

TRADEMARK CERTIFICATION STANDARDS AND USAGE REQUIREMENTS

TRADEMARK CERTIFICATION STANDARDS

ARCTIC-GRADE(TM) COMPONENT CERTIFICATION

EFFECTIVE DATE: January 15, 2024

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ISSUED BY: Polar Dynamics Robotics, Inc.

VERSION: 3.0

1. INTRODUCTION

This document establishes the official standards, testing protocols, and requirements for the Arctic-Grade(TM) certification mark owned by PDR Robotics, Inc. ("PDR" or the "Company"), registered with the United States Patent and Trademark Office under Registration No. 88754321.

2. DEFINITIONS

1. "Arctic-Grade(TM)" means the certification mark owned by PDR inc.
2. "Certified Component" means any robotic component, subsystem,
3. "Testing Protocol" means the standardized evaluation procedures o
4. "Certification Committee" means the internal PDR body responsible

3. CERTIFICATION SCOPE

1. The Arctic-Grade(TM) certification applies to:

- a) Electronic control systems
- b) Power distribution components
- c) Mechanical drive assemblies
- d) Sensor arrays and navigation systems
- e) External housing and protective elements
- f) Interface components and connectors

2. Minimum Performance Requirements:

- a) Sustained operation at -40 C to -5 C
- b) Thermal shock resistance ($T = 60\text{ C}$)
- c) Condensation and frost resistance
- d) Impact resistance at low temperatures
- e) Power efficiency at reduced temperatures

4. CERTIFICATION PROCESS

1. Application Submission

-

Complete technical documentation

-

Component specifications

-

Intended use case documentation

-

Preliminary test results

-

Manufacturing process validation

2. Initial Screening

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Technical review by PDR engineering team

-

Compliance assessment with BlueCore(TM) integration standards

-

Safety evaluation

-

Preliminary performance verification

3. Testing Phase

-

Environmental chamber testing

-

Thermal cycling evaluation

-

Performance benchmarking

-

Durability assessment

-

Integration validation

4. Certification Review

-

Data analysis and verification

-

Compliance confirmation

-

Risk assessment

-

Final approval by Certification Committee

5. TESTING PROTOCOLS

1. Environmental Testing

-

500-hour continuous operation at -40 C

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100 thermal cycles (-40 C to +25 C)

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Humidity resistance (95% RH at -5 C)

-

Ice formation resistance testing

2. Performance Validation

-

Power consumption monitoring

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Response time measurement

-

Accuracy and precision verification

-

System integration testing

-

Failure mode analysis

6. USAGE REQUIREMENTS

1. Mark Display Requirements

-

Minimum size specifications

-

Clear space requirements

-

Approved color variations

-

Positioning guidelines

2. Marketing Guidelines

-

Approved terminology

-

Required disclaimers

-

Documentation requirements

-

Advertising restrictions

7. COMPLIANCE MONITORING

1. Quality Assurance

-

Quarterly performance reviews

-

Random sampling and testing

-

Manufacturing facility audits

-

Documentation verification

2. Non-Compliance Procedures

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Warning notification process

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Remediation requirements

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Certification suspension

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Revocation procedures

8. LEGAL PROVISIONS

1. The Arctic-Grade(TM) certification mark is protected under U.S. and

2. PDR reserves the right to modify certification requirements with 90

3. Unauthorized use of the Arctic-Grade(TM) mark constitutes trademark

9. CERTIFICATION MAINTENANCE

1. Annual Renewal Requirements

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Performance verification

-

Documentation updates

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Compliance confirmation

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Fee payment

2. Modification Procedures

-

Change notification requirements

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Re-certification criteria

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Testing requirements

-

Documentation updates

EXECUTION

IN WITNESS WHEREOF, this document has been executed by the duly authorized representatives of Polar Dynamics Robotics, Inc.

POLAR DYNAMICS ROBOTICS, INC.

By:

Name: Dr. Elena Frost

Title: Chief Executive Officer

Date: January 15, 2024

By:

Name: Dr. James Barrett

Title: Chief Robotics Officer

Date: January 15, 2024

APPROVED:

Victoria Wells

Chief Financial Officer

Date: January 15, 2024

