ID	Requirements	Related Use Case	Fulfilled By	Description	Implemented By	Tested By
1	A light on the machine and/or a symbol on the screen that indicates an active pulse reading	**UC-01 UC-07**	MainWindow	The moment the user starts a new session a light appears to signify that the machine is working according to adjustable settings	QTwidgets, readData()	readData()
2	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 the menu, four arrow buttons) and a selector in the centre which also functions as a start/stop button in session mode.	**UC-01, UC-02 UC-03**	MainWindow, Menu	All the buttons appear when the user turns on the heartwave.	QTframe, QTbutton, QTwidgets, readData(), navigateBack() mainMenu()	readData()
3	The device has a led light that changes to red, blue or green to indicate coherence level	**UC-01, UC-07**	MainWindow	At the top of Outer Frame, a widget changes colour based on the coherence level	QTwidgets, readData(), startSession(),	readData()
4	The menu options are displayed as default on the session screen. There is an option at the top to start a new session. The menu could consist of the following options: start new session, settings, log/history	**UC-01, UC-03, UC-07**	Menu, MainWindow	When the user powers on the device the main menu is the default screen	mainMenu(), initializeMenu(), updateMenu()	power_button()

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5	Session screen must display the main HRV graph (HR vs time) with key metric	**UC-01** **UC-03** **UC-07**	MainWindow	A Graph to display the coherence score	readData(), startSession(), addPoint()	startSession(), readData()
6	On the device there should be a light that changes to red, blue or green indicating low, medium or high coherence, depending on the challenge level	**UC-07**	MainWindow	At the top of Outer Frame, a widget changes colour based on the coherence, challenge level	readData()	startSession(), readData()
7	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	**UC-01** **UC-03**	MainWindow	A new coherence, achievement score is displayed ever 5 seconds as well the length of session	readData(), updateValue()	startSession(), readData(), addPoint()
8	A breath pacer in the form of a strip 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	**UC-01** **UC-04**	MainWindow, Menu	Coloured widgets to display the coherence level picked by the user	navigateSubMenu(), navigateBack()	readData()
9	The settings tab includes challenge level (optional) and breath pacer setting	**UC-01** **UC-04** **UC-05**	Menu, MainWindow	There is an option to pick breath pacer level	navigateSubMenu(), navigateBack()	initialize MainMenu()
10	There are 4 challenge levels for coherence, from beginner to advanced, for the user to choose	**UC-01** **UC-05**	Menu, MainWindow	There is an option to pick challenge	navigateSubMenu(), navigateBack()	initialize MainMenu()

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11	The breath pacer, 1-30 seconds, increases time interval between each breath, default at 10 seconds	**UC-01** **UC-04**	Menu, MainWindow	Pick a breath pacer level from settings	navigateSubMenu(), navigateBack()	initialize MainMenu()
12	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	**UC-01** **UC-03** **UC-06** **UC-08**	MainWindow, qcustomplot	When a session ends, save all the data to History	endSession(), updateHistory()	endSession(), navigate SubMenu(),
13	The menu contains 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	**UC-01** **UC-08**	Menu, MainWindow	Sessions are available to be chosen to review	mainMenu(), updateHistory(), clearHistory()	updateHistory(), navigate SubMenu(),
14	An option to reset, wipe all data and restore the device to the initial install condition	**UC-01** **UC-08**	Menu, MainWindow	In the History menu, there is an option to clear/reset device	clearHistory()	updateHistory(), clearHistory()
15	There is a battery charge indicator on the session screen	**UC-01, UC-02**	MainWindow	There is a widget displaying the battery life of the HeartWave	updateValues(), chargeBattery()	chargeBattery()
16	A beep goes off when a new coherence level is reached	**UC-01** **UC-06**	MainWindow	Notifies the user when the coherence level changes	readData()	readData(), updateValues()