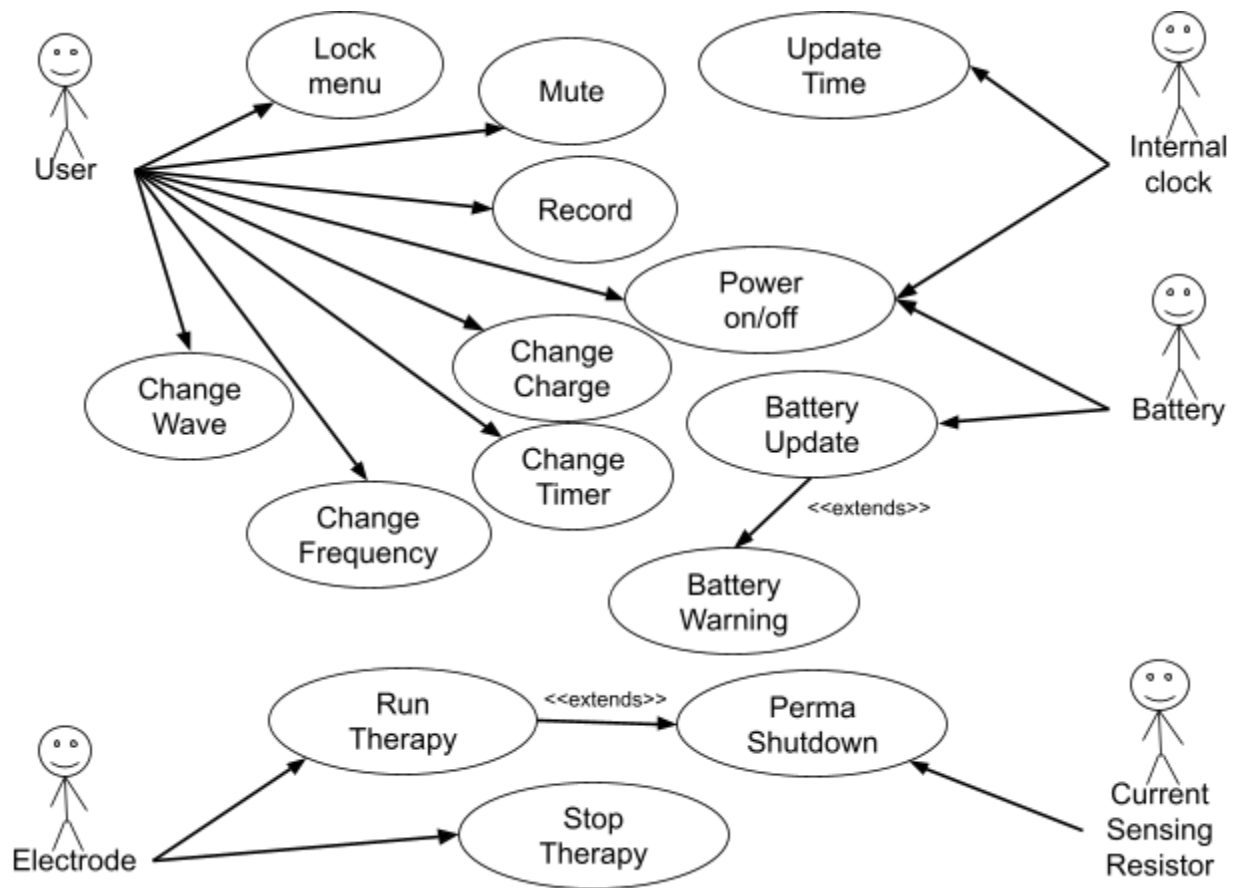


Use Case Diagram



Use Cases

Use Case 01: Change Charge

Primary Actor: User

Scope: Therapy

Level: User goal

Stakeholders and Interests:

Precondition: The device is on

minimum guarantee: The device will process the input

Success guarantee: The therapy charge will change

Post condition: A new charge that stays within the safe bounds

Main success scenario:

1. Change the value of the charge
2. Update the therapy
3. Update UI
4. Play sound

Extensions:

- 1a. The new value goes out of bounds
 - 1a1. Round the value to the nearest safe value
- 1b. The menu is locked
 - 1b1. Ignore the input and stop this use case
- 4a. The device is muted
 - 4a1. Don't play any sound

Use Case 02: Change Timer

Primary Actor: User

Scope: Therapy

Level: User goal

Stakeholders and Interests:

Precondition: The device is on

minimum guarantee: The device will process the input

Success guarantee: The therapy timer will change

Post condition: A new timer will be selected

Main success scenario:

1. Change the value of the timer
2. Update the therapy
3. Update UI
4. Play sound

Extensions:

- 1a. The menu is locked
 - 1a1. Ignore the input and stop this use case
- 4a. The device is muted
 - 4a1. Don't play any sound

Use Case 03: Change Frequency

Primary Actor: User

Scope: Therapy

Level: User goal

Stakeholders and Interests:

Precondition: The device is on

minimum guarantee: The device will process the input

Success guarantee: The therapy frequency will change

Post condition: A new frequency will be selected

Main success scenario:

1. Change the value of the frequency
2. Update the therapy
3. Update UI
4. Play sound

Extensions:

1a. The menu is locked

1a1. Ignore the input and stop this use case

4a. The device is muted

4a1. Don't play any sound

Use Case 04: Change wave

Primary Actor: User

Scope: Therapy

Level: User goal

Stakeholders and Interests:

Precondition: The device is on

minimum guarantee: The device will process the input

Success guarantee: The therapy waveform will change

Post condition: A new waveform will be selected

Main success scenario:

1. Change the value of the waveform
2. Update the therapy
3. Update UI
4. Play sound

Extensions:

1a. The menu is locked

1a1. Ignore the input and stop this use case

4a. The device is muted

4a1. Don't play any sound

Use Case 05: Record Therapies

Primary Actor: User

Scope: Menu

Level: User goal

Stakeholders and Interests:

Precondition: The device is on

minimum guarantee: The device will process the input

Success guarantee: The record boolean value will invert

Post condition: The record boolean value will invert

Main success scenario:

1. Invert the value of record
2. Update UI
3. Play sound

Extensions:

- 1a. The menu is locked
 - 1a1. Ignore the input and stop this use case
- 3a. The device is muted
 - 3a1. Don't play any sound

Use Case 06: Stop Therapy

Primary Actor: Electrodes

Scope: Menu

Level: User goal

Stakeholders and Interests:

Precondition: A therapy is running

minimum guarantee: The therapy will stop

Success guarantee: The therapy will stop

Post condition: The therapy will have stop

Main success scenario:

1. The electricity will stop
2. The timer will reset
3. Play sound
4. Save therapy

Extensions:

- 3a. The device is muted
 - 3a1. Don't play any sound
- 4a. The record boolean is false
 - 4a1. Don't save the therapy

Use Case 07: Run Therapy

Primary Actor: Electrodes

Scope: Therapy

Level: User goal

Stakeholders and Interests:

Precondition: The electrodes are connected

minimum guarantee: The therapy will attempt to start

Success guarantee: The therapy will stop

Post condition: The therapy will run if it is safe

Main success scenario:

1. The electricity will start
2. The timer will start
3. Play sound

Extensions:

- 1a. The therapy is unsafe
 - 1a1. Don't run the therapy
- 3a. The device is muted
 - 3a1. Don't play any sound

Use Case 08: Perma Shutdown

Primary Actor: Electrodes

Scope: Device

Level: User goal

Stakeholders and Interests:

Precondition: The device is unsafe

minimum guarantee: The device will permanently shut down

Success guarantee: The device will permanently shut down

Post condition: The device will permanently shut down

Main success scenario:

1. The device will permanently shut down
2. Play sound

Use Case 09: Power On/Off

Primary Actor: user

Scope: Device

Level: User goal

Stakeholders and Interests:

Precondition: None

minimum guarantee: The device will change power states

Success guarantee: The device will change power states

Post condition: The device will change power states

Main success scenario:

1. The device will change power states
2. Play sound

Extensions:

2a. The device is muted

2a1. Don't play any sound

Use Case 10: Update Time

Primary Actor: user

Scope: Device

Level: Device status

Stakeholders and Interests:

Precondition: None

minimum guarantee: The device time will be updated

Success guarantee: The device time will be updated

Post condition: The device time will be updated

Main success scenario:

1. The device time will update

Use Case 11: Update Battery

Primary Actor: user

Scope: Device

Level: Device status

Stakeholders and Interests:

Precondition: None

minimum guarantee: The device battery will be updated

Success guarantee: The device battery will be updated

Post condition: The device battery will be updated

Main success scenario:

2. The device battery will update

Use Case 12: Battery Warning

Primary Actor: user

Scope: Device

Level: User goal

Stakeholders and Interests:

Precondition: change in battery level

minimum guarantee: A warning attempt to be presented

Success guarantee: A warning will be presented

Post condition: None

Main success scenario:

1. The device will issue a battery warning
2. Play sound

Extensions:

2a. The device is muted

2a1. Don't play any sound