Human-centered Computer Graphics Mini Assignment 1

Part 1: Literature search (done, 9 pts)
Part 2: Exploring eyetracking data (11 pts)
Due Date: Oct 9th, Friday, 5pm.
Please put your answers (incl plots) in a Word file, and slip the printout under the instructor's door. Please upload your movie for 2(b) on Canvas.

2(a) 2 pts
Implement a file reading function to read the log files generated by the experiment into MATLAB. Hint: csvread

Grading criterion: If you did 2(b), you got this right, so full points!

2(b) 3 pts
Plot the gaze positions for all subjects onto znewFixationVid. Are all subjects looking at the crosses when the cross appears, and moving to the next cross in a timely manner? If not, describe what steps you took to debug your code.

Save the video for submission in .avi or .wmv or .mov format.

Hint: VideoReader, VideoWriter

Grading criterion: The gaze data for all subjects should follow the appearance of the crosses. If you got this right, full points!

2(c) 3 pts
Plot the pupil diameter values over time, for each subject for 017_decayfix1_trimmed.mov (all on the same plot, different colors). What trend do you see?

Hint: The answer is in the reading material.

Grading criterion: Plot with all subjects = 2 pts, trend = 1 pt.

2(d) 3 pts
Plot the pupil diameter values over time for each subject for all of the images (all in the same plot, different colors). Compute the average grayscale intensity for each image, and mark it along the x-axis of the plot. What trend do you see?

Hint: The answer is in the reading material.

Grading criterion: Plot with all subjects = 2 pts, trend = 1 pt.