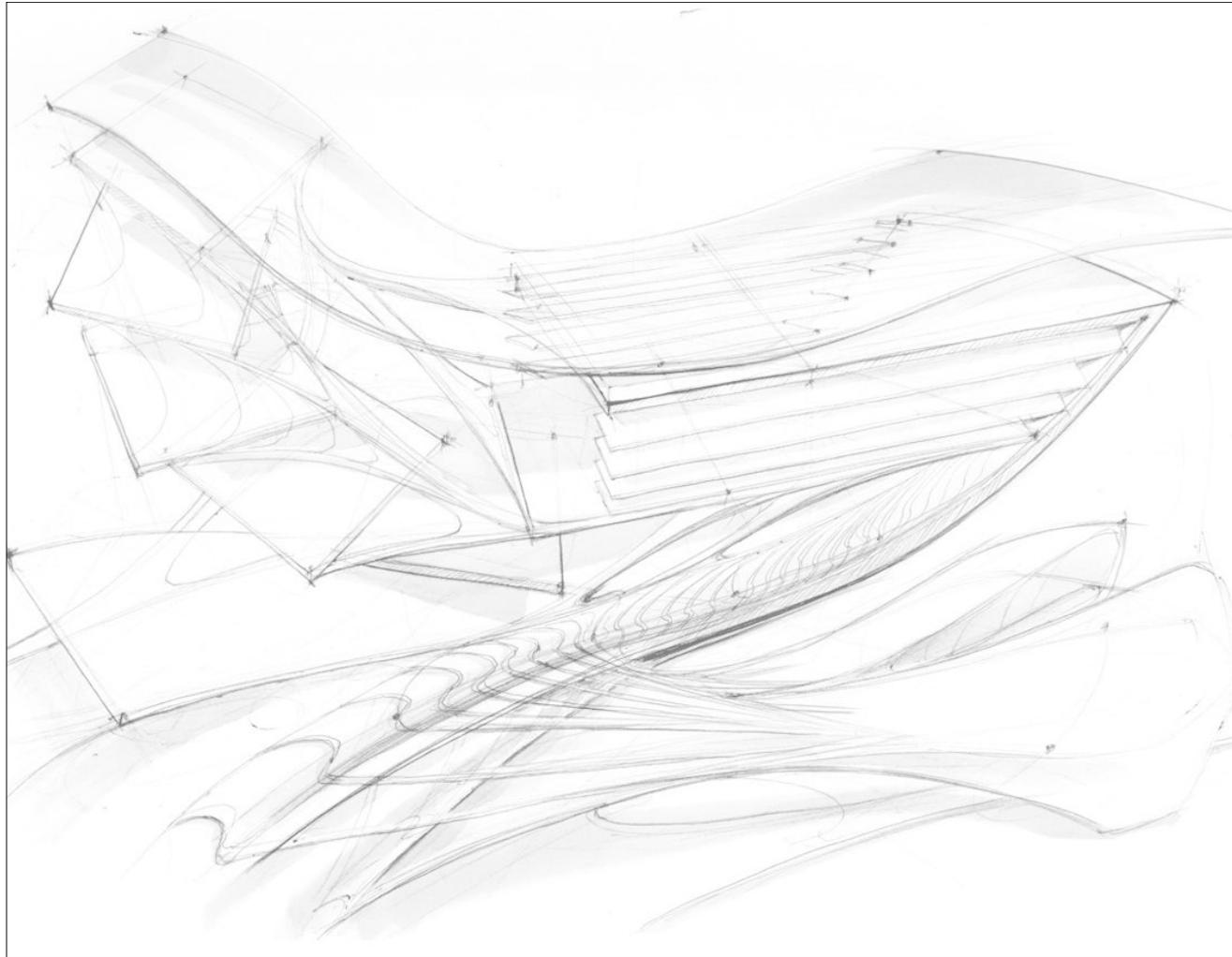

BLUEPRINT



User Manual

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TABLE OF CONTENTS

1. Introduction
2. Building maps
3. Screen overview
4. Step-by-step procedures
 - a. viewing the home screen
 - b. setting your starting location
 - c. activating wheelchair-friendly mode
 - d. initiating navigation to a specific room
 - e. initiating navigation to a building event
 - f. initiating navigation to a restroom
 - g. navigating to a destination

INTRODUCTION

Motivation for the project

Blueprint is a system for indoor navigation. It was designed to improve human-spatial understanding by giving users context-relevant information at specific points of interest. Implemented as a web application for smartphone devices, specific webpages are accessed through URLs broadcasted using iBeacon technology. This manual only describes the functionality of a prototype for this system, which has been adapted for the Brown Building at McGill University.

Suggested hardware

You highly recommend that you use an iPhone for testing, because the prototype unfortunately *does not work properly on Android devices* at this time. You will also need a good internet connection. To launch the prototype, simply go to <https://myblueprint.herokuapp.com/>.

Prototype limitations

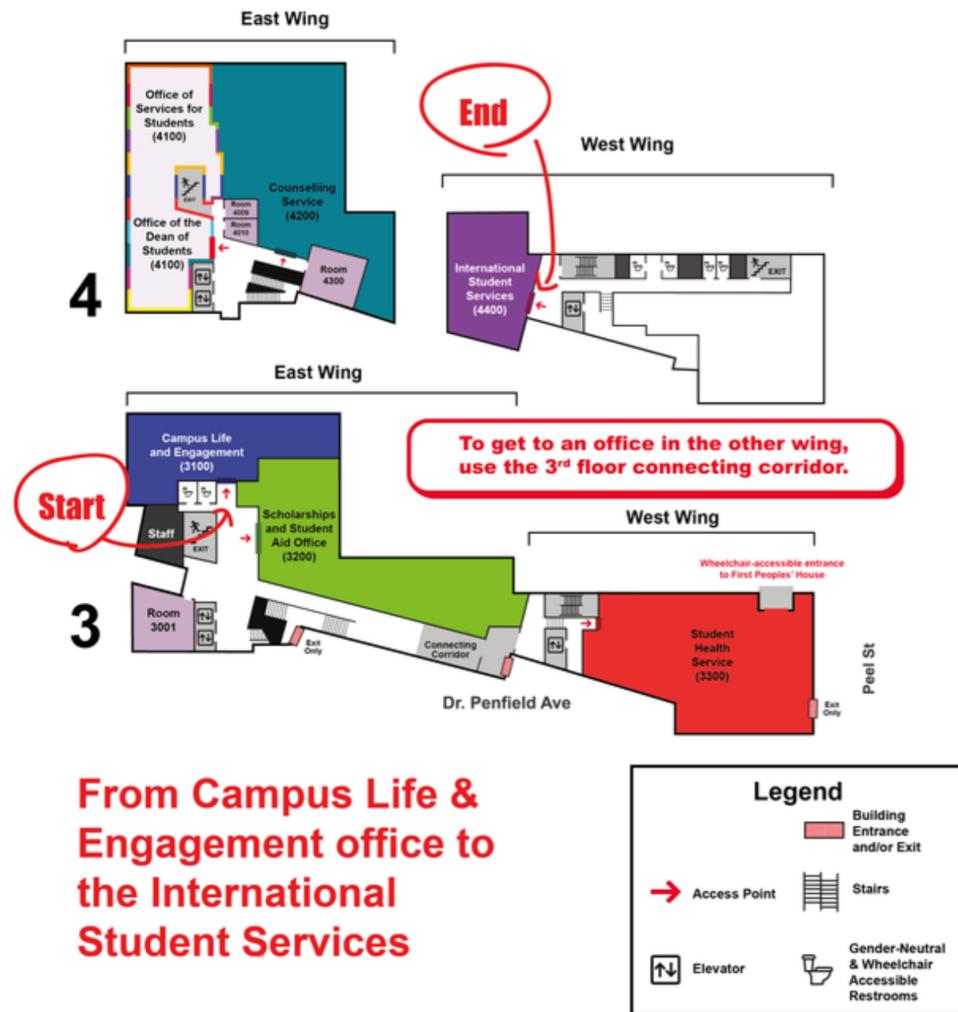
In this version, only four navigation routes have been implemented, which we believe is sufficient to test the core functionality of the application. The implemented routes are:

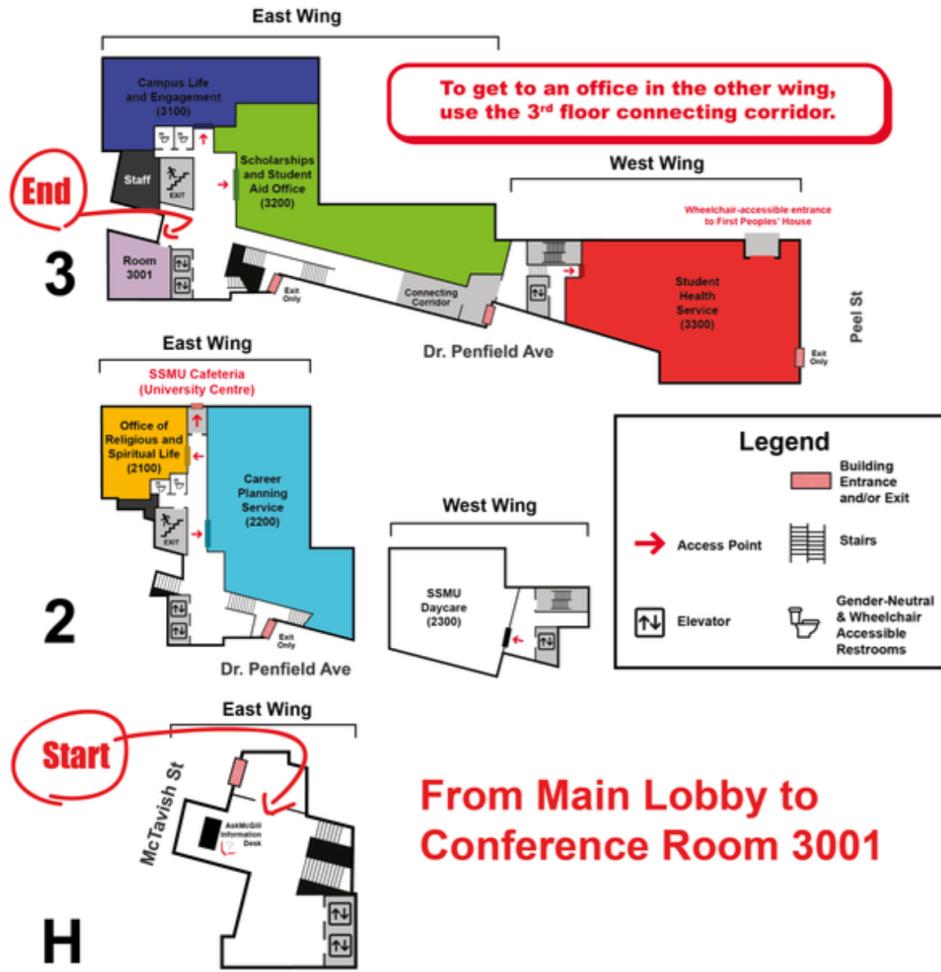
- from the Campus Life & Engagement office to International Student Services
- from the main Lobby to Conference room 3001
- from the SSMU basement entrance to the Counselling office, using wheelchair-friendly directions
- from the Ave. Docteur Penfield entrance to a nearby restroom

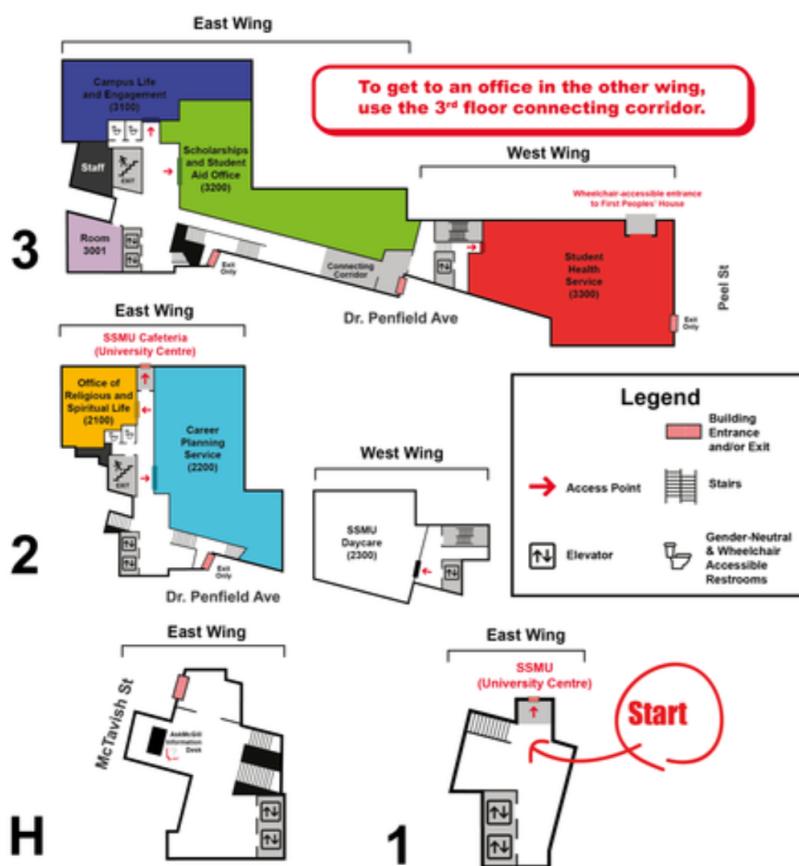
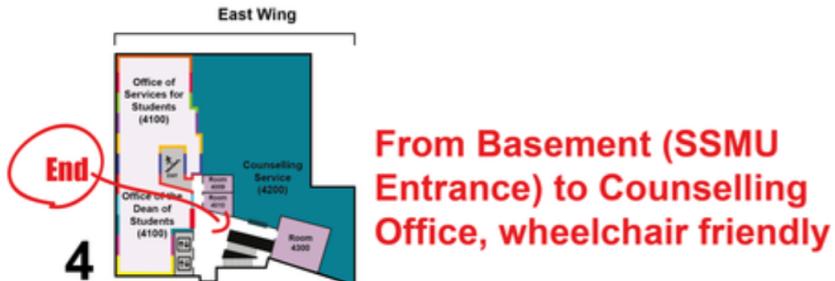
These routes all have different starting locations. In order to simulate application usage, you will have to manually select the starting location corresponding to your use case. See section "[Setting your starting location](#)" below. This process will be done automatically using iBeacons once the final system has been developed.

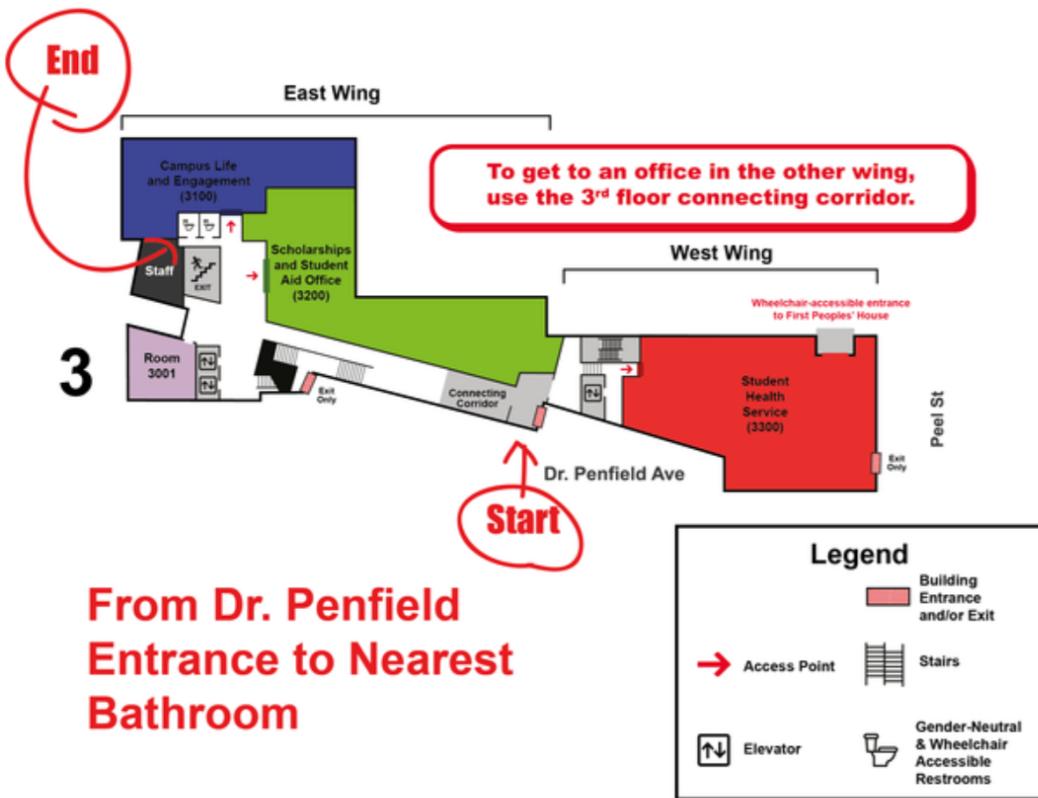
Please consult the following '[Building Maps](#)' if you are having trouble finding the starting locations.

BUILDING MAPS









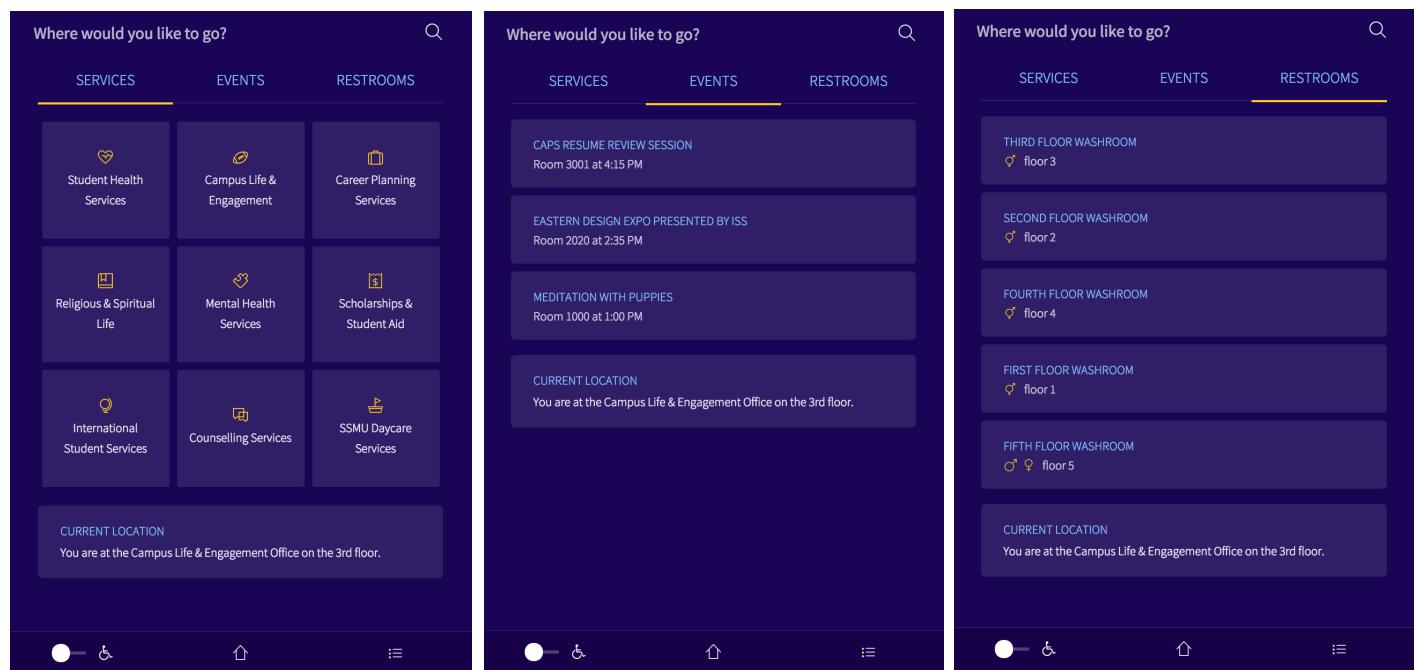
**From Dr. Penfield
Entrance to Nearest
Bathroom**

SCREEN OVERVIEW

The prototype consists of two main screen types .

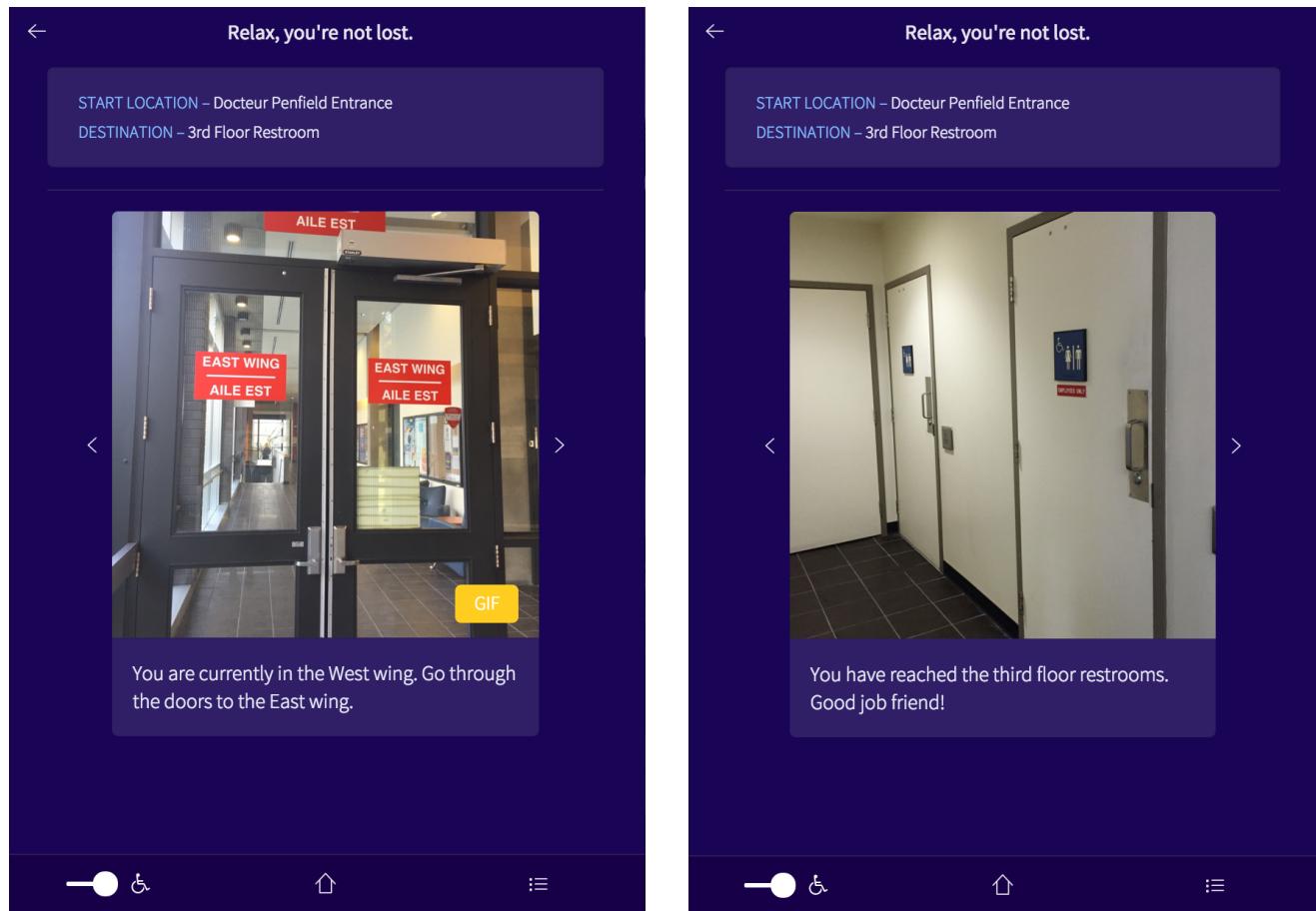
Homescreen and selection screens

The homescreen lists different destination points for navigation, by default showing the Brown services. You can use the tabs at the top of the interface to switch between different destination categories. The wheelchair toggle, located at the bottom left of the screen, can be used to request wheelchair-friendly navigation. The search input at the top can be used to filter through all possible destinations, or access a particular room.



Navigation screens

The navigation screens are intended to lead users to their chosen destinations. The main element on this screen is a large graphic: either a photo, a GIF, or both. When both a photo and a GIF are available, the GIF starts playing when the user taps the image. Users can access the next direction by swiping left, and the previous direction by swiping right. Arrows located at the sides of the graphic can also be used to navigate through directions. Beneath the graphics are textual instructions, which elaborate the directions further.

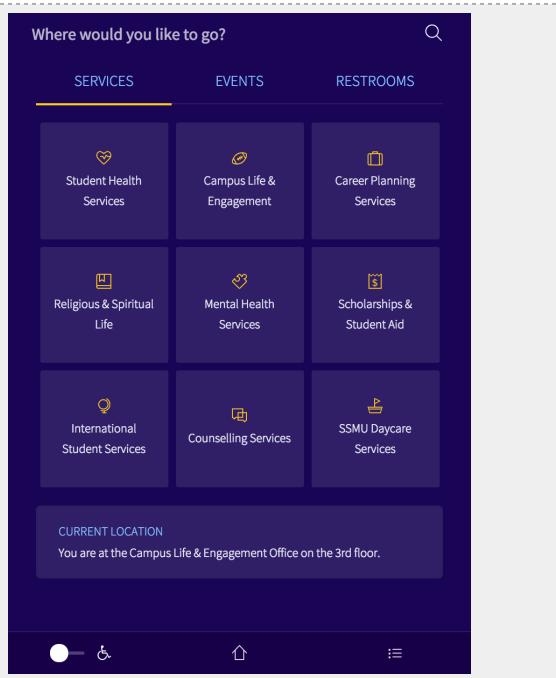


As can be seen above, the user's route is always displayed above the directions. The homescreen, directory, and wheelchair option can also always be accessed in the footer.

STEP-BY-STEP PROCEDURES

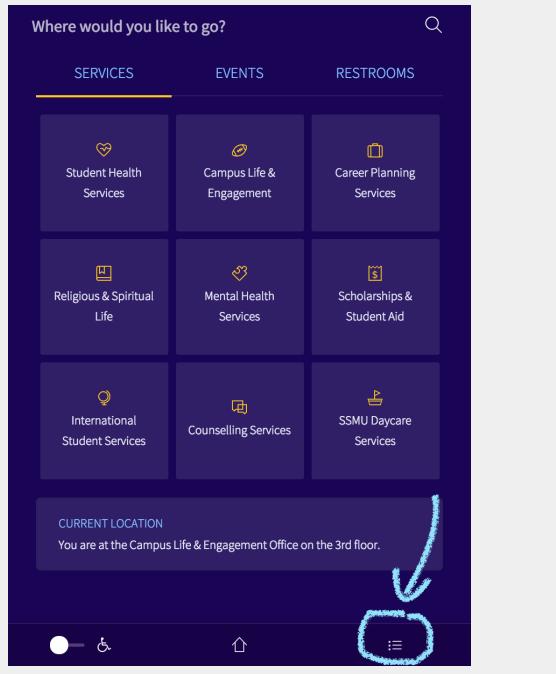
Viewing the homescreen

1. Open the application by going [here](#) in the Safari or Chrome browser on your iPhone. You will be taken to the homescreen.

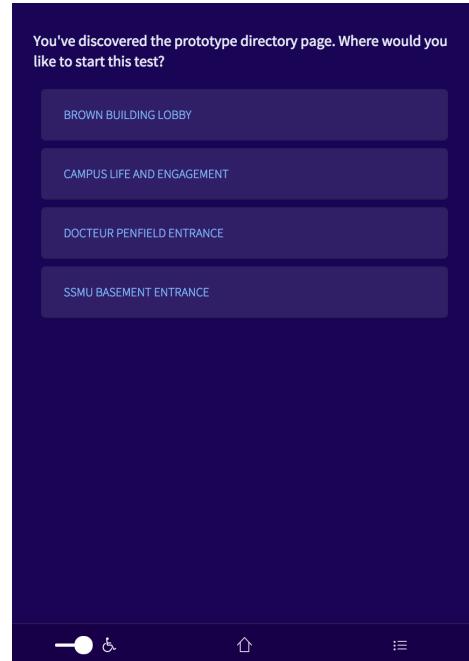


Setting your start location

1. Press the "list" icon to the bottom right of the home screen.



2. Choose your starting location from the list.



Activating wheelchair-friendly mode

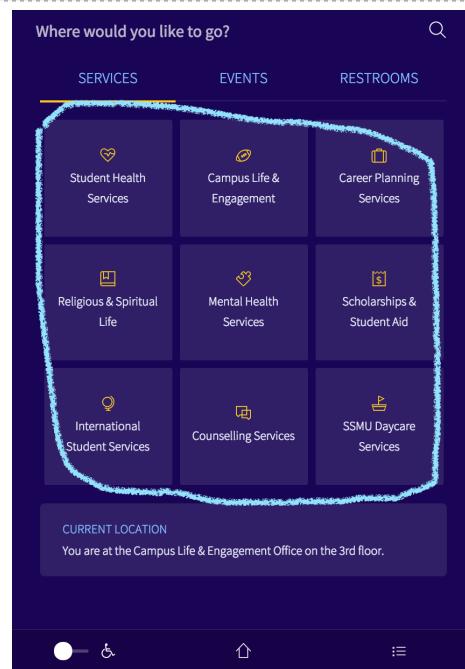
1. On the home or navigation screen, toggle the wheelchair icon in the bottom bar. The slider bar will get brighter, indicating that you are now in wheelchair-friendly mode.



Initiating navigation to a student service

1. Open the homescreen.

2. In the top part of the screen, the different student services are listed.

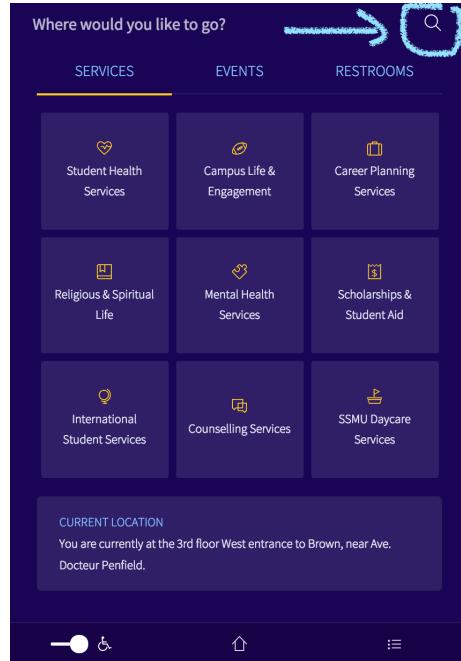


3. Tap the one you wish to navigate to. Navigation to the location will now begin (see “Navigating to a destination”).

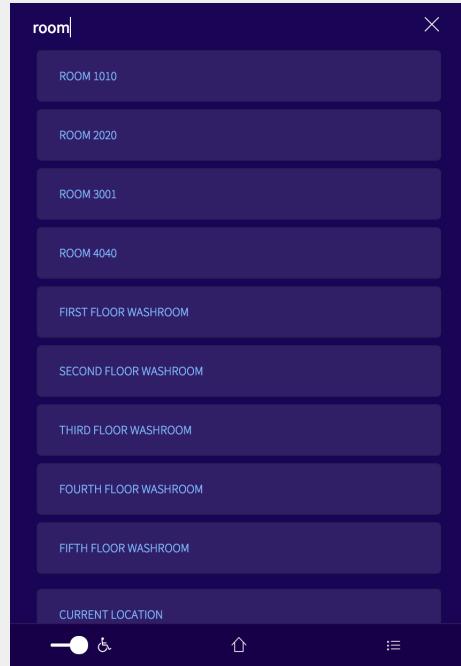
Initiating navigation to a specific room

1. Open the homescreen.

2. Tap the search icon on the top of the screen.



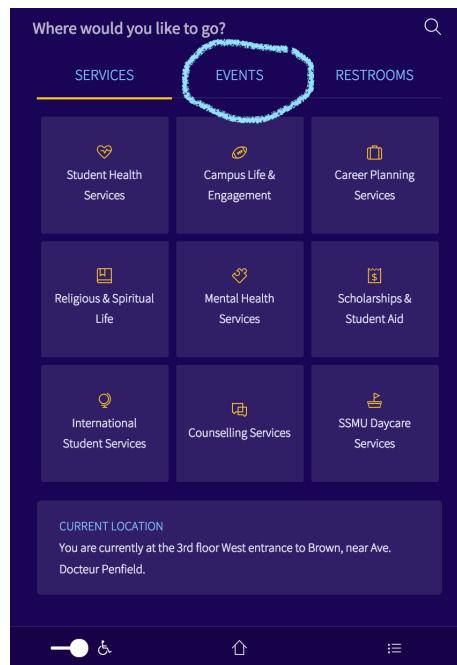
3. Enter the name or number of the room you are searching for. Results will automatically be displayed and updated as you type. Tap the desired result.



Initiating navigation to a building event

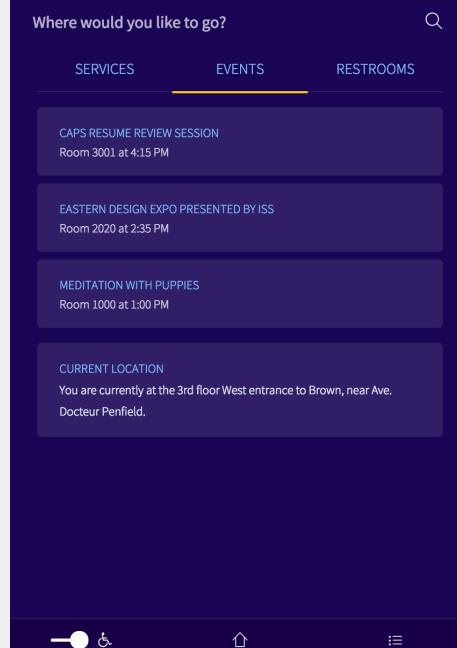
1. Open the homescreen.

2. Press the "Event" tab.



3.. You will see a list of current events. Tap the one you wish to navigate to. Navigation to the location will now begin (see "[Navigating to a destination](#)").

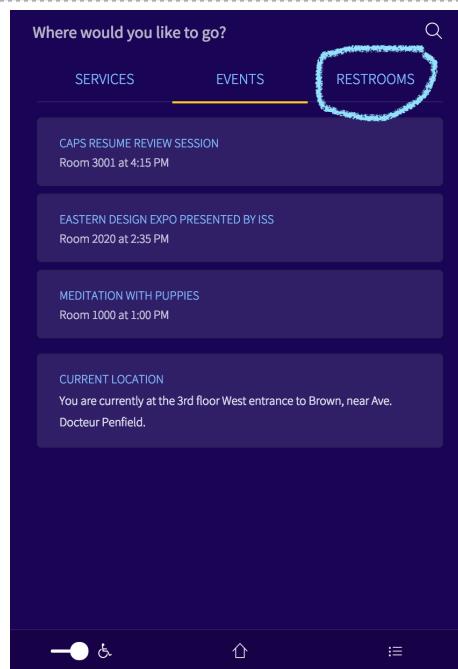
NOTE: If your event is not listed here, but you know the room number where the event is located, you can navigate directly to the room number (see section "[Navigating to a specific room](#)".)



Initiating navigation to a restroom

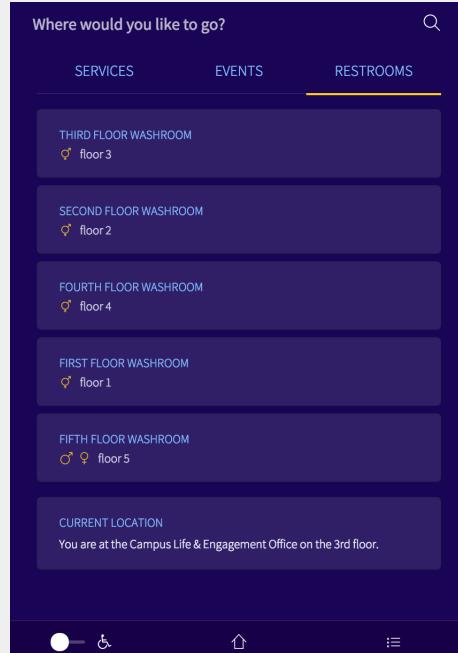
1. Open the homescreen.

2. Press the 'Restrooms' tab.



3. You will see a list washrooms in the building, sorted by proximity to your current location. Tap the one you wish to navigate to. Navigation will be initiated. (see "Navigating to a destination").

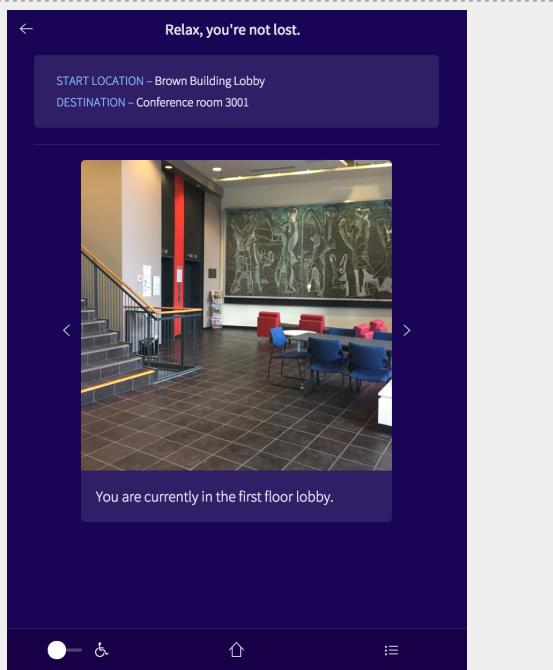
NOTE: As proximity detection is not included in the current prototype, the washrooms will be sorted by proximity to the floor of your specified starting location, see "Setting your starting location".



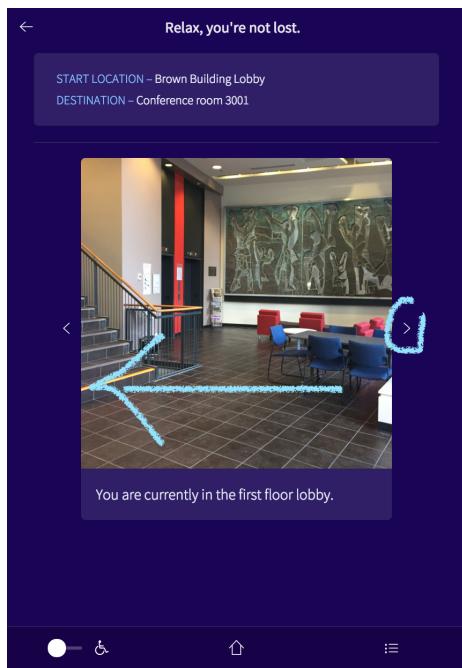
Navigating to a destination

1. Initiate navigation by one of the methods previously described in this section. You will be taken to the navigation screen, which will show you an image of your current location.

NOTE: If the route is not implemented, you will be redirected home.



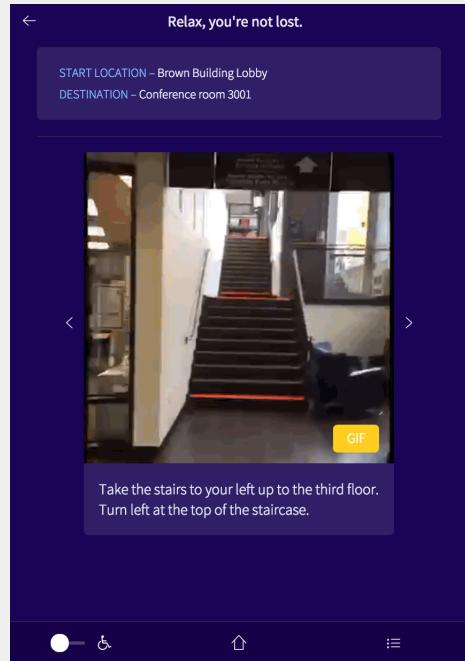
2. Swipe left to see the next instruction. Alternatively, press the arrow located at the right of the graphic.



3. You will be shown instructions of how to get to your next navigation waypoint. These will usually be in the form of an image and accompanying GIF.

You can swipe right at any time to go back.

You can tap the image or the "GIF" button on the lower right to play the GIF, which will show you how to walk to the next waypoint.



4. Keep swiping left as you reach your waypoints. When you have reached your final destination, the app will notify you in the textual description.

