PREVENTIVE MAINTENANCE SCHEDULE FOR ROBOTS

PREVENTIVE MAINTENANCE SCHEDULE FO

Document ID: PDR-PMS-2024-001

Effective Date: January 15, 2024

Version: 3.0

Classification: CONFIDENTIAL

1. PURPOSE AND SCOPE

1. This Preventive Maintenance Schedule ("Schedule") establishes th

2. This Schedule applies to all Company AMR models, including Serie
2. DEFINITIONS
"Critical Components" means essential robot systems including:
a) BlueCore(TM) power management system
b) Navigation sensors and processors
c) Drive train assemblies
d) Temperature control units
e) Safety systems
2. "Maintenance Interval" refers to the prescribed period between req
3. "Qualified Technician" means an individual certified by the Compar

3. MAÎNTENANCE INTERVALS

1. Daily Inspections (Every 24 hours of operation)
-
Visual inspection of external housing integrity
-
Verification of all safety sensors functionality
-
Battery charge level assessment
-
Temperature monitoring system check
-
Emergency stop system verification
2. Weekly Maintenance (Every 168 hours of operation)

3 -
Cleaning of optical sensors and cameras
-
Lubrication of moving parts rated for cold environments
-
Drive wheel wear inspection
-
Battery connection integrity check
-
Software diagnostics run
3. Monthly Maintenance (Every 720 hours of operation)
Full system diagnostic scan
-

BlueCore(TM) power efficiency analysis
-
Calibration of navigation sensors
-
Thermal insulation integrity check
-
Firmware updates if applicable
4. Quarterly Maintenance (Every 2,160 hours of operation)
-
Complete drive train inspection
-
Battery capacity testing
-
Replacement of wear components as needed

5 -
Full safety system certification
-
Environmental seal integrity verification
4. DOCUMENTATION REQUIREMENTS
II DOGGINIZIVI ANTONI KIZGOINIZIVI G
1. All maintenance activities must be documented in the Company's N
-
Date and time of maintenance
Takaisian idantifiaatian
Technician identification
-
Specific procedures performed
-

Parts replaced or serviced
-
Test results and observations
- Next scheduled maintenance date
2. Maintenance records shall be retained for a minimum of five (5) years.
5. COMPLIANCE AND SAFETY
1. All maintenance must comply with:
-
OSHA safety requirements
- ANSI/RIA R15.06-2012 robot safety standards

7-
Company safety protocols
-
Local regulatory requirements
-
Customer facility safety requirements
2. Personal Protective Equipment (PPE) requirements:
-
Cold environment protective gear
-
Electrical safety equipment
-
Anti-static protection
-

Safety_glasses and gloves
-
Steel-toed safety boots
6. QUALITY ASSURANCE
Post-maintenance testing must verify:
-
Full functionality of all systems
-
Proper operation in target temperature range
-
Navigation accuracy within 5mm
-
Safety system response times

9-
Communication system reliability
2. Any AMR failing post-maintenance testing must be immediately rer
7. MODIFICATIONS AND UPDATES
This Schedule shall be reviewed and updated annually or as require
-
New product introductions
-
Regulatory changes
<u>-</u>
Field performance data
_

Customer_requirements
- Technology updates
8. LEGAL COMPLIANCE
This Schedule forms part of the Company's regulatory compliance
2. Failure to perform scheduled maintenance may void warranty cover
AUTHORIZATION
Approved and authorized by:
_

Dr. Elena Frost

Chief Executive Officer

Polar Dynamics Robotics, Inc.

_

Dr. James Barrett

Chief Robotics Officer

Polar Dynamics Robotics, Inc.

Date: January 15, 2024