

Introduction

This is the first mandatory assignment for the course SIGB F2013. In this assignment we'll implement a simple software eye tracker. This will be done in the programming language python with help from the opencv and numpy libraries.

This report is an attempt to document what has been done to make this eye tracker.

The basic structure for each section will be a short introduction of the goal of the section, followed by the theory behind our approach ending with a description of our actual implementation with visual aids used for documentation. Additionally we will accompany the report with captured videos demonstrating the usage of the eye tracker

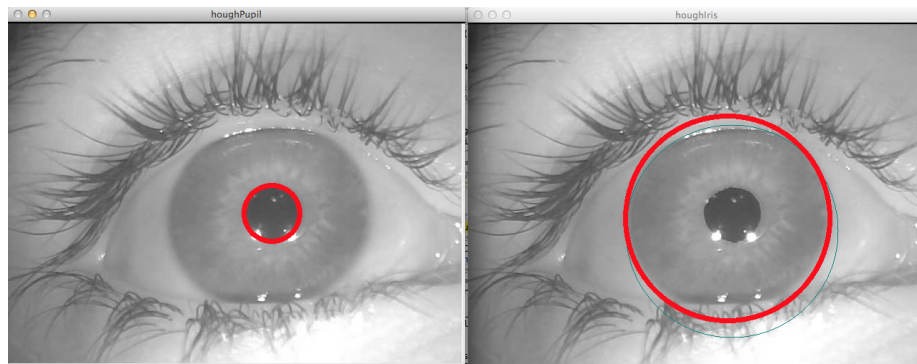


Figure 1: Eye located with hough

Pupil detection

Overall rationale and theory

Theory behind thresholding

Theory behind Clustering

K-means