Traceability Matrix

ID	Requirement	Related Use Case	Fulfilled By	Test	Description
1	Turn On	UC1	MainWindow	All Tests T1-10	The device is turns on if the power button is pressed for more than 1 seconds and **when the finger is released**.
2	Turn Off	UC7	MainWindow	All Tests T1-10	The device is turns off if the power button is pressed for more than 1 seconds and **when the finger is released**.
3	Ending session	UC7	MainWindow	T1, T2, T3	Session ends when int timeLeft member becomes 0. The graph will scroll from 8 to 1 to confirm that Soft Off™ is in progress.
4	Battery level	UC2, UC3, UC4, UC5, UC6, UC8	MainWindow	T1, T2, T3, T4, T5, T6, T7, T8, T9	Max battery is 100 and battery is shown using (qCeil(battery/12.5)) qCeil == ceiling.
5	Low Battery warning	UC2, UC3, UC4, UC5, UC6, UC8	MainWindow	T8	When a session is running and battery is depleting, if the battery goes below 25%, the 2 bars blink low battery warning for a few seconds.
6	Critically low battery warning	UC2, UC3, UC4, UC5, UC6, UC8	MainWindow,	T9	When a session is running and battery is depleting, if the battery goes below 12.5%, the 1 bar blinks critically low battery warning for a few seconds and turns the device off.
7	The application battery level is dependent on the function of time and intensity of a session.	UC5, UC6, UC8	MainWindow Session	T1-9	Battery will drain battery -= currentIntensity*0.0347; per second

8	Selecting session duration from 3 options	UC3	MainWindow	T1-3	User can choose session duration from 5 to 180 minutes with 5-minute skipping (5,10,15,...175,180)
9	Selecting session type from 8 options	UC4	MainWindow	T1-3	User can navigate between sessions using intensity up and down buttons.
10	Starting session	UC5	MainWindow Session	T1-3	If the session duration and session type is selected, press start session button and it will start connection test.
11	Connection test	UC5	MainWindow	T1-4	After start session is pressed, the device will perform connection test and show connection on the bars.
12	Change Intensity	UC6	MainWindow Session	T1-4	Press the intensity up button to increase intensity. Press the intensity down button to decrease intensity.
13	Record session option	UC8	MainWindow Session	T5	Press the record button while a session is running. Green light will turn on to indicate the session is being recorded.
14	Pause session	UC5	MainWindow Session	T6	Take off the ear clip and session will pause.
15	Resume session	UC5	MainWindow Session	T7	Put on the ear clips and the connection will change to good or excellent and the session will continue.
16	View recorded sessions	UC8	MainWindow	T5	After a recorded session has ended, the device will turn off. Turn on the device again and the previous recorded session will show.