CLEAN ROOM PROTOCOL FOR SENSOR ASSEMBLY

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NaviFloor Robotics, Inc.

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1. PURPOSE AND SCOPE

1. This Clean Room Protocol ("Protocol") establishes mandatory proc

2. This Protocol applies to all employees, contractors, and visitors wh

2. DEFINITIONS

1. "Clean Room" means the controlled environment maintained at ISO

2. "Critical Components" means any Sensor elements that require har

a) LiDAR optical assemblies

b) Depth-sensing arrays

c) Calibrated positioning mechanisms

d) Precision optical elements

3. "Qualified Personnel" means individuals who have completed the C

3. ENTRY PROCEDURES

1. Pre-Entry Requirements

a) Valid Clean Room certification

b) Completion of daily health screening

c) Removal of all personal items including jewelry and watches

d) Documentation of entry in the electronic logging system

2. Gowning Sequence

a) Initial air shower (minimum 30 seconds)

b) Application of boot covers

c) Donning of clean room suit

d) Application of hood and face mask

e) Double glove procedure with approved nitrile gloves

f) Final air shower (minimum 45 seconds)

4. SENSOR ASSEMBLY PROTOCOLS

1. Component Preparation

a) All Critical Components must be vacuum-sealed and double-bagge

b) Materials must pass through UV sterilization chamber

c) Tools must be cleaned and certified for clean room use

d) Documentation must be on approved clean room paper

2. Assembly Requirements

a) All assembly must occur under laminar flow hoods

b) Maximum of two assemblies in process simultaneously

c) Continuous particle monitoring during critical operations

d) Real-time logging of environmental parameters

3. Quality Control

a) 100% visual inspection under 10x magnification

b) Calibration verification after assembly

c) Particle count verification before final packaging

d) Documentation of all quality control measures

5. ENVIRONMENTAL MONITORING

1. Continuous Monitoring Parameters

a) Particle counts (0.3 m, 0.5 m, 5.0 m)

b) Temperature (20 C 1 C)

c) Relative humidity (45% 5%)

d) Differential pressure (minimum 0.05" WC)

2. Alert and Action Levels

a) Yellow Alert: Parameters exceed 80% of specification

b) Red Alert: Parameters exceed specification

c) Immediate evacuation if multiple parameters in Red Alert

6. CONTAMINATION RESPONSE

1. In the event of contamination:

a) Cease all operations immediately

b) Secure all in-process assemblies

c) Document the incident

d) Notify Clean Room Supervisor

e) Implement decontamination procedures per SOP-CR-003

7. DOCUMENTATION AND RECORDS

1. Required Documentation

a) Daily environmental monitoring logs

b) Personnel entry/exit logs

c) Assembly process records

d) Contamination incident reports

e) Maintenance records

2. Record Retention

a) Electronic records: 7 years

b) Physical documentation: 3 years

c) Incident reports: 10 years

8. COMPLIANCE AND ENFORCEMENT

1. Compliance with this Protocol is mandatory for maintaining Clean R

2. Violations may result in:

a) Immediate removal from Clean Room

b) Suspension of Clean Room privileges

c) Disciplinary action up to termination

d) Legal action for willful violations

9. PROTOCOL UPDATES

1. This Protocol shall be reviewed annually by the Quality Assurance

2. Updates require approval from:

a) Chief Technology Officer

b) Quality Assurance Director

c) Clean Room Supervisor

10. CERTIFICATION

The undersigned hereby certifies that this Protocol has been reviewed and approved for implementation.

APPROVED BY:

Marcus Depth

Chief Technology Officer

Date: January 15, 2024

Elena Kovacs

Chief Research Officer

Date: January 15, 2024

Richard Torres

Chief Operating Officer

Date: January 15, 2024