Starstim® tES-EEG systems

Key Features

Powerful, mobile, wireless
The only ultralight and portable multi-channel tES device with rechargeable batteries lasting up to 5 hours.

Easy set-up
Despite complexity of traditional technology, our adult and child headsets can be set up in just a few minutes.

Any tES waveform
tDCS/tACS/tRNS, custom waveforms or temporal interference configurable for bipolar, 4x1, or on each of up to 32 channels.

Multi-step tES-EEG protocols
Design the whole tES procedure with pre-, post- or simultaneous EEG and let the device do the rest.

Cortical visualization of tES electric field
State-of-the-art visualizations of how your protocol's current will be distributed in the brain.

Proprietary hybrid & sponge electrodes
Handy hybrid tES-EEG Ag/AgCl electrodes as well as sponges in the size of your choice.

Family products comparison

Hi-Tech Applications	Starstim 32	Starstim 20	Starstim 8	Starstim tES
tES with simultaneous EEG	✔✔✔	✔✔✔	✔✔✔	—
Complex network stimulation	✔✔✔	✔✔	✔	—
Bipolar / 4x1 / HD tDCS	✔✔✔	✔✔✔	✔✔✔	✔✔✔
tACS with in-phase/anti-phase montage	✔✔✔	✔✔✔	✔	✔
EEG-tES closed loop	✔✔✔	✔✔	✔	—
Multi-channel tES-MRI experiment	✔✔✔	✔✔✔	✔	✔✔✔
tES-EEG-fNIRS experiment	✔✔✔	✔✔✔	✔✔✔	—

### Service

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Warranty	2 years standard / 5 years GOLD
Modeling Services	Exclusive personalized model-driven montage optimizations.
Customer Service	Free lifetime customer support + one-on-one expert assistance

Modeling Services

Exclusive model-driven tES protocol optimizations

At NE®, we develop advanced computational algorithms to provide you with a wide range of modeling services. With your inputs, our team of scientists will tailor them to your individual montage.
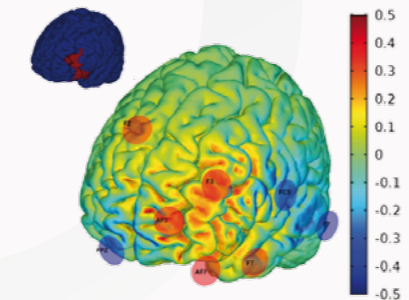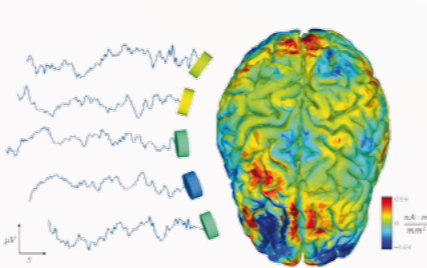
Head model creation
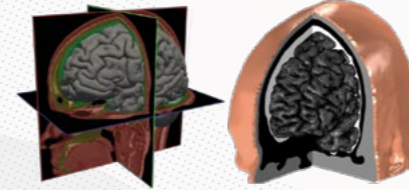
NE® electric field analytics
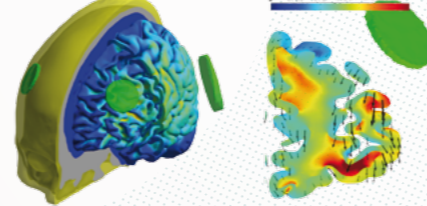
Montage optimization: Stimweaver algorithm

EEG source localization: NE® cortical mapper

Recommended publications

Sprugnoli, G., et al., *Reduction of intratumoral brain perfusion by noninvasive transcranial electrical stimulation*. Science Advances (2019)

Alekseichuk, Ivan, et al., *Electric field dynamics in the brain during multi-electrode transcranial electric stimulation*. Nature Communications (2019)

Dagan, Moria, et al., *Multitarget transcranial direct current stimulation for freezing of gait in Parkinson's disease*. Movement Disorders (2018)

Neri, F. et al., *A Novel tDCS Sham Approach Based on Model-Driven Controlled Shunting*. Brain Stimulation (2019)

Fischer, David B., et al., *Multifocal tDCS targeting the resting state motor network increases cortical excitability beyond traditional tDCS targeting unilateral motor cortex*. Neuroimage (2017)

Antal, A., et al. *Low intensity transcranial electric stimulation: safety, ethical, legal regulatory and application guidelines*. Clinical Neurophysiology (2017)

Ruffini, Giulio, et al., *Optimization of multifocal transcranial current stimulation for weighted cortical pattern targeting from realistic modeling of electric fields*. Neuroimage (2014)
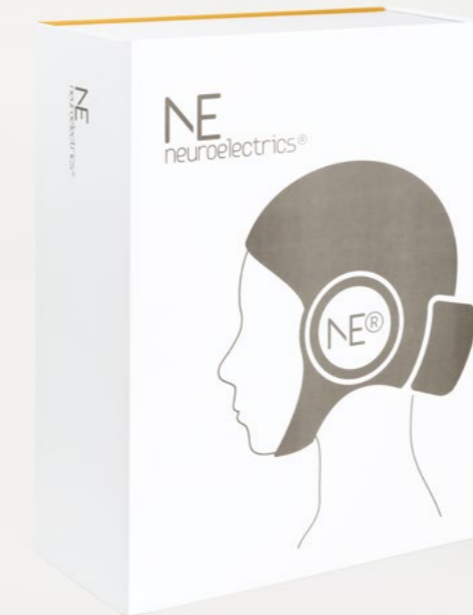
starstim NE®

Starstim® tES-EEG systems. Unique and all-in-one solutions for wireless multi-channel brain stimulation and monitoring.

NE®

NE neuroelectrics®

Unique and all-in-one solutions for wireless multi-channel brain stimulation and monitoring

Complex tES research made simple

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Starstim® tES-EEG system is our unique, all-in-one wireless system for simultaneous brain stimulation and monitoring.

Welcome to the next generation of precise multi-focal tES-EEG devices with 8, 20 and 32 channels, and an intuitive user interface for protocol design and real-time visualizations. A perfect solution for double-blinded studies.

Leading the clinical evidence

All-in-one tES-EEG

High precision in your research

Complex tES research made simple.

Leading the clinical evidence

A renowned and trusted solution for pioneers in pain, epilepsy, Alzheimer's, stroke, rehabilitation, depression and addictive disorders research with numerous publications every year.

High precision in your research

Exclusive model-driven tES protocol optimizations and personalizations to maximize the effects of stimulation and accurately interpret the results of your experiment.

All-in-one tES-EEG

Freely customizable tES waveforms and montages allow for advanced investigations with simultaneous monitoring as well as closed-loop applications.

Simultaneous Brain Stimulation and Monitoring (tES-EEG)