**Daniel:**

Hey guys, we’re team 27 and we’re continuing our 399 project and developing an assistive navigation system for blind people.

**Jason:**

Currently, there already exists a variety of aids for individuals suffering from partial or full blindness. While effective in specific scenarios, these solutions are limited in either their capability, usability, or availability. Canes can only be used to detect obstacles nearby and may be intrusive in some scenarios. While guide animals can detect and report on a variety of subjects, they too are limited in availability and applicability.

**John:**

The SEES project presents a novel solution to this problem through a device that acts as a natural augmentation of an individual’s ability to locate and identify objects using audio cues alone.

A common example of this is in city streets are the directional audio signals emitted at crosswalks.These directional audio cues enables the user to determine the correct direction for safely crossing the the street.

**Raj:**

Our Spatial Echolocation Enhancement System will use a depth sensing camera attached to a headset worn by the user. This camera will record information about the user’s environment and relay it back to the user through a pair of headphones using Binaurally spatialized audio cues.

**Ian**

Binaural audio is a unique type of audio that when listened to with an ordinary set of headphones, sounds like it’s coming from a location outside of the listener’s head. This means that we can generate audio cues in any point in space around the user and the user will be able to locate it exactly the same way you can locate us as we speak up on the stage here.

**Daniel:**

Besides the headset sensor, all of this can be driven by something as simple as a mobile phone and a regular pair of headphones. We began testing the system last semester using a simulated prototype system, and have now begun a physical implementation using the Kinect depth camera. We feel that this project holds great potential for changing how blind people navigate.