

Notes from meeting with Joe and Staff @ ABVI on 4/23/15: Joe had four blind volunteers hold our handle and give feedback

For Cane manual – general cane usage for end user is good

Feedback from volunteers:

- Rubber/nonslip grip would be nice so that it is easier/more comfortable to grip
- Have the right hand side roller stick out farther on the palm
- Question asked: how much would you pay for a smart cane? Responses \$80-\$100, \$200, and \$1000.
- Everyone said the cane handle diameter was fine for them.
- It was suggested to move the LHS roller closer to the top of the handle.
- Volunteers said the overhang detection was the most desirable for them.
- People with guide dogs have issues with running into branches and stuff face level.
- One volunteer has a problem with her hand where her palm does not go flat when she holds a cane (general, any cane) so her palm was not against the RHS roller. She suggested moving RHS roller to somewhere near the right index finger.
- Some had loss of finger/hand sensitivity, keep this in mind when designing.
- Roller vs. Vibration: 2 liked rollers better, 2 liked vibration better

General Feedback

- What will the weight of the plastic cane shell be after injection molding? I said we could make the cane walls thinner then because the plastic would be 100% infill so it should be about the same for weight.
- Joe is concerned about how much noise the cane gives off when working, he said the other teams cane is too loud.
- Overhang and side drop of are the most important to detect.
- For detection in front of the user the most important thing would be tall skinny objects, like road signs and poles. These are things that can be missed by a standard cane.
- If eventually senior design combines our cane with the other teams it would be great if there was a way to turn off different feedback separately (Ex. turn of drop off and front feedback, Just get feedback from overhang)
- In terms of the cane type, the roller at the end is the most common.
- The cane when folded up should be able to fit in a purse or desk drawer.
- I explained to Joe that using rollers takes up more space in the handle than vibratory motors.
- People use the cane in different ways, some turn the cane so the flat spot is on top and put their thumb on it. Below are pics of the two accepted ways to hold the cane.

