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Team D1

What did you personally accomplish this week on the project?

- Researched and installed the appropriate openCV and python versions so that moving the code from my laptop to the raspberry pi would be easier
- Wrote base code for “red object” detection – since we are using a thermal camera, humans would be essentially red objects
 - Applied appropriate blur
 - Created thresholds for “red”
 - Applied dilate and erode methods to increase contour area
 - Got the red object with the largest contour area
 - Got the centroid – (x,y) coordinates of the largest contour area that would be used by the robot’s driver interface
- Created a small dataset of thermal images with both low and high resolution images for testing until the raspberry pi and thermal camera are available
- Tested code using online the created online dataset - verified that the centroid of the contour outputted by the code matches the rough center location that one would pick by eye when the image is plotted in the x,y plane
- Assisted with the website design

Schedule

I am right on schedule as of now. However, if our parts (Raspberry Pi and Thermal Camera) do not arrive by Monday of next week, we could be slightly 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 Presentation and Proposal
- If we get our parts by Monday: adapting the code to the raspberry pi and camera (adjusting thresholds), and producing similar output to this week
- If we don’t get our parts: code for path planning i.e. deciding which human to pursue when more than one human is present