

REQUIREMENTS TRACEABILITY MATRIX

ID Number	Requirement	UseCase	Fulfilled By	Description	Tested by
1	The AED can be turned on and off	U1	MainWindow	User presses the power button, and the AED turns on.	Run simulator in Qt and press the power on button
2	The AED runs a self-test	UC2	MainWindow	AED runs a self-test to check that everything is working and in place.	The AED will start to self-test on its own
3	The AED asks the responder to place the electrodes on the patient and checks if they are damaged or not	UC3	MainWindow	The first responder places the electrodes on the patient and the AED checks that that electrodes are in place and are not damaged.	You can choose whether the electrodes are on or off by selecting it from the drop-down box in the admin side
4	The AED check the patient's heartbeat and determines if it is shockable or not	UC4	MainWindow	The AED runs an analysis to check the patient's heart rhythm and determines if the heartbeat is shockable or not.	The AED will access the patient's heart rhythm on its own after you have decided what case you want to run.
5	If the AED determines the heart beat as shockable it will ask the responder to not touch the patient and as it shocks the patient	UC5	MainWindow	The AED identifies the heartbeat as shockable and asks the responder to not touch the patient as the AED will deliver the shock	The AED will shock the patient's heart on its own after you have decided what case you want to run.
6	The AED will ask to responder to preform CPR and check if the CPR is good enough	UC6	MainWindow	The AED guides the responder to preform CPR on the patient and would ask the responder to push harder if the CPR pressure is insufficient	The AED will identify if the pressure from the CPR on its own after you have decided what case
7	The AED will ask the responder to call the ambulance	N/A	MainWindow	The AED will tell the responder to call the ambulance	The AED will ask to call the ambulance on its own after you decide what case you want to run.

8	The AED would light up the section of the gui when it is in that phase	N/A	MainWindow	The AED would light the picture in the AED gui when that part of the cycle starts.	The lights will show you what phase you are in when the phases switch
9	The responder can change what age the patient is which will change the voltage of the shock	N/A	MainWindow	The responder can change the age group of the patient by selecting the age group of the patient which will change the voltage of the shock	To test this, you can change the age group by selecting the age group on the right side and running a case
10	If the battery of the AED were to be come too low, it would let the responder know	N/A	MainWindow	If the AED does not have enough battery to complete a full cycle the AED would let the responder know and ask them to change the battery of the AED.	The AED will do this on its way when the battery is 20% or lower
11	If the electrodes are to disconnect for some reason the AED will ask the responder to place back the electrodes and restart the cycle	N/A	MainWindow	If the electrodes were to disconnect while in a cycle it would ask the responder to place the nodes back and if it happened before the part of the section that it asks the responder to place the electrodes it would continue the cycle until it reaches that part and then stop and wait until the electrodes are places	Turn the electrodes drop box to false to see the AED asking spot the cycle and restarting it when it becomes true.
12	The responder can close the AED which will cause the AED to restart have the battery level saved	N/A	MainWindow	The responder can close the AED at any point and start the AED again it will keep the battery level the same and will start a new cycle	Turn the AED off at any point by pressing the power button