

Use Case 1 Turning On Device

Primary actor:

- Device User

Stakeholders and interests:

Precondition:

- User has device on hand.
- Device's battery has enough power.

Success guarantee:

- User will turn on Device.

Main success scenario:

1. User presses power Button.
2. Device flashes logo.
3. Device turns on and displays main menu.

Extensions:

Section 1: Device does not have power.

- Device will not turn on until battery is charged.

Use Case 2 Turning Off Device

Primary actor:

- Device User

Stakeholders and interests:

Precondition:

- User has device.
- Device is currently powered on.

Success guarantee:

- User will turn off Device.

Main success scenario:

1. User Presses power button.
2. Device shuts off Display.

Extensions:

Section 1: Device was already off.

- In this case the device will just turn on instead since the power button is a toggle.

Use Case 3 Selecting Challenge Level

Primary actor:

- Device User

Stakeholders and interests:

Precondition:

- Device is Powered on.
- User is in the settings menu and able to change the challenge level.

Success guarantee:

- User changes challenge level of device.

Main success scenario:

1. User navigates down or up in the main menu for the settings menu using the d-pad (digital four-way direction control buttons).
2. User presses ok or the right direction to enter the menu.
3. User navigates down or up in the settings menu for the challenge level setting using the d-pad (digital four-way direction control buttons).
4. User presses ok or the right direction to enter the menu.
5. User uses right button of d-pad to increase the challenge level or the left d-pad button to decrease the challenge level.
6. User presses ok to confirm changes.
7. User presses back button to go to the settings menu.
8. User presses back button to go to the main menu.

Extensions:

Section 5: user discards information using back button before confirming.

- Changes in the settings for challenge level are now discarded and device takes user to the settings menu.

Use Case 4 Changing Breath Pacer Time Interval

Primary actor:

- Device User

Stakeholders and interests:

Precondition:

- Device is powered on.
- User is in the settings menu and able to change the challenge level.

Success guarantee:

- User changed the breath time interval setting on device.

Main success scenario:

1. User navigates down or up in the main menu for the settings menu using the d-pad (digital four-way direction control buttons).
2. User presses ok or the right direction to enter the menu.
3. User navigates down or up in the settings menu for the breath pacer time interval setting using the d-pad (digital four-way direction control buttons).
4. User presses ok or the right direction to enter the menu.
5. User can now set time interval between breaths from 1 second to 30 seconds for device to consider for heart rate variability calculations.
6. User presses ok to confirm changes.
7. User presses back button to go to the settings menu.
8. User presses back button to go to the main menu.

Extensions:

Section 5: user discards information using back button before confirming.

- Changes in the settings for challenge level are now discarded and device takes user to the settings menu.

Use Case 5 Starting Session

Primary actor:

- Device User

Secondary actor:

- Heart measuring electrodes.

Stakeholders and interests:

Precondition:

Success guarantee:

Main success scenario:

1. User navigates down or up in the main menu for the history menu using the d-pad (digital four-way direction control buttons).
2. User presses ok or the right direction to enter the menu.
3. User can now confirm the settings before starting a session.
4. User presses ok to start a session.
5. A session starts.
6. A real time graph gets drawn as the heartbeat data comes in.
7. The breath pace meter fills up based on the interval set in the settings.
8. The breath space meter resets when it is filled meaning a breath can be take buy the user.
9. The coherence level is displayed using 3 LEDs a the top of the device depending on how good the hear beats sync up with the breath pace.
10. The user can stop the session by pressing the back button.
11. The device will prompt user if they are sure to end the session.
12. User confirms to end the session.
13. Device saves the session to be viewed in the session history.

Extensions:

Section 11: user refuses to end session.

- Session continues until user prompts to end it later or the battery runs out.

Use Case 6 Looking Though Session History

Primary actor:

- Device User

Stakeholders and interests:

Precondition:

- Device is powered on.

Success guarantee:

- User finds previous session of use on device.

Main success scenario:

1. User navigates down or up in the main menu for the history menu using the d-pad (digital four-way direction control buttons).
2. User presses ok or the right direction to enter the menu.
3. User navigates down or up in the history menu using the d-pad (digital four-way direction control buttons).
4. User finds desired previous session.
5. User presses ok or the right direction to enter the menu.
6. User can now view statistics of previous session.

Extensions:

Use Case 7 Reset Data

Primary actor:

- Device User

Stakeholders and interests:

Precondition:

- Device is powered on.

Success guarantee:

- User deletes all history of previous sessions.

Main success scenario:

1. User navigates down or up in the main menu for the history menu using the d-pad (digital four-way direction control buttons).
2. User presses ok or the right direction to enter the menu.
3. User navigates down or up in the history menu for the delete history setting using the d-pad (digital four-way direction control buttons).
4. User presses ok or the right direction to select the option.
5. The device gives a confirmation asking if the user is sure to delete the data.
6. User presses ok or the right direction to confirm.
7. The device deletes the user data.
8. Now seen in the history menu is no previous sessions.

Extensions:

Section 9: User refuses the confirmation.

- The data is not deleted, and the user still sees the previous sessions.