Third Eye

Helping the blind see the world.

SOFTWARE REQUIREMENTS SPECIFICATION
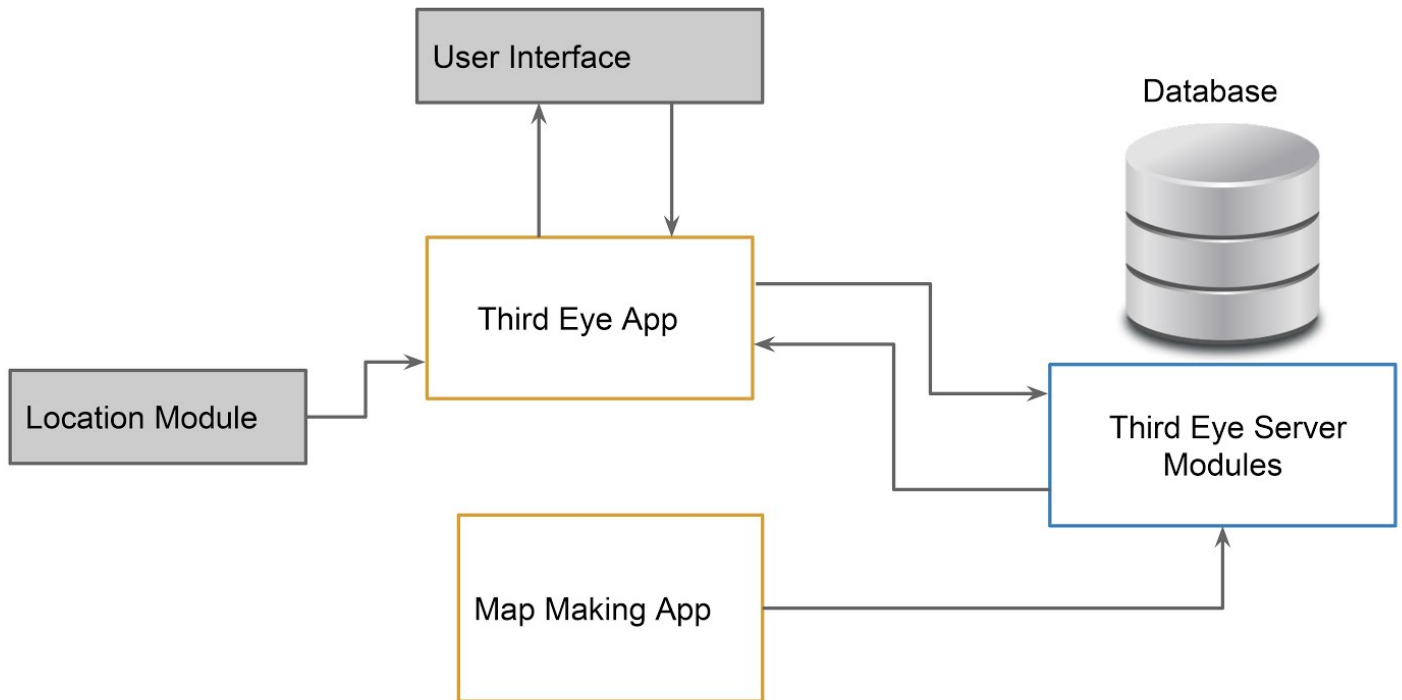
Team Members

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First Level Diagram

Third Eye App-

Takes audio or tactile input from the user and gives out directions to a destination point . The output is either tactile or audio instructions.

> *Location Module-* This module supplies the Third eye app with the details of the location of the user.
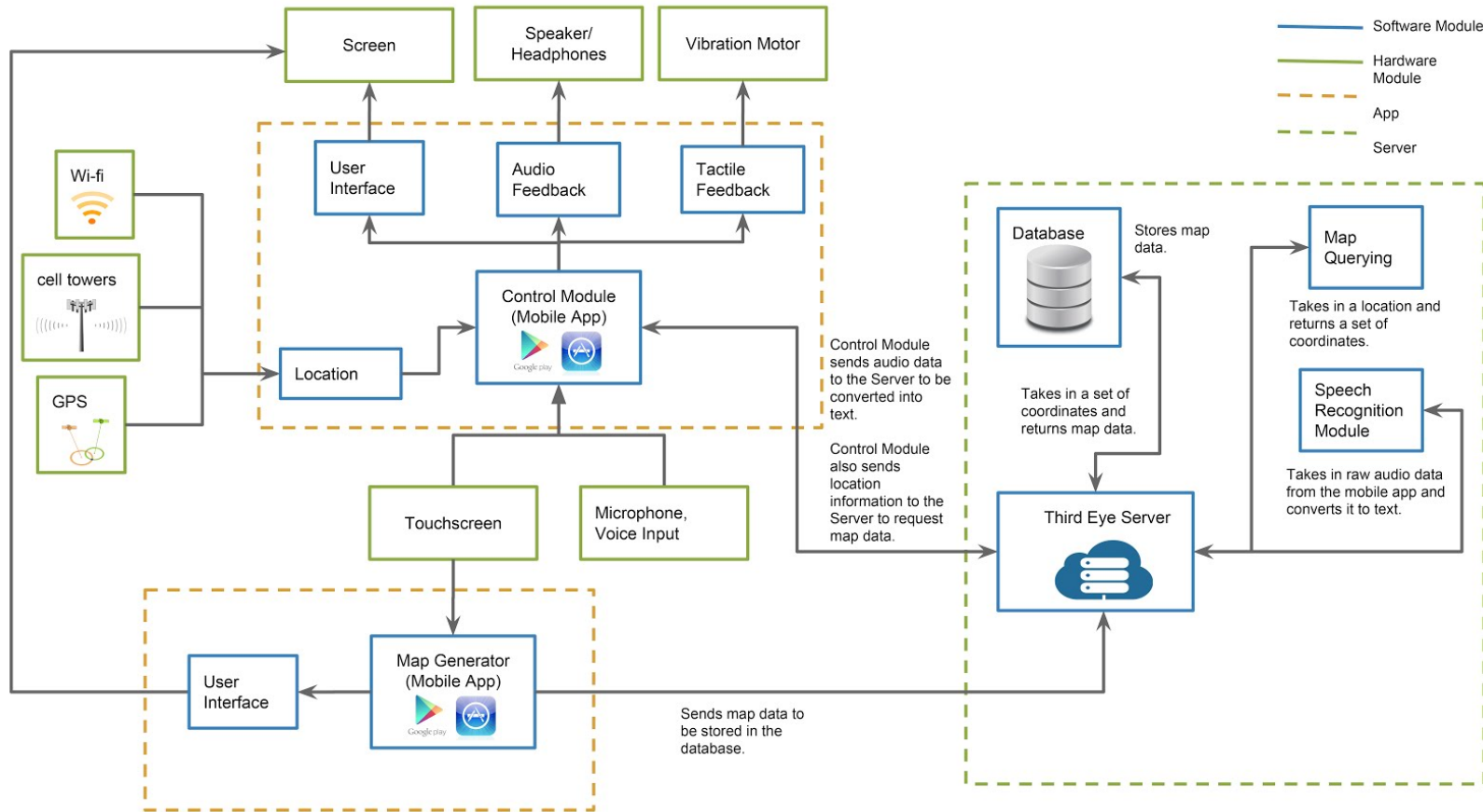
Map Making App-

Used to create maps and send them to the third eye server.

Third Eye Server-

Accepts input from the Third eye app and sends back necessary maps and data to the control module

Second Level Diagram

Modules

Third Eye Control Module-

User Interface-   Used to allow seeing people to interact with the Third eye app.

Audio Feedback-   Gives out directions towards a destination point in the form of audio instructions

Tactile Feedback- Sends out vibrations when the user is approaching obstacles.

Location-   Calculates the location point of the user and supplies the location information to the app.

Map Generator Module-

User Interface-   *Used to capture the environment of a particular point of interest and convert it into maps.*

Third Eye Server-

Database-   *Stores the maps and retrieves them when a query is passed.*

Map Querying-   *Sends a query to database regarding the availability of maps.*

Speech Recognition-   *Accepts audio data from the third eye server and converts it into text.*

Sample Third Eye App Screen

Figure 1. Graphical User Interface (GUI) depicting the overhead view of a given building environment. On left, the navigation menu for changing the mode of operation and other settings.

Sample Map Generator App Screen

Figure 2. Map Generator (GUI) showing a sample building session. Objects are chosen with correct dimensions and dragged into place in accordance to the buildings structure to serve as 'detection zones' integrated with Third-Eye.

Change Request Form

Requester Information

Customer Name _____   Project Sponsor _____

Project Name _____   Project Manager _____

Project Number

_____

Requested By   Responsible Individuals_____

_____

Estimated Budget Change _____   _____

_____   _____

Estimated Schedule Change _____   _____

_____   _____

Type of change (Check all that apply):

[ ] Add Features [ ] Remove Features [ ] Modify Feature [ ] New Limitation

Change Specification

Select the module in which a change is requested

[ ] Audio Feedback	[ ] Tactile Feedback
[ ] Map Maker UI	[ ] Location Tracking
[ ] Maps Layout	[ ] Voice Recognition
[ ] Other _____	

Describe the selected change

_____
_____
_____
_____
_____
_____
_____

Additional Modules Affected

Check all modules that may be indirectly affected by change

[ ] Audio Feedback	[ ] Tactile Feedback
[ ] Map Maker UI	[ ] Location Tracking
[ ] Maps Layout	[ ] Voice Recognition
[ ] Other _____	

Cross Reference Listing

Requirement	Capability	Location in System Spec	Location in SRS
1.	Speech Recognition	System Spec p. 3 Functional Requirements 3.	p. 4 Second Level Diagram p. 5 Speech Recognition Module
2.	Location Tracking	System Spec p. 3 Functional Requirements 4.	p. 4 Second Level Diagram p. 5 Location Module
3.	Tactile Feedback	System Spec p. 3 Functional Requirements 8.	p. 4 Second Level Diagram p. 5 Tactile Feedback Module
4.	Audio Feedback	System Spec p. 3 Functional Requirements 8.	p. 4 Second Level Diagram p. 5 Audio Feedback Module
5.	Map Storage	System Spec p. 3 Functional Requirements 5.	p. 4 Second Level Diagram p. 5 Database
6.	Map Generation	New	p. 4 Second Level Diagram p. 5 Map Generator Module
7.	Map Querying	System Spec p. 3 Functional Requirements 6.	p. 4 Second Level Diagram p. 5 Map Querying Module
9.	Braille Interface	System Spec p. 3 Functional Requirements 8.	Removed

Integration Thread