

# User Manual: NexBot Safety 921-008 Preventive Maintenance Plan

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## 1. Safety Information

**READ ALL SAFETY INSTRUCTIONS BEFORE OPERATION.** Failure to follow safety procedures may result in serious injury or equipment damage.

**DANGER:** The robotic system must be fully de-energized and placed in a locked-out/tagged-out (LOTO) state by qualified facility personnel before the NexBot technician begins any hands-on work. Failure to do so can result in fatal injury.

**WARNING:** Ensure the robotic work cell is free of all personnel, tools, and debris before the technician performs any system restarts or motion tests. Unexpected robot movement can cause serious injury.

**CAUTION:** Inform the visiting technician of any known faults, recent error codes, or unusual operational behavior before service begins. Withholding information may lead to incorrect diagnostics or incomplete service.

**NOTICE:** Access to the robot controller and teach pendant must be provided to the certified technician. Ensure any required passwords or access keys are available to the primary site contact on the day of service.

**NOTICE:** A representative from your facility must be present to sign off on the completed work order. The technician cannot depart the site until the service report is reviewed and acknowledged.

## 2. Product Overview

The NexBot Safety 921-008 Preventive Maintenance Plan is a structured service agreement designed to maximize the reliability and lifespan of your NexBot robotic systems. This plan provides a comprehensive, on-site inspection and servicing by a certified technician to proactively identify and address potential issues before they can lead to costly unplanned downtime. By adhering to a regular maintenance schedule, facilities can ensure consistent performance, maintain safety standards, and extend the operational life of their automation assets. The core of this maintenance plan is a detailed, multi-point inspection process covering every critical component of the robot. Our technicians methodically examine mechanical systems, including joint integrity, backlash, and balancer condition. Electrical systems are thoroughly checked, from cabinet connections and fan operation to the integrity of external cabling and connectors. The service includes the replacement of specified consumable parts, re-lubrication of joints according to factory specifications, and a full system backup to protect your programming. This scheduled intervention is designed to be completed within a single service day to minimize disruption to your production schedule. Key deliverables of the 921-008 plan include a comprehensive diagnostic report, a summary of all work performed, and recommendations for any necessary future repairs. The standard service interval is set for every 4,000 operational hours or annually, whichever comes first, aligning with best practices for industrial machinery. This proactive approach is ideal for demanding applications in manufacturing, logistics, and assembly where robot availability is critical. It provides predictable maintenance budgeting and helps ensure your robotic systems continue to operate at their original performance specifications.

## 3. Getting Started

### 1. Understanding Your Plan Coverage

The NexBot Safety 921-008 Preventive Maintenance Plan includes one annual on-site visit by a certified technician. The service includes a multi-point inspection, lubrication of all major axes, controller diagnostics, and a comprehensive service report. Replacement parts and emergency service calls are not included but may be quoted at a preferred rate.

### 2. Accessing the Service Portal

The NexBot customer portal is your primary tool for managing your service plan. Here you can view your covered assets, download past service reports, and view the contact information for your assigned Service Coordinator. You can also request to reschedule upcoming visits through the portal.

### 3. Your NexBot Service Coordinator

Upon activation, you are assigned a dedicated Service Coordinator who acts as your single point of contact for all scheduling and administrative aspects of your plan. They will reach out to you approximately 4-6 weeks before your service window to begin coordination. Direct contact information can be found in the portal.

## 4. Operation

### Preparing for a Service Visit

To ensure an efficient service visit, please have the robotic cell clean and accessible. All tooling, workpieces, and peripheral equipment not being serviced should be cleared from the immediate area. Ensure the primary site contact is available to grant access and perform the required LOTO procedure.

**Tip:** Having recent operational logs and a list of any operator-observed issues ready for the technician can significantly speed up the diagnostic process.

### The On-Site Service Process

The technician will arrive, check in with the site contact, and perform a safety briefing. They will then execute the multi-point inspection checklist, perform all required maintenance tasks, and document all findings. The process typically takes 4-6 hours per robotic system.

### Reviewing the Service Report

Upon completion, the technician will provide a detailed digital service report. This report includes a summary of work performed, a list of all checkpoints and their status (Pass/Fail/Adjusted), and recommendations for any necessary repairs or upcoming component replacements.

**Tip:** Pay close attention to the 'Recommendations' section. These are proactive measures to prevent future downtime and should be reviewed with your maintenance manager.

### Follow-Up Actions

If the service report recommends further repairs, a quote for parts and labor will be automatically generated and sent to the primary contact within 2-3 business days. You can approve and schedule these additional repairs through the service portal or by contacting your Service Coordinator.

## 5. Maintenance Schedule

Interval	Task	Notes
Annual	Mechanical Inspection: Check for and tighten any loose external hardware on the robot arm and controller.	Performed by a certified NexBot technician during the PM visit.
Annual	Lubrication Service: Inspect and lubricate all specified grease points on the robot's major axes.	Technician uses NexBot-approved lubricants only.
Annual	Cabling and Harness Inspection: Visually inspect all external robot cabling for signs of wear, abrasion, or improper routing.	Performed by a certified NexBot technician during the PM visit.
Annual	Controller System Check: Clean/replace controller cabinet air filters	Filter replacement is included in the plan.

Interval	Task	Notes
	and verify functionality of cooling fans.	
Annual	System Backup: Create a complete backup of the robot's current software, programs, and configuration.	The backup file is provided to the customer as part of the service report.
Annual	Safety Circuit Test: Verify the functionality of all connected safety circuits, including emergency stops and light curtains.	This is a functional test, not a full validation. Performed by a certified NexBot technician.
Annual	Repeatability Check: Perform a basic automated test to check for deviations in the robot's positioning.	A full system calibration is a separate, non-included service.

## 6. Troubleshooting

Symptom	Possible Cause	Solution
Cannot activate the service plan in the portal.	Incorrect Service Agreement Number (SAN) entered or the SAN has already been registered to another account.	Double-check the SAN from your Welcome Packet. If the issue persists, contact NexBot customer support and provide your purchase order number.
Did not receive a call to schedule the PM visit.	Service window is not yet within the 4-6 week scheduling period, or the contact information on file is incorrect.	Check the service window in your portal. If you are within the scheduling period, verify your contact information in the portal and/or contact your Service Coordinator directly.
The technician recommends a repair not covered by the plan.	The PM plan covers inspection and routine maintenance; it does not cover the cost of replacement parts or labor for repairs of failed components.	Review the quote provided for the additional work. Contact your Service Coordinator to schedule the repair or to ask any questions about the findings.
Need to reschedule a confirmed service visit.	Unforeseen production schedule changes or facility access issues.	Contact your Service Coordinator at least 72 hours in advance. A rescheduling fee may apply if canceled with less than 48 hours' notice, per the service agreement terms.
Cannot find the service report from a past visit.	The report may have been sent to a different email address or is located in the service portal.	Log in to the NexBot customer portal and navigate to the 'Service History' section for your covered asset. All historical reports

Symptom	Possible Cause	Solution
		are available for download there.
A fault occurred shortly after the PM visit.	The PM is designed to identify potential issues, but cannot prevent all random component failures.	Review the service report to see if the issue was noted as a recommendation. Contact NexBot technical support to open a new trouble ticket for diagnosis.

## 7. Technical Specifications

Parameter	Value	Unit
Country of Origin	CH	