

iMotions Recommended Computer Configuration

Below are recommended system specifications to perform data collection and analysis operations. Please note performance may vary depending on a number of factors including sensor type, volume of sensors in use simultaneously, amount of data collected, length of stimuli, complexity of analysis and more.

Systems not within recommended specification ranges may experience less than optimal performance and rarely, failure to run. Note that the following guidelines do not apply to Varjo systems. Please consult with your iMotions contact for a needs assessment before final purchase.

Feature	System Performance		
	Minimum*	Average**	High***
CPU	Intel i7 Generation 3-4	Intel i7 Generation 4-7	Intel i7 Generation 7 and up
RAM	8 GB	16GB	32 GB
Hard Drive (SSD only)	128 GB	512 GB	1 TB
Graphics card	Nvidia 9 series 2-4GB	Nvidia 10 series 4-6GB	Nvidia 10 series 6-8GB or higher
Operating System	Windows 10 Note: Apple, windows dual boot, and windows emulators not supported.		
Monitor	Resolution: 1920x1080 is the best supported resolution. Size: Dependent on eye tracker, typically 22-25" monitor. 2 Monitors required for dual screen.		

Web Browsers	Internet Explorer, Chrome, Firefox (Latest versions)
User/ Environment Camera	USB webcam (Logitech HD PRO C920)
USB Ports	2.0 and 3.0 depending on sensor requirements. Note: Hub may be used to expand number of available USB ports but only powered hubs should be used.
Internet (Wired/Wireless)	Wifi cards are needed for certain sensors including Enobio Wifi, and Tobii Glasses. Ethernet/ LAN Connection needed to connect to certain sensors such as: BioPac MP 150/160, SmartEye Pro, and Cedrus Stimtracker. Note: If performing website testing with a wireless sensor, both LAN and wireless access required.
Bluetooth	Bluetooth required for certain sensors (Shimmer, Enobio, Emotiv). Shimmer is the only current sensor that relies on the computer's bluetooth the others come with paired dongles. Default internal Bluetooth is sufficient for most applications, however designs with more than two Bluetooth devices (including mice and keyboards) should consider upgrading to a higher priced Bluetooth card such as Killer Networking cards. Computers without internal Bluetooth can use USB Bluetooth dongles: Recommended dongles include the Belkin Mini Bluetooth V4.0 USB Adapter, and the Sitecom Bluetooth 4.0 Adapter. Note: disabling unused Bluetooth, and limiting environmental Bluetooth devices (i.e. phones) can help to limit connectivity issues.

***Minimum Performance systems** can run 1 or 2 low Hz sensors for short durations (under 10min)

****Average Performance systems** examples are 3 or more sensors with more than 10min of data per subjects and more than 30 subjects.

*****High Performance systems** recommended for research requiring heavy computing such as:

- More than 4 sensors collecting simultaneously
- High precision timing
- External processing (ex: Matlab, Brainvision)
- 2 or 3 computer setups
- External EEG data analysis, such as through Matlab. If just using our frontal asymmetry metric or other automated metrics with less than 30min by 30 subjects then average performance systems are sufficient.
- Long data collection sessions (> 1 hour)
- VR eye tracking
- Gaming research

Example System Recommendations

Note that systems can be bought from the manufactures website with different components be careful to select the matching specs below for the best performance.

Minimum Performance Laptop System

Dell Vostro 15 5000

- 7th Generation Intel i7-7500U Processor
- Windows 10 Pro
- 15.6 inch HD display
- 256GB SSD Hard Drive
- Memory 8GB DDR4 memory expandable to 32GB(sold separately)
- Nvidia Geforce 940MX 4GB GDDR5 Graphics Card
- Lightweight
- 4 USB ports (2.0, 3.0, and two 3.0 ports)



Average Performance Laptop system

Lenovo P52

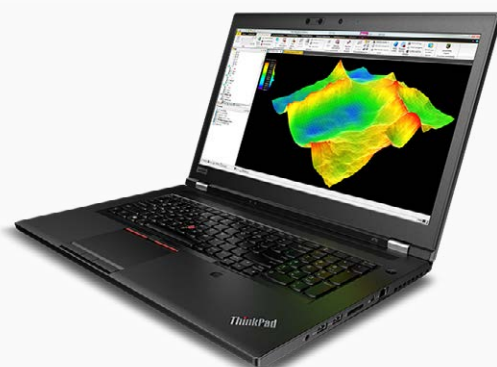
- 8th Generation Intel i7-8750H Processor
- Windows 10 Pro
- 15.6 inch HD display
- 512 GB SSD Hard Drive
- Memory 16GB DDR4 expandable to 128GB
- NVIDIA Quadro P1000 4GB
- 5 USB ports (three 3.1, and two USB-C)



High Performance Laptop system

Lenovo P72

- 8th Generation Intel i7-8850H Processor
- Windows 10 Pro
- 15.6 inch display
- 1TB SSD Hard Drive
- Memory 32 GB up to 128GB
- "VR-Ready" Nvidia Quadro P3200 6GB Graphics Card
- 3 USB ports (3.1)
- Killer Wireless Adapter



Minimum Performance Desktop

Dell OptiPlex 7050

- 7th Generation i7-7700 Processor
- Windows 10 Pro
- 8GB DDR4 Memory
- 256 GB SSD Hard Drive
- AMD Radeon™ R5 430, 2GB Graphics Card
- 10 USB ports (four 2.0 ports, six 3.1 ports)



Average Performance Desktop

Dell XPS

- 8th Generation intel i7-8700 Processor
- Windows 10 Pro
- 16GB DDR4 Memory
- 512 GB SSD Hard Drive
- NVIDIA® GeForce® GTX 1060 with 6GB GDDR5 Graphics Card
- 9 USB ports (four USB 3.1 Gen 1 ports, one USB 3.1 port, two USB 2.0 ports, two USB 3.1 Type-C ports)



High Performance Desktop

Dell XPS

- 8th Generation intel i7-8700 Processor
- Windows 10 Pro
- 32-64GB DDR4 Memory
- 2 TB SSD Hard Drive
- NVIDIA® GeForce® GTX 1080 with 8GB GDDR5X Graphics Card
- Killer 1535 802.11ac 2x2 WiFi and Bluetooth 4.2
- 9 USB ports (four USB 3.1 Gen 1 ports, one USB 3.1 port, two USB 2.0 ports, two USB 3.1 Type-C ports)

