

Trackability Matrix

Use Case / Requirement	Design
The simulator should be turned on when the power button is pressed. Off otherwise.	Power Button pressed -> Check simulator state (on / off) -> check battery -> turn on if off and has sufficient battery
Direction Buttons should only move to selectable rows	Create 2 limit variables for up and down buttons -> upon changing menu, change the limit variables so the direction buttons are set in range
Return button should return to different menu based on the state of simulator	Have a string state variable that gets changed the display changes -> the return button reads the current state and return to the according menu
Details of a treatment should be saved for viewing in the History tab if the user decides to record	Name of treatment, date of treatment, duration of treatment, highest power level - > these variables should be saved upon finishing a treatment that the user wants to record
Recording Use Case	When user chooses to record a treatment -> bool recordToggle set to true -> when the user ends treatment -> recording gets saved in History
Frequency Use Case	User navigate from main menu to Frequency tab -> user selects custom Frequency strength -> Ask the user if this treatment will be recorded -> Power level is chosen with left and right direction buttons -> treatment starts when it's skinOn.
Programmed Use Case	User navigate from main menu to Programmed tab -> user selects one of the preset programs -> Ask the user if this treatment will be recorded -> Power level is chosen with left and right direction buttons -> treatment starts when it's skinOn.
Battery Depleted Abstract Use Case	The system checks for change of battery level -> if the batter level drops to 0, the simulator turns off by calling the <code>changetoPowerOff()</code> function -> can't turn on until battery level is > 0.