

### **UC1 Base use case**

**Description:**

Abstract use case for normal use of the device

**Primary Actor:**

User

**Pre-condition:**

The device is off and equipped with batteries, batteries are enough powered

**Post-condition:**

The device works as set and session strength can be felt by user

**Main Scenario:**

1. Remove any metal jewelry from user ears
2. Wet user earlobes with tap water, saliva or a tiny amount of conductive gel
3. Attach the clips, Connect the ear clip cable to the CES jack on the side of the device
4. Push and hold power button until the power light comes on
5. Tap power button to select a session length
6. Tap the intensity control button to select a session frequency
7. Tap the select button to start the session

**Variation:**

- 7'a: if connection test failed, the intensity may not be felt at all
- 7'b: after the session started, if the ear clips are disconnected, go to UC2

**Extension:**

- 3a. black to left ear, red to right ear
- 5a. there is 4 choices, 20 min, 45 min, 3 h, user designed
- 7a. if the user want to stop the session, go to UC3
- 7b. if the user want to stop the device working, go to UC4

### **UC2 Re-connect use case**

**Description:**

Abstract use case for re-connection

**Primary Actor:**

User, Device

**Pre-condition:**

During device operation, the ear clip and ear are not connected properly

**Post-condition:**

Device Recovery

**Main Scenario:**

1. The device pause the session
2. Device display no connection (7 and 8 blinking)
3. The device restores the voltage to the safe test level
4. User solve the cause of bad contact of ear clip

5. Attach the clips
6. Device restart

### **UC3 Ending session use case**

Description:

Abstract use case for ending an ongoing session

Primary Actor:

User

Pre-condition:

The device is running a session

Post-condition:

The ongoing session is end

Main Scenario:

1. Press and release the power button
2. The graph will scroll from 8 to 1

### **UC4 Shutdown use case**

Description:

Abstract use case for turn off the device

Primary Actor:

User

Pre-condition:

The device is running

Post-condition:

Shutdown of device

Main Scenario:

1. Press and hold the power button
2. Units shuts off

Variation:

- 1': The battery has no power