

Materials List for:

# Conducting Hyperscanning Experiments with Functional Near-Infrared Spectroscopy

Vanessa Reindl<sup>1,2</sup>, Kerstin Konrad<sup>1,2</sup>, Christian Gerloff<sup>2,3</sup>, Jana A. Kruppa<sup>1,2,4</sup>, Laura Bell<sup>1</sup>, Wolfgang Scharke<sup>1</sup>

<sup>1</sup>Child Neuropsychology Section, Department of Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy, Medical Faculty, RWTH Aachen University

<sup>2</sup>JARA-Brain Institute II, Molecular Neuroscience and Neuroimaging, RWTH Aachen & Research Centre Juelich

<sup>3</sup>Lehrstuhl II für Mathematik, RWTH Aachen University

<sup>4</sup>Translational Brain Research in Psychiatry and Neurology, Department of Child and Adolescent Psychiatry, Psychosomatics, and Psychotherapy, University Hospital Aachen

Correspondence to: Vanessa Reindl at [vreindl@ukaachen.de](mailto:vreindl@ukaachen.de)

URL: <https://www.jove.com/video/58807>

DOI: [doi:10.3791/58807](https://doi.org/10.3791/58807)

## Materials

| Name   | Company                                   | Catalog Number                     | Comments  |
|--|---|------------------------------------|---|
| NIRS measurement system with probe sets and probe holder grids | Hitachi Medical Corporation, Tokyo, Japan | ETG-4000 Optical Topography System | The current study protocol requires an optional second adult probe set for 52 channels of measurement in total as well as two 3x5 probe holder grids.         |
| raw EEG caps   | EASYCAP GmbH, Herrsching, Germany         | C-SCMS-56; C-SCMS-58               | Caps must be provided with holes for NIRS probes by the experimenter. Choose cap size the same size or slightly larger than participant's head circumference. |
| Technical computing software                                   | The MathWorks, Inc., Natick, MA           | MATLAB R2014a (or later versions)  | Serves as base for Psychophysics Toolbox extensions (stimulus presentation), SPM for fNIRS toolbox (fNIRS data analysis), and ASToolbox (WTC computation).    |