

Functionality Checkpoint

Project Name:

OCR (Optimal Character Recognition) of License Plates

Group members:

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Progress:

Describe what you have done over the past week. What is done? Does it always work? Is it still buggy?

- Over the past week, we have written a program that can detect characters on license plates through edge detection methods. First, it applies a Sobel filter. Second, it applies non-maximum suppression. Third, it applies hysteresis edge smoothing for edge cases. This finds the edges, but they might be disconnected (does not accurately portray the connected components.) To fix this, we dilated the edges to connect the disjointed edges. To find the license plate, we search through the bounding boxes of the connected components, comparing the dimensions of the ratios of the height and width to see what is a license plate. We found these license plate candidates (currently, we just look at the largest, but we should do something better), and we need to find if the things we isolated are actually license plates.
- Use test3.py to do this.

Problems:

What has given you trouble? Your TF may be able to help you overcome conceptual confusion or technical difficulties.

- We are having a problem with what is the best way to approach license plate detection.
 - Right now, we can detect things that seem like license plates, but we do not know how to confirm if they actually are license plates.

Teamwork:

How have you organized working together on a larger project? What problems have arisen, how have you dealt with these problems, and how can you improve moving forwards?

- We had 0 problems. For real.

Plan:

What things do you need to do next week to be on track to meet the next deadline? Include a schedule specifying what needs to get done, when it will be finished, and who will be doing it.

- We usually do our work in group meetings, so we will distribute work when we meet. We will try to adhere strictly to our set deadlines for accomplishing our goals. The things that we want to accomplish include:

- We want to make a better license plate isolation function according to (By Wednesday):
 - <http://wwwold.cs.umd.edu/~hmahini/pub/license.pdf>
 - <http://www.ii.pwr.wroc.pl/~kwasnicka/download/kwasnickawawrzyniak.pdf>
 - It should be able to detect the license plate even if it is in a weird angle:
parallelogram detection
- We want to be able to isolate characters once we identify and edge detect the license plate (By Friday)
 - (http://www.win.tue.nl/aime/Files/apr2002_license.pdf)
- We want to be able to sharpen the image so that the license plate can still be detected even if it's blurry/out of focus (By Friday)