

PREVENTIVE MAINTENANCE PLAN

Nordic Pharmaceutical Storage Facility Implementation

Document No. PM-2023-NPH-001

Effective Date: January 15, 2024

1. INTRODUCTION

1 This Preventive Maintenance Plan (the "Plan") is established by Polar Dynamics Robotics, Inc., a Delaware corporation ("PDR" or the "Company"), for the implementation and maintenance of autonomous mobile robots ("AMRs") at the Nordic Pharmaceutical Storage facility located at 800 Celsius Drive, Minneapolis, Minnesota ("Facility").

2 This Plan governs the scheduled maintenance, inspection, and servicing of PDR's IceNav-enabled AMR fleet operating in temperature-controlled environments ranging from -30 C to +25 C.

2. DEFINITIONS

1 "Critical Components" means the essential mechanical, electrical, and software systems of the AMRs, including but not limited to:

- (a) Cold-resistant actuators
- (b) Thermal management systems
- (c) IceNav navigation modules
- (d) Power distribution units
- (e) Safety sensors and emergency stop mechanisms

2 "Maintenance Personnel" means PDR-certified technicians who have completed the Company's Cold Environment Service Training Program (CESTP-2023).

3 "Maintenance Interval" means the prescribed time period between scheduled maintenance activities as defined in Section 4.

3. SCOPE AND APPLICABILITY

1 This Plan applies to all Series X-500 and X-700 AMRs deployed at the Facility, including:

- 12 X-500 Transport Units (Serial #X500-NPH-001 through X500-NPH-012)

- 8 X-700 Heavy Duty Units (Serial #X700-NPH-001 through X700-NPH-008)

2 The Plan encompasses all preventive maintenance activities required to maintain optimal performance in temperature-controlled pharmaceutical storage environments.

4. MAINTENANCE SCHEDULE

1 Daily Inspections

- (a) Visual inspection of external components
- (b) Verification of safety systems
- (c) Battery charge level assessment
- (d) Operating temperature monitoring
- (e) Navigation sensor calibration check

2 Weekly Maintenance

- (a) Thermal management system inspection
- (b) Actuator performance testing
- (c) Software diagnostics
- (d) Navigation accuracy verification
- (e) Safety system comprehensive testing

3 Monthly Service

- (a) Complete mechanical inspection
- (b) Firmware updates
- (c) Battery system analysis
- (d) Environmental seal integrity check
- (e) Performance data analysis and reporting

4 Quarterly Overhaul

- (a) Critical component replacement as needed
- (b) Full system calibration
- (c) Extended performance testing
- (d) Environmental stress testing
- (e) Compliance verification

5. DOCUMENTATION AND REPORTING

1 Maintenance Personnel shall document all maintenance activities in the PDR Service Management System ("SMS"), including:

- (a) Date and time of service
- (b) Technician identification
- (c) Service actions performed
- (d) Parts replaced or serviced
- (e) Performance test results
- (f) Environmental conditions during service

2 Monthly maintenance reports shall be generated and provided to:

- (a) Facility Management
- (b) PDR Quality Assurance Department
- (c) Customer Success Team
- (d) Regulatory Compliance Officer

6. QUALITY CONTROL

1 All maintenance activities shall comply with:

- (a) FDA 21 CFR Part 211
- (b) GMP guidelines for pharmaceutical storage
- (c) PDR Quality Management System requirements
- (d) ISO 9001:2015 standards
- (e) Customer-specific requirements

7. EMERGENCY PROCEDURES

1 In the event of critical system failure:

- (a) Immediate notification to Facility Management
- (b) AMR safe state activation
- (c) Emergency response team deployment
- (d) Root cause analysis initiation
- (e) Corrective action implementation

8. AMENDMENTS AND UPDATES

1 This Plan shall be reviewed quarterly and updated as necessary to reflect:

- (a) New regulatory requirements
- (b) Equipment modifications
- (c) Operational experience
- (d) Customer feedback
- (e) Technology updates

9. AUTHORIZATION

This Preventive Maintenance Plan is hereby authorized and approved:

POLAR DYNAMICS ROBOTICS, INC.

By:

Name: Dr. James Barrett

Title: Chief Robotics Officer

Date: January 15, 2024

By:

Name: Sarah Nordstrom

Title: Chief Operating Officer

Date: January 15, 2024