

Project Status Letter

PSL Number: [PSL\_01]

Covering period: 02/06-02/10

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**Task summary from previous week/Proposed Changes:**

In addition to creating and presenting a preliminary design review complaint with D000:PDR, the following teams have completed the following tasks. Teams spent some time acclimating themselves with the existing functionality (if any) to determine what needs to be re-designed/re-fabricated, or the next steps to implementation. These tasks are all incorporated in the WBS.

<b>TEAM</b>	<b>TASKS COMPLETED</b>	<b>PROPOSED CHANGES</b>
VSCADA	<ul style="list-style-type: none"><li>-Configured server</li><li>-created web API with proper interfaces</li><li>-created a framework for databases</li><li>-created a database handler</li></ul>	
Cell App	<ul style="list-style-type: none"><li>-UML diagrams for application</li><li>-Both line and graph chart examples implemented</li></ul>	<ul style="list-style-type: none"><li>-design proposal (outcome 1) to have been completed 02/10, main focus this week</li></ul>
DYNO	<ul style="list-style-type: none"><li>-demonstrated basic motor operation</li></ul>	<ul style="list-style-type: none"><li>-no need to document existing functionality</li></ul>
TSV	<ul style="list-style-type: none"><li>-programmed PacMAN SN: 04</li><li>PacMAN SN: 05</li><li>-finished charging all cells in pack 2</li><li>-approved, received, and painted L-bars from machine shop</li></ul>	<ul style="list-style-type: none"><li>-documentation of PacMAN boards</li><li>-test plan of PacMAN</li><li>-test plan of AMS</li><li>-assembly of packs without AMS/PacMAN boards</li><li>-assembly of packs with AMS/PacMAN boards</li></ul>
TSI	<ul style="list-style-type: none"><li>-updated block diagram to submit</li><li>-submitted purchase requests to MGMT</li></ul>	<ul style="list-style-type: none"><li>-remove OFF/AUTO switches</li><li>-generate PWM signals from IMD by 02/14</li></ul>
COOLING	<ul style="list-style-type: none"><li>-submitted purchase order requests to MGMT</li><li>-delivered block diagram of overall system</li><li>-made a schematic of mounting fixtures</li></ul>	<ul style="list-style-type: none"><li>-purchase ESC to control pump</li><li>-test ESC (electronic speed control) to control pump</li><li>-no need to document existing functionality</li></ul>
Systems Engineering	<ul style="list-style-type: none"><li>-ESF forms delegated and assigned</li><li>-software maintainability plan template created</li></ul>	<ul style="list-style-type: none"><li>-JGB "initiative" cancelled</li><li>-spearheading ESF forms</li></ul>

GLV	<ul style="list-style-type: none"> <li>-submitted a design panel for fabrication to the machine shop</li> <li>-created full system diagram for GLV system</li> <li>-submitted purchase order request to MGMT for GLV battery, charger, and box</li> <li>-battery test plan and preliminary documentation submitted</li> <li>-ESF forms</li> </ul>	<ul style="list-style-type: none"> <li>-potential BoB discrepancies due to potential redesign</li> <li>-potential BoB refab</li> <li>-still in the build/test phase of basic safety loop</li> <li>-testing battery to be pushed back until it comes in</li> <li>-duration of designing housing/SoC should take longer</li> </ul>
Interconnect	-submitted purchase order requests for TSV team to MGMT	-complete TSV cabling first
Communications	-photographed engineers	
Car Physics Investigation	<ul style="list-style-type: none"> <li>-dynamic modeling high level diagram</li> <li>-static modeling high level diagram</li> <li>-motor/MC TSV interface high level diagram</li> <li>-elementary high level diagram of integrated car</li> </ul>	
MGMT	<ul style="list-style-type: none"> <li>-compiled PDR</li> <li>-Budget submitted and approved</li> <li>-weekly website updates</li> </ul>	-WBS

**Plan for next week:**

<b>TEAM</b>	<b>TASKS TO BE COMPLETED</b>
VSCADA	<ul style="list-style-type: none"><li>-create layouts for different views</li><li>-start working on demonstrating the CANBus</li></ul>
Cell App	<ul style="list-style-type: none"><li>-preliminary app design and testing</li><li>-submit design proposal</li><li>-SQLite database connection</li><li>-DB handler implementation</li></ul>
DYNO	<ul style="list-style-type: none"><li>-rework existing VSCADA test controls</li><li>-parameterize velocity sensor</li><li>-test DYNO with different resistance/solenoid values</li></ul>
TSV	<ul style="list-style-type: none"><li>-assemble and debug PacMAN05</li><li>-install bars in all packs</li><li>-determine wiring</li><li>-ESF form</li><li>-submitting debugging plan</li><li>-test plan for AMS software</li></ul>
TSI	<ul style="list-style-type: none"><li>-finish ESF forms</li><li>-submit PCB layout approved for galvanic isolation</li><li>-simulation of throttle and plausibility circuit</li><li>-integration of throttle/plausibility circuit into PCB schematic</li><li>-create schematic for digital design for reading PWM</li><li>-place purchase order for TSMP hardware</li><li>-place purchase order for microcontroller for TSI unit</li></ul>
COOLING	<ul style="list-style-type: none"><li>-assemble purchased parts to test fan speed</li><li>-build a controller algorithm</li><li>-build a pump algorithm</li><li>-build structure of cooling materials</li><li>-order hardware to interface with CANBus</li></ul>
Systems Engineering	<ul style="list-style-type: none"><li>-print system block diagram</li><li>-compile ESF paperwork</li><li>-create ATP draft</li><li>-identify replacement cables for TSV</li><li>-order CAN bus interfaces</li><li>-create/hash out CAN bus protocol</li></ul>
GLV	<ul style="list-style-type: none"><li>-integrate/test basic safety loop</li><li>-finalize full system design</li><li>-redesign GLV power BoB</li><li>-assemble basic safety loop</li><li>-re-design changes made to panels and submit for approval</li><li>-coordinate with IC team for connectors</li><li>-test GLV power supply</li></ul>
Interconnect	<ul style="list-style-type: none"><li>-submit purchase order for TSV</li><li>-assemble cables for TSV</li><li>-create a more functional labeling system</li></ul>

	- build a DB9to bare twisted CANBus cable
Communications	-meet with admissions/director of comm. -contact local newspaper -acquire camera for semester -continue gathering footage/photographs -meet with Prof. Hummel to discuss KEEN -create outline for “story of video”
Car Physics Investigation	-mathematical equation for dynamic model -mathematical equation for static model -mathematical equation for motor/MC IO -mathematical equations for cascade relations of certain parameters
MGMT	-Purchase order 1: approved, ordered, received, recorded -preliminary purchasing report -preliminary BoM template/Organization system -deliver PSL_1 -deliver WBS_v0.1 -updated/reorder task list

**Cost Summary:**

<b>Subsystem</b>	<b>Spent this period</b>	<b>Spent to date</b>	<b>Budget Allocated</b>	<b>Budget Remaining</b>
TSI	0	0	\$1,000	\$1,000
GLV (responsible for SCADA hardware)	0	0	\$1,000	\$1,000
VSCADA	0	0	\$50	\$50
Cell App	0	0	\$125	\$125
Controller Cooling System	0	0	\$600	\$600
Interconnect / Cabling / ICD	0	0	\$1,000	\$1,000
Dyno	0	0	\$50	\$50
TSV	0	0	\$500	\$500
Physics & Cruise Control	0	0	\$0	\$0
Shipping / Tax / Misc & Safety	0	0	\$1,175	\$1,175
<b>Total</b>	<b>0</b>	<b>0</b>	<b>\$5,500</b>	<b>\$5,500</b>

**Receiving Report:**

N/A

**Purchase Requests:**

N/A