

NeuroSphere

USER MANUAL





Welcome to NeuroSphere

Table of content:

1 Disclaimer	01
2 What is NeuroSphere?	02
3 What is Neurofeedback?	03
4 How does NeuroSphere work?	04
5 Set up NeuroSphere	05
6 How to use NeuroSphere	06
Appendix	
A Set up Emotiv Launcher app	15
A.1 IOS Certificate settings	17
B Headset manual	19
B.1 MN8 earbuds user manual	19



1.Disclaimer

NeuroSphere, is designed to integrate with external EEG MN-8 earbuds to support functionality. Please be aware that the MN-8 earbuds are a third-party accessory, not included with our software, and is not part of our core product.

We do not manufacture, distribute, or provide support for any EEG headset / earbuds. For any issues, malfunctions, or inquiries related to the MN-8 earbuds (such as technical difficulties, warranty claims, or compatibility concerns) please contact the manufacturer or vendor of your MN-8 earbuds directly.

Our support team is not equipped to assist with third-party hardware matters.



2. What is NeuroSphere?

NeuroSphere is a personal tool designed to help you achieve mental clarity and balance. By utilizing neurofeedback and innovative technology, it provides real-time feedback and personalized progress tracking to help you reduce stress, improve focus, and enhance your overall quality of life.

How does NeuroSphere enhance your mental potential?

- **Real-Time monitoring** : Connect your MN-8 EEG earbuds to the app and instantly see how your brain responds to different exercises and environments.
- **Personalized guidance**: Receive tailored recommendations and exercises designed to help you unwind, focus, and thrive.
- **Track Your Progress**: Visualize your journey toward wellness with intuitive charts and insights that highlight your improvements over time.
- **Sustainable Improvement**: Regular use boosts your mental performance and fosters lasting development.





3. What is Neurofeedback?

Neurofeedback is a scientific method that measures the brain's electrical activities (brainwaves) to help individuals improve their mental processes and brain function. Our brain generates brainwaves at different frequencies depending on the situation (e.g., during stress, relaxation, or focus). The neurofeedback method monitors these brainwaves in real time and provides visual, auditory, or physical feedback to guide the brain toward a more balanced state. This process supports brain development and, over time, enhances mental resilience, flexibility, and overall performance.

What are its Scientifically Proven Effects?

Neurofeedback is a method supported by numerous scientific studies conducted in recent years. Based on the brain's capacity for learning and adaptation, it has been shown to be effective in the following areas:

- Reducing stress and anxiety
- Managing attention deficit hyperactivity disorder (ADHD)
- Improving sleep quality
- Enhancing performance
- Promoting emotional balance and mood regulation

Why Neurofeedback?

- A natural and reliable method: Neurofeedback is a drug-free approach that allows the brain to develop its own potential naturally.
- Lasting results: Regular neurofeedback sessions enable the brain to learn its own functioning, making the effects long-term and permanent.
- Science backed: Clinical studies have proven the positive effects of neurofeedback on stress management, focus and overall mental health.



4. How does NeuroSphere work?

NeuroSphere is based on neurofeedback and multisensory learning approaches, which are known to have a positive impact on brain development and are well-established in the literature. Through games, mental exercises, and result reports, it helps users reduce their stress levels, improve their focus, and track their mental recovery journey.

- **EEG Earbuds for Brain Activity Monitoring:**

NeuroSphere allows users to monitor their brain waves through the MN-8 earbuds.

- **Real-Time Brain Activity Analysis:**

The data collected through the headset is analyzed in real-time via the NeuroSphere app. The user's brain waves are evaluated based on conditions such as stress, focus, and relaxation, and changes are tracked.

- **Games and Exercises:**

The app offers various interactive games and exercises designed to improve the user's mental health. These activities are based on neurofeedback principles to reduce stress, increase concentration, and promote mental balance.

- **Feedback System:**

Through the app, users receive visual or auditory feedback in real-time to learn how their brain is responding. This helps them understand their mental state and discover effective strategies to reduce stress or increase focus.

- **Progress Tracking:**

To help users track their progress, the app provides detailed result reports after each session. This helps individuals monitor their development and set personal goals.



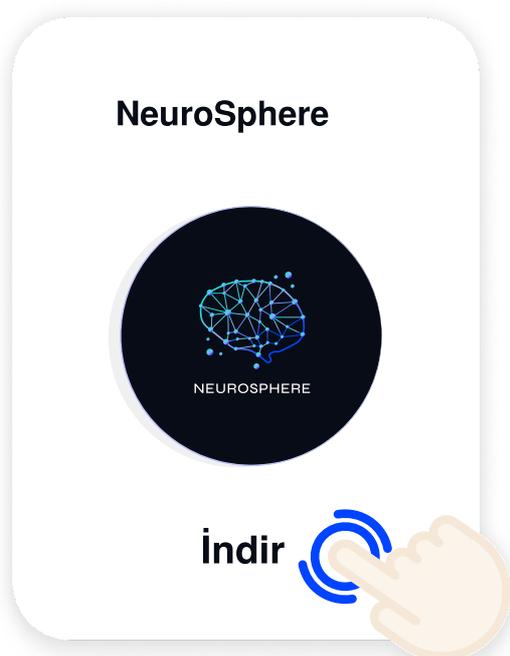
5. Set up NeuroSphere

Your device must meet the following requirements for use:



- **RAM 4GB**
- **Operating System: Android 10**
- **WiFi,**
- **Bluetooth,**
- **WiFi + LTE**
- **Capacity 64GB**
- **Network Connection 4G**
- **CPU Core 8**
- Samsung Galaxy Tab S6 Lite ,
(10.4" Wi-Fi+LTE) tablet or the new
generation are recommended.

Set up NeuroSphere on your device ,



Android operating system:

Download on Google Play



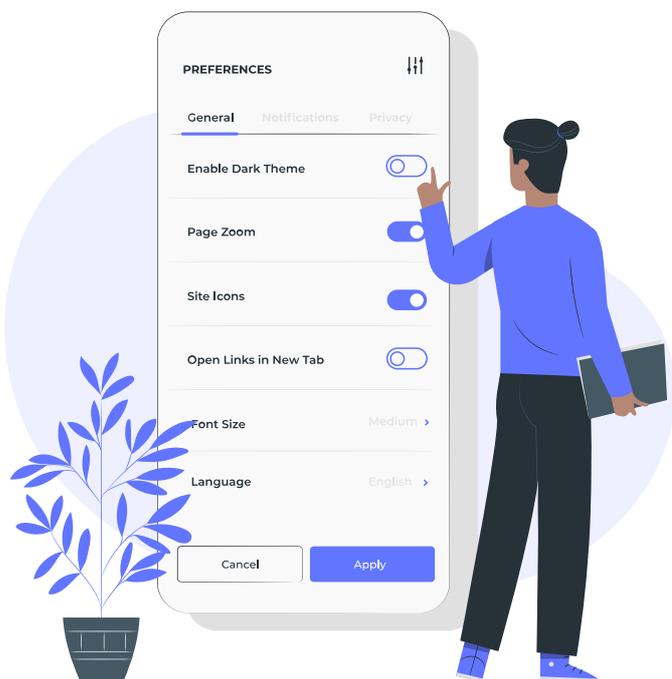
<https://play.google.com/store/apps/details?id=com.hms.neurosphere>

iOS operating system:

Download on AppStore



<https://apps.apple.com/us/app/neurosphere/id6738924013>



To get started with NeuroSphere;

-  Make sure your bluetooth is turned on.
-  Check that you are connected to the internet.
-  Make sure your location service is turned on.
-  Ensure you check the headset's contact quality

6.How to use NeuroSphere

Before starting your neurofeedback session with NeuroSphere, ensure the Emotiv Launcher app and MN-8 earbuds are set up. Detailed setup information is available in the appendix.





Step-by-step neurofeedback session ,

1- Select the activity

On the homepage, you will find the following activities:

- 1- Watch Video
- 2- Arrow game
- 3- Listen / Watch
- 4- Ball game
- 5- Mind performance Metrics

Select your activity to begin.

2- Select your protocol

Once you've selected an activity, finalize the protocol and mode selection to start.



3- Start your activity

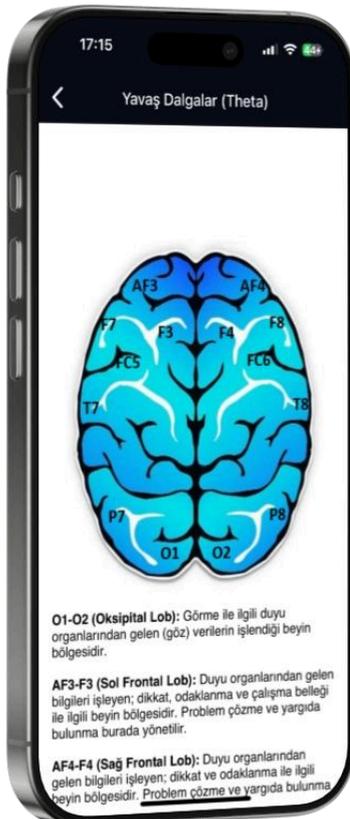
After tapping the 'start button, your activity starts. When the your score reaches 500, emojis will show up. The activity lasts for 15 minutes. You can pause and continue within that time if you need to. A daily total of 30-40 minutes of activity is recommended.



4- Activity results / Reports

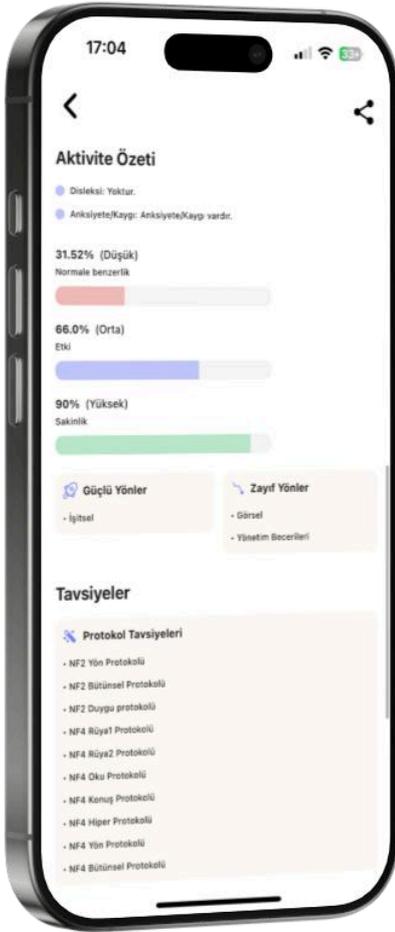
After completing your session, go to the **"Reports"** section in your profile to check your cognitive and visual report results. **Each report contains data from a 15-minute session.**

Based on your results, training recommendations will be provided by artificial intelligence. You can add these training suggestions to your monthly program. It is preferable for slow waves (theta) to be lower than the average for your age group, while faster waves should be close to the typical level for your age. The software will recommend the optimal protocol to achieve this.



Artificial intelligence primarily recommends slow wave lowering protocols based on the EEG measured on that day. If there are no slow waves, it suggests increasing fast wave protocols

You can download your activity report to your device and share it with your doctor using the share option.

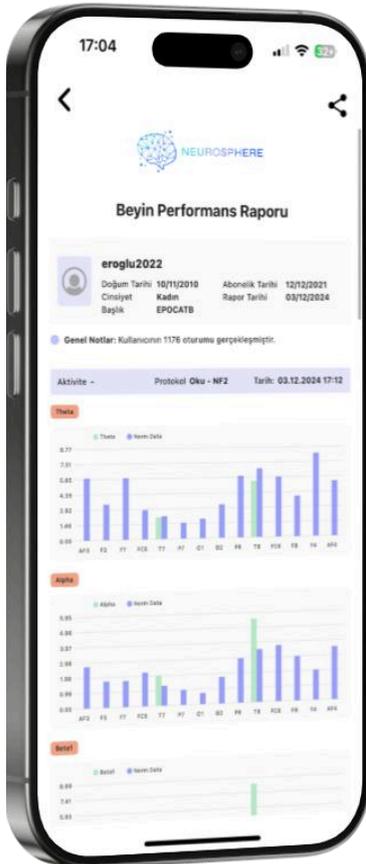


Interpreting reports ;

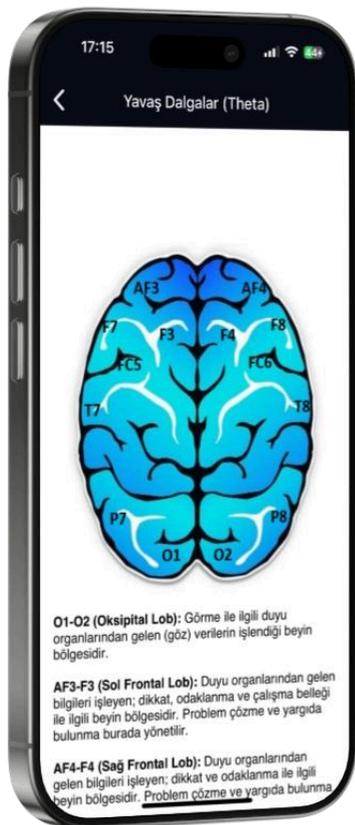
From the Report Screen, you can access the Cognitive Report or Graphical Report.

The Cognitive Report findings show which areas of the brain have higher (red) or lower (blue) measurements compared to age group norms, based on the measured brain waves. By tapping on “Brain activity map”, you can see the connections between specific brain lobes and corresponding regions of the body. This information will help you interpret the findings in your report effectively.

In the Graphical Report, the blue color represents the norm values, while the green color represents your measured values. The findings are generated by comparing your measured values to the norm values. The similarity to normal and effectiveness shown in the report summary are derived from these measurement results.



Please remember that the reports should be evaluated together. The reported EEG measurements may be influenced by the effects the user has been exposed to. Therefore, it is more reliable to evaluate the reports periodically rather than individually.



Brain activity map (EEG Channels) ;

- **O1-O2 (Occipital Lobe):** It is the brain region where data coming from the eyes related to vision are processed.
- **AF3-F3 (Left Frontal Lobe):** It is the brain region related to attention, focus, and working memory. Problem solving and judgment are processed here.
- **AF4-F4 (Right Frontal Lobe):** It is the brain region related to attention and focus.
- **F7-FC5 (Left Frontal Lobe):** It is the brain region involved in language processing and speech. Memory and language are processed here
- **F8-FC6 (Right Frontal Lobe):** It is the brain region related to emotions that processes information. Sexual behavior, expressing emotions and socialization are processed here.
- **T7-T8 (Temporal Lobe):** It is the brain region related to hearing, The information from ears are processed here.
- **P7-P8(Parietal Lobe):** It is the brain region related to reading skills and processes information. Data from sense organs related to touch, taste and temperature are processed in this center. Sensory integration is performed here.



NeuroSphere activities

Activity 1 - Watch video

Make sure the YouTube app is installed on your device to use this activity



1

Choose a video that's at least 15 minutes long from YouTube and copy the link.



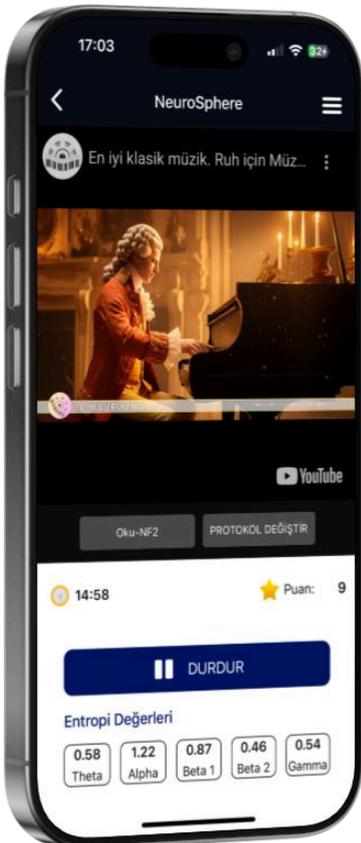
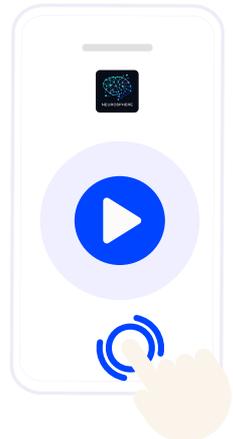
2

Paste the link on the NeuroSphere screen.



3

Once you've completed the protocol and mode selection, start your session. As you focus on the screen with the eyes open and in the resting position, the screen brightness and sound will increase and the score will rise.





Activity 2 - Arrow game

With eyes open and resting, focus on scoring points, making the red arrow green. You will receive feedback to reduce the slow waves in your brain.

You are asked to draw slow waves to the level of brain signals of healthy people in the same age group as you. If you see a red arrow, you cannot drop slow waves, if you see a green arrow, you can shoot slow waves, and you get points for this action, and if you don't see any arrows, there is no slow wave in your brain.



Activity 3 - Listen / Watch

1

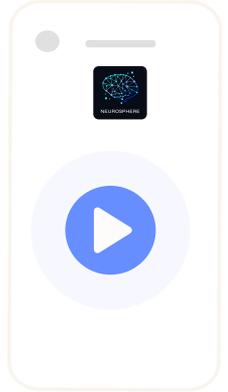
Before starting this activity, select a content from Spotify, YouTube, or any audiobook app to run in the background on your device.





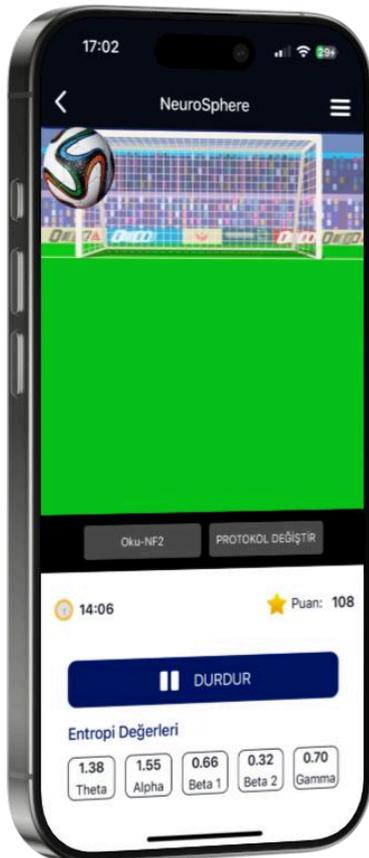
2

Return to NeuroSphere, tap the "**Start**" button on the activity screen to begin the activity, and start the selected content simultaneously.



3

In this activity, where you use your auditory / visual focus, the screen brightness and sound will increase as you focus, and the score will increase.



Activity 4 - Ball game

When you start the activity, you should aim to direct the ball that appears on the screen to the goal by focusing. When the focus increases, the goal is scored and the score starts to rise.

Activity 5 - Mind metrics

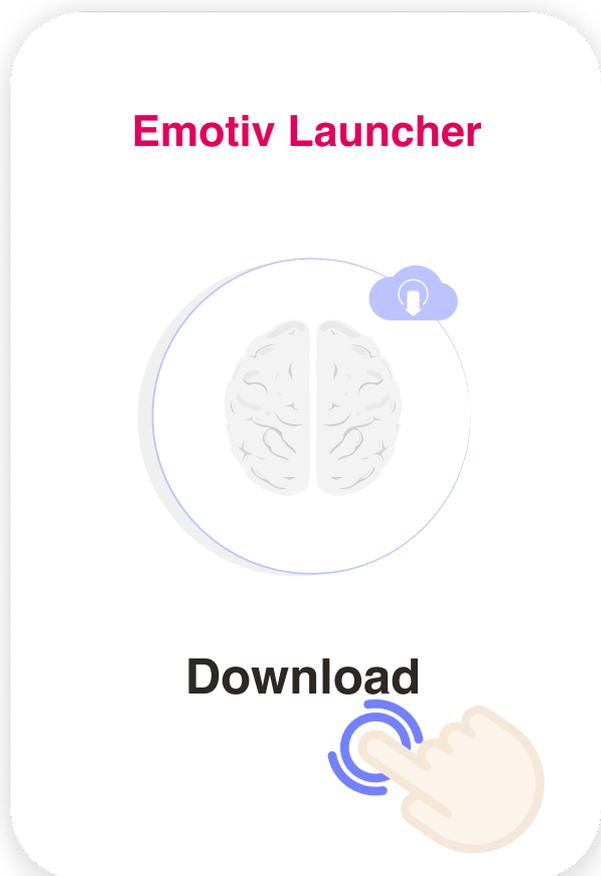
This activity allows you to track your mental performance progress by measuring your brain's engagement, excitement, stress, focus, and anxiety levels.

Appendix



A. Set up Emotiv Launcher app

Your email address must be registered in the system for the Emotiv Launcher installation. For registration, please contact the place where you purchased your headset.



Android operating system:

Download on Google Play



<https://play.google.com/apps/testing/com.emotiv.EmotivAppMobile>

iOS operating system:

Download TestFlight on Appstore,



<https://testflight.apple.com/join/jSL0XTP9>

Download the app via TestFlight ,



Note: If you encounter the "Enter code" prompt within TestFlight for iOS, please reinstall TestFlight using the same link.



Create Your EmotivID

EmotivID 2

Password 3
Minimum 8 characters, with at least 1 uppercase, 1 lowercase, and 1 number, not equal to username or email.

Password confirmation 4

Email 5

First Name

Middle Name (optional)

Last Name

I'm not a robot 6
reCAPTCHA
Privacy - Terms

Sign up

Emotiv Launcher registration steps

Please follow the 9 steps listed below,

1 Emotiv homepage , (www.emotiv.com)

My account → [Sign up for Emotiv](#)

Navigate the registration screen by following these steps.

2 **EmotivID:** Create your username.

3 **Password:** Create your password. Password should be minimum 8 characters, with at least 1 uppercase, 1 lowercase, and 1 number, not equal to username or email.

4 **Confirm your password:** Enter your password again.

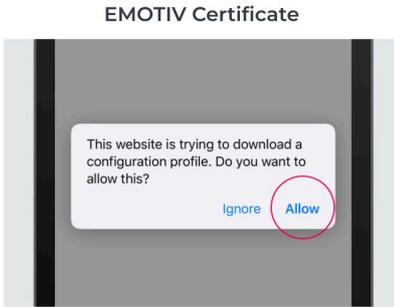
5 **Email:** Enter your mail address that you specified in the NeuroSphere user creation form.

6 Check the boxes that require confirmation.

7 **Press the “Sign up”** button. Confirm the incoming mail by checking your e-mail account.

8 Following the registration process, open Emotiv Launcher via the **TestFlight app** on iOS.

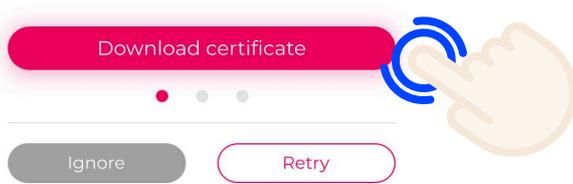
→ A.1. IOS Certificate Settings



Install EMOTIV Certificate. to ensure secure connection. Please follow the steps in this tutorial and tap RETRY when you are done.

Step 1:

Download certificate by tapping the button below.



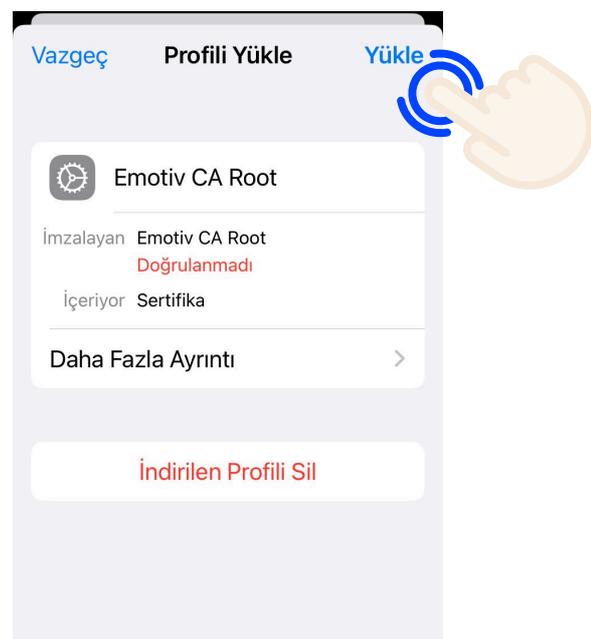
Please follow the **3 steps** provided below to apply the settings.

8.1

When you open the TestFlight app, tap the “**Download certificate**” button on the screen that appears.

8.2

Navigate to the address below to install the EMOTIV certificate:
Settings > General > VPN and Device Management (Profile)

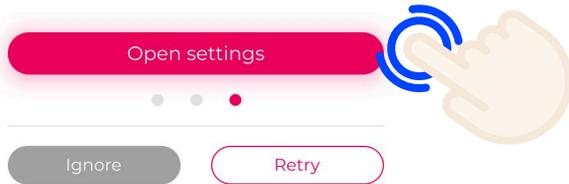


8.3 Enable the security settings for Emotiv from the address below: **Settings > General > About > Certificate Security Settings**

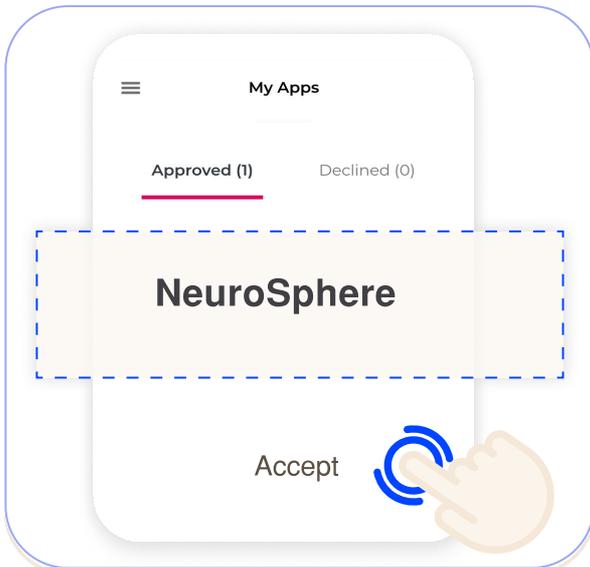


Step 3:
Trust EMOTIV Certificate by going to:

Settings > General > About > Certificate Trust Settings



9 Connecting Emotiv Launcher to NeuroSphere

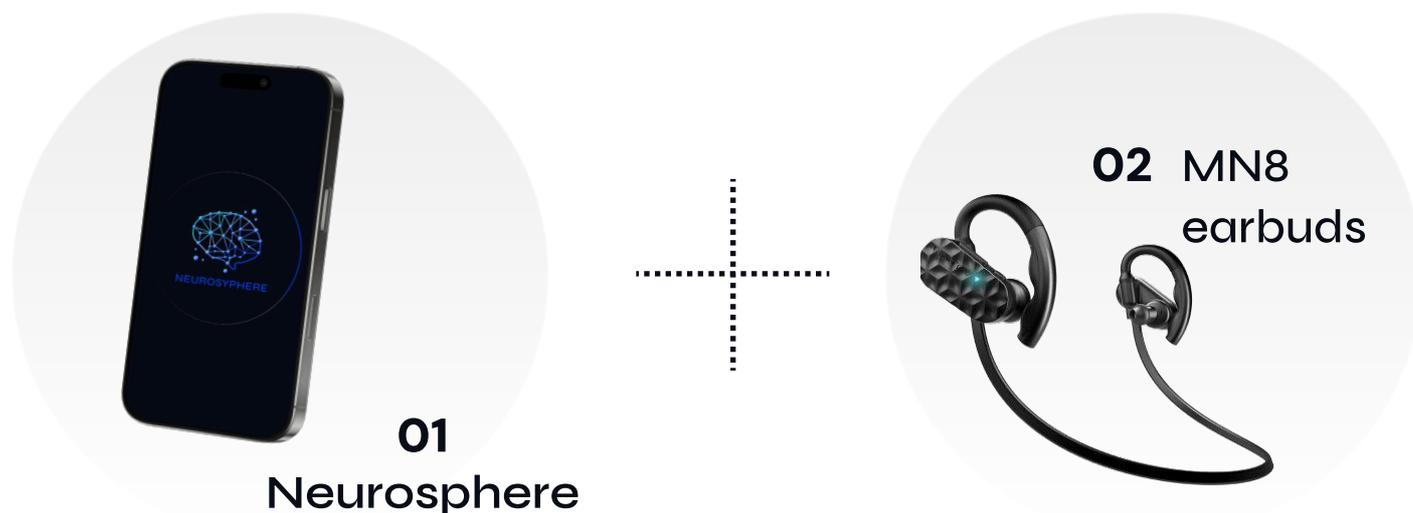


1- Log in the NeuroSphere app.

2- Switch to the Emotiv Launcher app and confirm the access of the NeuroSphere application under “**My apps**” in the menu. The name of the NeuroSphere applications will be written in the My Apps - Approved section.

B. Headset manual

NeuroSphere can function with MN-8 Earbuds.

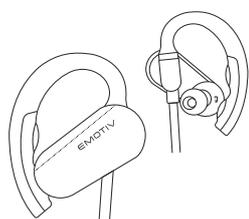


B.1. MN8 kurulumu

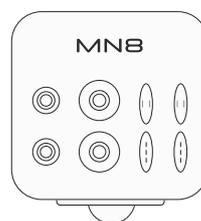
Package contents



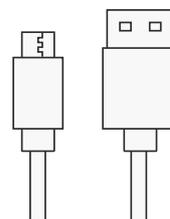
1. Protective Case



2. MN8 earbuds



3. Sensor pack



4. USB-C Cable



5. Dongle

MN-8 Earbuds installation steps

Step 1

Replacing your sensors



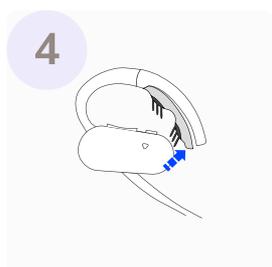
Insert the tip of the sensor removal tool into the small round opening at the end of the ear hook. Then, push up gently until you hear a click.



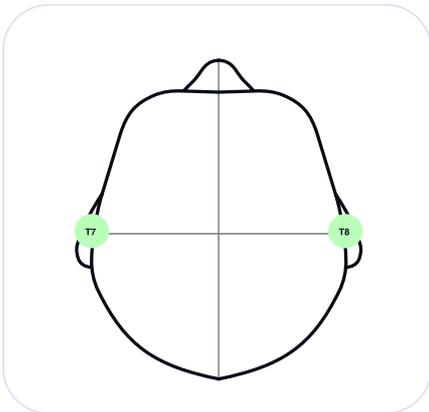
Push the sensors up to remove them.



Insert the new sensors ensuring that they're both facing down.



Push the sensor pad back into the ear hook. You should hear it click.



Step 6

Check contact quality

Check the headset's connection quality in the headset's launcher app (**Emotiv Launcher**) to make sure it's working properly. All the electrodes should be green, to maintain optimum neurofeedback quality.



Step 7

Connect your MN8



Ensure that location services, Wi-Fi, and Bluetooth are turned on the headset is connected to NeuroSphere.

- Log in to NeuroSphere using the username you created when purchasing.
- Open the EMOTIV Launcher app, go to the top-left menu, and click on **"My Apps."** From there, select NeuroSphere and ensure you grant access to the application.
- Return to the NeuroSphere app. On the main screen, tap the **"Connect"** button.
- The next screen will let you choose the headset you want to connect
- When the headset successfully connects, you will see the headset's name on the screen, along with the status reading **"Connected."**
- You can find the detailed user guide for the MN8 by following this link: <https://emotiv.gitbook.io/mn8-user-manual>

Congratulations!

You're all set to elevate your cognitive performance and mental strength with NeuroSphere.

