**3.1 Constraints**

Constraints involve the limits of variables that create the product. These values are only what is needed to accomplish what is specified by the client.

**3.1.1 Marketing Requirements**

These requirements are the requirements that are related to the feasibility of the project in a business standpoint.

**Marketability**

The marketability in relation to requirements is primarily dealing with the expansion of the application to include other buildings or locations.

**Efficiency**

The efficiency of the requirements specification is related to the battery life, memory storage, and processor use.

battery life - The application should not excessively drain the battery of the phone/hardware in use. The battery of the hardware should not drain in excess of 1% per minute.

Memory Storage - The application should not be excessive in allocation of memory on the phone/hardware. The application should not exceed a memory value of 256 MB.

Processor Allocation - Processor allocation should not be excessive, but will probably be determined based on the choice in SDK.

**Software Constraints**

drop down menu

* The user needs to be able to tell the program what they want through a drop down menu. The drop down menu needs to be easily accessible and understandable to the user.

csv file

* The drop down menu needs to be able to be modified through csv files. The user ought to be able to use their own csv file to modify the names of the locations.

Direction

* The user needs to view the world through the phone/hardware’s camera, and display arrows or some other object to point the direction the user needs to go. The arrows should give the user course corrections so that they arrive at their destination in an expedient manner.

Image referencing

* At the bare minimum the program needs to reference images found in the engineering building in order to develop a method for displaying the directions the user wishes to follow.

map reference

* The user needs to have the option of seeing the diagram in a top down format showing the directions rather than the real time view of the area they are in.

starting location

* The software needs to use a starting location in order to direct the student from one location to the next, or optionally develop a starting location based on the student’s current location in the building.

schedule implementation\*

* the program should optionally allow for the user to input their class schedule and use that to direct them to the room they need to go to, at the time they need to be there. The software might take into account the current time of day, day of the week, and where they are located in order to direct them to their class. This is optional.

drop down menn

drop down menu