Lab6: Robochoreography

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0. Photos of your robot prototype

See the 20230314_Jackal_Mount_Notes document for design and development of the chassis.

1. Video of robot moving around
    a. We need to be able to take the mount on and off without modifying the robot. However, the mount also runs underneath the Lidar. This means we can't glue the tabs to the base. When the robot stops, the tabs pop out (as seen in JackalMountPopsUp.mp4).
    b. We've temporarily fixed this issue with tape (see JackalMountTaped.mov)
2. Sketch of a series of movements for final project
    a. See next page for a behavior flowchart of the leading and following behaviors developed in collaboration with Yuhan.
    b. For this lab, we are demonstrating the user scenario where the robot is passive, but the person touches the robot to signal they want to evacuate right away.

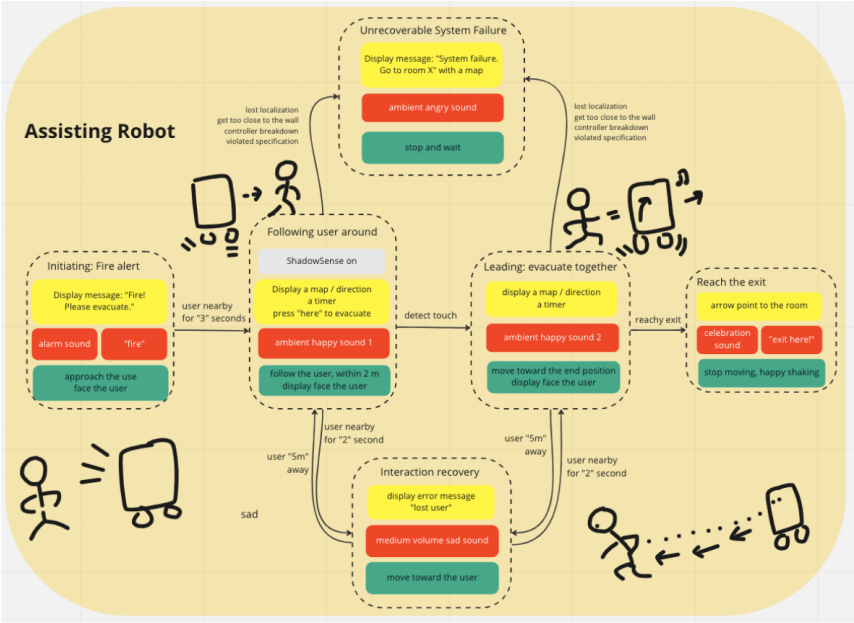
Behavior Flowchart

screen display

touch sensing

sound

movement



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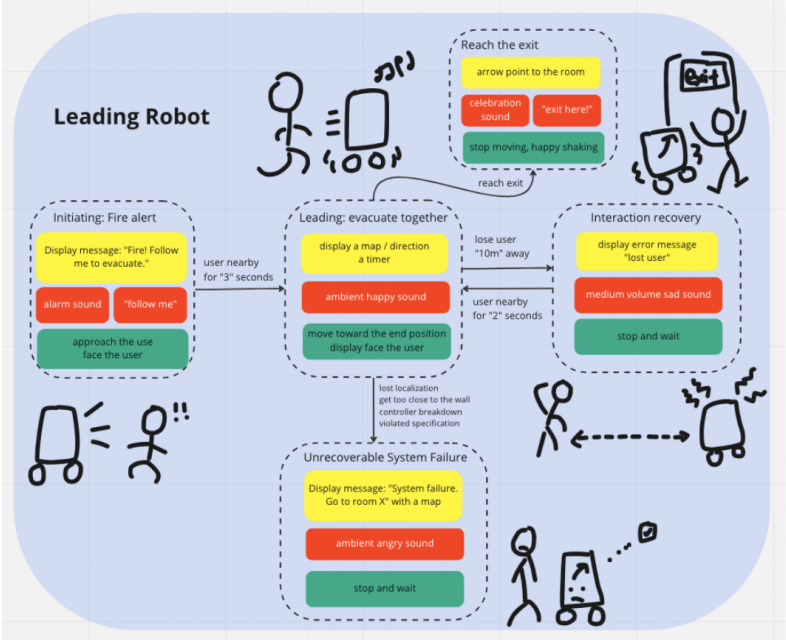

3. Video showing robot performing movements
    a. See RobotGuidesUserToExit.mov
4. Design reflection
    a. The bladderbot->Jackal mount is not as stable as I would like. We can add some crossbraces and redesign the base to secure it to the top of the Jackal.
    b. Robot speed will be a big factor in this. We need to do experiments on smooth stopping, etc