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CSCI-B 456

Project 2 README

**How to Run**

The primary files for Parts 1 and 2 are canny.m and main.m. Run each of those with no inputs and the desired result will be displayed in the figures.

**Summary of Algorithms**

Kmeans performs a color-based segmentation using the L\*a\*b\* color space and K-means clustering. The L\*a\*b\* color space consists of a luminosity layer, a chromaticity layer showing where the pixel lands on the red-green axis, and a second chromaticity layer showing where the pixel lands on the blue-yellow axis. K-means clustering is an image segmentation technique that separates objects into different clusters based on their “spatial location.” Clusters tend to have objects that are nearby each other while excluding objects that are far apart.

**Observations**

Kmeans segmentation did produce noticeable clusters, but it also produced a lot of noise, especially in the ground of R3. Also, in the frames with static elements, some frames would have the objects in different clusters. For example, in R3 Cluster 1 Frame 1, the inside of the escalator is colored in while in Frame 20 the railing is colored in.