

Device Use Cases

Primary actor: The patient

Level: User goal

Scope: The device

Precondition: The device has been properly setup and ready for use

Success guarantee: The device successfully delivers the treatments to patient

Main success scenario:

1. The power button is pressed
2. The battery begins to drain
3. The patient can choose to turn off the device any time
4. The patient set timer (20 mins, 45mins, or custom)
5. The patient set waveform ($\alpha, \beta, \Delta, \theta$)
6. The patient set intensity
7. The patient chose if they want to save treatment to history
8. The patient press start button to begin the treatment
9. The device delivery treatment through patient's head
10. The timer starts counting down
11. The device automatically turns off after finishing the treatment

Extensions:

- 1a. The device is out of battery
- 1b. The device loses power and turns off before completing the treatment
- 2a. The battery drains faster because of the treatment current set
- 2b. The battery will send warning message if the battery level reach 5%
- 2c. The device will automatically turn off if the battery level bellows 2%
- 4a. The patient did not press start button within 30 minutes, so the device turns off
- 6a. The treatment exceeds 700 millimetres and automatically disables itself because of safety reason
- 8b. The ear clips fall off the user, so the device send a notification to patient requesting them to setup the ear clips
- 9a. The user press power button while the treatment is processing, so the device turns off
- 10a. The device is out of battery while doing the treatment, so it automatically turns off