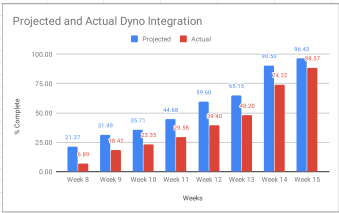


Task / Item	In Progress Projected (%)	In Progress Actual (%)	Complete	Dependencies	Week 15	Week 14	Week 13	Week 12	Week 11	Week 10	Week 9	Week 8	Week 7	Week 6	Week 5					
Motor Spinning in Dyno Room	75.00%	75.00%	No	Motor Purchased Motor Controller Purchased Pulley / Shaft Fabricated Motor Installed in Motor Mount MCS Installed in Fixture Pulley / Shaft Connected to Motor	2.50	2.50														
Motor Purchased	100%	100%	Yes		3.33	3.33														
Motor Controller Purchased	100%	100%	Yes		3.33	3.33														
Motor Controller Connected to TSI, Cooling, and Motor in Dyno Room	100.00%	83.33%	No	Motor Controller Purchased MCS / TSI / Cooling Fixture Fabricated TSI Board Complete TSI Mounting Plate Complete	3.33	2.77														
Motor Mount Fabricated	100%	100%	Yes		3.33	3.33														
Motor Installed in Motor Mount in Dyno Room	100.00%	100.00%	Yes	Motor Purchased Motor Mount Fabricated	3.33	3.33														
Pulley / Shaft Fabricated	80%	60%	No		2.66	2.00														
Pulley / Shaft Connected to Motor and Mounted in Dyno Room	90.91%	72.73%	No	Motor Purchased Pulley / Shaft Fabricated	3.03	2.42														
MCS / TSI / Cooling Fixture Fabricated	100%	100%	Yes		3.33	3.33														
Dyno Room Testing Plan Complete	100%	100%	Yes		3.33	3.33														
Dyno Room Wiring Diagram Complete	100%	100%	Yes		3.33	3.33														
GLV Board Manufactured	100.00%	100.00%	Yes		3.33	3.33														
GLV Mounting Plate Manufactured	100.00%	100.00%	Yes		3.33	3.33														
Safety Loop Testing Panel Mounted in Dyno Room Rack	100%	100%	Yes		3.33	3.33														
Safety Loop Functional in Dyno Room	100%	100%	Yes	GLV Board Manufactured	3.33	3.33														
TSI Board Manufactured	100.00%	92.31%	No		3.33	3.07														
TSI Mounting Plate Manufactured	100.00%	100.00%	Yes		3.33	3.33														
TSI Throttle / Brake Control Panel Manufactured	100.00%	100.00%	Yes	TSI Board Manufactured TSI Mounting Plate Manufactured	3.33	3.33														
Cooling Loop Filled with Water and Tested For Leaks	100.00%	100.00%	Yes		3.33	3.33														
Cooling System Mounted on Fixture in Dyno Room	100%	100%	Yes	MCS / TSI / Cooling Fixture Fabricated	3.33	3.33														
Cooling System Connected to MCS and Motor in Dyno Room	100%	100%	Yes	MCS / TSI / Cooling Fixture Fabricated	3.33	3.33														
Cooling System Connected to TSI in Dyno Room	100.00%	80%	No		3.33	2.66														
SCADA Recording Data and Writing to a File	100.00%	75%	No		3.33	2.38														
SCADA Displaying Data to Rack Monitor in Dyno Room	75%	75%	No		2.50	2.50														
SCADA Communicating with GLV in Dyno Room	100%	100%	Yes	GLV Board and Mounting Plate Integrated	3.33	3.33														
SCADA Communicating with TSI in Dyno Room	75%	75%	No	TSI Board and Mounting Plate Integrated	2.50	2.50														
SCADA Communicating with Motor Controller in Dyno Room	100%	75%	No		3.33	2.50														
All Connecting Wires Produced with Correct Connector Types	100%	100%	Yes		3.33	3.33														
All Subsystems fully wired in Dyno Room	100%	100%	Yes		3.33	3.33														
All Tests According to Test Plan Run in Dyno Room	100%	0%	No		3.33	0.00														
					96.43	88.57	90.50	74.22	65.15	48.20	59.60	30.40	44.68	29.58	35.71	23.35	31.49	18.42	21.37	6.89

	Projected	Actual
Week 5		
Week 6		
Week 7		
Week 8	21.37	6.89
Week 9	31.49	18.42
Week 10	35.71	23.35
Week 11	44.68	29.58
Week 12	59.60	39.40
Week 13	65.15	48.20
Week 14	90.50	74.22
Week 15	96.43	88.57



Integration Task	Related WBS Items	In Progress WBS Items	Projected Completion (%)	Completed WBS Items	Actual Completion (%)
Motor Spinning in Dyno Room	PART.4.1 - Motor Controller Purchase Order Submitted PART.4.2 - Motor Controller Acquired PART.5.1 - Motor Purchase Order Submitted PART.5.2 - Motor Acquired PART.5.3 - Motor Mounted in Motor Mount PART.6.1 - Motor / Pulley Connected PART.6.2 - Pulley Connected to Dyno Belt PART.6.3 - Motor Controller Connected to Motor	None	75.00%	PART.4.1 - Motor Controller Purchase Order Submitted PART.4.2 - Motor Controller Acquired PART.5.1 - Motor Purchase Order Submitted PART.5.2 - Motor Acquired PART.5.3 - Motor Mounted in Motor Mount PART.6.3 - Motor Controller Connected to Motor	75.00%
Motor Purchased	PART.5.1 - Motor Purchase Order Submitted PART.5.2 - Motor Acquired	None	100.00%	PART.5.1 - Motor Purchase Order Submitted PART.5.2 - Motor Acquired	100.00%
Motor Controller Purchased	PART.4.1 - Motor Controller Purchase Order Submitted PART.4.2 - Motor Controller Acquired	None	100.00%	PART.4.1 - Motor Controller Purchase Order Submitted PART.4.2 - Motor Controller Acquired	100.00%
Motor Controller Connected to TSI, Cooling, and Motor in Dyno Room	PART.4.1 - Motor Controller Purchase Order Submitted PART.4.2 - Motor Controller Acquired TSI.1 - TSI Board Delivered COOL.2.3 - Cooling System Mounted in Dyno Room COOL.3.1 - Cooling System Connected to MCS COOL.3.3 - Cooling System Moving Water to All Connected Systems	TSI.1 - TSI Board Delivered	100.00%	PART.4.1 - Motor Controller Purchase Order Submitted PART.4.2 - Motor Controller Acquired COOL.2.3 - Cooling System Mounted in Dyno Room COOL.3.1 - Cooling System Connected to MCS COOL.3.3 - Cooling System Moving Water to All Connected Systems	83.33%
Motor Mount Fabricated	PART.1.1 - Motor Mount Mechanical Drawing Submitted to Machine Shop and Accepted PART.1.2 - Motor Mount Fabricated PART.1.3 - Motor Mount Secured in Dyno Room		100.00%	PART.1.1 - Motor Mount Mechanical Drawing Submitted to Machine Shop and Accepted PART.1.2 - Motor Mount Fabricated PART.1.3 - Motor Mount Secured in Dyno Room	100.00%
Motor Installed in Motor Mount in Dyno Room	PART.1.1 - Motor Mount Mechanical Drawing Submitted to Machine Shop and Accepted PART.1.2 - Motor Mount Fabricated PART.1.3 - Motor Mount Secured in Dyno Room PART.5.1 - Motor Purchase Order Submitted PART.5.2 - Motor Acquired PART.5.3 - Motor Mounted in Motor Mount	PART.1.2 - Motor Mount Fabricated	100.00%	PART.1.1 - Motor Mount Mechanical Drawing Submitted to Machine Shop and Accepted PART.1.2 - Motor Mount Fabricated PART.1.3 - Motor Mount Secured in Dyno Room PART.5.1 - Motor Purchase Order Submitted PART.5.2 - Motor Acquired PART.5.3 - Motor Mounted in Motor Mount	100.00%
Pulley / Shaft Fabricated	PART.2.1 - Pulley Mechanical Drawing Submitted PART.2.2 - Shaft Drawing Submitted PART.2.3 - Pulley Manufactured / Purchased PART.2.4 - Shaft Manufactured / Purchased PART.2.5 - Pulley System Mounted in Dyno Room	PART.2.4 - Shaft Manufactured	80.00%	PART.2.1 - Pulley Mechanical Drawing Submitted PART.2.2 - Shaft Drawing Submitted PART.2.3 - Pulley Manufactured / Purchased	60.00%
Pulley / Shaft Connected to Motor and Mounted in Dyno Room	PART.1.1 - Motor Mount Mechanical Drawing Submitted to Machine Shop and Accepted PART.1.2 - Motor Mount Fabricated PART.1.3 - Motor Mount Secured in Dyno Room PART.5.1 - Motor Purchase Order Submitted PART.5.2 - Motor Acquired PART.5.3 - Motor Mounted in Motor Mount PART.2.1 - Pulley Mechanical Drawing Submitted PART.2.2 - Shaft Drawing Submitted PART.2.3 - Pulley Manufactured / Purchased PART.2.4 - Shaft Manufactured / Purchased PART.2.5 - Pulley System Mounted in Dyno Room	PART.2.2 - Shaft Drawing Submitted PART.2.4 - Shaft Manufactured	90.91%	PART.1.1 - Motor Mount Mechanical Drawing Submitted to Machine Shop and Accepted PART.1.2 - Motor Mount Fabricated PART.1.3 - Motor Mount Secured in Dyno Room PART.2.1 - Pulley Mechanical Drawing Submitted PART.2.3 - Pulley Manufactured / Purchased PART.5.1 - Motor Purchase Order Submitted PART.5.2 - Motor Acquired PART.5.3 - Motor Mounted in Motor Mount	72.73%
MCS / TSI / Cooling Fixture Fabricated	PART.3.1 - Fixture Mechanical Drawing Submitted to Machine Shop PART.3.2 - Fixture Fabricated PART.3.3 - Fixture Mounted in Dyno Room		100.00%	PART.3.1 - Fixture Mechanical Drawing Submitted to Machine Shop PART.3.2 - Fixture Fabricated PART.3.3 - Fixture Mounted in Dyno Room	100.00%

Integration Task	Related WBS Items	In Progress WBS Items	Projected Completion (%)	Completed WBS Items	Actual Completion (%)
GLV Board Manufactured	GLV.1.1 - GLV BoB Circuit Schematic Complete		100.00%	GLV.1.1 - GLV BoB Circuit Schematic Complete	100.00%
	GLV.1.2 - GLV BoB PCB Layout Complete and Approved			GLV.1.2 - GLV BoB PCB Layout Complete and Approved	
	GLV.1.3 - GLV BoB PCB Purchase Order Approved and Submitted			GLV.1.3 - GLV BoB PCB Purchase Order Approved and Submitted	
	GLV.1.4 - GLV BoB Acquired			GLV.1.4 - GLV BoB Acquired	
	GLV.1.5 - GLV BoB Mount Mechanical Drawing Submitted to Machine Shop			GLV.1.5 - GLV BoB Mount Mechanical Drawing Submitted to Machine Shop	
	GLV.1.6 - GLV BoB Mount Fabricated			GLV.1.6 - GLV BoB Mount Fabricated	
	GLV.1.7 - GLV BoB Installed on Mount in Rack in Dyno Room			GLV.1.7 - GLV BoB Installed on Mount in Rack in Dyno Room	
GLV Mounting Plate Manufactured	GLV.1.5 - GLV BoB Mount Mechanical Drawing Submitted to Machine Shop		100.00%	GLV.1.5 - GLV BoB Mount Mechanical Drawing Submitted to Machine Shop	100.00%
	GLV.1.6 - GLV BoB Mount Fabricated			GLV.1.6 - GLV BoB Mount Fabricated	
	GLV.1.7 - GLV BoB Installed on Mount in Rack in Dyno Room			GLV.1.7 - GLV BoB Installed on Mount in Rack in Dyno Room	
Safety Loop Testing Panel Mounted in Dyno Room Rack	GLV.2.1 - Left Side Panel Block Diagram Delivered		100.00%	GLV.2.1 - Left Side Panel Block Diagram Delivered	100.00%
	GLV.2.2 - Left Side Panel BoM Purchase Order Approved and Purchased			GLV.2.2 - Left Side Panel BoM Purchase Order Approved and Purchased	
	GLV.2.3 - Left Side Panel Mechanical Drawing Submitted to Machine Shop			GLV.2.3 - Left Side Panel Mechanical Drawing Submitted to Machine Shop	
	GLV.2.4 - Left Side Panel Fabricated and Wired with Needed Buttons / Switches			GLV.2.4 - Left Side Panel Fabricated and Wired with Needed Buttons / Switches	
	GLV.2.5 - Right Side Panel Block Diagram Delivered			GLV.2.5 - Right Side Panel Block Diagram Delivered	
	GLV.2.6 - Right Side Panel BoM Purchase Order Approved and Purchased			GLV.2.6 - Right Side Panel BoM Purchase Order Approved and Purchased	
	GLV.2.7 - Right Side Panel Mechanical Drawing Submitted to Machine Shop			GLV.2.7 - Right Side Panel Mechanical Drawing Submitted to Machine Shop	
	GLV.2.8 - Right Side Panel Fabricated and Wired with Needed Buttons / Switches			GLV.2.8 - Right Side Panel Fabricated and Wired with Needed Buttons / Switches	
	GLV.2.9 - Left Side Panel Installed in Dyno Room			GLV.6.1 - Dashboard Panel Block Diagram Delivered	
	GLV.2.10 - Right Side Panel Installed in Dyno Room			GLV.6.2 - Dashboard Panel BoM Purchase Order Approved and Purchased	
	GLV.3.1 - Dyno Safety Loop Block Diagram Complete and Submitted			GLV.6.3 - Dashboard Panel Mechanical Drawing Submitted to Machine Shop	
	GLV.3.2 - Dyno Power Supply Safety Loop On/Off Mechanism Delivered			GLV.6.4 - Dashboard Panel Fabricated and Wired with Needed Buttons / Switches	
	GLV.3.3 - Left Side Panel Connected to GLV In Dyno Room			GLV.2.9 - Left Side Panel Installed in Dyno Room	
	GLV.3.4 - Right Side Panel Connected to GLV In Dyno Room			GLV.2.10 - Right Side Panel Installed in Dyno Room	
	GLV.3.5 - Dyno Power Supply Connected to GLV Safety Loop			GLV.3.1 - Dyno Safety Loop Block Diagram Complete and Submitted	
	GLV.6.1 - Dashboard Panel Block Diagram Delivered			GLV.3.2 - Dyno Power Supply Safety Loop On/Off Mechanism Delivered	
	GLV.6.2 - Dashboard Panel BoM Purchase Order Approved and Purchased			GLV.3.3 - Left Side Panel Connected to GLV In Dyno Room	
	GLV.6.3 - Dashboard Panel Mechanical Drawing Submitted to Machine Shop			GLV.3.4 - Right Side Panel Connected to GLV In Dyno Room	
	GLV.6.4 - Dashboard Panel Fabricated and Wired with Needed Buttons / Switches			GLV.3.5 - Dyno Power Supply Connected to GLV Safety Loop	
	GLV.6.5 - Dashboard Panel Installed in Dyno Room			GLV.6.5 - Dashboard Panel Installed in Dyno Room	
Safety Loop Functional In Dyno Room	GLV.3.6 - Demo of Left Side Panel Closing / Opening Safety Loop		100.00%	GLV.3.6 - Demo of Left Side Panel Closing / Opening Safety Loop	100.00%
	GLV.3.7 - Demo of Right Side Panel Closing / Opening Safety Loop			GLV.3.7 - Demo of Right Side Panel Closing / Opening Safety Loop	
	GLV.3.8 - Demo of Safety Loop shutting off the Dyno Power Supply from Safe Distance			GLV.3.8 - Demo of Safety Loop shutting off the Dyno Power Supply from Safe Distance	
	GLV.3.9 - Demo of Dashboard Panel Closing / Opening Safety Loop			GLV.3.9 - Demo of Dashboard Panel Closing / Opening Safety Loop	
	GLV.3.10 - Demo of Dashboard Panel Putting Car / Dyno into Drive Mode			GLV.3.10 - Demo of Dashboard Panel Putting Car / Dyno into Drive Mode	
	GLV.4.8 - GLV and Safety Loop Connected			GLV.4.8 - GLV and Safety Loop Connected	

Integration Task	Related WBS Items	In Progress WBS Items	Projected Completion (%)	Completed WBS Items	Actual Completion (%)
TSI Board Manufactured	TSI.1.1 - TSI Block Diagram Delivered and Approved	TSI.1.10 - TSI PCB Debugged and Complete	100.00%	TSI.1.1 - TSI Block Diagram Delivered and Approved	92.31%
	TSI.1.2 - TSI Circuit Schematic Delivered and Approved			TSI.1.2 - TSI Circuit Schematic Delivered and Approved	
	TSI.1.3 - TSI PCB Layout Complete and Approved			TSI.1.3 - TSI PCB Layout Complete and Approved	
	TSI.1.4 - TSI PCB BoM Purchase Order Approved and Purchased			TSI.1.4 - TSI PCB BoM Purchase Order Approved and Purchased	
	TSI.1.5 - TSI PCB Purchased and Delivered			TSI.1.5 - TSI PCB Purchased and Delivered	
	TSI.1.6 - TSI PCB Populated and Verified			TSI.1.6 - TSI PCB Populated and Verified	
	TSI.1.7 - IMD Installed on TSI PCB			TSI.1.7 - IMD Installed on TSI Mounting Plate	
	TSI.1.8 - Precharge Circuitry Incorporated			TSI.1.8 - Precharge Circuitry Incorporated	
	TSI.1.10 - TSI PCB Debugged and Complete			TSI.1.11 - TSI Mounting Plate Mechanical Drawing Submitted	
	TSI.1.11 - TSI Mounting Plate Mechanical Drawing Submitted			TSI.1.12 - TSI Mounting Plate BoM Purchase Order Approved and Purchased	
	TSI.1.12 - TSI Mounting Plate BoM Purchase Order Approved and Purchased			TSI.1.13 - TSI Base Plate Fabricated, Wired, and Populated	
	TSI.1.13 - TSI Base Plate Fabricated, Wired, and Populated			TSI.1.14 - TSI Base Plate Installed in DYNO Room	
	TSI.1.14 - TSI Base Plate Installed in DYNO Room				
TSI Mounting Plate Manufactured	TSI.1.11 - TSI Mounting Plate Mechanical Drawing Submitted		100.00%	TSI.1.11 - TSI Mounting Plate Mechanical Drawing Submitted	100.00%
	TSI.1.13 - TSI Mounting Plate Fabricated			TSI.1.13 - TSI Mounting Plate Fabricated	
	TSI.1.14 - TSI Installed on Mount in Dyno Room			TSI.1.14 - TSI Installed on Mount in Dyno Room	
TSI Throttle / Brake Control Panel Manufactured	TSI.4.1 - 2017 TSI Test Panel Located		100.00%	TSI.4.1 - 2017 TSI Test Panel Located	100.00%
	TSI.4.2 - Test Panel Fabricated and Wired with Needed Buttons/Switches			TSI.4.2 - Test Panel Fabricated and Wired with Needed Buttons/Switches	
	TSI.4.3 - Test Panel Installed in DYNO Room			TSI.4.3 - Test Panel Installed in DYNO Room	
	TSI.1.11 - TSI Mounting Plate Mechanical Drawing Submitted			TSI.1.11 - TSI Mounting Plate Mechanical Drawing Submitted	
	TSI.1.12 - TSI Mounting Plate BoM Purchase Order Approved and Purchased			TSI.1.12 - TSI Mounting Plate BoM Purchase Order Approved and Purchased	
	TSI.1.13 - TSI Base Plate Fabricated, Wired, and Populated			TSI.1.13 - TSI Base Plate Fabricated	
TSI.1.14 - TSI Base Plate Installed in DYNO Room			TSI.1.14 - TSI Base Plate Installed in DYNO Room		

Integration Task	Related WBS Items	In Progress WBS Items	Projected Completion (%)	Completed WBS Items	Actual Completion (%)
Cooling Loop Filled with Water and Tested For Leaks	COOL.2.1 - Cooling loop filled with water and tested for leaks		100.00%	COOL.2.1 - Cooling loop filled with water and tested for leaks	100.00%
	COOL.2.2 - Leaks in loop identified and repaired			COOL.2.2 - Leaks in loop identified and repaired	
	COOL.2.3 - Cooling System mounted on Fixture in Dyno Room			COOL.2.3 - Cooling System mounted on Fixture in Dyno Room	
Cooling System Mounted on Fixture in Dyno Room	COOL.1.1 - Mechanical Drawing of Mounting Delivered		100.00%	COOL.1.1 - Mechanical Drawing of Mounting Delivered	100.00%
	PART.3.1 - Fixture Mechanical Drawing Submitted to Machine Shop			PART.3.1 - Fixture Mechanical Drawing Submitted to Machine Shop	
	PART.3.2 - Fixture Fabricated			PART.3.2 - Fixture Fabricated	
	PART.3.3 - Fixture Mounted in Dyno Room			PART.3.3 - Fixture Mounted in Dyno Room	
Cooling System Connected to MCS and Motor in Dyno Room	PART.4.1 - Motor Controller Purchase Order Submitted		100.00%	COOL.2.3 - Cooling System Mounted in Dyno Room on Fixture in Dyno Room	100.00%
	PART.4.2 - Motor Controller Acquired			COOL.3.1 - Cooling System Connected to MCS	
	COOL.2.3 - Cooling System Mounted in Dyno Room			COOL.3.3 - Cooling System Moving Water to All Connected Systems	
	COOL.3.1 - Cooling System Connected to MCS			PART.4.1 - Motor Controller Purchase Order Submitted	
	COOL.3.3 - Cooling System Moving Water to All Connected Systems			PART.4.2 - Motor Controller Acquired	
	PART.5.1 - Motor Purchase Order Submitted			PART.5.1 - Motor Purchase Order Submitted	
	PART.5.2 - Motor Acquired			PART.5.2 - Motor Acquired	
	PART.5.3 - Motor Mounted in Motor Mount			PART.5.3 - Motor Mounted in Motor Mount	
Cooling System Connected to TSI in Dyno Room	COOL.2.3 - Cooling System Mounted in Dyno Room	TSI.1 - TSI Board Delivered	100.00%	PART.3.1 - Fixture Mechanical Drawing Submitted to Machine Shop	80.00%
	TSI.1 - TSI Board Delivered			COOL.2.3 - Cooling System Mounted in Dyno Room	
	PART.3.1 - Fixture Mechanical Drawing Submitted to Machine Shop			PART.3.2 - Fixture Fabricated	
	PART.3.2 - Fixture Fabricated			PART.3.3 - Fixture Mounted in Dyno Room	
	PART.3.3 - Fixture Mounted in Dyno Room				

Integration Task	Related WBS Items	In Progress WBS Items	Projected Completion (%)	Completed WBS Items	Actual Completion (%)
TSV Packs Manufactured	TSV.1.1 - Pack High Level Electrical Block Diagram Delivered and Accepted	TSV.1.2 - Pack Mechanical Drawing Submitted and Accepted	30.00%	TSV.1.1 - Pack High Level Electrical Block Diagram Delivered	10.00%
	TSV.1.2 - Pack Mechanical Drawing Submitted and Accepted	TSV.1.3 - Pack BoM Purchase Order Approved and Purchased			
	TSV.1.3 - Pack BoM Purchase Order Approved and Purchased				
	TSV.1.4 - Pack 1 Enclosure Fabricated				
	TSV.1.5 - Pack 2 Enclosure Fabricated				
	TSV.1.6 - Pack Testing Plan Submitted and Approved				
	TSV.1.7 - Pack 1 Populated and Verified with Testing Plan				
	TSV.1.8 - Pack 2 Populated and Verified with Testing Plan				
	TSV.1.9 - Demo of Pack 1 Functionality with Testing Plan				
	TSV.1.10 - Demo of Pack 2 Functionality with Testing Plan				
TSV Packs Connected to Motor Controller in Dyno Room	WIRE.3.11 - TSV - Motor Controller Connected	None	0.00%	None	0.00%
TSV CellMen Boards Fabricated	TSV.2.1 - CellMen Block Diagram Delivered and Approved	TSV.2.4 - CellMen BoM Purchase Order Approved and Purchased	33.33%	TSV.2.1 - CellMen Block Diagram Delivered and Approved	22.22%
	TSV.2.2 - CellMen Circuit Schematic Delivered and Approved			TSV.2.2 - CellMen Circuit Schematic Delivered and Approved	
	TSV.2.3 - CellMen PCB Layout Complete and Approved				
	TSV.2.4 - CellMen BoM Purchase Order Approved and Purchased				
	TSV.2.5 - CellMen Purchased and Delivered				
	TSV.2.6 - CellMen Boards Populated and Verified				
	TSV.2.7 - 1st CellMen Board Debugged and Tested				
	TSV.2.8 - CellMen Testing Plan Delivered				
	TSV.2.9 - CellMen Boards Debugged and Tested				
TSV PackMan Boards Fabricated	TSV.3.1 - PackMan Block Diagram Delivered and Approved	TSV.3.1 - PackMan Block Diagram Delivered and Approved	25.00%	None	0.00%
	TSV.3.2 - PackMan Circuit Schematic Delivered and Approved	TSV.3.2 - PackMan Circuit Schematic Delivered and Approved			
	TSV.3.3 - PackMan PCB Layout Complete and Approved				
	TSV.3.4 - PackMan BoM Purchase Order Approved and Purchased				
	TSV.3.5 - PackMan Purchased and Delivered				
	TSV.3.6 - PackMan Populated and Verified				
	TSV.3.7 - PackMan Testing Plan Delivered				
	TSV.3.8 - PackMan Boards Debugged and Tested				
TSV SegMan Boards Fabricated	TSV.4.1 - SegMan Block Diagram Delivered and Approved	TSV.4.1 - SegMan Block Diagram Delivered and Approved	28.57%	None	0.00%
	TSV.4.2 - SegMan Circuit Schematic Delivered and Approved	TSV.4.2 - SegMan Circuit Schematic Delivered and Approved			
	TSV.4.3 - SegMan PCB Layout Complete and Approved				
	TSV.4.4 - SegMan Purchased and Delivered				
	TSV.4.5 - SegMan Populated and Verified				
	TSV.4.6 - SegMan Testing Plan Delivered				
	TSV.4.7 - SegMan Boards Debugged and Tested				
TSV Powering Motor via Motor Controller	WIRE.3.11 - TSV - Motor Controller Connected	None	0.00%	None	0.00%

Integration Task	Related WBS Items	In Progress WBS Items	Projected Completion (%)	Completed WBS Items	Actual Completion (%)
SCADA Recording Data and Writing to a File	SCADA.1.2 - SCADA Collecting Data From Subsystems and Writing Data to File SCADA.1.3 - SCADA Writing Raw and Calibrated Data to Database	SCADA.5.2 - VSCADA Receiving Data from Cooling System	100.00%	SCADA.1.2 - SCADA Collecting Data From Subsystems and Writing Data to File SCADA.1.3 - SCADA Writing Raw and Calibrated Data to Database	85.71%
	SCADA.2.2 - VSCADA Receiving Data from TSI Sensors			SCADA.2.2 - VSCADA Receiving Data from TSI Sensors	
	SCADA.3.2 - SCADA Receiving Data from GLV Sensors			SCADA.3.2 - VSCADA Receiving Data from GLV Sensors	
	SCADA.4.2 - VSCADA Receiving Data from MCS Sensors			SCADA.4.2 - VSCADA Receiving Data from MCS Sensors	
	SCADA.5.2 - VSCADA Receiving Data from Cooling System			SCADA.7.3 - SCADA Logging Data with Timestamps	
	SCADA.7.3 - SCADA Logging Data with Timestamps				
SCADA Displaying Data to Rack Monitor in Dyno Room	SCADA.1.1 - Individual Data Acquisition Tests Performed Showing Data SCADA.1.2 - SCADA Collecting Data From Subsystems and Writing Data to File SCADA.1.3 - SCADA Writing Raw and Calibrated Data to Database SCADA.1.4 - Demo of SCADA Collecting Data and Displaying Meaningfully to Viewer	None	75.00%	SCADA.1.2 - SCADA Collecting Data From Subsystems and Writing Data to File SCADA.1.3 - SCADA Writing Raw and Calibrated Data to Database SCADA.1.4 - Demo of SCADA Collecting Data and Displaying Meaningfully to Viewer	75.00%
SCADA Communicating with GLV in Dyno Room	SCADA.3.1 - VSCADA and GLV Connected via CAN and GPIO SCADA.3.2 - VSCADA Receiving Data from GLV Sensors SCADA.3.3 - VSCADA Sends Warnings for Error Sensor Data GLV.1.7 - GLV BoB Installed on Mount in Rack in Dyno Room		100.00%	SCADA.3.1 - VSCADA and GLV Connected via CAN and GPIO SCADA.3.2 - VSCADA Receiving Data from GLV Sensors SCADA.3.3 - VSCADA Sends Warnings for Error Sensor Data GLV.1.7 - GLV BoB Installed on Mount in Rack in Dyno Room	100.00%
SCADA Communicating with TSI in Dyno Room	SCADA.2.1 - VSCADA and TSI Connected via CAN SCADA.2.2 - VSCADA Receiving Data from TSI Sensors SCADA.2.3 - VSCADA Transmitting Cruise Control Information TSI.1.13 - TSI Installed on Mount in Dyno Room		75.00%	SCADA.2.1 - VSCADA and TSI Connected via CAN SCADA.2.2 - VSCADA Receiving Data from TSI Sensors TSI.1.13 - TSI Installed on Mount in Dyno Room	75.00%
SCADA Communicating with Motor Controller in Dyno Room	SCADA.4.1 - VSCADA and MCS Connected via CAN SCADA.4.2 - VSCADA Receiving Data from MCS Sensors SCADA.4.3 - SCADA Outputs a Throttle Control to the Motor Controller PART.4.2 - Motor Controller Acquired	SCADA.4.3 - SCADA Outputs a Throttle Control to the Motor Controller	100.00%	PART.4.2 - Motor Controller Acquired SCADA.4.1 - VSCADA and MCS Connected via CAN SCADA.4.2 - VSCADA Receiving Data from MCS Sensors	75.00%

Integration Task	Related WBS Items	In Progress WBS Items	Projected Completion (%)	Completed WBS Items	Actual Completion (%)
Dyno Room Testing Plan Complete	TEST.1.1 - List of tests to be performed on motor detailed with specific desired outcomes printed TEST.1.2 - Risk assessment of each test for motor produced with solution plan for failure TEST.2.1 - List of tests to be performed on GLV detailed with specific desired outcomes printed TEST.2.2 - Risk assessment of each test for GLV produced with solution plan for failure TEST.3.1 - List of tests to be performed on TSI detailed with specific desired outcomes printed TEST.3.2 - Risk assessment of each test for TSI produced with solution plan for failure TEST.5.1 - List of tests to be performed on SCADA detailed with specific desired outcomes printed TEST.5.2 - Risk assessment of each test for SCADA produced with solution plan for failure TEST.6.1 - List of tests to be performed on Full Dyno detailed with specific desired outcomes printed TEST.6.2 - Risk assessment of each test for Full Dyno produced with solution plan for failure	TEST.1.1 - List of tests to be performed on motor detailed with specific desired outcomes printed and posted in Test Plan Binder TEST.1.2 - Risk assessment of each test for motor produced with solution plan for failure TEST.2.1 - List of tests to be performed on GLV detailed with specific desired outcomes printed and posted in Test Plan Binder TEST.2.2 - Risk assessment of each test for GLV produced with solution plan for failure TEST.3.1 - List of tests to be performed on TSI detailed with specific desired outcomes printed and posted in Test Plan Binder TEST.3.2 - Risk assessment of each test for TSI produced with solution plan for failure TEST.5.1 - List of tests to be performed on SCADA detailed with specific desired outcomes printed and posted in Test Plan Binder TEST.5.2 - Risk assessment of each test for SCADA produced with solution plan for failure TEST.6.2 - Risk assessment of each test for Full Dyno produced with solution plan for failure	100.00%	TEST.6.1 - List of tests to be performed on Full Dyno detailed with specific desired outcomes printed and posted in Test Plan Binder	10.00%
Dyno Room Wiring Diagram Complete	WIRE.1.1 - Dyno Room Wiring Diagram Complete WIRE.1.2 - Dyno Room Wiring Diagram Printed and Posted in AEC 400 WIRE.1.3 - Dyno Room Wiring Diagram Printed and Posted in AEC 134	None	100.00%	WIRE.1.1 - Dyno Room Wiring Diagram Complete WIRE.1.2 - Dyno Room Wiring Diagram Printed and Posted in AEC 400 WIRE.1.3 - Dyno Room Wiring Diagram Printed and Posted in AEC 134	100.00%
All Connecting Wires Produced with Correct Connector Types	WIRE.2.1 - Full Wiring BOM Submitted and Approved WIRE.2.2 - Full Wiring BOM Purchase Order Submitted and Approved WIRE.2.3 - TSI - MCS Wires Complete WIRE.2.4 - TSI - Cooling Wires Complete WIRE.2.5 - TSI - Pedal Throttle Fixture Wires Complete WIRE.2.6 - TSI - Test Panel Wires Complete WIRE.2.8 - GLV - Safety Loop Wires Complete WIRE.2.9 - GLV - TSI Wires Complete WIRE.2.10 - GLV - Cooling Wires Complete WIRE.2.12 - Safety Loop Panels - Dyno Supply Wires Complete		100.00%	WIRE.2.1 - Full Wiring BOM Submitted and Approved WIRE.2.2 - Full Wiring BOM Purchase Order Submitted and Approved WIRE.2.3 - TSI - MCS Wires Complete WIRE.2.4 - TSI - Cooling Wires Complete WIRE.2.5 - TSI - Pedal Throttle Fixture Wires Complete WIRE.2.6 - TSI - Test Panel Wires Complete WIRE.2.8 - GLV - Safety Loop Wires Complete WIRE.2.9 - GLV - TSI Wires Complete WIRE.2.10 - GLV - Cooling Wires Complete WIRE.2.12 - Safety Loop Panels - Dyno Supply Wires Complete	100.00%
All Subsystems fully wired in Dyno Room	WIRE.3.1 - TSI - MCS Connected WIRE.3.2 - TSI - Cooling Connected WIRE.3.3 - TSI - Pedal Throttle Fixture Connected WIRE.3.4 - TSI - Test Panel Connected WIRE.3.6 - GLV - Safety Loop Connected WIRE.3.7 - GLV - TSI Connected WIRE.3.8 - GLV - Cooling Connected WIRE.3.10 - Safety Loop Panels - Dyno Supply Connected WIRE.3.12 - MCS and Motor Connected WIRE.3.13 - Cooling System and Motor Connected WIRE.3.14 - Cooling System and MCS Connected		100.00%	WIRE.3.1 - TSI - MCS Connected WIRE.3.2 - TSI - Cooling Connected WIRE.3.3 - TSI - Pedal Throttle Fixture Connected WIRE.3.4 - TSI - Test Panel Connected WIRE.3.6 - GLV - Safety Loop Connected WIRE.3.7 - GLV - TSI Connected WIRE.3.8 - GLV - Cooling Connected WIRE.3.10 - Safety Loop Panels - Dyno Supply Connected WIRE.3.12 - MCS and Motor Connected WIRE.3.13 - Cooling System and Motor Connected WIRE.3.14 - Cooling System and MCS Connected	100.00%
All Tests According to Test Plan Run in Dyno Room	TEST.1.3 - Tests performed on motor according to testing plan TEST.1.4 - Testing Analysis of Motor Testing Data complete and submitted TEST.1.5 - Retesting of Motor following adjustments to meet desired test outcomes TEST.2.3 - Tests performed on GLV according to testing plan TEST.2.4 - Testing Analysis of GLV Testing Data complete and submitted TEST.2.5 - Retesting of GLV following adjustments to meet desired test outcomes TEST.3.3 - Tests performed on TSI according to testing plan TEST.3.4 - Testing Analysis of TSI Testing Data complete and submitted TEST.3.5 - Retesting of TSI following adjustments to meet desired test outcomes TEST.5.3 - Tests performed on SCADA according to testing plan TEST.5.4 - Testing Analysis of SCADA Testing Data complete and submitted TEST.5.5 - Retesting of SCADA following adjustments to meet desired test outcomes TEST.6.3 - Tests performed on Full Dyno according to testing plan TEST.6.4 - Testing Analysis of Full Dyno Testing Data complete and submitted TEST.6.5 - Retesting of Full Dyno following adjustments to meet desired test outcomes	TEST.1.3 - Tests performed on motor according to testing plan TEST.1.4 - Testing Analysis of Motor Testing Data complete and submitted TEST.1.5 - Retesting of Motor following adjustments to meet desired test outcomes TEST.2.3 - Tests performed on GLV according to testing plan TEST.2.4 - Testing Analysis of GLV Testing Data complete and submitted TEST.2.5 - Retesting of GLV following adjustments to meet desired test outcomes TEST.3.3 - Tests performed on TSI according to testing plan TEST.3.4 - Testing Analysis of TSI Testing Data complete and submitted TEST.3.5 - Retesting of TSI following adjustments to meet desired test outcomes TEST.5.3 - Tests performed on SCADA according to testing plan TEST.5.4 - Testing Analysis of SCADA Testing Data complete and submitted TEST.5.5 - Retesting of SCADA following adjustments to meet desired test outcomes TEST.6.3 - Tests performed on Full Dyno according to testing plan TEST.6.4 - Testing Analysis of Full Dyno Testing Data complete and submitted TEST.6.5 - Retesting of Full Dyno following adjustments to meet desired test outcomes	100.00%		0.00%