Site Acceptance Testing (FAT & SAT)

Requirement

Use a **staged FAT/SAT process** tied to sign-off and payment milestones to prove the system **meets the URS and aligns with customer approval**.

Evidence

Please provide evidence of:

- Test plan mapping criteria to the URS, including repetitive and stress testing
- Subsystem tests (robot, tooling, conveyors, safety devices, vision where used)
- Representative product agreed with the customer for FAT
- SAT demonstrating full-rate throughput, speed, and availability targets
- Final sign-off documentation by both the integrator and the customer

Guidance

Test under **realistic conditions** (rates, shifts, utilities), recording any deviations and agreed concessions with measured impact. This allows you and your customer to **verify performance, safety, and reliability** in practice.

6.8 Robot Simulation Capabilities

Requirement

Demonstrate the capability to **simulate** and, where appropriate, **offline-program robot systems** to meet customer operational requirements, de-risk design, and validate cycle time, reach, and performance before order or build.

Evidence

Please provide evidence of:

- Simulation models showing reachable workspace, collision avoidance, and singularity checks
- Cycle-time analysis, including key assumptions and safety margins
- (Where used) Offline Programming (OLP) workflow and data/control hand-off to the shopfloor

Guidance

Most robot suppliers provide **basic simulation tools** for feasibility checks. For complex systems, advanced simulation software based on CAD models can validate performance in detail, and even generate robot code or layout drawings for integration.

Keep all simulation files under **version control** for traceability.

6.9 Software Source Control

Requirement

Maintain **version-controlled storage** for all delivered software (robot, PLC, HMI, safety, vision, OLP files) with a **12-month minimum audit trail**.

Evidence

Please provide evidence of:

- Description of the source control process
- Details of secure software storage
- Check-in/check-out and change history
- Backup and recovery procedures

Guidance

Free or low-cost source control tools are **widely available**. Choose one that suits your scale and enables recovery in the event of software loss or system failure.

6.10 Project Documentation Control

Requirement

Maintain and store system documentation, providing evidence across **at least three installed systems** completed within the **previous 12 months**.

Evidence

Please provide evidence of:

- Electrical schematics
- Product serial numbers
- Firmware/hardware versions
- Product documentation
- Configuration files and documentation

Guidance

Good document control provides **full traceability** for each of your systems. Keep **organised records** of configurations, versions, and serial numbers – they'll help you restore systems to a known state (if things go wrong), resolve issues faster, support warranty claims, and confirm that no unauthorised changes have been made after installation.

6.11 Company Resources

Requirement

Show you have **sufficient resources** (covering people and infrastructure) to deliver your robot integration projects.

Evidence

Please provide evidence of:

- Organisational chart with named roles
- Staffing levels across:
  - Project management
  - Engineers (robotic, support, controls)
  - Human resources
  - Administration
  - Purchasing
  - Logistics
- Facilities and equipment for build, test, and FAT

Guidance

Weigh your resource capacity against your project pipeline regularly. Well-structured teams and access to the right equipment support **consistent delivery** and **reduce project risk**. Subcontracting is acceptable where controlled and competency-assured.

6.12 Staff Training & Competence

Requirement

Demonstrate all staff within your organisation (see 6.11 above) are **competent for their roles** and **staff training is current and ongoing**.

Evidence

Please provide evidence of:

- Staff training records covering the past three or more years
- Product/vendor-specific training for engineering staff
- Continuous Professional Development (CPD) tracking
- Where applicable, evidence of certified safety qualifications

Guidance

Ongoing training shows **commitment to your team** and **helps retain skilled staff**. Build Continuous Professional Development (CPD) into your company process; this way, employees can see a **clear path for growth** and **you can plan future capability**.

You might also consider offering **customer training** around specific products or industry topics as an additional service and potential revenue stream.

6.13 Customer Support

Requirement

Provide a **structured support service** to help your customers with their installed products and systems. This service should be **tailored to each customer**, the total number of installations, and your business's size.

Evidence

Please provide evidence of:

- Support contact channels
- Access hours and response times
- Out-of-hours emergency support
- Case tracking system
- Spare parts process

Guidance

Support contracts and spare parts services can **add value for end users**, prolonging the life and productivity of their systems. They are also a good way to **generate additional revenue**.

6.14 Customer Satisfaction

Requirement

Outline your process for **gathering, acting on, and tracking customer feedback** across your products, services, and staff.

Evidence

Please provide evidence of:

- Feedback mechanisms and accessibility
- Complaints procedures and ownership
- Delivery performance tracking
- Corrective action processes and records
- On-site conduct guidelines
- Compliance records

Guidance

Keep records of customer feedback, complaints, and corrective actions. This will help you **track trends** and **continuously improve**. **Automate UK (AUK) may review these records** where concerns are raised about a certified integrator.

6.15 Non-Conformance

Requirement

Detail your company's **non-conformance process**. This includes how you **identify, record, correct, and prevent outcomes** that do not conform to your company's requirements.

Evidence

Please provide evidence of:

- Issue tracking and categorisation
- Root-cause analysis
- Corrective/preventive actions (with owners and due dates)
- Verification of effectiveness and surveillance/monitoring records

Guidance

Record all instances of non-conformance, whether raised internally, by customers, or by external partners. Each record should clearly show how the issue was assessed, corrected, and monitored – to prevent it from happening again.

Regularly reviewing these records helps **strengthen your processes** and **demonstrate continual improvement**.

7. Contact & Next Steps

Ready for certification? Automate UK can support you with:

- Certification and audit preparation
- Training and CPD resources (robotics, safety, and project delivery)
- Membership benefits and industry networking

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