COMPONENT ASSEMBLY INSTRUCTIONS - NF-2000

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Classification: CONFIDENTIAL - Internal Use Only

1. DOCUMENT CONTROL

1. This document is the property of NaviFloor Robotics, Inc. ("Company") a

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2. This version supersedes all previous versions of the NF-2000 assembly in
2. PURPOSE AND SCOPE
1. These instructions govern the assembly process for the NF-2000 Terrain N
1. These instructions govern the assembly process for the 141 2000 Terrain I
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2. Compliance with these instructions is mandatory for all authorized assemb
2 DEFINITIONS
3. DEFINITIONS
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1. "Certified Personnel" means individuals who have completed the Compan

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2. "Quality Control Standards" refers to the specifications detailed in Docur
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3. "Assembly Environment" means a Class 100,000 cleanroom or equivalent
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4. PREREQUISITES
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1. Required Certifications:
a) NF-2000 Assembly Certification
b) ESD Safety Certification
c) Precision Components Handling Certification

2. Required Equipment:

- a) Calibrated torque drivers (0.5-5.0 Nm)
- b) ESD-safe workstation
- c) Digital microscope (minimum 50x magnification)
- d) Calibrated precision measurement tools

5. ASSEMBLY PROCEDURE

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- 1. Pre-Assembly Verification
- a) Verify all components against Bill of Materials NF2000-BOM-2024
- b) Inspect components for physical damage
- c) Validate component serial numbers
- d) Document environmental conditions

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- 2. LiDAR Integration
- a) Mount primary LiDAR sensor array (P/N: NF2000-LDR-001)
- b) Align optical axis within $\pm 0.02^{\circ}$ tolerance
- c) Torque mounting screws to $2.3 \pm 0.1 \text{ Nm}$
- d) Verify sensor initialization sequence

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- 3. Depth Sensing Assembly
- a) Install depth sensor array (P/N: NF2000-DPS-001)
- b) Calibrate sensor alignment using Procedure CAL-DS-2023
- c) Connect flex cables observing polarity markers
- d) Verify signal integrity using Test Protocol TP-DS-001

6. QUÁLITY CONTROL

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- 1. Required Testing:
- a) Optical alignment verification
- b) Sensor response calibration
- c) Environmental stress screening
- d) Full system initialization test

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- 2. Documentation Requirements:
- a) Component serial number recording
- b) Test results documentation
- c) Assembly technician identification

d) Environmental condition logs

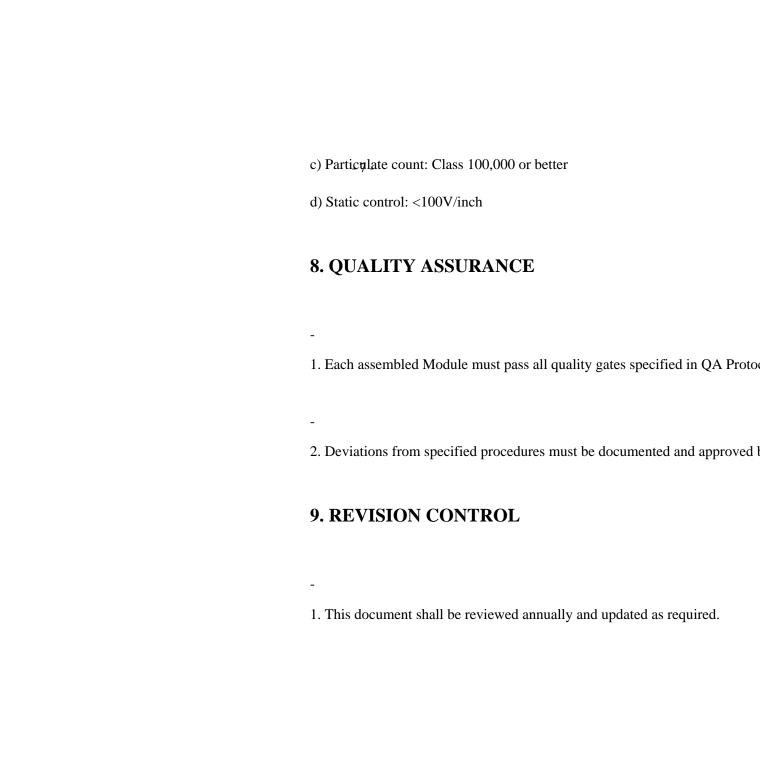
7. SAFETY REQUIREMENTS

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- 1. Personal Protective Equipment:
- a) ESD-safe gloves
- b) Safety glasses
- c) Clean room attire
- d) Grounding straps

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- 2. Environmental Controls:
- a) Temperature: 20°C ±2°C
- b) Humidity: 45% ±5% RH



- 8 -2. Revision history shall be maintained in the Document Control System.
10. LEGAL NOTICES
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1. These assembly instructions are protected by copyright and trade secret la
- 2. The Company reserves all rights to modify these instructions without prior
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Date: January 15, 2024

DOCUMENT END

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