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Team D1

What did you personally accomplish this week on the project?

- Completed Design Review Presentation
    - Improved the software block diagram to account for special cases
        - Our robot would now stop for 3 minutes once it sees there is no one in the room (or if it is surrounded by people and can't move forward) instead of continuing to spin
    - Created test cases for each of our requirements
    - Worked out metrics needed for success for each test
    - Identified existing risks and their mitigation plan
- Timed code from last week to ensure that it falls within the established metrics
- Built on code from last week to decide on a particular person/group to approach if there are multiple people/groups present in the room
    - To decide what parts of the thermal picture depict an actual person, a threshold is chosen for the area of the red patch. This threshold may change once testing begins with the thermal camera ordered.
    - Amongst the contours that satisfy the area requirement, choose the one that is furthest to the left. This is done because we want to approach the person/group closest in angle, and since the robot is always turning right, the leftmost person in the picture should be the closest.
    - Finally, report the (x,y) coordinates of the chosen figure (like before).
- Images to test this new code that would be similar to our thermal camera are very hard to find, so I'm hoping to be able to test with the real hardware as soon as possible. Some images from my testing are added at the end.

Schedule

I am right on schedule as of now. However, if the Raspberry Pi and the thermal camera do not arrive within the next day or two, we would be behind given that the next job at hand is testing with the raspberry pi thermal camera.

What deliverables do you hope to complete in the next week?

- Design Review Proposal
- Adapting the code to the raspberry pi and camera (adjusting thresholds), and producing similar output to this week

Testing Image Screenshots:
The vertical black line is the x-coordinate from the code