Milestone
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Major changes: There are no major changes anticipated to the project.

So far:

1. I applied for and received a SURG grant.

2. I completed a literature review on both navigational assistants for blind people and haptic feedback systems.

3. I've been attempting to get the software set up for the ZED stereo camera.

4. I've started developing the algorithm for force-feedback from the camera output.

5. I've developed the overall plan for the software systems necessary to go from visual perception to motor control.

Milestone: I have only partially met the first milestone for the project. I did complete a literature review, and I have access to a stereo camera for In-Sight. However, the stereo imaging software has been difficult to develop. I did not initially realize the computational power necessary to use a ZED camera, which has necessitated moving to a laptop for more processing power, and I've had extreme difficulty actually configuring the laptop that we have for the camera. I anticipate figuring out a reasonable computing platform by the end of winter break, however.

Surprises: The big surprises were around the ZED camera. A good surprise is that the camera is more accurate than I had initially thought, so we can rely on it as our sole source of vision. Bad surprises are related to how difficult it is to set up a development platform for the camera, which has occupied much of my time on this project.

Revisions to further milestones: I do not anticipate any revisions needed to further milestones. There is already a lot of slack built into the proposed milestones, and I'm pushing some software work into winter break to catch up after the issues with the laptop.

Resources needed: We have not yet heard back about our SURG/CW grant, which will give us valuable additional funding for our project. Other than that, there are no resources I need right now.