FLOOR TYPE CLASSIFICATION DATABASE STRUCTURE

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PROPRIETARY AND CONFIDENTIAL

NaviFloor Robotics, Inc.

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1. INTRODUCTION

1 This document defines the proprietary database structure and class

2 The floor type classification system described herein is protected as

2. DEFINITIONS

1 "Classification Parameters" means the set of measurable physical a

2 "Surface Profile" means the unique combination of Classification Pa

3 "Navigation Algorithm" means the Company's proprietary software t

3. DATABASE ARCHITECTURE

1 Primary Classification Structure

a) Each floor type entry shall be assigned a unique sixteen-digit alpha identifier

b) Classification hierarchy shall follow the format: [Material Class]-[Su

Finish]-[Friction Coefficient]-[Reflectivity Index]

c) Database shall maintain relational links between similar surface typ

algorithm optimization

2 Core Parameters

a) Material composition

b) Surface texture measurement (Ra value)

c) Static friction coefficient (s)

d) Dynamic friction coefficient (k)

e) Light reflectance value (LRV)

f) Surface hardness (Shore D scale)

g) Thermal conductivity

h) Acoustic response profile

4. CLASSIFICATION METHODOLOGY

1 Surface Analysis Protocol

a) Initial scanning using Company's proprietary LiDAR array

b) Multi-spectrum optical analysis

c) Physical property measurement via mobile sensors

d) Machine learning correlation with existing profiles

2 Profile Generation

a) Automated parameter extraction from sensor data

b) Statistical validation against known standards

c) Human expert verification for new surface types

d) Version control and change tracking

5. DATA SECURITY AND ACCESS

1 The Floor Type Classification Database shall be maintained with the

a) AES-256 encryption at rest

b) Role-based access control (RBAC)

c) Multi-factor authentication for administrative access

d) Automated audit logging

e) Secure backup protocol with geographic redundancy

2 Access Levels

a) Level 1: Read-only access to basic surface profiles

b) Level 2: Access to detailed parameter data

c) Level 3: Modification rights for existing entries

d) Level 4: Administrative rights for structure modification

6. MAINTENANCE AND UPDATES

1 The Database shall be maintained according to the following schedu

a) Daily: Automated integrity checks

b) Weekly: Performance optimization

c) Monthly: Full backup and verification

d) Quarterly: Comprehensive review of classification accuracy

2 Version Control

a) Major revisions shall be numbered sequentially (e.g., 2.0, 3.0)

b) Minor updates shall be indicated by point releases (e.g., 2.1, 2.2)

c) Emergency patches shall be designated by letter suffix (e.g., 2.1a)

7. INTELLECTUAL PROPERTY PROTECTION

1 This database structure and all contained information is protected u

a) U.S. and international copyright laws

b) Trade secret laws

c) Applicable patents and patent applications

d) Contractual confidentiality obligations

2 All access to and use of the Database must comply with the Compa

8. CERTIFICATION

The undersigned hereby certifies that this document accurately repres
current Floor Type Classification Database Structure as implemented
Robotics, Inc.

APPROVED AND ADOPTED:

By:

Dr. Elena Kovacs

Chief Research Officer

NaviFloor Robotics, Inc.

Date: January 11, 2024