

EyeNTNU-30p Technical Specifications

The specifications describe the basics of portable eye tracker EyeNTNU-30p, the head unit, EyeNTNU Analysis Tools 2016, and three more optional eye movement data analysis tools.

1. Basics of Portable Eye Tracker

Item #	Item	Description
1	Eye tracking technique	Infrared LED
2	Number of infrared LEDs	Two
3	Type of eye tracking	Monocular
4	Sampling rate of eye camera	30Hz
5	Pupil measurement	Supported
6	Calibration method	5-point calibration

2. Head Unit

Item #	Item	Description
1	Material	Plastic, steel
2	Scene camera, video resolution	640*480 at 30Hz
3	Scene camera, video format	AVI
4	Eye camera, field of view(approx.)	hFOV=70-degree, vFOV=60-degree
5	Scene camera, horizontal and vertical FOV (approx.)	hFOV=70-degree, vFOV=60-degree
6	Weight	<1000g
7	Audio	Not supported.
8	I/O ports	Two USB2.0 ports

3. Analysis Tools – EyeNTNU Analysis Tools 2016

Item #	Tools/function/variable	Description
1	Hot Zone Analysis	Image, Video supported
2	Fixation Identification	Providing three options: 1. Dispersion-based 2. Velocity-based 3. Area-based
3	ROI Define Tool	Image, Video supported
4	Variables of the eye movement	Providing the following eye movement variables:

		1. Number of fixations before first arrival 2. Duration before first fixation arrival (ms) 3. Percent time fixed related to time in zone (%) 4. Percent time fixated related to total fixation duration (%) 5. Total time in zone (ms) 6. Percentage of total fixations before first arrival (%) 7. Percent time spent in zone (%) 8. Fixation count/Total time in zone (%) 9. Total fixation duration in zone/Fixation count (ms) 10. Average pupil area in zone 11. Total fixation duration (ms) 12. Percent time non-fixated (%) 13. Average fixation duration (ms) 14. Average pupil area (pixels) 15. Pupil area std dev 16. Fixation count 17. Percentage of total fixations (%) 18. Std dev fixation duration (ms) 19. Average pupil area in fixations 20. Pupil area std dev in fixations 21. Gaze point count (Sampling count)
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4. Validation Inspection of Eye Movement Data Tool(**Option**)

5. Automatic Correction in Shifting Eye Movement Data Tool(**Option**)

6. Automatic Significant Differences Mining in Regions of Interesting(**Option**)

Computer system requirements:

All tablets run on Microsoft Windows-based Operating System, e.g. Windows 7, 8, 8.1 and 10 (32 bit and 64 bit).

建議目前可採用：

Microsoft 微軟 Surface Pro 4

★ Intel 第 6 代 Core m3 + 128GB SSD

4G RAM || Windows 10 Pro

處理器：第 6 代 Intel Core m3

記憶體：4GB RAM

硬 碟：128GB SSD

顯示器：12.3 吋 (2736x1821)觸控螢幕

相機：5 百萬像素前置鏡頭/8 百萬像素主相機

連接埠：USB 3.0、Mini DisplayPort、microSD 讀卡機

隨 附：數位觸控筆

重 量：單機身 766g

作業系統:Windows 10 Pro

保固：一年有限硬體保固