

L2-C1 Noise filtering and edge detection

For a vision task of obstacle detection like in the course project, you have to extract from an image some shapes made in black on a white background, but knowing there is some noise in the image that need to be filtered. You would like therefore to have a gaussian noise filtering and then an edge detection, but the project request that you execute it in the minimal time. Here are some functions you have in your library and you can combine, which one would you execute to do the required task?

- A: Gaussian smoothing: 1.5ms
- B: Edge detection with Sobel kernel : 4 ms
- C: Canny edge filter : 3.8 ms
- D: Simple edge detection : 2.4 ms
- E: Moving average on patches of 5x5 pixels: 1 ms

