A Challenge from Sick Kids

Challenge Accepted

Our Story

- Glenforest S.S & University of Toronto
- Young coders and envisioners
- Youth interested in making an impact `

Timeline

March 2016 - WearHacks Toronto

Initial challenge issued and prototype application created

July 2016 - Cossette Labs

Redesigned version of Pocket Guide was created

August 2016 - Final Meeting with Sick Kids

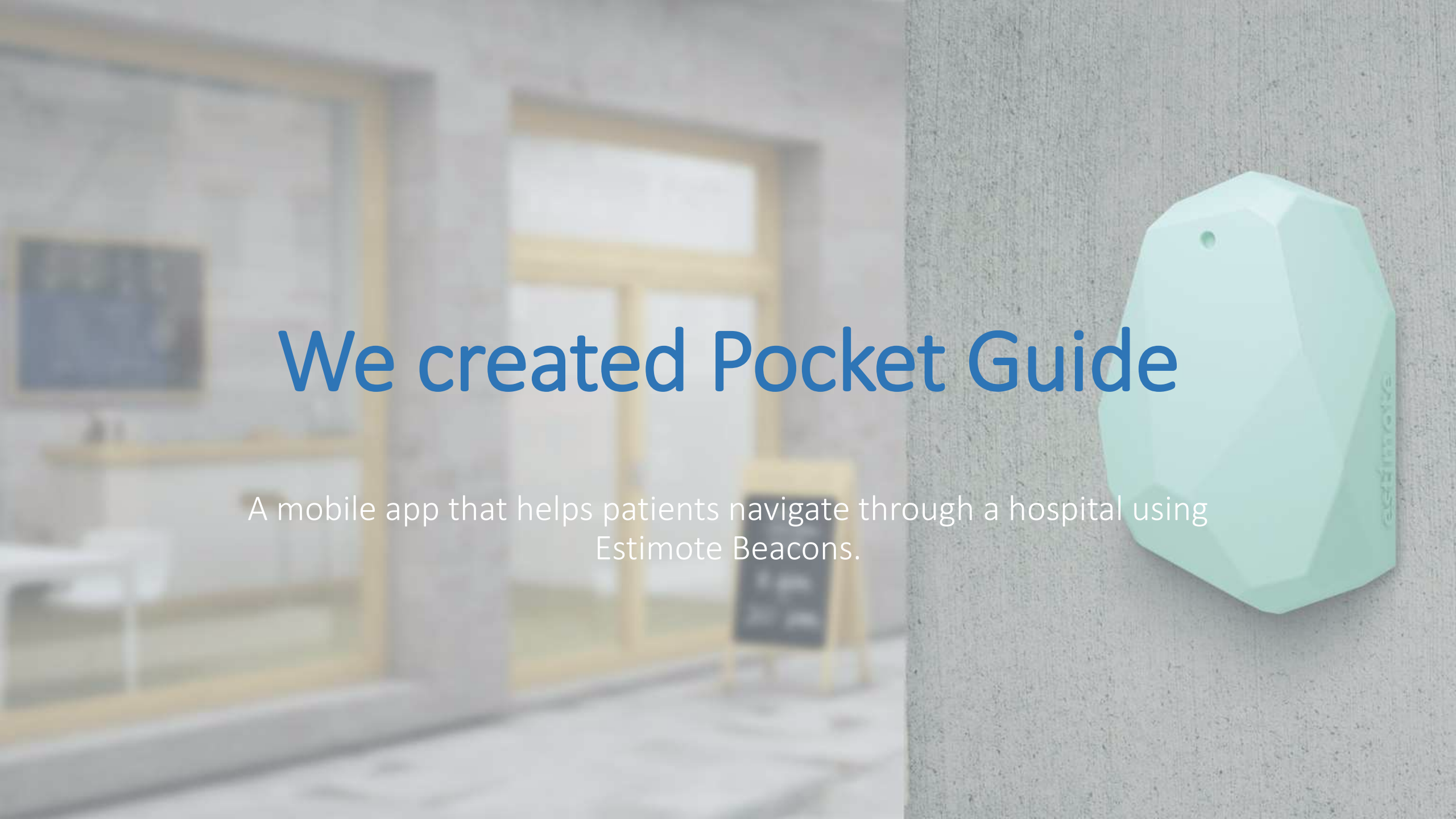
Final application demonstration

Inspiration

1. This application can have an impact on our society.
2. This application can be created within a reasonable time to solve a dire problem.
3. We wanted to help the community.

We created Pocket Guide

A mobile app that helps patients navigate through a hospital using Estimote Beacons.



Goal

Use the Estimote Beacon to power a mobile application.

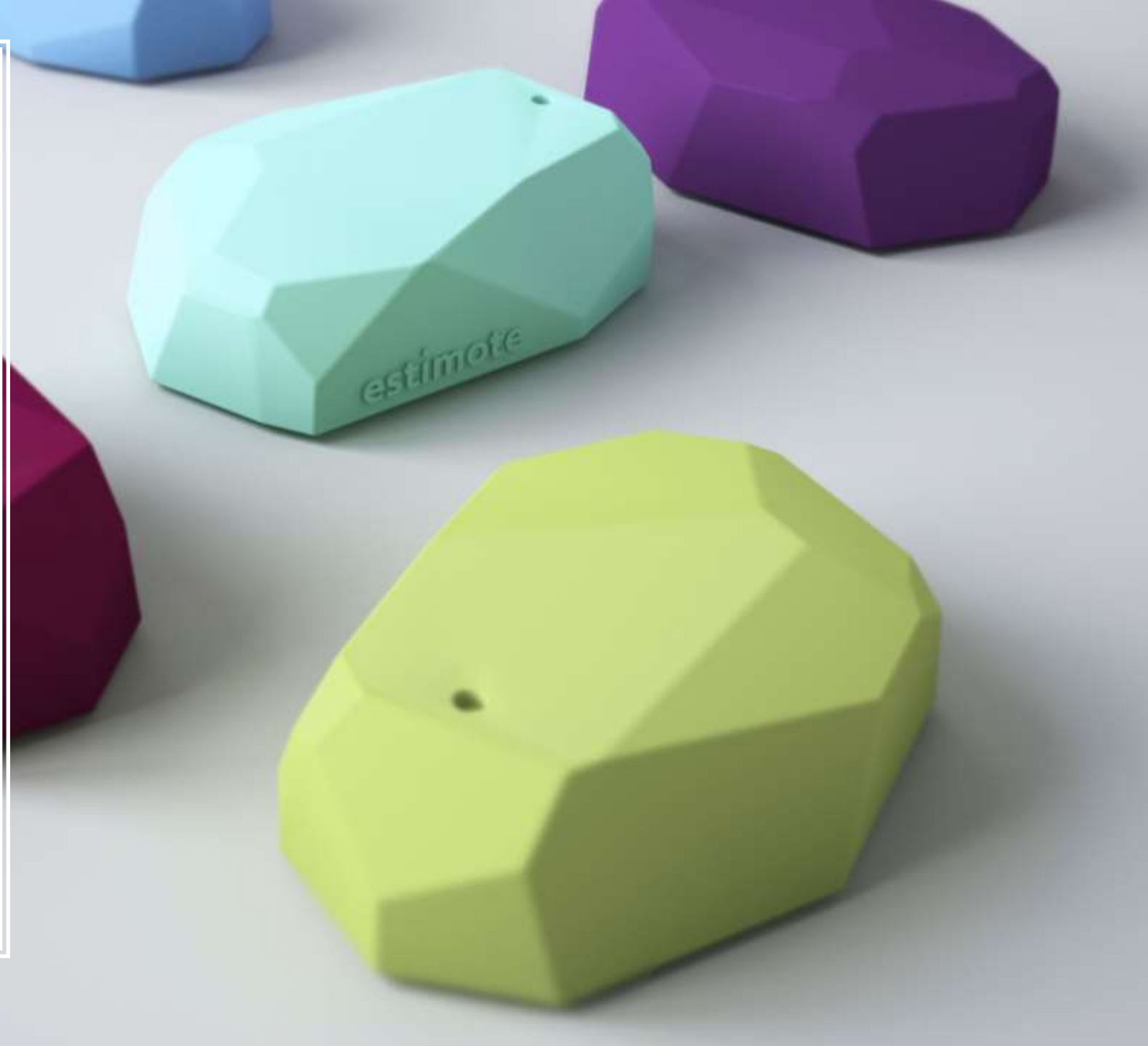
Summary

Each beacon transmits a signal to the app.

The app will help guide patients.

Key Features

- Easy integration
  - Beacons can be added to any location
- Dynamic code
  - Number and placement of beacons can change
- User Friendly
  - Audio, text, visuals



Beacons

- A signal is sent out every second
- Each signal contains the beacon's ID number
- The ID is what makes each beacon different
- They can blend into the environment

Limitations

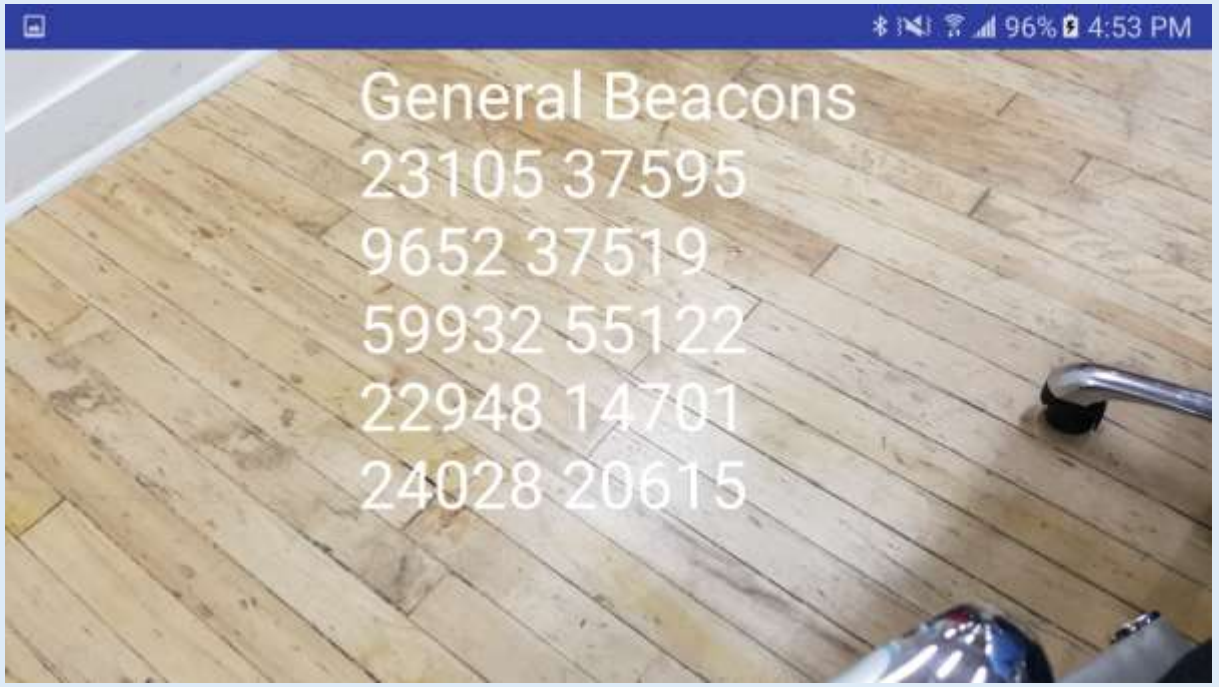
- Beacons orientation can’t be detected
- Beacons can’t determine separate floors
- Beacon signals are easily interfered with
- One way communication

These limitations affected the ability of our application.

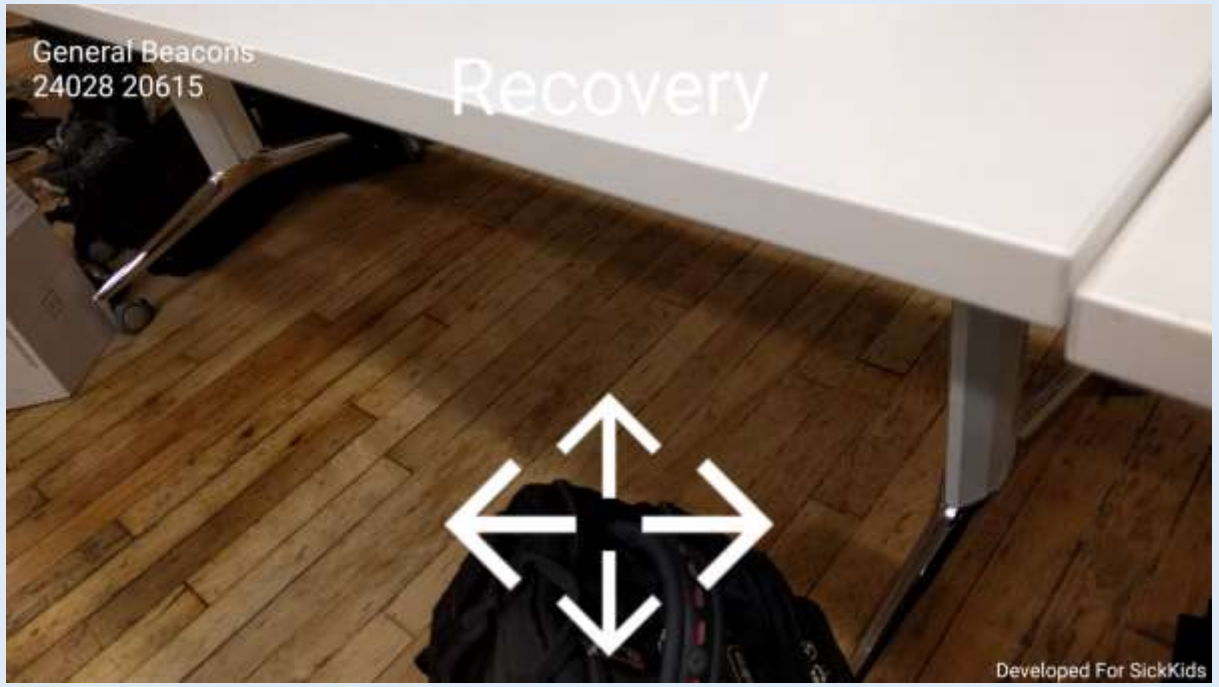
Early Development

March 2016

Application Development Screenshots

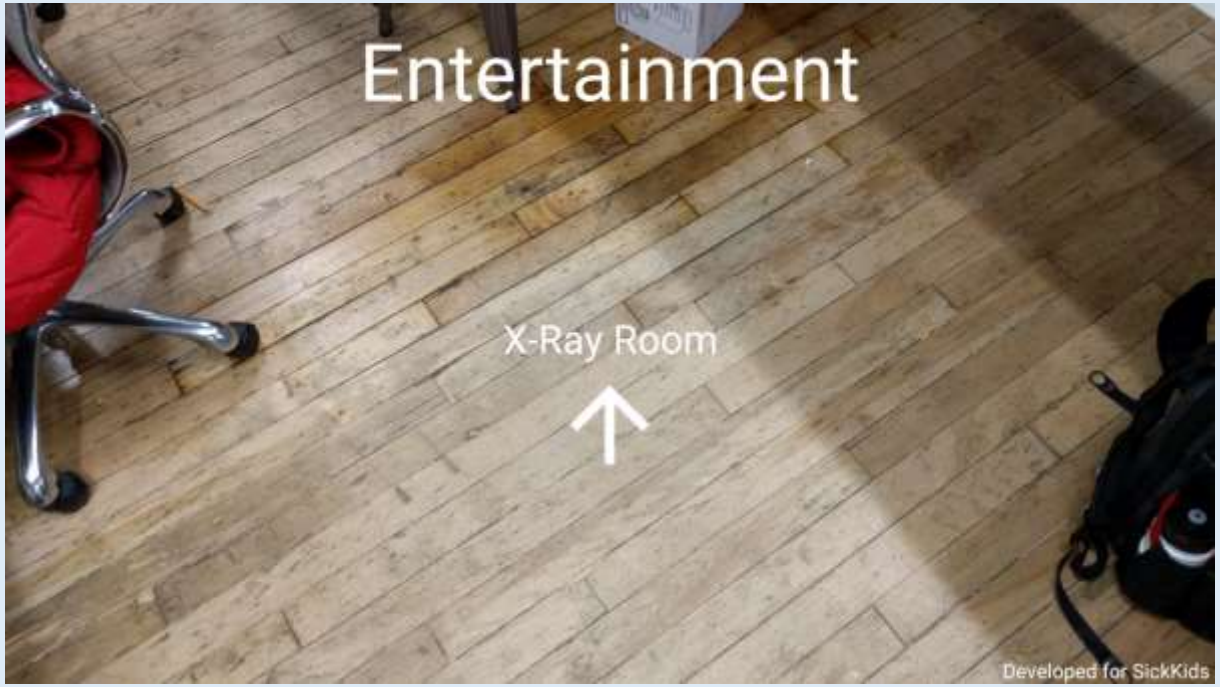


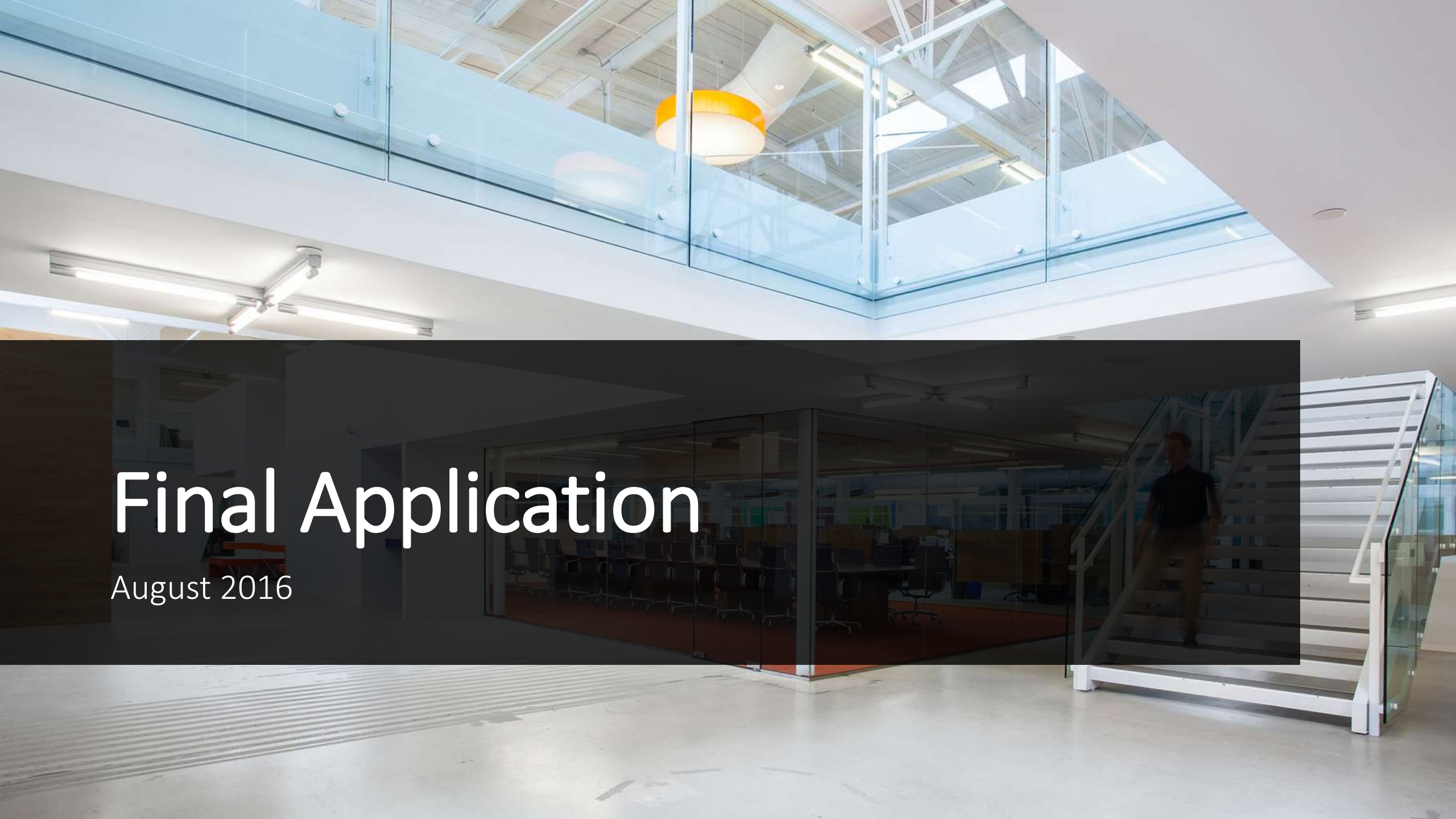
Screenshot of early app version with the Beacons that were located.



Screenshot of updated app version with the hospital location as well as arrows.

Application Development Screenshots





Final Application

August 2016

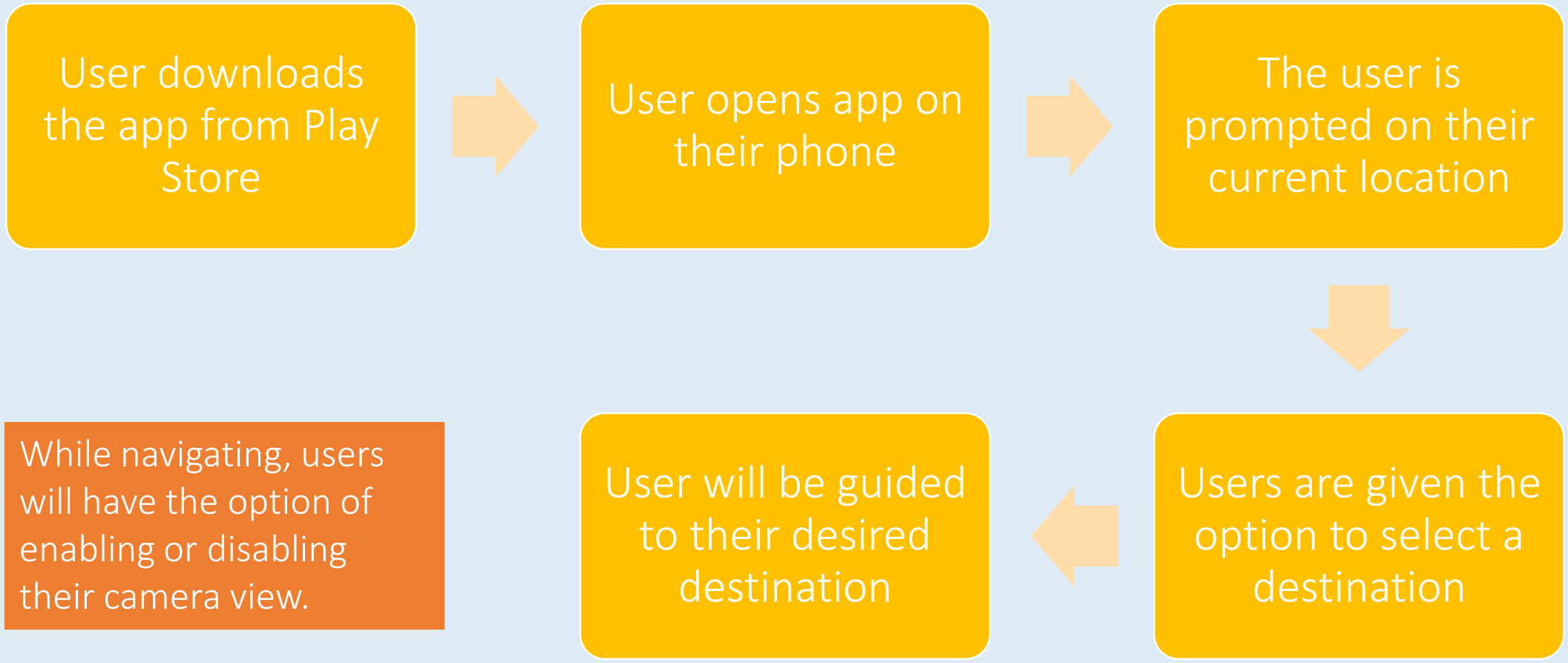
Areas of Improvement

At WearHacks Toronto, some areas of improvements were listed:

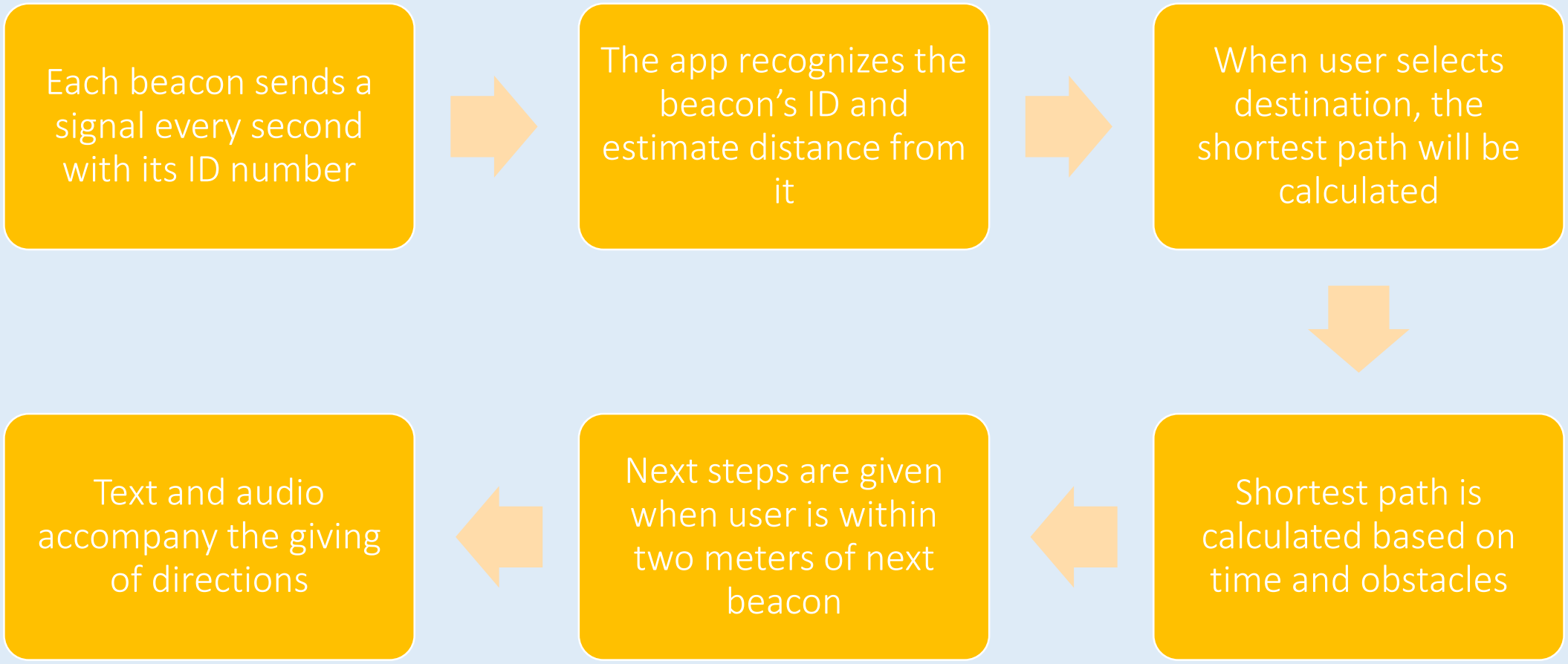
- ✓Account for multiple floors
- ✓Account for interferences through walls and floors
- ✓More detailed floor plans
- ✓Account for different perspectives
- Develop for iOS

At the end of our *Cossette* term, we addressed 4/5 of our main areas of improvement.

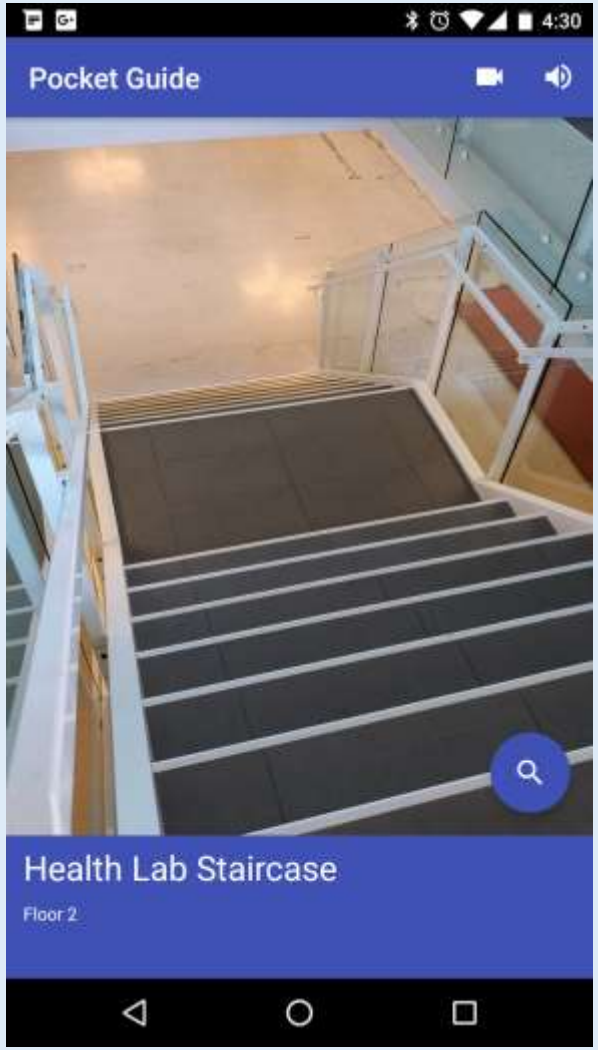
User Interaction Process



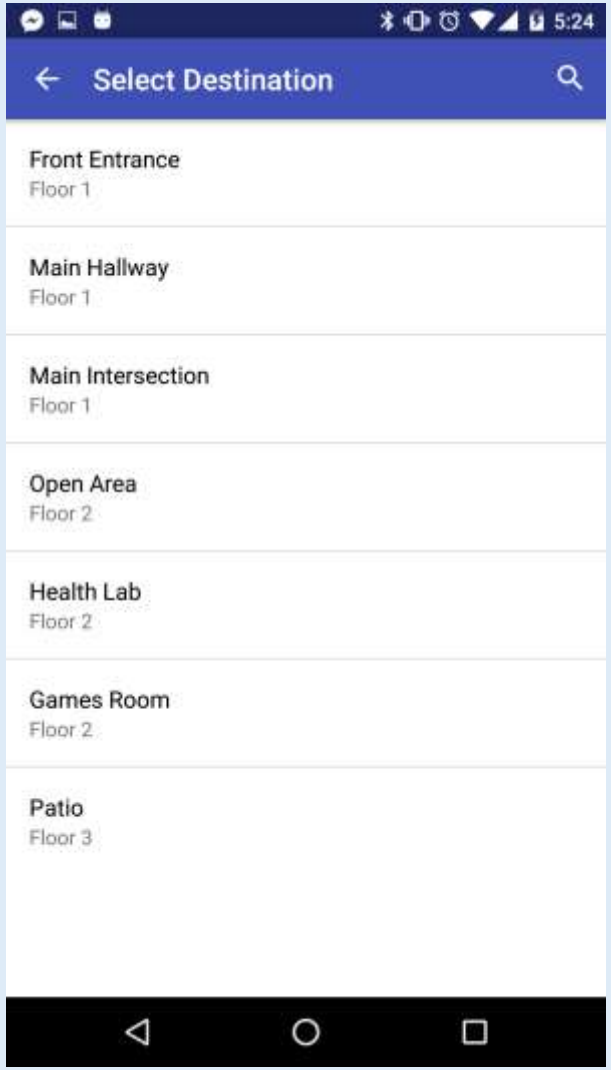
Navigation Process



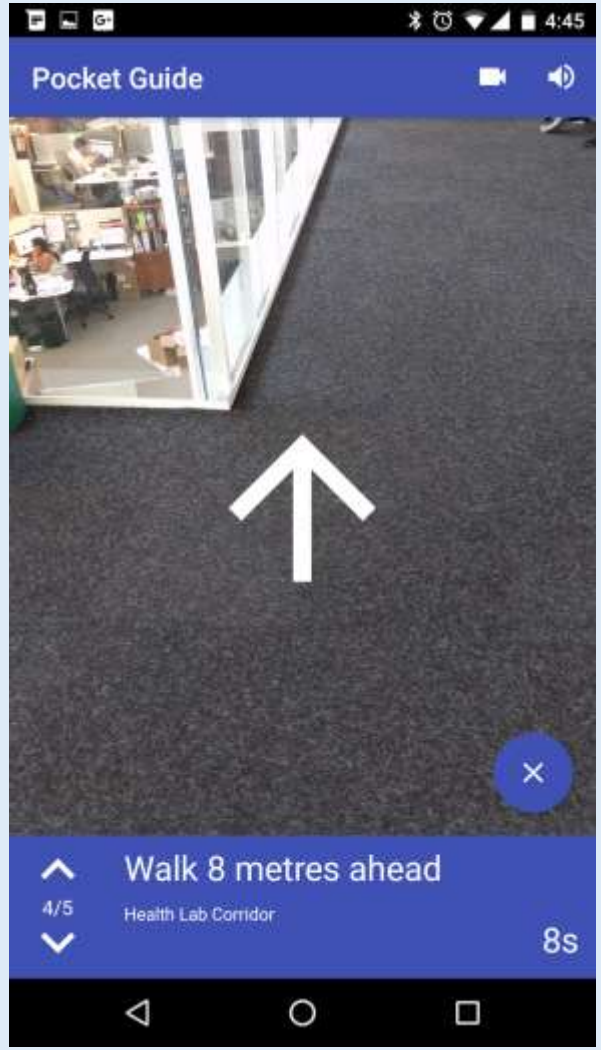
Current Application Screenshots



When users first open the app



App giving options to the user



App giving directions to the user

Further Areas of Improvement

Some further areas of improvement would be:

- Better UI design
- Quicker response time
- Select multiple destinations
- Proximity Notifications
- Route options
- Augmented Reality

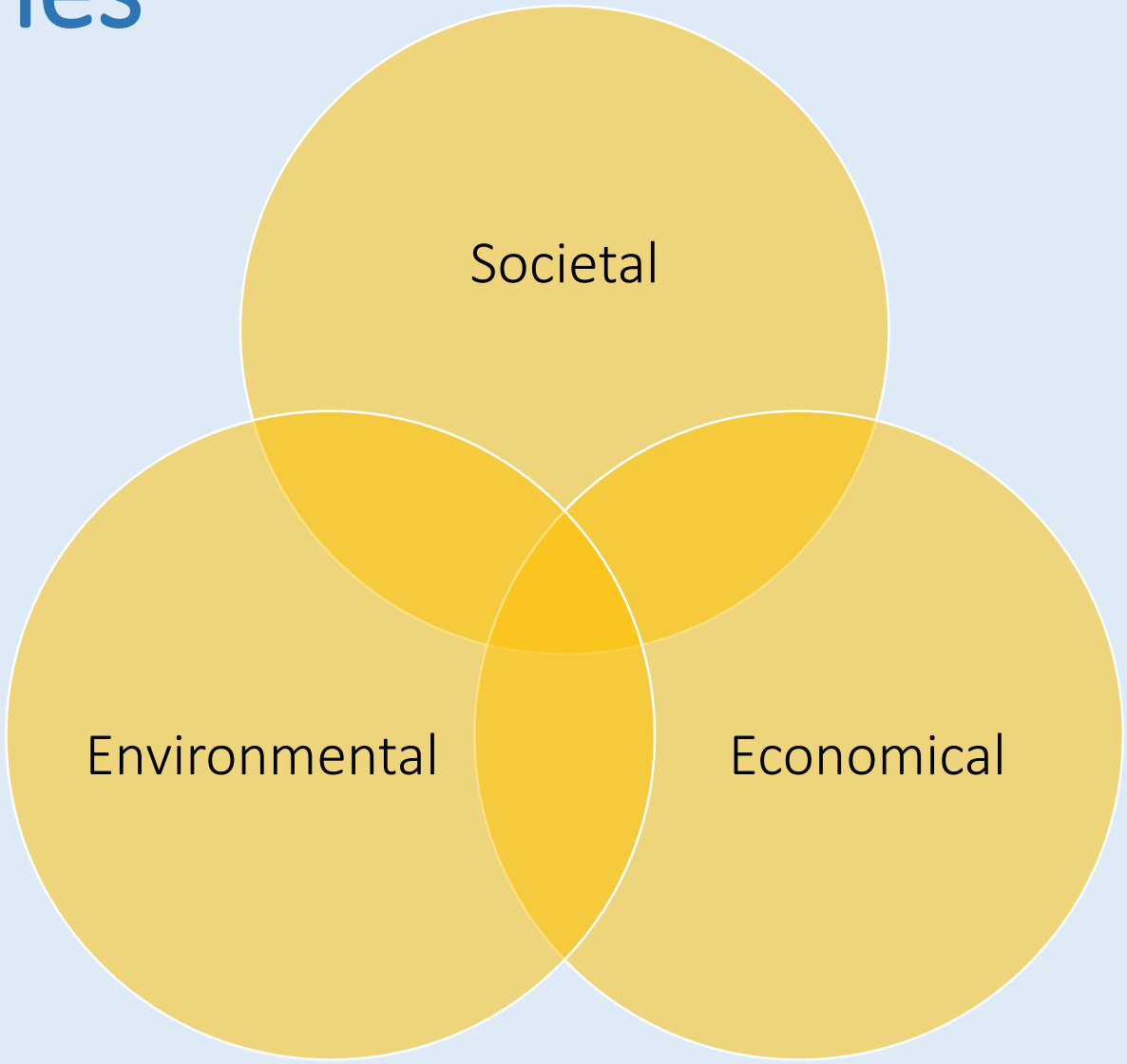
Pocket Guide and Sick Kids

How we benefit you

“Healthier Children. A Better World”

Sick Kids Vision Statement

3 Categories



Benefits

Societal Benefits

- Helping patients navigate through a hospital more easily

Environmental Benefits

- Eliminate the waste created by traditional paper maps

Economical Benefits

- Stepping into the digital world allowing for more efficiency

Implementation

Our proposal

Cost

Estimote Beacon
$475 → Bulk of 25
$19 → 1
Web Server
$20.95/month (lowest cost)

Notes:

- We estimate that 1 beacon will be placed for every entry
- The web server is necessary for future updates to the map

Hospital Plan

- Plan out placement of beacons according to desired zones
- Add database
- Work on areas of improvement

What We Learned

- Utility of beacons
- How to prioritize goals
- Building out and achieving an idea
- Communication skills
- Learned entrepreneurial skills

We want to make an impact on our community.

This is Pocket Guide.

Demo Time.

Questions?

Special Thanks