

MAINTENANCE LOG REQUIREMENTS FOR AUTOMATED SYSTEMS

MAINTENANCE LOG REQUIREMENTS FOR A

Polar Dynamics Robotics, Inc.

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1. PURPOSE AND SCOPE

1. This document establishes the mandatory maintenance log require
2. These requirements apply to all Company-manufactured AMRs dep

2. DEFINITIONS

1. "Maintenance Log" refers to the official digital and physical documents.
2. "Critical Components" include BlueCore(TM) navigation systems, computers, and other essential equipment.
3. "Qualified Personnel" refers to Company-certified technicians or authorized personnel.

3. MAINTENANCE LOG REQUIREMENTS

1. Digital Log Format

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All maintenance logs must be maintained in the Company's Automated System.

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Backup records must be stored in an encrypted format with redundancy.

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Logs must be retained for a minimum of seven (7) years from the date

2. Required Log Entries

Each maintenance log entry must include:

- a) Unique identifier of the AMR unit
- b) Date and time of maintenance activity
- c) Operating temperature at time of maintenance
- d) Detailed description of work performed
- e) Parts replaced or modified
- f) Test results and performance metrics
- g) Name and certification number of performing technician
- h) Digital signature of supervising engineer

4. INSPECTION AND MAINTENANCE INTERVALS

1. Routine Inspections

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Daily: Automated system diagnostics

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Weekly: Physical inspection of critical components

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Monthly: Comprehensive performance evaluation

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Quarterly: Full system calibration

2. Temperature-Specific Requirements

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Additional inspections required when operating temperature varies by

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Mandatory system check following any thermal cycling event

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Enhanced monitoring during peak load periods

5. COMPLIANCE AND REPORTING

1. Regulatory Compliance

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Maintenance logs must comply with OSHA safety standards

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Records must meet ISO 9001:2015 quality management requirements

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Documentation must satisfy customer-specific audit requirements

2. Performance Metrics

Maintenance logs must track and report:

- a) Mean time between failures (MTBF)
- b) System uptime percentage
- c) Temperature-related incidents
- d) Safety-critical event data
- e) Battery performance in cold conditions

6. QUALITY CONTROL

1. Log Verification

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Weekly review by Quality Control Department

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Monthly audit by Engineering Team

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Quarterly validation by Compliance Officer

2. Error Correction

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Amendments must be tracked with change history

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Original entries must remain accessible

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Corrections require supervisor approval

7. CONFIDENTIALITY AND ACCESS CONTROL

1. Access to maintenance logs shall be restricted to:

- - 7 -

Qualified maintenance personnel

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Quality control officers

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Compliance team members

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Authorized customer representatives

2. Security Measures

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Multi-factor authentication required for digital access

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Encrypted data transmission

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Automated access logging

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Regular security audits

8. NON-COMPLIANCE AND PENALTIES

1. Failure to maintain logs as specified may result in:

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Suspension of maintenance certification

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Mandatory retraining

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Disciplinary action

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Potential termination of service agreements

9. AMENDMENTS AND UPDATES

1. This document shall be reviewed annually and updated as necessary

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Technological improvements

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Regulatory changes

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Customer requirements

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Industry best practices

AUTHORIZATION

This document is authorized and approved by:

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Date: January 15, 2024

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