UC1: Main/ General Use (maybe split into two for easier reading)

Actor(s): User, HeartWave (Device)

Precondition(s): Device has battery, Device is turned on

Success Guarantee: User can end a session with a detailed summary displaying a variety of HRV and possibly other metrics.

Main success scenario:

1. User checks sensor checkbox
2. HR contact button "Lights up"
3. User presses *Selector* button
4. Device displays menu options on session screen (Start session, settings, log/history, reset)
5. User selects *Start Session* option
6. Breath Pacer lights begin to go back and forth at selected interval
7. Device "records" Heart Frequency and stores it
8. Device appends current frequency to the 64 second graph on screen
9. Device updates length of session on screen
10. Once 5- seconds have passed, device analyzes stored frequency data. Generating a Coherence score.
11. Device calculates an achievement score from total coherence score
12. Device updates achievement variable and score on screen.
13. Device updates "coherence light bar" with respect to challenge level and coherence score
14. Device "beeps"
15. User presses *Selector* button
16. Device generates a saved session and stores it (challenge level, percentage of time in different coherence levels (low medium and high), average coherence, length of session, achievement score, Entire HRV graph).
17. Device displays session summary on screen

Extensions:

10.a User presses *Selector* button(before 5 seconds), no summary is generated (not enough data)

5-17.a Battery runs out, processes end of session and saves.

Variations:

1.a User does not check sensor checkbox, session continues, flatline data used. Continue as if normal

UC2: Settings

Actor(s): User, HeartWave (Device)

Precondition(s): Device has battery, Device is turned on

Success Guarantee: User can change session settings. Specifically, challenge level and breath pacer.

Main success scenario:

1. User presses the menu button
2. Device displays menu options on session screen (Start a new session, settings, log/history)
3. User selects *Settings* option
4. Device displays settings sub-menu on session screen(1. Challenge Level, 2. Breath Pacer)
5. User selects *Breath Pacer* option
6. Device displays breath pacer selection menu on session screen (1-30 seconds)
7. User selects a pace (1-30)
8. Device changes the pace variable to match selection

Extensions:

2-7.a User presses return button, returning to previous menu or closing menu if on main menu

Variations:

5.a User selects Challenge option:

-5.a.I Device displays *Challenge* selection menu on session screen (Beginner-Advanced)

-5.a.II User selects a challenge level (1-4)

-5.a.III Device changes the challenge variable to match selection

UC3: Reset Data

Actor(s): User, HeartWave (Device)

Precondition(s): Device has battery, Device is turned on

Success Guarantee: User can reset the device, wiping all data, and restoring <u>default settings</u>.

Main success scenario:

1. User presses the *Menu* button
2. Device displays menu options on session screen (Start a new session, settings, log/history, reset)
3. User selects *Reset* option
4. Device displays a confirmation message
5. User confirms reset
6. Device deletes all stored sessions
7. Device restores all settings to default

Extensions:

6.a User cancels reset, device returns to 2.

2-3.a User presses return button, returning to previous menu or closing menu if on main menu

UC4: History/log

Actor(s): User, HeartWave (Device)

Precondition(s): Device has battery, Device is turned on

Success Guarantee: User can delete/review a previous session.

Main success scenario:

1. User presses the *Menu* button
2. Device displays menu options on session screen (Start a new session, settings, log/history)
3. User selects *History* option
4. Device displays a dated list of all previous sessions
5. User selects a <u>specific</u> previous session
6. Device displays summary view
7. User selects the *Delete* option
8. Device displays confirmation message
9. User confirms delete
10. Device removes and deletes selected session
11. Device returns to previous menu

Extensions:

5.a No sessions exist, no summary shown

9.a User cancels delete, device returns to summary

2-11.a User presses return button, returning to previous menu or closing menu if on main menu

Variations:

7.a User does not select delete option; summary remains displayed