OPERATIONS DOCUMENT 369

STANDARD OPERATING PROCEDURES FOR AUTONOMOUS MOBILE ROBOT DEPLOYMENT AND MAINTENANCE

Effective Date: January 1, 2024

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1. PURPOSE AND SCOPE

1. This Operations Document 369 ("Document") establishes the binding operational procedures and protocols for the deployment, maintenance, and decommissioning of Polar Dynamics Robotics, Inc. ("Company") autonomous mobile robots ("AMRs") in temperature-controlled environments.

2. This Document applies to all Company personnel involved in AMR operations, including but not limited to field technicians, deployment specialists, maintenance engineers, and operational supervisors.

2. DEFINITIONS

1. "IceNav System" means the Company's proprietary cold-environment navigation and operation platform.

2. "Critical Operating Temperature" means any ambient temperature below -30 C (-22 F).

3. "Deployment Zone" means any customer facility where Company AMRs are installed and operational.

4. "Maintenance Protocol" means the prescribed series of diagnostic and service procedures detailed in Section 4.

3. DEPLOYMENT PROCEDURES

1. Pre-Deployment Assessment

a) Conduct comprehensive site survey including thermal mapping

b) Verify facility compliance with Company's Technical Specification TD-2023-114

c) Document all structural and environmental variables

d) Obtain written customer acknowledgment of operating parameters

2. IceNav System Configuration

a) Upload facility floor plan to IceNav platform

b) Configure thermal compensation algorithms

c) Establish emergency shutdown parameters

d) Calibrate cold-resistant actuators to facility specifications

3. Safety Protocols

a) Install emergency stop stations at prescribed intervals

b) Verify integration with facility safety systems

c) Test all redundant safety mechanisms

d) Document compliance with ANSI/RIA R15.08-1-2020

4. MAINTENANCE REQUIREMENTS

1. Scheduled Maintenance

a) Weekly system diagnostics

b) Monthly actuator calibration

c) Quarterly thermal management system inspection

d) Semi-annual software updates

2. Performance Monitoring

a) Continuous telemetry tracking

b) Daily operational efficiency reports

c) Weekly performance analytics review

d) Monthly trend analysis

3. Component Replacement Schedule

a) Actuator bearings: Every 2,000 operating hours

b) Thermal sensors: Every 4,000 operating hours

c) Navigation cameras: Annual replacement

d) Battery systems: Based on charge cycle count

5. QUALITY CONTROL

1. The Company shall maintain detailed records of:

a) All deployment procedures

b) Maintenance activities

c) System modifications

d) Performance metrics

e) Safety incidents

f) Customer communications

2. Quality Assurance Reviews

a) Monthly internal audits

b) Quarterly external compliance verification

c) Annual certification renewal

6. COMPLIANCE AND REPORTING

1. All operations shall comply with:

a) ISO 10218-1:2011 and ISO 10218-2:2011

b) ANSI/RIA R15.08 series standards

c) Company's internal quality management system

d) Applicable local and federal regulations

2. Reporting Requirements

a) Daily operational status reports

b) Weekly performance summaries

c) Monthly compliance certificates

d) Quarterly safety reviews

7. PROPRIETARY INFORMATION

1. This Document contains confidential and proprietary information of Polar Dynamics Robotics, Inc. and may not be disclosed to third parties without written authorization from the Company's Legal Department.

8. MODIFICATIONS AND UPDATES

1. This Document may be modified or updated by the Company at any time, with changes becoming effective upon written notice to relevant personnel.

9. EXECUTION

IN WITNESS WHEREOF, this Operations Document 369 has been executed by the duly authorized representatives of the Company as of the Effective Date.

POLAR DYNAMICS ROBOTICS, INC.

By:

Name: Sarah Nordstrom

Title: Chief Operating Officer

By:

Name: Dr. James Barrett

Title: Chief Robotics Officer

Date: January 1, 2024