

**AUTO TRAIN BRAIN****USER MANUAL****Version 5****24/08/2022**

Dyslexia is a reading disability and 10% of the world's population is considered dyslexic. Although there are solutions such as neurofeedback and special education in the education and health sector and it works, the Auto Train Brain mobile application is a mobile application that permanently improves the cognitive performance of people with dyslexia, atypical autism, attention deficit, and intellectual disability, working with the EEG head in a short time and the comfort of home and mobile phone software based on neurofeedback. After determining which area of the brain the slow waves are in with the measured EEG signals, a personalized training program is offered by artificial intelligence. Auto Train Brain improves the reading skills and cognitive abilities of children with dyslexia, provides personalized neurofeedback, helps brain maturation, and reduces disconnection syndrome and the effects of inflammation. Auto Train Brain is a non-invasive solution, it provides continuous improvement for kids without any side effects. It can be applied at least 3 times a week, at most every day, and the sessions last 30 minutes. Clinicians and families can view activity reports on the phone or computer and follow them in the long term. Auto Train Brain is a patented and clinically proven solution. His clinical study on children with dyslexia was completed in 2019 at Ankara University Faculty of Medicine. Auto Train Brain users; It has been proven to provide a 2-fold increase in cognitive areas such as reading comprehension, reading speed, writing, spelling, speaking, attention, hearing, socialization, and memory. HMS Health Mobile Software Health Mobile Software Inc. Produced by It was funded by Sabancı University, TÜBİTAK 1512, TÜBİTAK 1507, KOSGEB R&D, TÜBİTAK 3501, the European Union, and the Republic of Turkey. At the same time, Auto Train Brain has gained a high reputation in the media (NTV, Forbes, Show TV, Business Channel, CNN), received invitations to international conferences, and has achieved success such as 13 articles and 2 clinical studies in the best journals.

Auto Train Brain is a mobile platform that permanently improves the cognitive performance of individuals for use 60 or more times at home. Auto Train Brain is based on neurofeedback and multiple sensory learning approaches, which have a place in the literature and are known to have a positive effect on brain development. With the non-invasive method, an EEG signal is read from 14 channels and visual and auditory feedback is given on the mobile phone. The short-term effect of neurofeedback is temporary. It is thought that after long-term use (minimum 3 days a week, minimum 20 sessions), it increases communication of various parts of the brain by increasing neurotransmitter balance and establishing weak connections between neurons.

To conduct ATB sessions, the EPOC device running in the Emotiv app must be integrated into the ATB application and defined.

## How to install the emotiv app?

### For Android:

Our clients' emails will be added to this google email group. After your email is added, please click the link below:  
<https://play.google.com/apps/testing/com.emotiv.EmotivAppMobile>

### For iOS:

Just follow the instructions in the iOS link <https://testflight.apple.com/join/jSLOXTP9>. First, you need to install the Testflight app on your iPhone or iPad and then access the EmotivAPP. You need to tap the link: <https://testflight.apple.com/join/jSLOXTP9>.

- The emotiv launcher is downloaded from the test flight and the information that requires approval is approved.
- Afterwards, a user name (emotivid) and password are determined to use in the Emotiv App application from the [www.emotiv.com](http://www.emotiv.com) web page. From the menu on the web page; o Login-Register:
  - EmotivID: (It is written on the Headset.) 2adih-epoc03 is written in lower case. If such a user exists a message, it should try the sequence number 2adih-epoc03-1.
  - Password: Your password must be at least 8 characters long and contain one uppercase and one lowercase letter.
  - Confirm Your Password: You must retype your password.
  - Email: Type your Gmail address that you specified in the Auto Train Brain user creation form.
  - First Name - Last Name: Type your first and last name.
  - Check the boxes that require confirmation.
  - Press the Confirm button. Confirm the incoming mail by checking your e-mail account, which will send an activation mail to the email address you specified.
- Then the emotiv in the test flight is entered and the certificate is approved.
- After the certificate is approved, the emotiv app is installed on the phone.
- Download the related application from our solutions-products download section on the [www.autotra-inbrain.com](http://www.autotra-inbrain.com) web page to your mobile phone or tablet by clicking the product download link. (Example: Dyslexia V2.5.4)
- Charge the device for 16 hours before first use.
- Turn on the device and pair the device with the Bluetooth of your tablet/phone.
- Open the Emotiv App. Log in with your specified username and password.
- Click on the photo of the Epoc device that appears on the screen.

- Open the Auto Train Brain application and log in with your given username and password.
- Switch to the Emotiv App and confirm the access of the ATB application under My apps in the menu in the upper left corner. The name of the ATB applications will be written in the My Apps -Approved section.

Switch to the ATB application and close the ATB application completely (it should not run in the background)

- Felt pads located at the ends of the device should be soaked in saline water filled in a glass and placed on the device after getting wet. During this process, care should be taken not to let saline water leak into the main control center of the device. Otherwise, the device will break down when water escapes to the main control center.
- If there are Bluetooth connection problems, the Bluetooth settings of the device should be reset to the factory settings, and the Bluetooth cache should be cleared.
- During the ATB application, other applications in the device should be closed as much as possible to save memory.
- Maximum 3-4 uses should be made per week and academic training should be done after neurofeedback.

### HOW DOES IT WORK?

1-Install Auto Train Brain and EMOTIV APP on your mobile phone.

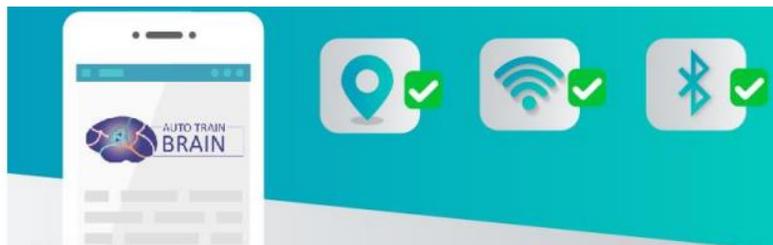
Get Auto Train Brain app from <https://autotrainbrain.wordpress.com/urun-indirme-sayfasi/>

for Android mobile phones and App Store for iOS devices. For the headset, calibration installs EMOTIV APP as well.



2-Turn on location services, Wi-Fi, and Bluetooth on your mobile phone

When you turn on GPRS or Wi-Fi your phone is enabled to receive data. Turning on Bluetooth provides a connection with the headset.



3-Moisten EMOTIV EPOC+ electrodes with saline water

Drip saline water onto each headset component in the hydrator package. Repeat this procedure before each use.



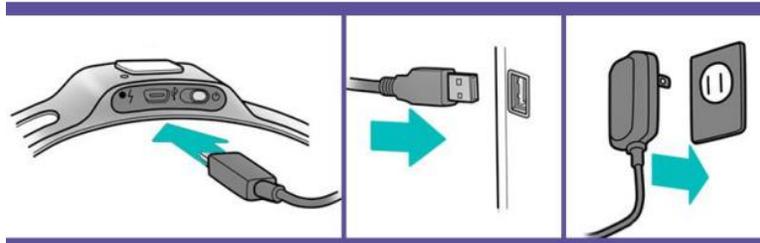
**4-Place the electrodes on EMOTIV EPOC+.**

Fix each headset cap onto the sensors on the headset. When properly fixed, twist and lock



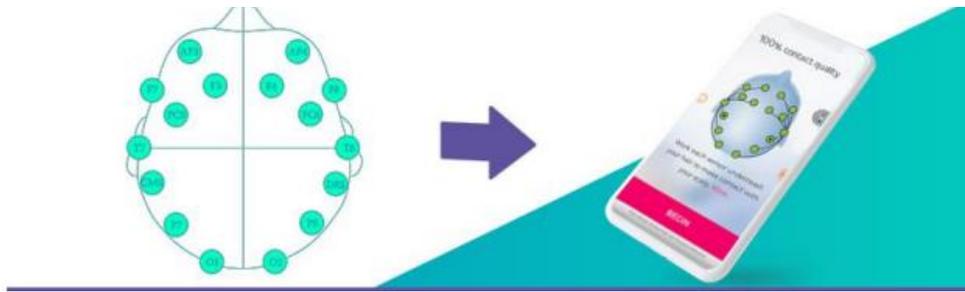
**5-Make sure you fully charge EMOTIV EPOC+ headset and turn it on by pressing the button.**

Charge EMOTIV overnight before the day of use to avoid any problems. If you experience problems connecting your mobile phone and the headset, turn the EMOTIV headset on and off and wait for ca. 30 seconds. The headset will automatically get connected to your mobile phone.



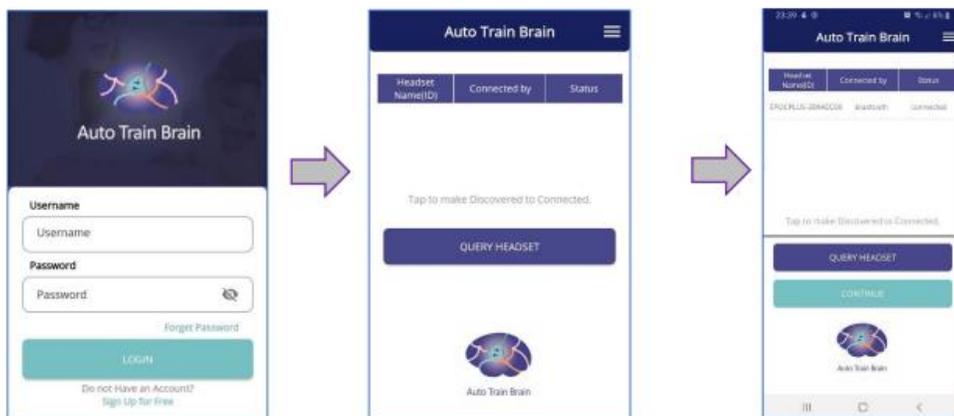
**6-Log into the EMOTIV app and check that all the electrodes are active (green).**

All the electrodes should be green, to maintain optimum neurofeedback quality and improve all brain regions. If the electrodes are yellow or red, drip more saline water



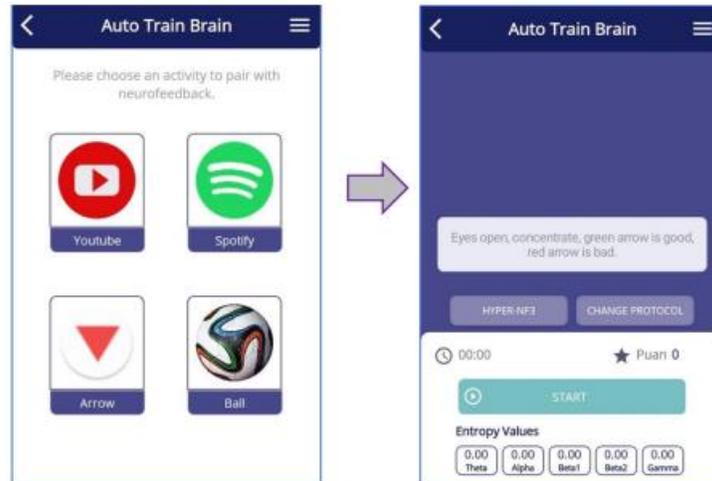
**7-** Login to Auto Train Brain with the user name you have created during purchase.

If you have purchased any of our packages from our Website, your user name should already be created in this step. Just log in with this user name on your mobile phone. If you already have a headset, register a new user and start using the app. When the progress bar stops, you must first click on the "Query Headset" button and see the headset in the list, click on it and bring its status to connected. Then, by pressing the "Next" button, you will be directed to the screen where you can select an activity.



**8-** Select your activity and press the "START" button.

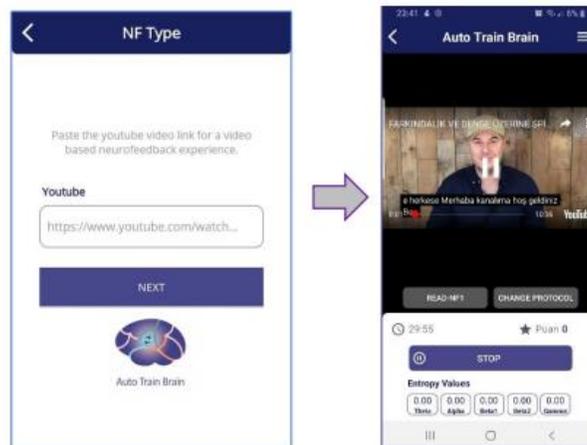
When you connect to the application, select one of the Youtube, Spotify, Arrow, or Top activities from the activity screen and be directed to the main screen, and you will first see the Protocol-Mode selection. When the selections are completed, press the "START" button on the screen and make sure that your brain signals are read. When you press the "START" button, you can see that your brain signals are coming to your mobile phone in the line of entropy values. When the score in the upper right reaches 500, you will start to see emojis on the screen. Your activity time is set to 30 minutes as indicated in the upper left. You can change your protocol and mode selection by pressing the "Change Protocol" button while continuing the activity. Your instant protocol-mode selection is indicated in the textbox next to the "Change Protocol" button. To access your reports via the menu, you must stop the activity.



## 9-Activities and their Usages

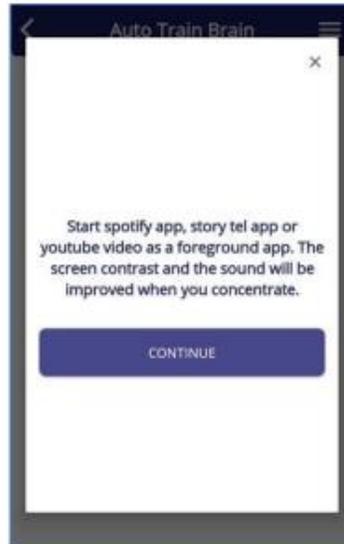
### 9.1. Youtube Activity

You can switch to the activity screen by pasting the link to the Youtube video you want to watch on the screen you are directed to. To use this activity, make sure that the Youtube application is downloaded on your device. After selecting Protocol - Mode on the activity screen, you can start the video with the "START" button. 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 increase



### 9.2. Spotify Activity

Before starting this activity, start the audio of your choice from Spotify or any audiobook application in the background on your device. While the application runs in the background, return to ATB, press the "START" button on the main screen, and start the activity. In this activity, where you use your auditory focus, the screen brightness and sound will increase as you focus, and the score will increase. As the focus drops, the screen will dim and the sound will decrease



### **9.3. Arrow Activity**

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 individuals 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.



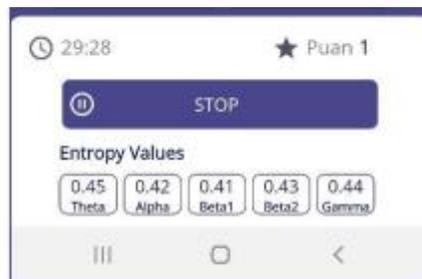
### 9.4. Ball Activity



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.

**10-** Turn off neurofeedback by pressing the 'Stop' button after 30 minutes.

Repeat this at least 3 days a week or every day, maximum 2 times at regular hours (preferably mornings after waking up and afternoons before 6 pm) minimum 10 and maximum 30 minutes. Apply neurofeedback for 10 minutes to the left brain and 10 minutes to the right brain.

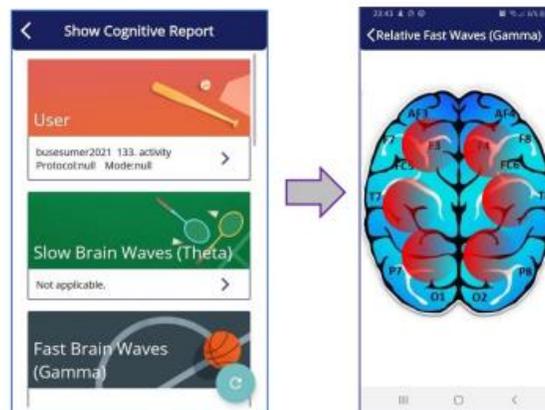


**11-** Use the menu icon in the top right corner to access Reports and Profile.

You can access your cognitive and visual reports separately in the menu. Click the My Profile tab to view your profile page, and change your password and personal information. You can also use the menu to exit the application completely.



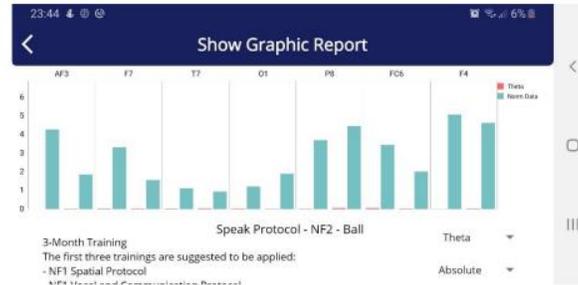
## 12-Cognitive Reports



You can see the activity results in the list of cognitive reports. Educational advice is provided by artificial intelligence. You can view which parts of the brain the slow, fast, and cyclic waves are in by clicking on them.

## 13-Graphical Reports

After the activity number is entered, the graphical report is displayed. In the graphical report, the activity results are displayed on the graph. Training recommendations are provided by artificial intelligence.



From the report's menu, track your progress, and automatically suggested NF protocols. You may apply the automatically suggested protocols at will.

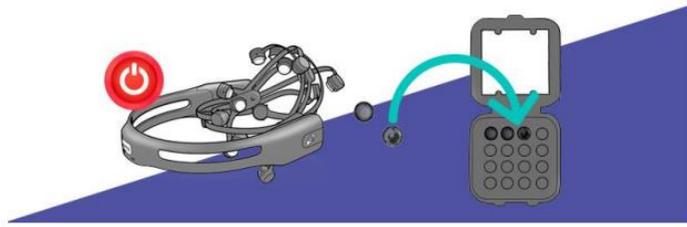


#### 14-Track your development from the web reports.

Upon purchase, you gain access to your reports by logging in with your user name and password from the web reports page of our website.



15-Turn off EMOTIV EPOC+ by pressing the button, remove the electrodes and place them in their case. Please do not forget to place the electrodes in their case and charge the device after the sessions



Apply "Dream1" and "Dream2" protocols every 15 minutes. After 30 sessions, apply the "dream1" protocol, then one of "clever", "hyper", "speak", "read", and "spatial" for 10 minutes. After every session continue with the alphabet training every day (suitable for ages 7-10)



**16-** A maximum of 3-4 uses should be made in the 15th week and academic training should be done after neuro-feedback.

**17-** Track your progress from web reports. If you purchase the package, you can access your reports from the web reports section of our website with your user name and password.

**18-** for the product to be effective, it must be used regularly (30-40 minutes) at least 3 days a week. The product should be used in the morning as much as possible, and its use should be limited after 6:00 p.m. so that it does not affect sleep quality.

**19-** Although the duration of the effect varies from person to person, lasting effects begin to be seen after 20 sessions. TILLS test can reach a level that can make a significant difference in 60 sessions or more. There are children diagnosed with dyslexia over 120 sein sessions. It was observed in the 6th-month controls where the positive results were continuing. However, further studies are needed on its longer-term effects.

**20-** The product has been clinically tested on the 7-10 age group, but can be used on all age groups. It shows its effect in a shorter time in children.

**21-** After 60 or more uses of the device, an increase in the number of words read between 7% and 150% in children with dyslexia and an average increase of 10 points in the TILLS test were reported. The maximum usage period of the product is 1 year. The constant stimulation of neurons and synapse connections can lead to the so-called "burnout syndrome. For this reason, it should be used and left for a certain period and socialization/school and cognitive training should be continued. It can be reused as needed at different times throughout its lifespan.

**22-** Although the product does not solve the main health condition (auto-immunity) in dyslexia and does not change the structure of the brain, it suppresses the auto-immune response and increases the development of the brain, thus supporting the treatment process. The product shows a positive, reflective effect on 6-7 out of 10 people. The reason why the effect was not observed in the remaining individuals may be due to the genetic phenotype, the failure to provide the discipline and frequency of periodic use, the lack of belief that the product will benefit, and the recurrence of the auto-immune problem. After 60+ uses of the product, it is possible to alleviate dyslexia symptoms according to the age group in the TILLS test. It is more beneficial when used with special education.

**23-** Clinical Research Results According to our clinical study results in 2019, in which 30 dyslexic children participated in the Department of Pediatric Neurology at Ankara University Faculty of Medicine, statistical significance was found in the development of spelling, word repetition and reading comprehension in the Auto Train Brain applied experimental group, only the control group who went to special education. group, it was determined that they were better in reading comprehension than the group. Auto Train Brain reduces the 3.5-year special training period to 3-6 months, saving time and cost.

**24-** Neurofeedback is probably an effective and expensive method according to APA rules, which is applied by psychiatrists and has a place in the literature. Auto Train Brain carries neurofeedback to the home in a way that children can use it more easily, is used as self-service, and provides cost and time savings in special education. At least half of the people who use it experience positive developments in life. The dosage of drugs used continuously is reduced with this training, and an increase in perception and socialization occurs. Neurofeedback does not resolve the root cause of dyslexia, auto-immunity. Human clinical trials of this software have been completed on dyslexia and epilepsy and it has no side effects.