

TANavApp / TANA

Source Requirements Document

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Alex Georgopoulos, Ambrose Sturgill, Brennan Duffy, Tommie
Moore

github.com/bd150/cis201proj

1 Introduction

This document serves as a reference for the WRS's traceability table. The "Source ID" column maps to the following initial requirements laid out in the project description documents.

2 Source Requirements

2.1. Functional Requirements (FR)

1. The system shall receive input of the user's destination
2. The system shall find a path from the user's location to their destination
3. The system shall communicate the path to the user, and offer alternative paths
4. The system shall tell the user how far to walk
5. The system shall tell the user to stop at the right place to turn
6. The system shall detect obstacles and help the user avoid collision
7. The system shall send emergency calls and messages after detecting a fall or when the system cannot determine its location
8. The system shall predict the user's next destination, based on schedule or habit, and suggest the next destination once the current destination has been reached

2.2. Non-Functional Requirements (NFR)

1. The system shall help the user *safely* navigate indoors
2. The system shall lead the user to the *fastest* route
3. The system shall lead the user through the route they are *most comfortable* with
4. The system shall be *usable*
5. The system shall be *available*
6. The system shall be *customizable* to every user (volume, speech speed/interval, etc)
7. The system shall be *modular* to accommodate the following typical variations: variations in interface, language, definitive needs of the user, new features, sensors, and hardware