unicorn BCI CORE

Flexible, High-Precision EEG
for Humans and Animals

g.tec

www.gtec.at

Modular EEG & BCI Hardware

The Unicorn BCI Core-8 is a powerful 24-bit, 8-channel EEG and BCI device designed for versatility and ease of use. It attaches magnetically to various base stations, which can be configured for diverse recording scenarios on humans, dogs, horses, or other subjects. Equipped with multiple electrode options, the device adapts seamlessly to experimental needs.

HARDWARE OPTIONS

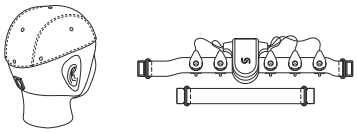
Get the Unicorn BCI Core-8 and select a base-station with 4 or 8 channels, each available with Hybrid or Gold Cup electrodes.

ELECTRODES

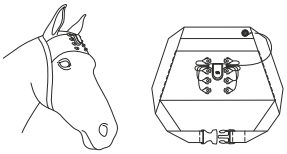
Gold Cup electrodes are lightweight and compact—ideal for sleep recordings or use in animal fur.

g.SAHARA Hybrid electrodes feature eight pins for dry or wet recordings. Their longer pins reach the scalp through hair layers, ensuring reliable contact in challenging conditions.

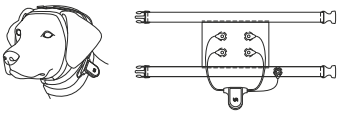
MOUNTING OPTIONS



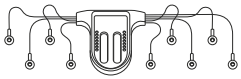
EEG Cap or Headband (Human)



Unicorn Horse Headstrap
(Hybrid EEG)



Unicorn Dog Headstrap
(Hybrid EEG)



Assemble with electrode paste, only

A POWERFUL SOFTWARE ECOSYSTEM FOR UNICORN BCI CORE

Unicorn BCI Core Recorder: Visualize, record, and filter EEG data using built-in Notch and Bandpass filters. Save in CSV or BDF formats and stream via LSL or UDP. Fully integrated into the g.tec Suite 2024.

Real-Time Prototyping with g.HIsys: Stream data from the Unicorn BCI Core-8 directly to g.HIsys Basic or Professional for real-time visualization, storage, and signal processing. Includes hundreds of Simulink models for EEG, BCI, EMG, ECG, and evoked potential experiments.

g.Pype SDK: A Python-based SDK for advanced EEG processing, feature extraction, and visualization. Runs on macOS and Windows, offering a flexible alternative to MATLAB.

g.Pype Runtime: Deploy Unicorn BCI Core-8 apps built with g.Pype SDK—no third-party libraries required. This standalone backend executes real-time pipelines for efficient commercial deployment.

Unity EEG and Bandpower Interface A Unity plugin for real-time bandpower calculation and integration with BCI-based games or applications. Supports cross-platform deployment on Windows, macOS, iOS, Android, and Android-based HMDs like Meta Quest.

Why choose the Unicorn BCI Core?

- **Flexible, Multi-Species Applications.** Designed for humans and animals, the Unicorn BCI Core adapts easily to diverse research scenarios with magnetic base stations and multiple electrode options.
- **Seamless Python Integration.** With the powerful g.Pype SDK, you can build, process, and visualize EEG pipelines in Python—an open-source alternative to MATLAB, compatible with Windows and macOS.
- **Real-Time Signal Processing.** Stream high-resolution EEG data directly into g.HIsys for real-time visualization and rapid experiment prototyping using prebuilt blocks for BCI, EMG, ECG, and more.
- Cross-Platform BCI Development. The Unity Bandpower Interface enables fast integration of EEG signals into games or applications for VR, Android, iOS, and Meta Quest—ideal for neurofeedback and brain-controlled interfaces.
- **Portable, High-Performance Hardware.** With 24-bit resolution, 250 Hz sampling (1000 Hz optional), wireless data transfer via Bluetooth 5, and >6 hours of battery life, the Unicorn BCI Core is a lightweight system for research anywhere.

Need a demo or a quote?

For more information or to schedule a demonstration, visit our website or contact our sales team today.

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g.tec medical engineering is a leading provider of biosignal amplifiers, high-performance brain-computer interfaces and neurotechnologies for clinical and research environments. g.tec's hardware and software are used worldwide by renowned universities and hospitals.

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