

Use Case Overview:

1. Turn Device On
2. Turn Device Off
3. Menu Button (default behaviour)
4. User Selects a New Session Use Case
5. User Selects a Session Log History Use Case
6. User Selects a Set Date and Time Use Case
7. View Saved Therapies in PC Use Case

Used References: team3-master file from Denas project in Case Studies

Use Case 1: User Turns Device On (UC1)

Primary Actors:

- Device User

Preconditions:

- User has a device
- Device is in the off state
- Device has enough battery to turn on

Main Success Scenario:

1. User presses the power button.
2. The device turns on.

Extensions:

- 2a. The device doesn't turn on
 - The device doesn't turn on because the percentage is below 1% so the user has to charge the device. If the device still doesn't turn on, the user should contact customer service.

Use Case 2: User Turns Device Off (UC2)

Primary Actors: Device User

Preconditions:

- Device has been turned on.

Main Success Scenario:

1. User presses the power button
2. The device powers off the display
3. The device powers off

Extensions:

- 4a: The user is mid session and confirms they want to shut off the device
 - The session ends early and is not saved to the session log

Use Case 3: User Presses Menu Button

Primary Actors:

- Device User

Preconditions:

- Device has been turned on

Main Success Scenario:

1. User presses menu button
2. Menu screen shows 3 options: new session, session log, and a date and time setting.

Extensions:

- 1a: Power button is pressed
 - Device turns off.
- 1b: Battery is low
 - User is alerted and device turns off

Use Case 4: User Selects a New Session Setting Use Case

Primary Actors:

- Device User

Preconditions:

- Device has been turned on
- User is on menu screen

Main Success Scenario:

1. User presses new session option
2. Contact is initiated, indicated by blue light
3. Screen shows a timer that shows approximately time remaining and session progress percentage bar.
4. Calculate the baseline average frequency/ dominant frequency over the period of one minute for all EEG sites.
5. Deliver treatment frequency (baseline average/dominant frequency + 5hz) to all Eeg sites for duration of 1 second
6. Calculate the baseline average frequency over the period of one minute for all EEG sites.
7. Store Session information to database

Extensions:

- 1a: The battery percentage is too low to run a full session
 - The device would warn user of an incomplete session before beginning
- 2a: Contact is lost
 - Red light flashes and the device starts beeping. The session is paused.
 - If contact is not reestablished after 5 minutes, the device ends the session automatically and the session is erased.
- 3a: The user can press pause voluntarily during a session.
 - If after 5 minutes contact is not reestablished the session is terminated and the device ends the session automatically
- 3b: The battery percentage is below 5%
 - The device would end the session and erase session data
- 3c: The stop button is pressed:
 - The device would end the session and erase the session data

Use Case 5: User Selects Session Log History Setting Use Case

Primary Actors:

- Device User

Preconditions:

- Device has been turned on
- User is on menu screen and selects session log history button

Success Guarantee:

- All previous sessions are visible in the log

Main Success Scenario:

1. Displays the time and date of the sessions.
2. User presses menu button to go back to menu

Extensions:

- 1a. If there is no session history then display "No record".

Use Case 6: User Selects a Set Date and Time Setting Use Case

Primary Actors:

- Device User

Preconditions:

- Power ON
- User selected "date and time" from the menu.

Success Guarantee:

- Device can accurately set the current date and time

Main Success Scenario:

1. User sets the current date DD/MM/YYYY using the *up* and *down arrow* confirm using the *select* button.
2. User sets the current time HH:MM using the *up* and *down arrow* confirm using the *start* button.

Use Case 7: View Saved Therapy Sessions in PC

Primary Actors:

- Device User

Preconditions:

- Previous sessions are stored on the PC

Main Success Scenario:

1. The PC is able to view session time, date, before and after baseline hz.