Report

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# Pupil detection

## Assumption

One of the assumption is to transform input image to binary and search for the blobs using the threshold. After that we can classify the blobs and the size and circularity.

There can be difficulties, that can prevent us from finding the right blobs. If we classify our pupil size by area, it will be hard to detect pupils of different size. Moreover, the light can influence a lot. If we classify blobs by circularity, the angle can play a big role, where person is not looking directly at the camera.

Steps and how does it work

# Glint detection

## Assumption

After pupil detection, we can conclude that searching by conversion to binary image and setting up the threshold (in this case opposite threshold) works very well. Moreover, the area and extension classification will work, but unfortunately we can’t classify glints by circularity, since they are not always round. Furthermore, then can be few glints. But since we already found the pupil, we can find the glint candidate by evaluating the distance from pupil center.

Steps and how does it work