Research Plan

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Motivation

We are researching average sound levels of different locations around campus at different times of the day. Other research has shown that living in noisy environments can decrease life expectancy, but one doesn’t always think about this when buying a home or renting an apartment. The big picture idea is to expand this beyond the city of Champaign into any city, helping consumers make smart decisions about where to live.
Basic Information

This research will involve developing an application for android platforms that measures average decibel levels at various GPS locations and reports them back to a server that holds and organizes the information. Eventually, after enough data is collected at a certain GPS location, we will create a visual overlay of average sound levels on Google Maps as well as show sound levels at specific instances.
What has been done so far

So far, we have begun progress developing the application. This has involved researching how microphones work, and how to get sound pressure data from them. It has also required us to study Java and XML in order to write the application. We have developed the part of the application that accesses the microphone, but have not begun to analyze the data from it yet.
What needs to be done next

The application still has bugs and we are working to debug it. We also need to create a more friendly user interface so that other users will want to install the application on their mobile devices. Before the app is published there will be a visual overlay of sound on Google Maps for parts of the UIUC campus.