



Industrial Robot Commissioning & Operational Safety Checklist 2026

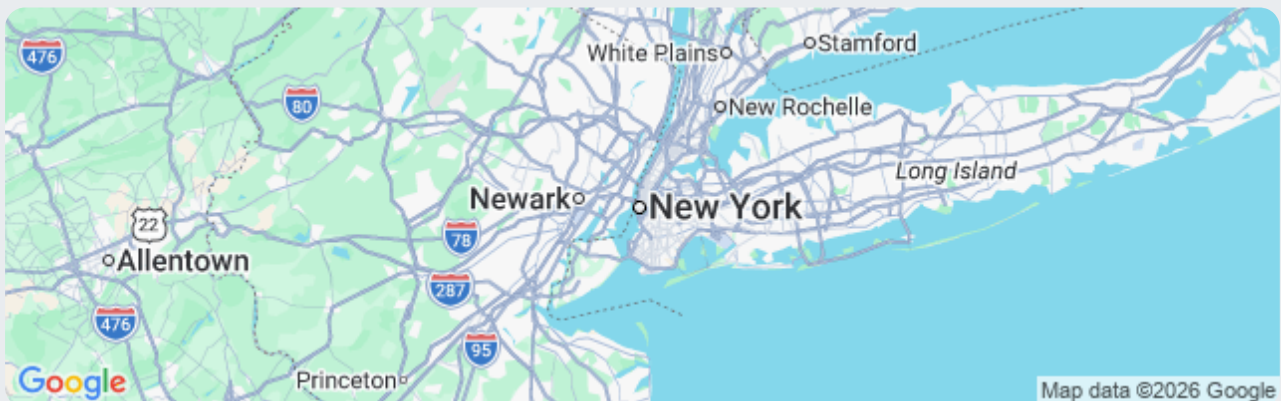
Pre-Installation & Site Preparation

Verification of workspace requirements, floor load capacity, power supply stability, and environmental conditions required for the robot installation.

Inspection Date

Installation Site/Cell ID

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Power Supply Compatibility Verified

- ☐ Yes
- ☐ No
- ☐ N/A

Required Floor Load Capacity (kg/m²)

Enter a number...

Site Environmental Constraints (Temperature, Humidity, Dust)

Write something...

Electrical Layout & Utility Map

 Upload File

Site Engineer Approval

Hardware & Mechanical Inspection

Comprehensive check of the robot arm, end-effectors (EOAT), mounting base, cabling, and peripheral pneumatic or hydraulic connections.

Robot Arm & Manipulator Integrity

- ☐ No visible damage or structural cracks
- ☐ Joint movements are smooth and fluid
- ☐ All bolts and fasteners are torqued to specification

End-of-Arm Tooling (EOAT) Check

- ☐ Gripper/Tooling Alignment Verified
- ☐ Pneumatic/Hydraulic Lines Secured
- ☐ Sensor Integration Confirmed
- ☐ Tool Weight Within Payload Limit

Measured Payload Weight (kg)

Enter a number...

Observed Mechanical Deviations

Write something...

Hardware Inspection Photos

 Upload File

Mechanical Inspector Verification

Safety Guarding & Perimeter Security

Validation of physical fencing, light curtains, laser scanners, interlocking gates, and the integrity of the safety-rated monitored stop systems.

Safety Perimeter Components Verified

- ☐ Physical Fencing/Guardrails
- ☐ Light Curtains
- ☐ Laser Area Scanners
- ☐ Interlocking Gate Switches
- ☐ Pressure Mats
- ☐ Safety Pressure Switches

Safety Distance Compliance

- ☐ Compliant (Within ISO/ANSI Standards)
- ☐ Non-Compliant (Requires Adjustment)
- ☐ N/A (Not Applicable)

Gap/Opening Measurement Audit

Write something...

Observed Deficiencies or Safety Obstructions

Write something...

Safety Guarding Layout/Blueprint Upload

 Upload File

Safety Officer Verification

Control System & Software Configuration

Verification of controller firmware versions, software parameters, I/O mapping, communication protocols, and emergency stop circuit integrity.

Software Version Deployment Date

Controller Firmware Version Number

Communication Protocols Verified

- ☐ EtherNet/IP
- ☐ PROFINET
- ☐ Modbus TCP
- ☐ EtherCAT
- ☐ DeviceNet

I/O Configuration Status

- ☐ Fully Configured
- ☐ Pending Mapping
- ☐ Error Detected

Logic & Safety Parameter Change Log

Write something...

Uploaded Configuration Backup File

 Upload File

Software Engineer Verification

Programming & Path Validation

Testing of programmed trajectories, collision avoidance logic, singularity detection, and verification of programmed payload limits.

Validated Path Parameters

- ☐ Collision Avoidance Logic
- ☐ Singularity Avoidance Check
- ☐ Payload/Mass Limit Verification
- ☐ End-of-Arm Tooling (EOAT) Path Accuracy

Program Version/Revision

- ☐ Stable
- ☐ Beta/Testing
- ☐ Under Modification

Maximum Defined Cycle Time (Seconds)

Enter a number...

Discrepancies or Path Deviation Notes

Write something...

Upload Simulation/Digital Twin Validation Report

 Upload File

Lead Programmer Verification

Emergency Stop & Safety Function Testing

Functional testing of all E-Stop buttons, enabling switches (dead-man switches), and restorative reset procedures to ensure immediate halt capability.

Testing Date

Enter date...

E-Stop Button Status

- ☐ Operational/Functional
- ☐ Defective/Non-Functional

Safety Devices Tested

- ☐ Primary E-Stop Button
- ☐ Secondary/Remote E-Stop
- ☐ Light Curtains
- ☐ Safety Pressure Mats
- ☐ Interlocking Gate Switches
- ☐ Dead-man Switch (Enabling Device)

Failure Observations & Corrective Actions

Write something...

Safety Officer Verification

Operational Performance & Speed Verification

Assessment of cycle time accuracy, repeatability, precision under load, and testing of reduced-speed modes for manual intervention.

Measured Cycle Time (Seconds)

Enter a number...

Path Deviation Accuracy

- ☐ Within Tolerance
- ☐ Marginal - Requires Adjustment
- ☐ Out of Tolerance - Immediate Action Required

Verified Operational Parameters

- ☐ Payload Capacity Compliance
- ☐ End-Effector Grip Stability
- ☐ Smooth Acceleration/Deceleration
- ☐ No Unintended Vibrations

Performance Discrepancy Notes

Write something...

Motion Profile Logs

 Upload File

Personnel Training & Standard Operating Procedures (SOP)

Ensuring all operators are trained on the specific robot model, lockout/tagout (LOTO) procedures, and emergency recovery protocols.

Training Modules Completed

- ☐ Basic Robot Operation
- ☐ Emergency Stop & Recovery Procedures
- ☐ Robot Maintenance & Lubrication
- ☐ Safety Perimeter & Sensor Management
- ☐ Error Code Troubleshooting

Training Completion Date

Enter date...

Trained Personnel Name

Write something...

Training Certificates & Competency Records

 Upload File

Supervisor Validation Signature

Notes on Specific Operator Training Gaps

Write something...

Final Commissioning Sign-off & Documentation

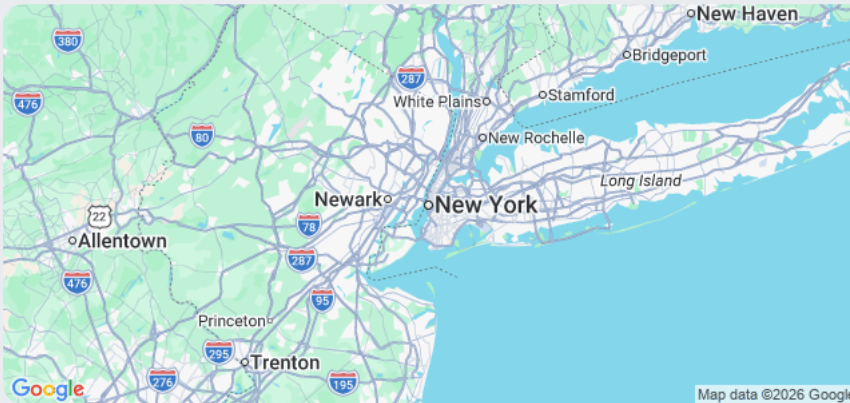
Completion of all technical logs, updated electrical schematics, risk assessment updates, and final handover to the production department.

Commissioning Completion Date

Enter date...

Deployment Facility/Production Line ID

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Required Documentation Verified

- ☐ Updated Electrical Schematics
- ☐ Updated Risk Assessment Report
- ☐ Robot Programming Backup Files
- ☐ Operator Training Logs
- ☐ Manufacturer Safety Manuals

Upload Final Inspection Report (PDF)

 [Upload File](#)

Lead Commissioning Engineer Signature

Production Manager Approval

Post-Commissioning Observations & Residual Risks

Write something...

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✓ Finish

🔧 Generate Sample Report