

Lab Automation Project Checklist

A Blueprint for User-Friendly and Productive Laboratory Environments

Use this checklist to ensure you've covered all critical elements:

Foundation

- ☐ Roles & responsibilities clearly defined
- ☐ Project goals & success metrics established
- ☐ ROI model includes both implementation & operational costs
- ☐ Short-term & long-term objectives aligned
- ☐ Support and service agreements in place

Facilities and Safety

- ☐ Space constraints assessed
(ceiling height, obstructions, pathways)
- ☐ Floor requirements verified
(levelness, anchoring, weight limits)
- ☐ Utilities planned
(power, compressed air, networking)
- ☐ EHS team engaged & safety review completed
- ☐ Compliance verified
(ISO, UL, regional standards)
- ☐ Risk assessment conducted
- ☐ Safety measures designed
(E-stops, guards, interlocks)

Documentation

- ☐ System designs & drawings completed
- ☐ Utilities specifications documented
- ☐ Safety documentation package assembled
- ☐ User manuals & product information prepared
- ☐ FDS & ATP protocols defined
- ☐ FAT/SAT terms agreed upon

System Design

- ☐ Application workflows mapped and optimized
- ☐ Software architecture & integrations planned
- ☐ IT requirements & permissions secured
- ☐ Robot specifications determined
- ☐ Instrument selection and integration requirements confirmed
- ☐ Electrical & pneumatic design completed
- ☐ Ergonomics & user access optimized
- ☐ Modularity & flexibility built in

Risk Mitigation

- ☐ Training plan developed & scheduled
- ☐ Scope clearly defined with change control process
- ☐ Timeline accounts for dependencies & contingencies
- ☐ Supplier thoroughly vetted & references check

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