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COSC 4395

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Senior Research

1. Research topic: Using robotic sensors to aid those that are visually impaired.

2. Reason why I chose this topic: Ever since I took robotics with Professor Vuckovic, I became intrigued with the idea of using robotics to help others. When we used a sonar sensor to help a robot avoid falling off a table, I immediately wondered if this sonar sensor, or any other similar sensor, could benefit someone that is visually impaired.

3. Project Plan:

* 10/1: Have a list of possible sensors and other components that could potentially be used for this project and order these components. Expected completion time: 9/20 to narrow down the sensor, and the parts should arrive by 10/1.
* 10/15: Have a prototype schematic of what the robot will look like and how it will operate. Have a basic algorithm ready to begin scripting. Expected completion time: The prototype schematic should take approximately a week to complete, the algorithm for the source code should be similar.
* 11/1: Begin assembly of the robot and begin a series of test cases to ensure the robot is functioning properly. Expected completion time: The robot assembly and fine tuning should take no longer than a week, this gives me a 7 day cushion in case any unexpected difficulties occur.