Real-time Canny Edge Detection

Computers are becoming more and more integrated into everyday life. As machines become more intelligent they will need to be able to interact with our world. One such way a machine can understand the environment around it is through computer vision.
One concept of computer vision and image processing is feature detection.

The Goal:
Implement Canny edge detection on streaming video. Image processing is a task that has a lot of room for improvement from departmentalization. The goal will be to implement feature detection algorithms in parallel such they they are fast enough to process video in real time. One of the first attempts will be to implement Canny edge detection. This is a good baseline for implementation because it is a standard edge detection algorithm and can be easily bench marked against implementations from C++ libraries.

References:
Raman Maini,Dr. Himanshu Agrawal "Study and Comparision of Various Image Edge Detection Techniques", International journal of Image Processing.