

PREVENTIVE MAINTENANCE SCHEDULE

CryoTech Warehousing Facilities

Polar Dynamics Robotics, Inc.

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Effective Date: January 15, 2024

1. PURPOSE AND SCOPE

1 This Preventive Maintenance Schedule ("Schedule") establishes the mandatory maintenance protocols for Polar Dynamics Robotics, Inc.'s ("Company") autonomous mobile robot ("AMR") systems deployed at CryoTech Warehousing facilities operating in temperature-controlled environments ranging from -30 C to +10 C.

2 This Schedule applies to all IceNav(TM)-enabled AMR units, associated charging stations, navigation infrastructure, and environmental monitoring systems.

2. MAINTENANCE INTERVALS

1 Daily Inspections

- Visual inspection of AMR exterior housing and seals
- Verification of thermal management system operation
- Battery charge level monitoring
- Basic movement and navigation tests
- Safety system functionality check

2 Weekly Maintenance

- Detailed diagnostic scan of IceNav(TM) system
- Cleaning of optical sensors and cameras
- Inspection of wheel assemblies and drive mechanisms
- Verification of emergency stop functionality
- Download and analysis of operational data logs

3 Monthly Service Requirements

- Complete system diagnostics

- Calibration of navigation sensors
- Thermal imaging inspection of critical components
- Actuator performance testing
- Environmental seal integrity verification
- Software updates and patch implementation

4 Quarterly Major Service

- Comprehensive mechanical inspection
- Battery system performance analysis
- Replace air filters and desiccants
- Calibration of all sensors
- Full system stress testing
- Firmware updates
- Structural integrity assessment

3. COMPONENT-SPECIFIC PROCEDURES

1 Thermal Management System

- Daily temperature monitoring of critical components
- Weekly coolant level checks
- Monthly thermal efficiency testing
- Quarterly replacement of thermal interface materials

2 Navigation Systems

- Weekly calibration verification
- Monthly signal strength testing
- Quarterly antenna and receiver maintenance
- Bi-annual complete system recalibration

3 Power Systems

- Daily charging cycle verification
- Weekly charging station inspection
- Monthly battery capacity testing

- Quarterly power distribution system inspection

4. DOCUMENTATION REQUIREMENTS

1 All maintenance activities must be logged in the Company's Maintenance Management System (MMS) within 24 hours of completion.

2 Required Documentation:

- Technician identification
- Date and time of service
- Specific procedures performed
- Component serial numbers
- Test results and measurements
- Parts replaced or serviced
- Operational anomalies noted
- Follow-up actions required

5. QUALIFIED PERSONNEL

1 Only Company-certified technicians with current cold environment certification may perform maintenance activities.

2 Minimum Qualifications:

- Level II Robotics Maintenance Certification
- Cold Environment Safety Training
- IceNav(TM) Systems Certification
- Current safety clearance

6. SAFETY PROTOCOLS

1 All maintenance activities must comply with:

- OSHA cold storage workplace requirements
- Company Safety Manual Section 7.3
- Facility-specific safety protocols
- Lock-out/Tag-out procedures

- Personal protective equipment requirements

7. QUALITY ASSURANCE

- 1 Monthly audit of maintenance records
- 2 Quarterly performance review of maintenance program
- 3 Annual certification renewal for all maintenance personnel

8. MODIFICATIONS AND UPDATES

- 1 This Schedule shall be reviewed and updated annually or upon:
 - Introduction of new AMR models
 - Significant software updates
 - Changes in operational requirements
 - Regulatory changes
 - Identification of new maintenance requirements

9. COMPLIANCE AND ENFORCEMENT

- 1 Failure to adhere to this Schedule may result in:
 - Immediate suspension of AMR operations
 - Revocation of warranty coverage
 - Termination of service agreements
 - Liability for resulting damages

AUTHORIZATION

This Preventive Maintenance Schedule is hereby adopted and implemented:

POLAR DYNAMICS ROBOTICS, INC.

By:

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Title: Chief Robotics Officer

Date: January 15, 2024

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