

Easy synchronization of fMRI paradigms with MR image acquisition



SyncBox

One of the challenges in fMRI is to synchronize stimulus presentation with MR image acquisition. Accuracy of timing and verification of timing information is critical to the validity of results.

During image acquisition the MR scanner produces trigger information. With a flexible and user-friendly menu system, the SyncBox allows the user to select how the trigger pulse from the MR scanner is transferred to the software presenting the stimuli. Compatible with the leading software packages, the SyncBox provides an easy-to-use solution for accurate control over stimulus presentation and easy access to timing information for data analysis.

Simulation

The SyncBox can simulate the trigger signals produced by the scanner during an MR sequence. This enables the user to develop and test the entire experimental paradigm in the office, minimizing the need for testing in a costly scanning environment.

Synchronization

Both research projects and clinical testing will benefit from the added accuracy provided by this synchronization device. The SyncBox interfaces with a variety of external devices, allowing for synchronization of signals from different hardware sources and providing accurate logging of time stamps.



FEATURES

- flexible and user-friendly menu for controlling the trigger pulses from the MR scanner
- simulation of the trigger signals coming from the MR scanner for development and testing of fMRI paradigms outside the MR scanner
- easy connection to external hardware devices for synchronization of signals and logging of time stamps
- compatible with MR scanners from all vendors
- compatible with all leading stimulus presentation software packages

TECHNICAL SPECIFICATIONS

- communication with PC:
TTL, Parallell, Serial, USB HID, USB Serial
- dimensions:
105 x 44 x 130mm (W x H x D)

NordicNeuroLab

With over a decade of experience, NordicNeuroLab develops, manufactures and supplies high-quality products for MRI, with a special focus on functional imaging.

NordicNeuroLab's product line features a seamlessly integrated set of hardware components, which have been developed in close collaboration with leading research groups.

SyncBox is developed in collaboration with the Department of Clinical Engineering Haukeland University Hospital, Bergen, Norway.



NordicNeuroLab

Other products available from NordicNeuroLab

- VisualSystem
- AudioSystem
- ResponseGrip
- MR Simulator

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