Traceability Matrix

Id	Requirements	Related Use Case	Fulfilled By	Test	Description
1	User is able to initialise the Neuroset system and create a new session with the device being powered on and functional	**Use Case 1: User Initiates Session**	Neurosystem,Mainwindow,DataModel,Session	Captured via demo testing video (first portion with demonstration)	This is the debut stage of the device process and basically allows the user to be able to use the device for making new sessions or other menu functionalities
2	Device is able to independently calculate the frequency baseline for all of the EEG sites without any user input.	**Use Case 2: System Calculates Overall Baseline for All EEG Sites**	Neurosystem,Session	Captured via demo testing video and manual test of UI walkthrough	The algorithm is completed for this use case and features randomisation in order to give a diverse range of waveforms
3	Device is able to correctly and accurately apply the LENS treatment by adding a frequency offset to each of the EEG sites and complete the treatment at the end of the session.	**Use Case 3: Treatment Application and Session Completion**	Neurosystem,Session	Console output showing various treatment stages	The backend for this use case is complete now the visual representation in the form of a wave is also complete showing a live feed of any EEG site (as they change naturally with time)
4	Device is able to transmit data involving information about the session to the PC where it is able to observe waveforms and additional site specific information about the treatment	**Use Case 4: Comprehensive Data Logging, Review, and Therapy Planning**	DataModel,Neurosystem, Mainwindow,Session	Captured via demo testing video	The portion involves both (1) adding the data to the dataModel, but also now generating the waveforms so it can be visible on the PC UI (along with the other site specific information)
5	Upon disconnection of the electrodes, device is able to pause the ongoing session safely and reconnect (or terminate if the electrodes are never reconnected)	**Use Case 5: Handling Device Disconnection**	DataModel,Neurosystem, Mainwindow,Session	Captured via demo testing video	Currently this functionality works where the electrodes can be disconnected and the session will pause (with all its data) and terminate if the user is able to reconnect the nodes within the 5 minute range
6	When the power source is disconnected, or the battery dips below a certain threshold, the device alerts the user of what is happening and safely ends the session	**Use Case 6: Handling Power Loss or Low Battery**	DataModel,Neurosystem, Session, Battery	Console output and covered with the test video	This functionality is also implemented where upon loss of power or no battery charge a session cannot be undertaken. This also covers the battery charging capabilities. Ongoing sessions are also cancelled in the event of an outage