

ID	Requirement	Related Use Case	Fulfilled By	Tested By
1	Turn on	Power On (UC1)	PowerOn	PowerOn::execute()
2	Check for shockable rhythm	Analyze Heart Rhythm (UC3)	AnalyzeRhythm	Manual test
3	Deliver shock	Deliver Shock (UC4)	DeliverShock	Manual test
4	Verify electrode pads are on properly	Place Electrodes (UC2)	PatientData, DeliverShock	testNoPadExecution
5	Monitors and informs care provider on CPR effectiveness	Give CPR Instructions (UC5)	AudioVisualHandler, InstructCPR, SimulateCPR	Manual test
6	Check battery power	Power On (UC1)	PowerOn	PowerOn::checkBatteryCapacity()
7	Check if pads okay (i.e., not expired, damaged, disconnected from AED)	Power On (UC1)	PowerOn	PowerOn::checkElectrodeToAEDConnection()
8	Shock intensity depends on Adult or Child pads used	Analyze Heart Rhythm (UC3)	PatientData, DeliverShock	testAdultElectrodeEnergyAmount, testPediatricElectrodeEnergyAmount
9	Stop shock and CPR prompts if patient condition is stable/dead	Continuous Evaluation (UC6)	AnalyzeHeartRhythm	Manual test
10	Update Patient condition based on shock, CPR efficacy	Deliver Shock (UC4), Give CPR Instructions (UC5)	SimulateCPR, DeliverShock	Manual test
11	Prompts to put electrode pads on	Place Electrodes (UC2)	ElectrodePads	Manual test
12	Prevents shocking if patient has pacemaker	Deliver Shock (UC4)	DeliverShock	testFailsDueToPacemaker
13	Shows patient heart rhythm as ECG signal	Analyze Heart Rhythm (UC3)	AudioVisualHandler, AnalyzeHeartRhythm	Manual test
14	Prompts ALL CLEAR before shock	Deliver Shock (UC4)	DeliverShock, AudioVisualHandler	Manual test

15	Tracks AED battery power after each shock	DeliverShock (UC4)	DeliverShock	testShockUpdateBatteryLevel