

starstim^{NE®}

NONINVASIVE
WIRELESS tCS
NEUROSTIMULATOR

NE
neuroelectronics[®]



Multi-channel tCS with EEG

High resolution tCS
with simultaneous
EEG monitoring

What is tCS?

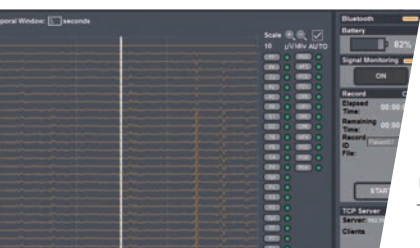
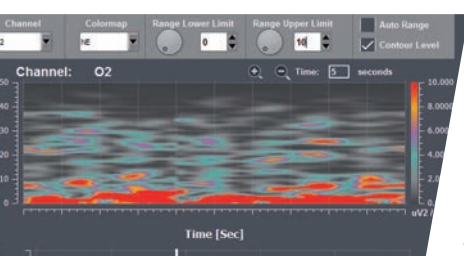
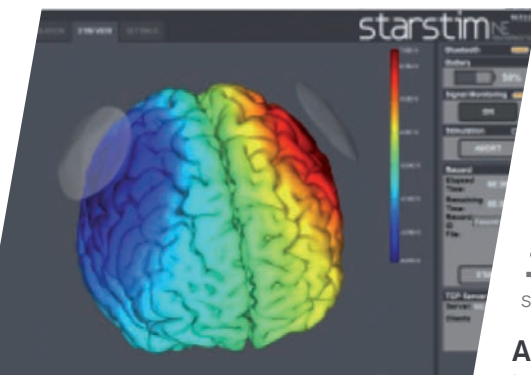
Transcranial current stimulation
(tCS) is a form of neuromodulation
which uses low current
delivered directly to the brain
via small electrodes

Applications

Chronic Pain
Post Stroke Rehabilitation
Depression
Addictive disorders
Learning and cognitive enhancement
Basic neuroscience research

NONINVASIVE WIRELESS tCS NEUROSTIMULATOR

NE
neuroelectrics®



Multi-channel and programmable tCS

- Stimulate using up to 8 electrodes.
- Current-controlled tDCS, tACS, tRNS, sham or user-defined waveforms.
- Allows flexible electrode placement based on the 10-20 system.
- Independent current control of each electrode.

Dual use electrodes for stimulation and EEG monitoring

- Stimulate and record at the same site using the same electrodes.

A wireless wearable concept for fast and easy setup

- Allows for mobile stimulation and recording away from the clinic/lab.
- Quick setup in less than 1 minute.

Intuitive user application

- User friendly protocol programming and sequencing.
- Provide on-line visualization of EEG features.
- Visualize generated electric fields associated with tCS.

Number of channels: 8 channels

Bandwidth: 0 to 250 Hz for EEG, 0 to 500 Hz for Stimulation

Sampling rate: 500 SPS for EEG, 1000 SPS for Stimulation

Resolution: 24 bits – 0,05 uV

Noise: < 1 uV rms from 0 to 250 Hz

Common mode rejection ratio: -115 dB

Communication: Bluetooth 3.0 and 2.1

Operating time: 8 hours

Dimensions: 60 x 85 x 20 mm

Weight: 65 g

Artifact resilience: Yes

DC coupled: Yes, measurement band from 0 to 250 Hz

Accelerometer Data Recording 3 axis at 100 S/s

Operating system Windows 7/8/Vista, MAC OS X
Caps available in different sizes or custom sizes

The StarStim kit includes a complete headset with a medium-sized cap and 8X gelled stimulation electrodes (PiStim), 4X Sponge electrode and 8X gelled EEG electrodes, as well as the NIC software. Additionally you may also order the following accessories:

- Dry EEG electrodes for the scalp (no gel).
- Extra caps with different sizes (L, M or S).
- Earclip for easier reference channels connection.
- TTL hardware trigger adapter for ERP-like applications.
- MatNIC toolkit for remote control from Matlab.
- ECG extension cable.
- NeuroSurfer - Neurofeedback software.

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CE mark approved.
Investigation device
in the USA.