

Use Cases

COMP 3004 Team 1

Use Case 1: Run a Session

Brief Description: User selects and runs a saved session on the CES device

Primary Actor: User

Precondition: The device is functioning and charged

Postcondition:

Minimal Guarantee(s): The device turns on

Success Guarantee(s): The User successfully runs a session

Includes: Power On, Connection Test, Power Off

Trigger: The User wants to use the CES Device

Scenario:

1. The User presses and holds the power button to Power On the device.
2. The User plugs the CES cable into the CES output jack and attaches the black ear clip to their left earlobe and the red ear clip to their right ear lobe.
3. The User taps the power button to choose a session group, between 20 minutes, 45 minutes, 3 hours or a user designated time, selected using the slider.
4. The User chooses a session type using the Up and Down arrows.
5. The User is satisfied with their selection.
6. The User selects the Start button to begin the session.
7. The CES Device performs a Connection Test to make sure it is ready to use.
8. The session begins.
9. The session finishes and the CES device automatically Powers Off.

Extensions:

3a. Load Session

3a1. The User can use Load Session instead and skip to step 6

5a. The User can also choose to Save their session details to the device.

5a1. The User selects a session slot from the drop-down Session History.

5a2. The User selects the Save button.

5a3. The CES Device overwrites the session slot with the currently selected session group and session type data

6a. Inactivity Monitor, the User was inactive for too long

6a1. The device powers off.

7a. The Connection Test failed.

7a1. The User can reattempt step 2 then return to step 6.

8a. The user presses and holds the power button to Power Off the device.

8a1. The device powers down.

8b. The Battery Monitor indicates that the CES device is low on battery

8b1. As the battery level is getting low, the graph will display 2 bars and blink.

8b2. If the battery level is critically low, the graph will display a single blinking bar.

8c. The User wants to change the intensity

8c1. The user can increase or decrease the intensity by selecting the Up or Down buttons.

8d. The User detaches ear clips.

8d1. The session ends.

8d2. The User can continue from step 2.

Use Case 2: Power On

Primary Actor: User

Precondition: The device is functioning.

Postcondition:

Minimal Guarantee(s):

Success Guarantee(s): The device turns on

Trigger: The User presses and holds the power button

1. The power LED turns on to indicate to the user that the device is on.
2. The graph displays the power level of the device.
3. The Inactivity Monitor begins a 2-minute countdown.
4. The User knows the device is on.

Extension

1a. The Battery Monitor indicates that the battery is not charged. The device cannot be turned on.

4a. The User can hold the power button to Power Off the device.

4b. The Inactivity Monitor causes the device to Power Off after 2 minutes.

Use Case 3: Power Off

Brief Description: The CES Device turns off

Primary Actor: User

Precondition: The device is on.

Postcondition: The device is off.

Triggers: The User, Battery Monitor or Inactivity decide to Power Off

Scenario:

1. The CES Device turns off and the power light turns off.

Extensions

- 1a. The User decides to soft off by tapping the power button during a session.

1a1. The graph lights up sequentially from 8 to 1 as the intensity decreases.

1a2. The session stops.

1a3. Return to step 1.

- 1b. The Power Off is triggered by the end of the session.

1b1. The graph lights up sequentially from 8 to 1 as the intensity decreases.

1b2. The session stops.

1b3. Return to step 1.

Use Case 4: Connection Test

Primary Actor: User

Precondition: The User has turned on the device, attached the ear clips and has inputted their desired settings

Postcondition:

Success Guarantee(s): The connection is strong, and the device is ready prepared to operate

Extends: Run a Session

Trigger: The User selects the Start button.

1. The CES Mode Light flashes to indicate to the User that the connection test is being performed.
2. The graph displays an Excellent or Okay connection

Extensions

- 2a. The graph indicates that there is No connection
- 2a1. The Session is unable to start.