**Use Case 1:** User Turns Machine On

**Primary Actors:** CES User

**Stakeholders:**

Raven Microcurrent Biofeedback Inc. (RMB)

Device Programmers

User

**Precondition:** Oasis Pro has at least 2 bars of battery

**Minimal Guarantee:**

* Device starts up and displays error message in case of insufficient battery

**Success Guarantee:**

* Device User starts the machine and can navigate start menu

**Trigger:** None

**Main Success Scenario:**

1. User presses the power button
2. Light above power button switches to yellow
3. Battery level flashes on the power bar every 30s
4. User can begin choosing therapy settings (continue on use case 3)

**Use Case 2:** Battery Level Low During Session

**Primary Actors:** CES User

**Stakeholders:**

Raven Microcurrent Biofeedback Inc. (RMB)

Device Programmers

User

**Precondition:**

* User has CES device turned on
* Battery level is at three (3) bars

**Minimal Guarantee:**

* Device will warn user of low battery level
* Program exits safely

**Success Guarantee:**

* Session is paused and recorded
* User is informed of depleted battery level
* Program exits safely

**Trigger:** Battery level falls under required minimum during a user’s session

**Main Success Scenario:**

1. Battery falls to level 2 during session
2. Battery indicator blinks
3. If session is not suspended, battery depletion continues
4. Battery falls to level 1 during session
5. Battery indicator blinks
6. Text is displayed asking user to recharge
7. If device is not recharged, battery becomes completely depleted
8. Device shuts down
9. User Presses “Recharge Battery” button
10. Battery is fully charged, and user can resume using the device

**Use Case 3:** User Selects a Session

**Primary Actors:** CES User

**Stakeholders:**

Raven Microcurrent Biofeedback Inc. (RMB)

Device Programmers

User

**Precondition:**

* User has CES device turned on
* Battery level sufficient for selected session

**Minimal Guarantee:**

* User will be able to select settings for session
* Program will simulate session being run and handle any errors encountered

**Success Guarantee:**

* Program will simulate selected session for the user and record activity on user profile

**Trigger:** NONE

**Main Success Scenario:**

1. User uses session time ‘Next’ button to choose either 20, 45 or enter custom time in box
2. User selects “20min”
3. User uses session type ‘Next’ button to choose from session types
4. User selects “Alpha”
5. User uses session user ‘Next’ button on side panel to select which of the 3 registered users the session is for
6. User presses green check mark to begin session
7. Device makes sure the “on ears” checkbox is checked (check use case 4)
8. Program checks that battery level is sufficient
9. If “Record” checkbox is checked, session info is recorded
10. Session begins and timer is displayed

**Use Case 4**: **Connection test**  
**Primary Actor**: CES Device User

**Scope:** Medical facility/ Therapeutic Intervention  
**Level**: Summary  
**Stakeholders and Interests**:

Raven Microcurrent Biofeedback Inc. (RMB)

Device Programmers

User

**Precondition**: Device is turned on, session settings have been selects (check use case 3)

**Success guarantees:** Session will not operate unless device is connected to user’s earlobes

**Trigger**: NONE  
**Main success scenario:**

1. User checks the “On Ears” checkbox
2. User begins session by pressing green check mark
3. Device makes sure the “On Ears” checkbox is checked
4. Session begins

**Extensions:**

1. If the ear clips disconnect, the session will be paused and wait for them to be reclipped
   1. No connection (7 and 8 on display) will be displayed for a couple seconds
      1. Display of the connection status will update to show that the voltage is back to normal.
      2. Left or right ear symbol may turn on to show which ear needs better connectivity

**Use Case 5**: **Intensity**  
**Primary Actor:** CES Device User/Operating Medical Worker

**Scope:** CES Device Session  
**Level:** Summary  
**Stakeholders and Interests**:

Device Programmers

User

Medical Unit

**Precondition:** Device is turned on and electrodes are on ear  
**Minimal guarantees:** Stimulus intensity will increase or decrease

**Success guarantees**: Stimulus will be at desired level/intensity

**Trigger:** pressing the INT ▼ button or INT▲ button  
**Main success scenario:**

1. Press INT ▼ button to decrease stimulus intensity
   1. Graph display shows what level of intensity is currently being exerted (1-8)
2. Press INT ▲ button to increase stimulus intensity
   1. Graph display shows what level of intensity is currently being exerted (1-8)

**Extensions:**

1. Intensity level is too low and no effects are felt
   1. If that is the case increase the intensity level
2. Intensity level is too high
   1. Could result in skin irritation
   2. Decrease the level to sub-threshold levels (just below the ability to feel the stimulus)

**Use Case 6**: **User Records a Session**  
**Primary Actor:** CES Device User

**Scope:** Patient records  
**Level:** Summary  
**Stakeholders and Interests:**

Raven Microcurrent Biofeedback Inc. (RMB)

Device Programmers

User **Minimal guarantees:** Device will store therapy

**Success guarantees:** Therapy is recorded and includes session type, duration, and intensity level

**Trigger:** Starting a session with the “record” option  
**Main success scenario:**

1. User selects record option
2. User starts a therapy session
3. Data is stored
   1. Session type is recorded
   2. Duration is recorded
   3. Last intensity level is recorded
4. Recorded treatment appears on the side panel after session is over
5. User can select saved replays from his/her users’ saved replays

**Use Case 7**: **User** **Replays a Stored Treatment**  
**Primary Actor:** CES Device User

**Scope:** Patient records  
**Level:** Summary  
**Stakeholders and Interests:**

Raven Microcurrent Biofeedback Inc. (RMB)

Device Programmers

User

**Precondition:** Pre-existing record of therapy session  
**Minimal guarantees:** Session with the configured information will start

**Success guarantees:** Session of previously recorded therapy begins  
**Main success scenario:**

1. User selects custom recorded session from side panel
2. User presses “Replay Therapy” Button
3. Therapy session starts with saved settings

**Use Case 8**: **Basic Use case**   
**Primary Actor:** CES Device User

**Scope:** Device use  
**Level:** Summary  
**Stakeholders and Interests:**

Raven Microcurrent Biofeedback Inc. (RMB)

Device Programmers

User

**Precondition:** Device is fully functional and there is sufficient power  
**Minimal guarantees:** Running a therapy

**Success guarantees:** Complete a session  
**Main success scenario:**

1. User powers on the device (see use case 1)
2. User selects a therapy (see use case 3)
3. User checks the record option which will save the therapy (see use case 6)
4. User starts the therapy
5. Selecting intensity as the user sees fits (see use case 5)

**Extensions:**

1. If battery is too low
   1. Recharge battery