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9/18/19-9/20/19

Period 5

Journal 3

Wednesday (9/18)

Worked on improving the chessboard detection by trying to filter out the “noisy” lines that are detected using the Hough transform. I haven’t come up with a good way of filtering them out, as the chessboard has a physical edge and a board edge. The board edge is contained within the physical boundaries, but the square splitting algorithm will not work very well if the physical edge gets detected rather than the board edge. However, the lines are being detected successfully even with pieces on the board, so that’s good news. I’ve also started working on a better line detection algorithm that is more robust to different images. As of now, it just detects line segments within the image, but it isn’t able to extract a board from those lines.

As for the next steps, I know what I need to do to split the board into squares after I can detect the board a little better than what I have right now. As I mentioned in the last journal, it is very flimsy, so the hyperparameters work on only one image. I’m trying to make it a bit more robust just so it’s easier when we use it later to collect data for piece classification.

In the image below, we can see that the board boundaries are being detected (the inner lines that bound the actual board). However, on the left and bottom sides of the board, the outer physical boundary is being detected as well. As I mentioned earlier, I’m still trying to work on filtering out the outer physical boundary, as it is much easier to split the board up into squares if the board edges are detected.

