QUALITY ASSURANCE TESTING WORKFLOW DOCUMENT

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NaviFloor Robotics, Inc.

Effective Date: January 11, 2024

Document ID: QA-WF-2024-001

Version: 2.0

1. PURPOSE AND SCOPE

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1. This Quality Assurance Testing Workflow Document ("QA Workflow") e

2. This document applies to all quality assurance testing activities conducted

2. DEFINITIONS

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1. "Testing Environment" means any controlled space designated for AMR t

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2. "Navigation Stack" refers to the proprietary terrain-mapping and navigatio

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3. "Test Protocol" means the documented sequence of testing procedures app

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4. "Critical Failure" means any malfunction that compromises core safety or

3. TESTING REQUIREMENTS

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1. Pre-Testing Procedures

a) Environmental safety assessment

b) System initialization verification

c) Sensor calibration confirmation

d) Testing environment documentation

e) Equipment certification verification

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2. Mandatory Testing Categories

a) Navigation accuracy testing

b) Multi-surface adaptation testing

c) Obstacle detection and avoidance

d) Emergency stop system validation

e) Battery performance testing

f) Load capacity verification

g) Communication systems testing

h) Software integration testing

4. TESTING PROTOCOLS

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1. Navigation Stack Testing

a) Minimum 100 hours of continuous operation testing

b) Testing across all supported surface types

c) Dynamic obstacle course navigation

d) Multi-level transition testing

e) GPS-denied environment testing

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2. Safety Systems Testing

a) Emergency stop validation under full load

b) Collision avoidance system verification

c) Fail-safe mechanism testing

d) Human interaction safety protocols

e) Network failure response testing

5. DOCUMENTATION AND REPORTING

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1. Required Documentation

a) Test execution logs

b) System performance metrics

c) Environmental conditions data

d) Error and incident reports

e) Video documentation of critical tests

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2. Testing Reports

a) Daily testing summaries

b) Weekly performance analyses

c) Monthly trend reports

d) Quarterly compliance reviews

6. QUALITY STANDARDS AND METRICS

1. Performance Requirements

a) 99.9% navigation accuracy

b) <0.1% critical failure rate

c) 100% safety system effectiveness

d) 95% battery efficiency rating

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2. Compliance Standards

a) ISO 9001:2015 requirements

b) ANSI/RIA R15.06-2012 standards

c) CE marking requirements

d) UL 3100 compliance

7. CORRECTIVE ACTIONS

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1. Critical Failure Response

a) Immediate testing suspension

b) Root cause analysis

c) Engineering review

d) Corrective action implementation

e) Validation testing

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2. Documentation Requirements

a) Failure analysis reports

b) Corrective action plans

c) Implementation verification

d) Follow-up testing results

8. CONFIDENTIALITY AND INTELLECTUAL PROP

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1. All testing data, procedures, and results are confidential and proprietary to

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2. Testing personnel must comply with all applicable non-disclosure agreeme

9. AMENDMENTS AND UPDATES

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1. This document may be amended only by written authorization from the Qu

2. All amendments must be documented and communicated to relevant perso

10. APPROVAL AND EXECUTION

IN WITNESS WHEREOF, this Quality Assurance Testing Workflow Docum approved and executed by the authorized representatives of NaviFloor Robot Inc.

NAVIFLOOR ROBOTICS, INC.

By:

Name: Dr. Elena Kovacs

Title: Chief Research Officer

Date: January 11, 2024

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