

Project Status Letter Week 10  
 Covering Period from 10/28/2018 to 11/4/2018  
 Prepared by Alex Kmetz and Katie Lee

**DYNO Integration Action Tracking**

Task / Item	In Progress Projected (%)	In Progress Actual (%)	Complete	Dependencies
Motor Spinning in Dyno Room	37.50%	37.50%	No	Motor Purchased Motor Controller Purchased Pulley / Shaft Fabricated Motor Installed in Motor Mount MCS Installed in Fixture Pulley / Shaft Connected to Motor
Motor Purchased	67%	67%	No	
Motor Controller Purchased	50%	50%	No	
Motor Controller Connected to TSI, Cooling, and Motor in Dyno Room	16.67%	16.67%	No	Motor Controller Purchased MCS / TSI / Cooling Fixture Fabricated TSI Board Complete TSI Mounting Plate Complete
Motor Mount Fabricated	0%	0%	No	
Motor Installed in Motor Mount in Dyno Room	16.67%	16.67%	No	Motor Purchased Motor Mount Fabricated
Pulley / Shaft Fabricated	0%	0%	No	
Pulley / Shaft Connected to Motor and Mounted in Dyno Room	18.18%	18.18%	No	Motor Purchased Pulley / Shaft Fabricated
MCS / TSI / Cooling Fixture Fabricated	0%	0%	No	
Pedal Cluster Fabricated	0%	0%	No	
Dyno Room Testing Plan Complete	100%	0%	No	
Dyno Room Wiring Diagram Complete	100%	100%	Yes	
GLV Board Manufactured	85.71%	71.43%	No	
GLV Mounting Plate Manufactured	66.67%	66.67%	No	
Safety Loop Testing Panel Mounted in Dyno Room Rack	85%	30%	No	
Safety Loop Functional In Dyno Room	0%	0%	No	GLV Board Manufactured
TSI Board Manufactured	26.67%	6.67%	No	
TSI Mounting Plate Manufactured	33.33%	0%	No	
TSI Throttle / Brake Control Panel Manufactured	50.00%	12.50%	No	TSI Board Manufactured TSI Mounting Plate Manufactured
Cooling Loop Filled with Water and Tested For Leaks	66.67%	66.67%	No	
Cooling System Mounted on Fixture in Dyno Room	0%	0%	No	MCS / TSI / Cooling Fixture Fabricated
Cooling System Connected to MCS and Motor in Dyno Room	25%	25%	No	MCS / TSI / Cooling Fixture Fabricated
Cooling System Connected to TSI in Dyno Room	0%	0%	No	MCS / TSI / Cooling Fixture Fabricated

TSV Packs Manufactured	30%	0%	No	
TSV Packs Connected to Motor Controller in Dyno Room	30%	0%	No	
TSV CellMan Boards Fabricated	22%	0%	No	
TSV PackMan Boards Fabricated	25%	0%	No	
TSV SegMan Boards Fabricated	29%	0%	No	
				TSV Packs Manufactured PackMan Boards Fabricated CellMen Boards Fabricated SegMen Boards Fabricated Motor Controller Purchased Motor Purchased
TSV Powering Motor via Motor Controller	0%	0%	No	
SCADA Recording Data and Writing to a File	37.50%	38%	No	
SCADA Displaying Data to Rack Monitor in Dyno Room	75%	75%	No	
SCADA Communicating with GLV in Dyno Room	0%	0%	No	GLV Board and Mounting Plate Integrated
SCADA Communicating with TSI in Dyno Room	25%	25%	No	TSI Board and Mounting Plate Integrated
				TSV Packs Manufactured PackMan Boards Fabricated CellMen Boards Fabricated SegMen Boards Fabricated
SCADA Communicating with TSV in Dyno Room	0%	0%	No	
SCADA Communiating with Motor Controller in Dyno Room	25%	25%	No	
All Connecting Wires Produced with Correct Connector Types	0%	0%	No	
All Subsystems fully wired in Dyno Room	0%	0%	No	Dyno Room Wiring Diagram Complete
All Tests According to Test Plan Run in Dyno Room	0%	0%	No	Dyno Room Testing Plan Complete

For more data, visit website using link below:

[https://sites.lafayette.edu/motorsports/files/2018/10/Week\\_9\\_DYNO\\_Progress.pdf](https://sites.lafayette.edu/motorsports/files/2018/10/Week_9_DYNO_Progress.pdf)

**Project Item Completion Chart:**

Team	Tasks Completed	Tasks Planned for Next Week	Proposed Changes	Overdue WBS Items
VSCADA	<p><b>Zian:</b> SCADA.9.3 - Dashboard Interface Designed and Delivered</p> <p>SCADA.4.3 SCADA Outputs a Throttle Control to the Motor Controller</p> <p><b>Sam:</b> SCADA.5.1 - Demo of Transitions between Vehicle States</p> <p>SCADA.4.3 - SCADA Outputs Throttle Control to the Motor Controller</p>	<p><b>Sam:</b> SCADA.3.1 - VSCADA and GLV Connected via CAN and GPIO</p> <p>SCADA.3.2 - VSCADA Receiving Data from GLV Sensors</p> <p><b>Zian:</b> SCADA.8.7 - SCADA Testing Plan Delivered</p> <p>SCADA.7.1 - RTC Purchased and Acquired</p> <p>SCADA.7.2 - RTC Integrated with SCADA</p> <p><b>Yuqiu:</b> SCADA.2.1 - VSCADA Communicating with TSI over CAN</p>	none	<p><b>Zian:</b> SCADA.8.7 - SCADA Testing Plan Delivered</p>
TEST	none	<p><b>Hayden:</b> TEST.1.1 - Motor Testing Plan</p> <p>TEST.2.1 - GLV Testing Plan</p> <p>TEST.3.1 - TSI Testing Plan</p> <p>TEST.4.1 - TSV Testing Plan</p> <p>TEST.5.1 - SCADA Testing Plan</p> <p>TEST.6.1 -</p>	none	none

		<p>DYNO Integration Testing Plan</p> <p><b>Alex:</b> TEST.6.1 - DYNO Integration Testing Plan</p> <p><b>Katie:</b> TEST.6.1 - DYNO Integration Testing Plan</p>		
GLV	<p><b>Max:</b> GLV.3.1 - Dyno Safety Loop Block Diagram Complete and Submitted</p> <p>GLV.6.1 - Dashboard Panel Block Diagram Delivered</p> <p>GLV.6.2 - Dashboard Panel BoM Purchase Order Submitted and Purchased</p> <p><b>Robson:</b> GLV.2.1 - Left Side Panel Block Diagram Delivered</p> <p>GLV.2.5 - Right Side Panel Block Diagram Delivered</p> <p>GLV.6.1 - Dashboard Panel Block Diagram Delivered</p>	<p><b>Max:</b> GLV.1.4 - GLV BoB Acquired</p> <p>GLV.5.4 - Pi2CAN GPIO Board Acquired</p> <p><b>Robson:</b> GLV.2.3 - Left Side Panel Mechanical Drawing Submitted to Machine Shop</p> <p>GLV.2.4 - Left Side Panel Fabricated and Wired with Needed Buttons / Switches</p> <p>GLV.2.7 - Right Side Panel Mechanical Drawing Submitted to Machine Shop</p> <p>GLV.2.8 - Right Side Panel Fabricated and Wired with Needed Buttons / Switches</p> <p>GLV.6.3 - Dashboard Panel Drawing Submitted to Machine Shop</p> <p>GLV.6.4 - Dashboard Panel</p>	none	<p><b>Max:</b> GLV.1.4 - GLV BoB Acquired</p> <p>GLV.5.4 - Pi2CAN GPIO Board Acquired</p> <p><b>Robson:</b> GLV.3.1 - Dyno Safety Loop Block Diagram Complete and Submitted</p> <p>GLV.3.2 - Dyno Power Supply Safety Loop On/Off Mechanism Delivered</p> <p>GLV.3.3 - Left Side Panel Connected to GLV In Dyno Room</p> <p>GLV.3.4 - Right Side Panel Connected to GLV In Dyno Room</p> <p>GLV.3.5 - Dyno Power Supply Connected to GLV Safety Loop</p>

		<p>Fabricated and Wired with Needed Buttons / Switches</p> <p>GLV.2.9 - Left Side Panel Installed in Dyno Room</p> <p>GLV.2.10 - Right Side Panel Installed in Dyno Room</p> <p>GLV.6.5 - Dashboard Panel Installed in Dyno Room</p>		
TSI	<p><b>Yuqiu:</b> TSI.2.8 - VSCADA CANBus Communication Complete</p> <p><b>Xiaonan</b> TSI.1.2 - TSI Circuit Schematic Delivered and Approved</p>	<p><b>Tianyu:</b> TSI.1.2 - Circuit Schematic Delivered and Approved</p> <p>TSI.1.4 - TSI PCB BoM Purchase Order Approved and Purchased</p> <p>TSI.1.8 - Precharge Circuitry Incorporated</p> <p><b>Antonio:</b> TSI.5.8 - TSI ICD Delivered</p> <p>TSI.5.9 - TSI Wiring Diagram Delivered</p> <p><b>Hongbo:</b> TSI.2.4 - UART for firmware completed</p> <p>TSI.2.6 - TSI Firmware state machine completed</p>	none	<p><b>Tianyu:</b> TSI.1.2 - Circuit Schematic Delivered and Approved</p> <p>TSI.1.3 - TSI PCB Layout Complete and Approved</p> <p>TSI.1.4 - TSI PCB BoM Purchase Order Approved and Purchased</p> <p>TSI.1.8 - Precharge Circuitry Incorporated</p> <p>TSI.6.1 - Mechanical Drawing of TSi Enclosure Delivered and Approved</p> <p><b>Katie:</b> TSI.1.3 - TSI PCB Layout Delivered and Approved</p>

		<p><b>Yuqiu:</b> TSI.2.5 - Firmware Logic / State Machine Delivered and Approved</p> <p>TSI.2.9 - VSCADA I2C Communication Complete</p> <p>TSI.2.11 - CANBus / TSI Integration Complete</p> <p><b>Xiaonan:</b> TSI.1.3 - TSI Circuit Layout Delivered and Approved</p> <p><b>Katie:</b> TSI.1.3 - TSI PCB Layout Delivered and Approved</p>		<p><b>Yuqiu:</b> TSI.2.5 - Firmware Logic / State Machine Delivered and Approved</p> <p>TSI.2.9 - VSCADA I2C Communication Complete</p>
TSV	none	<p><b>Hayden:</b> TSV.1.2 - Pack Mechanical Drawing Submitted and Accepted</p> <p>TSV.3.1 - PackMan Block Diagram Delivered and Approved</p> <p><b>Yishak:</b> TSV.1.1 - Pack High Level Electrical Block Diagram Delivered and Accepted</p> <p>TSV.1.3 - Pack BoM Purchase Order Approved and Purchased</p> <p>TSV.2.1 - CellMan Block</p>	none	<p><b>Alex:</b> TSV.4.1 - PackMan Block Diagram Delivered</p> <p><b>Hayden:</b> TSV.4.1 - PackMan Block Diagram Delivered and Approved</p> <p>TSV.4.2 - PackMan Circuit Schematic Submitted and Accepted</p> <p><b>Yishak:</b> TSV.1.1 - Pack High Level Electrical Block Diagram Delivered and Accepted</p> <p>TSV.1.3 - Pack BoM Purchase</p>

		<p>Diagram Delivered and Approved</p> <p>TSV.2.4 - CellMen BoM Purchase Order Approved and Purchased</p> <p>TSV.4.1 - SegMan Block Diagram Delivered and Approved</p> <p><b>Weston:</b> TSV.1.2 - Pack BoM Purchase Order Approved and Purchased</p> <p>TSV.5.1 - Pseudo Code for State of Charge Algorithm Delivered</p> <p><b>Alex:</b> TSV.3.1 - PackMan Block Diagram Delivered</p>		<p>Order Approved and Purchased</p> <p>TSV.2.1 - CellMan Block Diagram Delivered and Approved</p> <p>TSV.2.4 - CellMen BoM Purchase Order Approved and Purchased</p> <p>TSV.4.1 - SegMan Block Diagram Delivered and Approved</p>
Cooling	none	none	none	none
Interconnect	<p><b>Drew:</b> WIRE.1.1 - Dyno Room Wiring Diagram Complete</p>	<p><b>Drew:</b> WIRE.2.1 - Full Wiring BoM Submitted and Approved</p> <p>WIRE.2.2 - Full Wiring BoM Purchase Order Submitted and Approved</p> <p>WIRE.2.3 - TSI-MCS Wires Complete</p> <p>WIRE.2.4 - TSI-Cooling Wires Complete</p>	none	<p><b>Drew:</b> WIRE.2.3 - TSI-MCS Wires Complete</p> <p>WIRE.2.4 - TSI-Cooling Wires Complete</p>

Mech	<p><b>Adam:</b> Finalized Steering System Design</p> <p><b>Nick:</b> PART.5.2 - Motor Acquired</p> <p><b>Brian:</b> Finalized Battery Pack Outer Box Design</p>	<p><b>Adam:</b> Redo SES for correct competition</p> <p><b>Brian:</b> Purchase Order for Outer Battery Box</p> <p>Part Drawings for Outer Battery Box</p> <p>Design Cell Container</p>	none	none
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**Purchasing Summary from Previous Week:**

Sub-system	Allocated Budget	Total Spent	Budget Remaining	Percentage Spent
Brakes	3,500.00	0.00	3,500.00	0.00%
Chassis/Body	5,000.00	0.00	5,000.00	0.00%
Cooling	620.00	0.00	620.00	0.00%
GLV	780.00	793.99	-13.99	101.79%
Interconnect	1,500.00	432.53	1,067.47	28.84%
Motor	4,000.00	3,678.65	321.35	91.97%
Pedal/Controls	2,000.00	0.00	2,000.00	0.00%
Steering	2,500.00	0.00	2,500.00	0.00%
Suspension	2,200.00	0.00	2,200.00	0.00%
TSI/MCS	1,500.00	3,055.04	-1,555.04	203.67%
TSV	4,187.00	693.88	3,493.12	16.57%
VSCADA / DYNO	525.00	0.00	525.00	0.00%
Shipping/Tax	4,246.80	322.25	3,924.55	7.59%
Registration	2,300.00	2,300.00	0.00	100.00%
Overall	34,858.80	11,276.34	23,582.46	32.35%



**Purchase Orders:**

[N/A]