



Use this quick warning list together with the Readiness Screener and the Stage-Gate checklist. The listed red flags are typical risk points that may come up in automation projects.

If a red flag applies, fix it before proceeding. If you cannot, see if instead you can narrow the pilot (scope/scale/time/...) to mitigate the risk.

Vendor & Commercial

- △ Proprietary-only spares/tools; locked diagnostics software.
- △ Unclear data ownership/export rights; no data escrow.
- △ Heavy customization without source docs or code escrow.
- △ Single key-person dependency (vendor or internal).
- △ Punitive terms: termination penalties, uplifts above CPI, mandatory bundles.
- △ Surprise end-of-life or roadmap misaligned with planned life.
- △ Vendor financial fragility.
- △ No local service presence.

Operational Fit, Facilities & Support

- △ High mix or fragile presentation; EOAT unproven on edge cases.
- △ Frequent changeovers without a plan; no program management for variants.
- △ No manual fallback/bypass; single-point failures.
- △ Maintenance access cramped; spares list/lead times unknown.
- △ RF dead zones; weak Wi-Fi / BT.
- △ Power/air/network not ready.
- △ Hidden consumables/per-cycle costs (adhesives, labels) not budgeted.
- △ No stress test for peak volumes or abnormal states; demo-only performance.
- △ PM tasks not defined; CMMS integration absent.
- △ Calibration requirements overlooked; no local partner/SLA timezone fit.



Data, Integration & Cyber

- △ No API/specs; proprietary formats; missing timestamps/time zones.
- △ Message IDs/traceability not defined; no sequence numbers.
- △ Assumes perfect master data; routings/cycle times never validated.
- △ No test environment or sample mapping; cutover plan absent.
- △ No error handling/latency budget; retries/backpressure undefined.
- △ Flat network; shared accounts; default passwords.
- △ No patch/backup regime; logs not retained or reviewed.
- △ Remote access path not approved by IT/security.

Safety, Controls & Compliance

- △ Stop conditions and hand-back to manual not defined.
- △ Alarm flood; no priority/escalation logic.
- △ Safe access/egress not engineered; LOTO unclear.
- △ Risk assessment not signed by Safety/QA/Maintenance.
- △ CE/UL documentation incomplete; change-control obligations ignored.
- △ Validation/verification plan missing (FAT/SAT criteria unclear).

Economics, Governance & People

- △ Sticker price focus; install downtime and learning curve omitted.
- △ Recurring fees (licenses/cloud/support) missing; obsolescence ignored.
- △ Savings double-counted; supervision/coverage costs excluded.
- △ Residual/salvage not modeled; unrealistic utilization/volume.
- △ No success metric, stop rule, or rollback plan.
- △ Baseline not captured; benefits tracking undefined.
- △ SOP not updated; content governance unclear.
- △ No named 03:00 on-site owner; training/change plan missing.