UC1: Turn OASIS device on

Primary actor: User

Precondition:

User wants to start a session.

Success Guarantees:

- The device is turned on and the last session used is displayed.

Main Success Scenario:

- 1. User presses and holds the power button.
- 2. The power LED turns on.
- 3. The graph displays the battery level.

Extensions:

- 3a. The graph displays a single blinking bar indicating the battery level is critically low. 3a1. User replaces the battery.
- 3b. The graph displays two blinking bars indicating the battery level is low and a message. 3b1. The user should replace the battery.

UC2: Turn OASIS device off

Primary actor: User

Precondition:

User wants to turn off the device.

Success Guarantees:

- The device is turned off.

Main Success Scenario:

- 1. User presses and holds the power button.
- 2. The device shuts off.

Extensions:

1a. A session is running.

1a1. The user must hold the power button up to one second until the device is turned off.

UC3: Select a session

Primary actor: User

Precondition:

- The CES device has been turned on

Success Guarantees:

- The user has a session ready to start

Main Success Scenario:

 The user presses and releases the power button to navigate between the groups of 20min/45min/user-designated. The selected group and its available session types light up.

- 2. The user uses the up and down buttons to select a session type between Sub-Delta/Delta/Theta/Alpha by choosing its corresponding number (1 to 4). The respective CES Mode and frequency lights for that session turn on.
- 3. Proceed to UC4.

Extensions:

- 1a. User selects the user-designated group
 - 1a1. The session types that have been configured using the DAVID Session Editor (sold separately) are lit up. Two sessions have been pre-configured into numbers 1 and 2.
- 2a. User presses the up arrow while on the top-most number
 - 2a1. The top-most number remains light up
- 2b. User presses the down arrow while on the bottom-most number (1)
 - 2b1. The bottom-most number remains light up

Related Information:

 If the user does not select a session within two minutes of the device turning on, it will turn off.

UC4: Start the session

Primary actor: User

Precondition:

- The user has selected a session (UC3)

Success Guarantees:

- The user has gone through a session

Main Success Scenario:

- 1. The user dampens their earlobes with a small amount of tap water, saliva, or conductive gel.
- 2. The user attaches the left ear clip to their left earlobe and the right ear clip to their right earlobe.
- 3. The user presses the Select button to start the previously selected session.
- 4. The session number flashes for 5 seconds.
- 5. The device's CES mode light starts blinking.
- 6. The device verifies the quality of the electrical connection between itself and the user.
- 7. The device displays an okay (numbers 4, 5, 6 light up solid yellow) or excellent (numbers 1, 2, 3 light up solid green) connection.
- 8. The display goes blank.
- 9. The device sends electrical stimulation to the user for the selected time.
- 10. The session ends and the device gradually reduces the CES stimulus intensity while the on-screen graph scrolls from 8 to 1.
- 11. Go to UC6

Extensions:

- 6a. There is no connection between the device and the user.
 - 6a1. The numbers 7 and 8 start blinking red.
 - 6a2. The user revises that their earlobes are dampened enough.
 - 6a3. The user checks that their ear clips are properly adjusted.

- 6a4. Repeat steps 6a1 to 6a3 until the connection is okay (numbers 4, 5, 6 light up solid yellow) or is excellent (numbers 1, 2, 3 light up solid green).
- 9a. The user wants to adjust the intensity.
 - 9a1. Go to UC5.
- 9b. The user wants to end the session.
 - 9b1. The user presses and releases the power button
 - 9b2. Go to step 10.
- 9c. The ear clips are disconnected.
 - 9c1. The device pauses the session and waits for the ear clips to be reconnected.
 - 9c2. The device displays the No Connection state (numbers 7 and 8 blink in red). The left (L) and right (R) lights turn on as well.
 - 9c3. The device returns to a safe voltage, notifying the user by scrolling up and down through its graph.
 - 9c4. Go to step 6.
- 9d. The battery depletes to a low level.
 - 9d1. The device graph displays two blinking bars while continuing the session.
- 9e. The battery depletes to a critically low level.
 - 9e1. The device displays a single (number 1) blinking bar.
 - 9e2. The device ends the session early.
 - 9e3. The battery indicator continues to blink.
 - 9e4. Go to step 11.

Related Information:

The battery level is monitored and displayed periodically while the session is running.

UC5: Adjust intensity

Primary actor: User

Precondition:

- The user has started a session
- The connection test has ended
- The user feels over- or under-stimulation with the current intensity level

Success Guarantees:

- The intensity satisfies the user's comfort level

Main Success Scenario:

- 1. The user presses the up arrow or the down arrow buttons to raise or reduce the intensity level.
- 2. The user sees the approximate intensity level displayed on the device graph through lights 1 to 8, with the topmost lit number blinking.
- 3. User keeps increasing or decreasing the intensity until they are satisfied with the level.

Extensions:

- 1a. User presses the up arrow while on the top-most intensity (level 8)
 - 1a1. The intensity stays at level 8
- 1b. User presses the down arrow while on the bottom-most intensity (level 1)
 - 1b1. The intensity stays at level 1

UC6: Record a session

Primary actor: User

Precondition:

- A session has just concluded.

Success Guarantees:

The session is added to the records history

Main Success Scenario:

- 1. A prompt appears on the screen asking the user whether they want to save the session
- 2. User selects the option "Yes" indicating that they would like the session to be saved to the records history.
- 3. The device automatically turns off after two minutes.

Extensions:

- 2a. The user does select any option from the prompt
 - 2a1. The device automatically turns off after two minutes
- 2b. The user selects "No" indicating that they would not like to save the session.
 - 2b1. The device automatically turns off after two minutes

UC7: View recorded sessions

Primary actor: User

Precondition:

- The user presses the Recorded Sessions button

Success Guarantees:

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Main Success Scenario:

- 1. The records history is displayed to the user.
- 2. The user uses the up and down button to scroll through the records history.

Use Case Diagram

