MAINTENANCE TRAINING CERTIFICATE

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PDR TECHNICIAN CERTIFICATION PROGRAM

Polar Dynamics Robotics, Inc.

Certificate Number: PDR-MT-2023-0142

Issue Date: December 15, 2023

Expiration Date: December 15, 2025

1. CERTIFICATION DETAILS

This certificate confirms that the following maintenance technicians ha
successfully completed the Polar Dynamics Robotics Advanced Maint
Program for BlueCore(TM)-enabled Autonomous Mobile Robots opera
environments:

1.1 Certified Personnel

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Technical Team Lead: Robert Anderson (ID: PDR-TL-2389)

-

Senior Technicians:

-

Sarah Martinez (ID: PDR-ST-4521)

-

David Chen (ID: PDR-ST-4522)

-

Michael O'Brien (ID: PDR-ST-4523)

-

Support Technicians:

-

James Wilson (ID: PDR-TS-6741)

-

Amanda Rodriguez (ID: PDR-TS-6742)

2. TRAINING PROGRAM SPECIFICATIONS

2.1 Program Components

The certified personnel have demonstrated proficiency in:

a) BlueCore(TM) System Architecture (40 hours)

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Power distribution systems

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Cold-environment navigation modules

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Thermal management systems

-

Emergency shutdown procedures

b) Preventive Maintenance Protocols (32 hours)

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Daily inspection requirements

-

Weekly maintenance schedules

-

Monthly system optimization

Quarterly deep diagnostics

c) Advanced Troubleshooting (48 hours)

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Error code interpretation

-

Component-level diagnostics

-

System recovery procedures

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Performance optimization

2.2 Practical Assessment

All technicians have successfully completed:

120 hours of hands-on training

- 25 supervised maintenance procedures

- 10 emergency response simulations

- 5 system recovery exercises

3. CERTIFICATION SCOPE

3.1 Authorized Activities

Certified technicians are authorized to:

a) Perform maintenance on the following PDR models:

Arctic Series (AS-100, AS-200, AS-300)

- Polar Navigator Series (PN-500, PN-750)

- CryoBot Series (CB-1000, CB-1500)

b) Execute the following maintenance procedures:

- Level 1-3 diagnostics and repairs

- Software updates and patches

- Hardware component replacement

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System calibration and testing

3.2 Limitations

This certification does not authorize:

- Modifications to core BlueCore(TM) algorithms
- Structural changes to chassis design
- Third-party component integration
- Firmware development or modification

4. QUALITY ASSURANCE

4.1 Training Standards

This certification program complies with:

- ISO 9001:2015 Quality Management Standards
- ANSI/RIA R15.06-2012 Robot Safety Requirements
- PDR Internal Quality Standard PS-2023-MT

4.2 Validation

Training completion verified by:

- Dr. James Barrett, Chief Robotics Officer
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Victoria Chen, Head of Technical Training

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Marcus Wong, Quality Assurance Director

5. MAINTENANCE REQUIREMENTS

5.1 Certification Renewal

To maintain valid certification status:

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Complete 40 hours of continuing education annually

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Pass bi-annual competency assessments

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Document all maintenance procedures

Maintain 95% success rate on service calls

5.2 Record Keeping

Certified technicians must:

- Log all maintenance activities in PDR Service Portal
- Submit monthly performance reports
- Document all training updates
- Maintain current safety certifications

6. LEGAL DISCLAIMERS

This certification is:

- Non-transferable
- Valid only for specified personnel
- Subject to immediate revocation for protocol violations
- Limited to authorized PDR service centers

Polar Dynamics Robotics, Inc. reserves the right to modify certification requirements and scope at any time. This certification does not consti employment contract or guarantee of continued service authorization.

7. AUTHENTICATION

This certificate is officially issued by:

/s/ Dr. James Barrett

Dr. James Barrett

Chief Robotics Officer

Polar Dynamics Robotics, Inc.

/s/ Victoria Chen

Victoria Chen

Head of Technical Training

Polar Dynamics Robotics, Inc.

Corporate Seal Affixed

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