ID	Requirement	Related Use Case	Fulfilled by	Test	Description
1	The application GUI contains buttons, a graph from 1-8, icons representing groups, sessions, CES, L, and R. It also contains a display area, two sliders representing ear clips, and a battery level bar.	N/A	MainWindow.ui	Run the Oasis pro Project with QT	The Oasis pro-Project uses QT's built-in interface framework. The physical Oasis system was replicated in addition to a Record sessions feature. All buttons are clickable.
2	The user is able to select a group and select a session	Select a session (UC3)	MainWindow Controller Session SessionType Group	Turn the Oasis device on and use the power button to select a group and use the Up/Down buttons to select the session.	When the context is "sessionSelection" the power button allows the user to select a group. Each group contains a list of sessions. The user can select a session by choosing the appropriate graph number using the Up/Down buttons.
3	The Oasis pro device allows the user to run a session	Start the session (UC4)	MainWindow Controller Session SessionType Battery Earclips Group	Turn the Oasis device on and select a group and a session. Then connect the ear clips, and slide them to a good connection. Finally, press the Checkmark button to start a session. Observe a running session.	When the checkmark is pressed, after the connection test, the context changes to "activeSession". The Controller emits a 'sessionProgress' signal with the selected session information. The MainWindow displays the information accordingly.
4	The user is able to adjust the intensity during a session	Adjust intensity (UC5)	MainWindow Controller Session SessionType Battery Earclips Group	Start a session. Press the Up/Down buttons to change the intensity.	The MainWindow sends a signal to the controller. The controller changes the intensity value accordingly and emits a signal to the MainWindow. The MainWindow displays the intensity on the graph in response.

5	The user is able to record a session that ended	Record a session (UC6)	MainWindow Controller Record Battery Session SessionType Group	Run a session. Either stop the session or wait until the session ends. Observe the prompt message. Press the checkmark to record the ended session.	When the session ends, the context changes to "promptRecordSession" in the controller. A "stopRecordPrompt" function gets called with a True Boolean passed. The session gets recorded and the controller emits a signal with the Record * recorded. The MainWindow adds an item to a list widget and displays it.
6	The user is able to turn off the device	Turn OASIS device off (UC2)	MainWindow Controller	If no session is running, press the power button.	The MainWindow sends a signal to the controller. The Controller turns the device off.
7	The user is able to turn on the device	Turn OASIS device on (UC1)	MainWindow Controller Battery Session SessionType Group	Press and hold the power button for 2sec.	The power button in the MainWindow is a Qpushbutton that has a pressed() and clicked() signal. The pressed() signal is triggered when the user presses the button. The clicked() signal is triggered when the user releases the button. When the controller receives the pressed() signal, it starts a Qtimer for up to 2sec. If the clicked() signal IS received before the timer reaches 0sec, the device remains OFF. If the clicked() signal is not received before the timer reaches 0sec, the device turns ON.
8	The battery level is displayed at all times	N/A	MainWindow Controller Battery	Click on the battery replacement tab. Observe the battery level bar.	The battery level only depletes during a session. The Controller emits a signal containing the battery level to the MainWindow every second during an active session. The MainWindow displays the battery level accordingly.
9	The battery is displayed on the graph when the device gets turned on	Turn OASIS device on (UC1)	MainWindow Controller Battery	Turn the device on. Observe the battery level displayed on the graph.	The MainWindow emits a signal to the controller when the device gets turned on. The controller emits a "powerOn" signal containing the battery level and if the battery is low. The MainWindow displays the battery level on the graph accordingly.
10	The battery level depletes based on intensity level, ear clip connection level, and session time	N/A	MainWindow Controller Battery Session SessionType Group	Click on the battery replacement tab. Run a session. Select a high intensity for a faster battery depletion.	During an 'activeSession' context, the controller emits a signal containing the battery level every second to the MainWindow. The MainWindow displays the battery level accordingly.

			Earclips	Observe the battery level bar decrement.	
11	The device is able to display a low battery level on the graph	Turn OASIS device on (UC1), Start the session (UC4)	MainWindow Controller Battery	Run a session. Select a high intensity level for a faster battery depletion. Observe Level 1 and Level 2 blinking on graph.	During an “activeSession” context, if the battery level is low, the controller emits a “batteryLevel” signal containing a False Boolean value to the MainWindow. The MainWindow displays the battery level accordingly.
12	The device is able to display a critically low battery level on the graph	Turn OASIS device on (UC1), Start the session (UC4)	MainWindow Controller Battery	Run a session. Select a high intensity level for a faster battery depletion. Observer Level 1 blinking on the graph.	During an “activeSession” context, if the battery level is critically low, the controller emits a “batteryLevel” signal containing a True Boolean value to the MainWindow. The MainWindow displays the battery level accordingly.
13	The device should do a connection test before a session starts	Start the session (UC4)	MainWindow Controller Session SessionType Group Earclips	Turn the device on, and select a group session and a session. Press the checkmark button to start a session. Observe the graph as it shows the connection level. To view other connection levels, connect the ear clips and move the sliders.	When a session starts, the Controller runs a connection test to check whether the ear clips are connected to the device. If earClipsAreConnected is true, then it gets the connection level from the Ear clips, and then it emits a signal to MainWindow with the ear clips connection level. The MainWindow displays the connection level accordingly.
14	A running session pauses when an ear clip is disconnected from the device	Start the session (UC4)	MainWindow Controller Session SessionType Group Earclips	During a running session, choose ‘disconnect’ from the dropdown in the Ear clip connection tab. Observe the session paused.	The MainWindow emits a signal to the Controller. The controller runs a connection test and waits until the ear clips are reconnected.
15	A running session pauses when an ear clip has a low connection level	Start the session (UC4)	MainWindow Controller Session SessionType	During a running session, pull the left or right clip slider to no connection level	The MainWindow emits a signal to the Controller. The controller runs a connection test and waits until the ear clips connection level is ‘Okay’ or ‘Excellent’.

			Group Earclips	(bottom). Observe the session paused.	
16	The user is able to see the sessions recorded previously	Turn OASIS device on (UC1)	MainWindow Controller	Turn the Oasis device on by holding the power button for at least 2sec. Observe the records.	In the MainWindow, if the listWidget has items, we raise it to display it.
17	The Oasis device turns off after 30sec of inactivity	Turn OASIS device on (UC1), Select a session (UC3), Start the session (UC4), Record a session (UC6)	MainWindow Controller	Turn the Oasis device on. Wait for 30sec without clicking any button.	The shutDownTimer reaches 0sec and calls the togglePower function which turns off the device.
18	The user is able to stop a running session	Start the session (UC4)	MainWindow Controller	Start a session. Press the power button to stop the running session.	During an ‘activeSession’ context, the power button acts as a ‘stop session’ button. When the power button is clicked, the Controller stops the session.
19	The user is able to change the device battery	N/A	MainWindow Controller	Click on the battery replacement tab. Press the Change battery button. Observe the battery level bar.	In the MainWindow, a new Battery object is created. A “changeBattery” function gets called from the controller wit the new battery passed.