Traceability Matrix

ID	Requirement	Related Use Case	Fulfilled By	Test	Description
1	A light on the machine and/or a symbol on the screen that indicates an active pulse reading	Use Case 3: Initiate and Complete a Session Part 3	MainWindow	Start a session and observe the "Length" metric when toggling the HRV Signal button.	
2	A suggested user interface consists of the following main components: A screen and buttons. The screen contains the menu options and the display graph. There are eight buttons: an off/on button for the device, a menu button, a standard back button which will return the user to	N / A	MainWindow.ui	Start the simulator in QT and view the application interface	

	the menu, four arrow buttons (up/down,left/right) and a selector in the center of the arrow buttons which also functions as a start/stop button in session mode.				
3	In addition, the device has a led light that changes to red, blue or green to indicate coherence level	Use Case 3: Initiate and Complete a Session Part 5	MainWindow, Session, Reader	Start a session and observe the coherence level light in the upper centre of the interface.	
4	Press selector to initiate and end a session. The menu options are displayed as default on the session screen. There is an option at the top to start a new session.	N / A	Menu, MainWindow	Start the simulator and observe the main menu. Use the select button to start a session, and use the select button to then end the session.	

	The menu could consist of the following options: start new session, settings, log/history				
5	Session screen must display the main HRV graph (HR vs time) with key metrics	Use Case 3: Initiate and Complete a Session Part 4	MainWindow, Session, Reader	Start a session and view the active session screen.	
6	The metrics on the screen include the current coherence score (numerical value), length (duration of session), achievement (total sum of coherence scores sampled every 5 seconds)	Use Case 3: Initiate and Complete a Session Part 4	Session, Reader	Start a session and view the active session screen, noting the labels above the graph and their change over time.	
7	A breath pacer in the form of a strip	Use Case 3: Initiate and Complete a	LightStrip, MainWindow	Start a session and view the active	

	of lights on the machine itself, or a ball going back and forth on the session screen, default set at one breath every 10 seconds, adjustable in settings	Session Part 6		session screen and the lightstrip below the graph.	
8	The settings tab includes challenge level (optional) and breath pacer settings	Use Case 6: Modifying Breath Pacer Settings & Use Case 7: Modifying Challenge Level	Menu, MainWindow	Start the simulator and navigate to the settings tab using the directional and select buttons. Select the settings tab and view the sub-settings options.	
9	(optional) There are 4 challenge levels for coherence, from beginner to advanced, for the user to choose	Use Case 7: Modifying Challenge Level Part 6	Session, Reader	Select the settings tab and then select Challenge Level.	

10	The breath pacer, 1-30 seconds, increases time interval between each breath, default at 10 seconds	Use Case 3: Initiate and Complete a Session Part 7	LightStrip, MainWindow,	Start a session and observe the breath pacer lightstrip below the graph, over the course of the session.	
11	When the user ends a session a summary view will appear that includes the following information: challenge level (optional), percentage of time in different coherence levels (low, medium and high), average coherence, length of session, achievement score, entire HRV graph	Use Case 3: Initiate and Complete a Session Part 11	Session, MainWindow	Start a session and then use the centre selector to end it. View the resulting session summary screen.	
12	The menu contains	Use Case 4:	Menu, Session,	Start a session and	

	a log or history tab of all sessions, with dates, when selected show the summary view, as well as the ability to delete a session	Viewing Logged Session Part 5 & Use Case 5: Deleting Logged Session Part 6	MainWindow	then use the centre selector to end it. Use the centre selector to then return to menu, and then select the Logs/History tab. Select the most recent session and view its information, and use the delete button below to remove the session.	
13	An option to reset, wipe all data and restore the device to the initial install condition	Use Case 8: Resetting Device Part 4-8	MainWindow	Start a session and then use the centre selector to end it. Use the centre selector to then return to menu, and use the directional buttons to navigate to and select the Settings tab. Use the down button and select button to select Reset Device. Confirm that you	

				want to reset the device by clicking select. Now observe the Logs/History tab.	
14	There is a battery charge indicator on the session screen	N / A	Battery, MainWindow	Start the simulator and view the battery slider on the left side of the interface.	
15	A beep goes off when a new coherence level is reached	Use Case 3: Initiate and Complete a Session Part 8	MainWindow	Start a session and observe the console output as the graph changes.	