Traceability Matrix

ID	Requirement	Related Use Case	Implemented by	Tested by
1	The Neureset system is a standalone product running embedded software without the need of an external PC to run the software.	N/A	N/A	N/A
2	It consists of an EEG headset with 21 electrodes connected to a handheld device which functions both as a signal processor and as a software interface for the user.		HandheldDevice, Headset, Electrode	
3	The device runs an automatic program and the user simply has to start the session and the software does the rest, informing the user as to		Session, HandheldDevice, MainWindow	

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	session duration and completion.			
4	Once the session is initiated, it reads a signal from one of the 21 EEG sites on the headset.		HandheldDevice, Session, Headset, Electrode	
5	It establishes a baseline average frequency over the period of one minute and then delivers the treatment in a single second.		Electrode	
6	To repeat here, it adds an offset frequency of 5hz to the baseline frequency every 1/16th of second, recalculating the brainwave frequency, adding the offset and repeating the process every 1/16th of a second for the		Electrode	

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	duration of one second.			
7	It then proceeds to the next EEG site and repeats the process, establishing the baseline frequency for one minute and then applying the rapid one second treatment until all 21 sites have been activated.		Electrode, Headset	
8	It only informs the user of session progress, no technical information.		MainWindow	
9	The menu has three options: new session, session log, and a date and time setting.		MainWindow	
10	Pressing the new session option opens a timer that begins once contact is initiated, indicated by the		MainWindow, Session, HandheldDevice	

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	blue light on the device.			
11	If contact is lost, the red light flashes, the session is paused and the device starts beeping until contact is reestablished.		MainWindow, HandheldDevice, Session	
12	If contact is not reestablished after 5 minutes, the device turns off automatically and the session is erased.		HandheldDevice, Session	
13	The timer shows approx. time remaining and session progress bar indicated by a percentage.		MainWindow, HandheldDevice, Session	
14	The user can press pause voluntarily during a session.		MainWindow, HandheldDevice, Session	
15	The same rule applies, if after 5 minutes contact is not reestablished the session is		HandheldDevice, MainWindow	

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	terminated and the device turns off automatically.			
16	The software calculates a baseline for each EEG site individually over approx. 1 minute, determining the average dominant frequency for that site, that applies the treatment over the duration of one second.		Electrode	
17	During that second, the green light flashes indicating treatment is being delivered. It then moves on to the next site.		MainWindow	
18	However, at the beginning of a session there is an overall baseline calculated for all 21 EEG sites, concurrently, at		Electrode, Headset, HandheldDevice	

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	the same time. At the end of the session, a baseline is once again calculated for all 21 EEG sites.			
19	The menu also has a session log history.		MainWindow	
20	Pressing this button displays the time and date of the sessions and the user can scroll through them, although no further information is provided on the device itself.		MainWindow, PCWindow	
21	However, the before and after baselines are recorded and can be uploaded to a PC with the date and time log information.		MainWindow, HandheldDevice, PCWindow	
22	The baseline’s show the before and after dominant average frequencies for		MainWindow	

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	each EEG site, taken during the overall baselines at the beginning and end of the session, compared side by side as a numerical value.			
23	The third menu option is simply a date and time setting. The user inputs the current date and time so the device clock can accurately track the sessions.		MainWindow	