

## Instructions on how to calibrate DPI eye tracker

### Start the motors,

turn on the first switch **Master Servo**

### Find the position for the camera to track, first LED should light up green

**always start with focussing** (in out) the cornea on the left mark, the beam should be visible on the lateral 3/4 of the pupil. Nasal pupil margin has to lie in the shadow! Also look for a position in which you can see the first AND the forth purkinje image in highlighted area.

### Move motors left right, up/down

until you get first LED right (up left), it has to become green

#### Variation 1

sometimes it helps to turn on the second switch (tracking) already at this point, since you now can observe the other LEDs, the more become green, the closer you are to you are tracking position.

#### Variation 2

it may help for the positioning to turn the switch to 1st LL (LightLevel of 1th purkinje image), observe the number and see if you are going into the right direction. You want to get enough light (indicated by high - values)

### turn on the second switch (tracking),

all the LEDs should become green

### hit the autofocus switch

on shortly while monitoring focus, stop when its close to zero (below 2). You can also do it manually, but in this way it might be easier.

### lock the focus (up-locked, down-unlocked)

### level out horizontal (H1), vertical (V1) out (below +- 2),

turn the switch to H1 first, press left/right buttons shortly until value get close to zero, turn switch to V1 and press up/down motor button until close to zero

### auto-calibrate the 4th purkinje image

have subject look at center, tell them not to blink, turn switch to H4 or V4, monitor value, press red button, release when close to zero

have subject **start experiment** by pressing R1 on the joypad