Use Cases:

Starting a Session Use Case (UC1):

<u>Primary Actor:</u>
- Device User

<u>Scope:</u>
- The HeartWave device

<u>Preconditions:</u>
- The HeartWave device is turned on and the user is on the session screen

<u>Main Success Scenario:</u>

1. The user presses the selector button on the HeartWave device to initiate a session.
2. The device displays the session screen, which includes the HRV graph and the main components, such as the breath pacer and the coherence level indicator.
3. The device starts the breath pacer and the coherence level indicator.
4. The user follows the breath pacer and watches the coherence level indicator change color as they progress through the session.
5. When the user is finished with the session, they press the selector button again to end the session.
6. The device displays a summary view of the session, including the user's achievements and the HRV graph.

<u>Success End Condition:</u>
- The session starts successfully with the breath pacer and the coherence level indicator works as expected.

<u>Failed End Condition:</u>
- The session fails to start or the coherence level indicator does not work as expected.

Adjusting Breath Pacer Use Case (UC2):

Primary Actor:
- Device User

Scope:
- The HeartWave device

Preconditions:
- The HeartWave device is turned on and the user is on the settings screen

Main Success Scenario:
1. The user navigates to the settings screen on the HeartWave device.
2. The user selects the breath pacer setting.
3. The user adjusts the breath pacer setting as desired.
4. The user saves the new breath pacer setting.
5. The device confirms that the new breath pacer setting has been saved.

Success End Condition:
- The breath pacer is adjusted as per the user's preference and saved successfully.

Failed End Condition:
- The breath pacer is not adjusted or not saved successfully.

Viewing Session History Use Case (UC3):

Primary Actor:
- Device User

Scope:
- The HeartWave device

Preconditions:
- The HeartWave device is turned on and the user is on the log/history screen

Main Success Scenario:
1. The user navigates to the log/history screen on the HeartWave device.
2. The device displays a list of all previous sessions.
3. The user selects the session they want to view.
4. The device displays a summary view of the selected session.
5. The user can choose to delete the session if desired.

Success End Condition:
- The user is able to view their session history, including the summary view of each session, and can delete a session if desired.

Failed End Condition:
- The user is unable to view their session history or is unable to delete a session.

Resetting Device Use Case (UC4):

Primary Actor:
- Device User

Scope:
- The HeartWave device

Preconditions:
- The HeartWave device is turned on and the user is on the settings screen

Main Success Scenario:
1. The user navigates to the settings screen on the HeartWave device.
2. The user selects the option to reset the device.
3. The device prompts the user to confirm the reset action, warning that all data will be wiped and the device will be restored to its initial installation condition.
4. The user confirms the reset action.
5. The device resets and erases all user data, restores the device to the initial installation condition, and returns to the default session screen.

Success End Condition:
- The device is reset to the initial installation condition.

Failed End Condition:
- The device is not reset or not restored to the initial installation condition.

Using the Coherence Indicator Use Case (UC5):

Primary Actor:
- Device User

Scope:
- The HeartWave device

Preconditions:
- The HeartWave device is turned on and the user is in a session

Main Success Scenario:
1. The user initiates a session on the HeartWave device.
2. The device displays the session screen, including the coherence level indicator.
3. The user follows the breath pacer and watches the coherence level indicator change color as they progress through the session.
4. The device continues to display the HRV graph and the coherence level indicator until the session is complete.

Success End Condition:
- The user can see the coherence level indicator change color as they progress through the session.

Failed End Condition:
- The coherence level indicator does not work as expected or does not change color.

Changing Coherence Challenge Level Use Case (UC6):

Primary Actor:
- Device User

Scope:
- The HeartWave device

Preconditions:
- The HeartWave device is turned on and the user is on the settings screen

Main Success Scenario:
1. The user navigates to the settings screen on the HeartWave device.
2. The user selects the challenge level option.
3. The device displays the current challenge level and allows the user to choose from 4 different challenge levels (beginner to advanced).
4. The user selects their desired challenge level.
5. The device saves the new challenge level setting.

Success End Condition:
- The user successfully selects and sets their desired coherence challenge level, and the device saves the new setting.

Failed End Condition:
- The user is unable to select a new challenge level or the device does not save the new setting.

Ending a Session Use Case (UC7):

Primary Actor:
- Device User

Scope:
- The HeartWave device

Preconditions:
- The HeartWave device is turned on and the user is in an active session

Main Success Scenario:
1. The user decides to end the ongoing session.
2. The user presses the selector button on the HeartWave device, which also functions as a start/stop button in session mode.
3. The device ends the current session and stops recording data.
4. The device generates and displays a summary view of the completed session, including information such as challenge level, percentage of time in different coherence levels (low, medium, and high), average coherence, length of session, achievement score, and the entire HRV graph.
5. The device saves the session data in the log/history.

Success End Condition:
- The user successfully ends the ongoing session, views the summary of the session, and the device saves the session data in the log/history.

Failed End Condition:
- The user is unable to end the ongoing session, or the device does not display the summary view or save the session data in the log/history.