Journal Report 18
3/1/20 - 3/8/20
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Daily Log

Monday March 2

Researched how to test darknet with real-time video stream. Currently, the way I test darknet requires an entire program with a link to an existing video or image, so I need to find a different way to put darknet into my interface.

Thursday March 5

Conferenced for my journal report and final goal from last week, started revising my previous goal to fit into the A B C format specified. Began trying to integrate darknet with the interface. Encountered a couple of errors regarding missing packages/type mismatches, hope to sort them out next week.

Final Goal

A

Have the user be able to move the Perplexus in 360 degrees and solve using computer commands, and include the ball detection algorithm in the output (be able to successfully integrate both Khushi and Sarah's components)

B

Be able to have the chassis constructed and with motor movement, but not controllable from the computer (my component works but not integrated with Sarah's)

C

Be able to have the chassis constructed but without motor movement to control it and the perplexus.

Timeline

Date	Goal	Met
Today minus 2 weeks	Train the network with more data	Yes, I annotated more points and am starting to train on the GPU
Today minus 1 week	Test the algorithm on the Perplexus chassis system	Yes, I was able to sync with Khushi and test the trained network weights
Today	Integrate the machine learning code into the interface	No, I'm still working out some bugs.
Today plus 2 weeks	Integrate the machine learning code into the interface	
Today minus 2 weeks	Have the user be able to control the Perplexus by pressing button on computer	

Reflection

After conferencing about my final goal for this research project and tjSTAR, I have a better idea of what my final product needs to look like. Having the ball detection program be a part of the demo is pretty important, and if I have time, I hope to be able to put in a 'reset' button where the motors can automatically bring the ball back to the starting position.