

CAP 4453: Fall '09 ROBOT VISION

Assignment 2A

Due: Sat Sep 26, 2009

(60 points) Write a program for the following. Implement the Burns Line Finder, and run it on the pipes.raw picture from the class website. Produce eight output images: one showing the edge points produced by a Canny procedure (either as part of this program or otherwise), two showing the initial set of labels shown as intensity for the two labelling systems, and five others showing the five longest lines found in decreasing order. So, output 4 should be the longest line, output 5 the second longest, output 6 the third longest, etc. The two showing the initial labels, can show each label as an intensity that is a multiple of 31. Additionally, write to the screen, the two lists: one showing the unique labels and their segment sizes, and the other showing the unique labels and their votes. Read the number of angular cones in from the keyboard or from the command line (for this assignment, set this number to be 8).