

DEPLOYMENT TIMELINE AND IMPLEMENTATION SCHEDULE

Northern Cold Chain Corporation - AMR Integration Project

Document Reference: PDR-NCH-2023-DT-001

Effective Date: January 15, 2024

1. PARTIES

This Deployment Timeline and Implementation Schedule (the "Timeline") is prepared by POLAR DYNAMICS ROBOTICS, INC., a Delaware corporation ("Provider"), for NORTHERN COLD CHAIN CORPORATION ("Client") pursuant to Master Services Agreement dated December 1, 2023 (the "MSA").

2. SCOPE

1 This Timeline governs the staged deployment of Provider's IceNav-enabled autonomous mobile robots (the "AMR Systems") across Client's temperature-controlled facilities in accordance with the MSA.

2 The Timeline encompasses all aspects of hardware installation, software integration, testing, and operational validation of twenty-five (25) Model PDR-350F AMR units.

3. DEPLOYMENT PHASES

3.1 Phase I: Initial Site Assessment and Preparation

Duration: Weeks 1-4

- Facility mapping and digital twin creation
- Environmental assessment of -20 C to -30 C zones
- Network infrastructure validation
- Safety system integration planning
- Charging station location optimization

3.2 Phase II: Pilot Implementation

Duration: Weeks 5-8

- Installation of five (5) AMR units at Minneapolis facility
- IceNav system calibration for specific facility conditions

- Integration with existing WMS
- Staff training program implementation
- Initial performance metrics collection

3.3 Phase III: Primary Deployment

Duration: Weeks 9-16

- Staged installation of remaining twenty (20) AMR units
- Sequential activation across designated zones
- Full integration with facility management systems
- Advanced operator certification program
- Performance optimization and route refinement

4. MILESTONE SCHEDULE

1 The following milestones shall be achieved according to the specified timeline:

Milestone	Completion Date	Deliverables
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Site Preparation	February 15, 2024	Facility Assessment Report
Pilot Launch	March 15, 2024	Initial Performance Validation
Full Deployment	May 1, 2024	System Integration Certificate
Final Acceptance	May 15, 2024	Performance Verification Report

5. TESTING AND ACCEPTANCE CRITERIA

1 Each deployment phase shall be subject to the following acceptance criteria:

- a) Navigation Accuracy: 99.8% successful completion of programmed routes
- b) Temperature Resilience: Continuous operation at -30 C for 12+ hours
- c) Pick Accuracy: 99.9% successful item retrieval
- d) System Uptime: 98% availability during operational hours
- e) Safety Compliance: Zero safety incidents during testing period

6. RESOURCE ALLOCATION

1 Provider shall maintain the following on-site personnel during implementation:

- 1 Project Manager (full-time)
- 2 Systems Integration Engineers (full-time)
- 2 Technical Support Specialists (rotating shifts)
- 1 Training Coordinator (weeks 5-16)

7. CONTINGENCY PLANNING

1 Provider shall maintain n+1 redundancy for critical systems.

2 Backup units shall be available within 24 hours of any system failure.

3 Emergency response team shall be on-call 24/7 during deployment phases.

8. REPORTING AND COMMUNICATION

1 Daily progress reports during active deployment phases

2 Weekly status meetings with stakeholder committee

3 Monthly executive summaries

4 Immediate notification of any safety or critical operational issues

9. MODIFICATIONS AND AMENDMENTS

1 This Timeline may be modified only by written agreement signed by authorized representatives of both parties.

2 Any deviation exceeding 5 business days from scheduled milestones requires formal change order approval.

10. FORCE MAJEURE

1 Timeline obligations shall be suspended during any period where performance is rendered impossible by circumstances beyond reasonable control, including but not limited to severe weather events, labor disputes, or supply chain disruptions.

EXECUTION

IN WITNESS WHEREOF, the authorized representative of Provider has executed this Timeline as of

the Effective Date.

POLAR DYNAMICS ROBOTICS, INC.

By:

Name: Katherine Wells

Title: Chief Financial Officer

Date: January 15, 2024