Tutorial 4: Image processing

OpenCV Hausaufgaben (exercises at home) Minimum knowledge

Python

https://opencv-python-tutorials.readthedocs.io/en/latest/py_tutorials/py_imgproc/py_table_of_contents_imgproc/py_table_of_contents_imgproc.html

- Color space transformation
- Thresholding (except the Otsu explanation)
- Smoothing Images (except bilateral filter)
- Morphological Transformations

C++

http://docs.opencv.org/2.4/doc/tutorials/core/table_of_content_core/table_of_content_core.html#table-of-content-core
http://docs.opencv.org/2.4/doc/tutorials/imgproc/table_of_content_imgproc/table_of_content_imgproc.html#table-of-content-imgproc

- Mat - The Basic Image Container
- How to scan images, lookup tables and time measurement (*just read and understand*)
- Mask operations on matrices
- Smoothing Images
- Eroding and Dilating

OPTIONAL: instead of images use video stream from a camera