



The Tobii 1750 eye-tracker is yet another break-through in eye-tracking. It revolutionizes eye-tracking by providing high quality tracking without interfering at all with the user environment of the test subject and giving him an incomparable freedom of head movement. At the same time it is amazingly easy to use and fully automatic, without the necessity of constant re-calibration.

All of the components of the Tobii 1750 eye-tracker are integrated into a robust but slim metal casing, a solution which yields a number of advantages.

- High tracking quality
- Freedom of head-movement
- The Calibration
- Advantages
- Technical Specifications

### High tracking quality

- High tolerance for different ethnic groups
- High tolerance for glasses and contact lenses
- Works with most light conditions
- Binocular, 50 Hz sample rate

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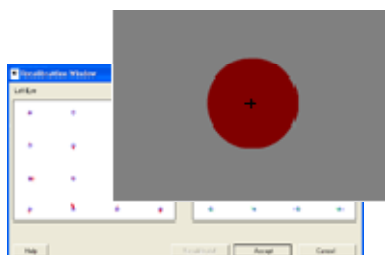
### Freedom of head-movement



- non-intrusive, integrated components not visible for the subject
- 0,5 degrees accuracy (bias error) and unparalleled quality of head-movement compensation and drift reduction
- instant re-acquisition after extreme head motions or going away
- Free of eye disturbing lights

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### The Calibration



- Only one calibration per subject necessary
- Subjects calibration parameters can be saved
- Very short calibration routine (30 to 60 seconds)

- Standard calibration marks can be replaced by any bitmap or movie

## Advantages

- Easy installation
- Extremely short set-up time
- Very easy to operate
- Very easy and stable calibration routine
- Eye-Tracking functionality 100% automatic

## Technical Specifications

Accuracy	0,5 degrees
Spatial resolution	0,25 degrees
Drift	< 1 grado
Freedom of head-movement	Effective freedom of head-movement is about 30x15x20 cm at 63 cm from screen. Field of view of the camera is 20x15x20 cm. It is sufficient that one of the users eyes is within this space for proper tracking. Binocular tracking is possible when both eyes are within the space.
Head-movement compensation error	< 1 degree compensation error for head translations in three dimensions and rotations across the entire head-movement space
Top head-motion speed	~ 10 cm/s
Time to tracking recovery	< 100 ms
Frame rate	50 Hz
Typical delay	35 ms
Max gaze angles	+/- 35 degrees
TFT display	17" TFT monitor, max. resolution 1280 x 1024 pixels
Weight	~ 9 Kg

## Demo video

*Download instructions:* The movie files available on this page are in AVI – DivX format. If you are not able to see one of the movies please try to download the free player **Videolan**, available at <http://www.videolan.org/vlc/>.

Please right click on the movie and choose "target save as". Choose a saving location and execute the file (in case of download of the player, right click the saved file, choose "open with..." and choose Videolan).

 accuracy - [AVI/DIVX - 995 KB]

 calibration - [AVI/DIVX - 459 KB]

 Eye tracking LAB (eLearning study) - [AVI/DIVX - 4,20 MB]

 A scanpath sample movie on eBanking - [AVI/DIVX - 1,40 MB]

 Eye-tracking LAB (web portal) - [AVI/DIVX - 4,03 MB]

 HR evaluation test (visual-attentive performance test) - [AVI - 2,90 MB]

 Eye movements on a TV spot (1) - [AVI/DIVX - 6,2 MB]

 Eye movements on a TV spot ( 2) - [AVI/DIVX - 1,1 MB]

### **High resolution images**

Tobii 1750 - [TIFF - 2,30 MB]