

# Traceability Matrix

Group 19 - COMP3004 F23

ID	Requirements	Implemented By	Description	Tested By
1	The AED can turn on.	MainWindow	The AED should have the functionality to turn on when in the off state.	Pressing the power button while the AED is in its off state.
2	The AED can turn off.	MainWindow	The AED should have the functionality to turn off when in the on state.	Pressing the power button while the AED is in its on state.
3	The step indicator lights on the display light up during its corresponding state.	MainWindow, Prompt, Timer	The indicator lights on the AED in each step should light up to match the corresponding state of the rescue. Meaning when the AED is on the analyzing the ECG rhythm prompt, the light indicator for that step should illuminate.	Turn the AED on and observe the AED as it moves through the rescue steps.
4	The LCD display displays information regarding the current rescue.	MainWindow, Operations, Timer, Prompt	The display on the AED should display the shock count, CPR count, elapsed time, the visual prompt, battery level, and the ECG rhythm.	Turn the AED on and observe the AED as it moves through the rescue steps.
5	The ECG rhythm display changes as the combo box is changed.	MainWindow, Operations	The ECG rhythm that is being displayed on the LCD display should change as the value in the "Select Rhythm" combo box is changed and after the first analysis is complete.	Turn the AED on, allow for it to begin it's rescue, change the value in the "Select Rhythm" combo box and wait for the first analysis to begin.
6	The AED can detect when incorrect pads are being used for the victim.	MainWindow, Victim, Prompt	The AED should be able to detect when the incorrect pads are being used for the victim at hand. An instance of this would be adult pads used on a child.	Change the victim type to "Child" and the pads type to "Adult" (or vice versa) and turn on the AED. Allow it to run through its rescue until it reaches the point where the pads needs to be applied.
7	The AED can detect when a shock is necessary.	MainWindow, Simulations, Operations, Prompt	The AED should be able to detect through the ECG rhythm of the victim whether a shock is advised or not.	Turn the AED on. In order to make the AED advise a shock, set the rhythm to "Vfib" or "Vtach" and allow the AED to run through the

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				rescue procedure. To not advise a shock, set the rhythm to "Normal" or "Unknown".
8	The AED can perform a shock.	MainWindow, Simulations, Operations, Prompt	The AED should be able to perform a shock when one is advised.	Turn on the AED, set the rhythm to "Vfib" or "Vtach" and allow the AED to run through the rescue procedure.
9	The heart button illuminates when charging a shock.	MainWindow	The heart button along with the shock indicator on the AED should light up when charging for a shock.	Turn on the AED, set the rhythm to "Vfib" or "Vtach" and allow the AED to run through the rescue procedure.
10	The AED can call an ambulance after 5 shocks or 5 instances of CPR.	MainWindow, Simulations, Operations	The AED should automatically call for an ambulance after 5 shocks or 5 instances of CPR and advise the user to leave the remainder of the job to the paramedics.	Turn the AED on, set the rhythm to "Vfib" or "Vtach", set the depth to 2 and allow it to run through the rescue procedure.
11	The AED can determine whether CPR compressions are adequate.	MainWindow, Operations	The AED should be able to determine whether the chest compressions during CPR are adequate.	Turn the AED on, change the value in the depth box to between 0 and 2.5 while the rescue procedure is in progress.
12	The self test indicator lights illuminate when the AED is turned on.	MainWindow	The AED has a status indicator that should display whether the AED is ready and safe to be used.	Before turning the AED on, check the "Fail Self Test" checkbox depending on the indicator you want to see.
13	The AED turns itself off if the power on self test fails.	MainWindow, Operations, Safety	The AED should automatically turn itself off if it does not pass its power on self test.	Before turning the AED on, click the checkbox named "Fail Self Test".
14	The AED displays a low battery warning when the battery is low.	MainWindow, Prompt	The AED should display a warning on the display when the battery level is too low to shock.	Turn on the AED, allow the battery to drain on the AED.
15	The AED shuts down properly when there is no battery power left.	MainWindow	The AED should shut down properly when there is no battery power left.	Turn on the AED, allow the battery to drain until it reaches 0.
16	The battery in the AED can be replaced.	MainWindow, Prompt	The AED should allow for a battery change and set the level to 100.	Turn on the AED, allow the battery to drain a bit then

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				press the "Change Battery" button.