TRACEABILITY MATRIX

ID	REQUIREMENT	REALTED USE CASE	FUFILLED BY	TESTED BY	DESCRIPTION
1	The Heartwave device contains buttons, a screen, and a display graph.	N/A	mainwindow, session, scores, loghistory, settings, testdata	Run in the simulator in QT to observe the user interface and interactivity.	The device displays a screen which contains the menu options and the display graph. It also has the following buttons: off/on, menu, back button to return to the user to the menu, four arrow buttons(up/down/left/right) and a selector in the center of the arrow buttons, hr contact (functions as start stop button in session mode), save button.
2	Power button turns on device.	Turn Device On	mainwindow session	Press power button to turn device on.	When power button is pressed, the device is turned on and switches to the main menu page awaiting user interactivity.
3	Power button turns off device.	Turn Device Off	mainwindow, session	Press power button to turn device off.	When the power button is pressed while on, it is turned off and is no longer consuming battery power.
4	New session is created and started	Start A Session	mainwindow, session, scores, settings, testdata	Press the hr contact button under the 'create new session' tab	Under the 'create new session' option, when the hr contact button is pressed, the timer starts and the current coherence score, achievement score, and heart rate variability graph are displayed.
5	Coherence indicator displays LED light	N/A	mainwindow, session, scores, settings, testdata	Run a new session to observe the coherence indicator change light.	A coherence indicator is displayed on the session screen which uses LED light that changes colours when a new level is reached based on the selected challenge level.
6	End an ongoing session	End A Session	mainwindow, session	Press the hr contact button/menu button while session is running	The session is disrupted by pressing the hr contact button is pressed again while the session is active or the menu button. This ends the session.
7	The challenge level is changed	Change challenge Level	mainwindow, session, settings	Under settings option,	User can alter the challenge level by accessing it under the

				press the "change challenge level" option and choose desired option	settings section. There are 4 challenge levels (beginner, intermediate, hard, advanced) that correlate to different coherence levels which can be adjusted for the user's desirability.
8	The breath pace is changed	Change Breath Pace	mainwindow, session, settings	Under settings option, press the "change breath pace" option and choose desired option	User can alter the breath pace simulation by accessing it under the settings section. There options range from 1-30 and can be adjusted for the user's desirability.
9	The user views the log history of past session runs	View Log/history	mainwindow, session, scores, settings, testdata	Press the "History" option from the menu page and "view" option	The user can view and display previous session runs by accessing the log history of all sessions run. The user can see a list of all sessions and see a single summary of it and a possible delete option.
10	Resets the device to factory settings	Clear History	mainwindow, settings	Press the "History" option from the menu page and "clear" option	If the user wants to reset the device and clear all saved settings, the data can be reset and the Heartwave device is set back to factory settings.
11.	End and save an ongoing session	Save as session	mainwindow, session, scores, settings, testdata	Press the save button while session is running	A summary view of the session appears at the end of the session when the save button is pressed. This halts the process and creates a summarized page view of the session's acquired metric data values. This includes the % of time in coherence levels, average coherence, length of the session, challenge level, achievement score and the entire HRV graph.

12	View the device's current battery charge level	Charging battery	mainwindow, settings	Run in the simulator in QT to observe the battery's charge level which starts from 100%.	Battery charge indicator that displays the power percentage of the device's battery is displayed on the device's remote section.