

Neurotechnology Updates BrainAccess Products for EEG and Hyperscanning Applications

Neurotechnology's updated BrainAccess EEG solutions feature improved headwear, additional software capabilities and a new 32-channel system.

VILNIUS, LITHUANIA, February 13, 2024 /EINPresswire.com/ -- <u>Neurotechnology</u> today announced the upgrade of <u>BrainAccess</u> kits. The kits offer a full dry-contact electroencephalography (EEG) solution including electrodes, headwear, electroencephalograph, and software for EEG signal acquisition and visualization as well as providing general infrastructure for the setup of EEG experiments.



BrainAccess Kit

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BrainAccess Standard Kit (8 channel/electrode system) and BrainAccess Extended Kit (16 channel/electrode system). The Extended+ Kit has the same form factor as the Extended Kit and electroencephalographs have compatible connectors. The Extended+ Kit is aimed at researchers requiring full brain cortex coverage.

Headwear has also been upgraded for the kits. The EEG cap is now easier to set up as it features location and channel labeling. The new cap material and chin strap improve both comfort and appearance. Snap connectors are now used for connecting and mounting the electrodes on the cap allowing for an easy electrode placement in different locations.

"While with the previous release we focused on enhancing signal quality, this upgrade sees many improvements that will help researchers ease the setup of EEG related experiments," said Osvaldas Putkis, EngD, Head of Engineering for Neurotechnology. "In addition, we've updated the overall quality and looks of the new headwear."

BrainAccess Software

The BrainAccess Board software can be used to interface with BrainAccess devices and undertake most of the tasks related to EEG measurements. It



BrainAccess Extended+ Kit features a 32-channel BrainAccess MAXI electroencephalograph and EEG cap with dry-contact electrodes.

can connect and record data from multiple BrainAccess devices and ensure data synchronization. This enables hyperscanning applications when EEG data is recorded simultaneously from multiple people. Hyperscanning is a relatively new paradigm used to study social interaction from the perspective of neuroscience.

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In addition to this, BrainAccess Board uses Lab Streaming Layer (LSL) as a default protocol for data transfer and synchronization, enabling BrainAccess Board to integrate well with other software that supports LSL. The Board can

be used to catch the streams coming from other software and save them together with EEG data. For example, this could be an annotation stream that time stamps when certain stimuli were displayed on the computer screen. Likewise EEG data streamed by BrainAccess Board to LSL can be caught by other software for data viewing or processing.

Users wishing to develop and deploy end-user applications based on BrainAccess devices should consider BrainAccess SDK, which is a collection of libraries allowing for direct control of the devices and data acquisition. The SDK is provided with C and Python API for easy integration with different programming languages.

About Neurotechnology

Neurotechnology is a developer of high-precision algorithms and software based on deep neural networks and other AI-related technologies. The company was launched in 1990 in Vilnius, Lithuania, with the key idea of leveraging neural network capabilities for various applications, such as biometric person identification, computer vision, robotics, and artificial intelligence. The company has also been developing electroencephalography (EEG) and hyperscanning solutions for research, brain-computer interface (BCI) and other applications.



BrainAccess kits offer a full dry-contact electroencephalography (EEG) solution including electrodes, headwear, electroencephalograph and software.

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