**Canny Edge Detection DEMO**

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1. **GENERAL INFORMATION**

This software was written as the demo of RET project Summer 2012. It represents an implementation of

canny edge detection algorihm, including a complete graphical user interface (GUI). All rights belong to the author.

2. **REQUIREMENTS**

To run this software, you need to have the following components installed:

- Mathworks MATLAB

- Mathworks Image Processing Toolbox

3. **INSTALLATION**

This software doesn't require any installation. Just drop the files into a folder.

4. **USAGE**

To run the software, run the file 'Main.m' or type in 'Main' in the MATLAB command window. The script will take care of all the rest and start a graphical user interface.

The basic usage is as follows:

**-** Go to menu and open one image.

**-** Set the High and Low threshold (between 0 and 1) or use the values by default.

**-** Input the size of Gaussian Filter (odd number such as 1, 3, 5,...) and Sigma for filter.

**-** Click once 'Run Canny By One Click', all the results will be shown. Or you could do the Canny Edge Detection step by step by clicking each button.

**-** Click "Show Edges", the edges on the original image will pop out.

**-** Image could also be saved through button 'Save'.

5. **References**

- <http://www.cse.iitd.ernet.in/~pkalra/csl783/canny.pdf>

- <http://homepage.cs.uiowa.edu/~cwyman/classes/spring08-22C251/homework/canny.pdf>

- <http://en.wikipedia.org/wiki/Canny_edge_detector>