

Project Status Letter

PSL Number 13-ALL-GG

Covering period from 4/16/16 to 4/22/16

Prepared by: ECE 492 Design Team

Tasks that have been completed in the previous week:

TSV - Charging algorithm developed (report forthcoming), new iteration of PackMan built, acrylic ordered for side panels

GLV - parts ordered for all GLV systems, IMD ground fault test successful, panels revised in Inventor

VSCADA - wrote scripts for installation and deployment of VSCADA system, created virtual subsystem and UI page for logviewer, created subsystem for monitoring Raspberry Pi statistics, prototyped subsystem and UI page for drive system manager, wrote initial time divided log parser

MCM - efficiency and cooling experiment protocol written, final dynamic characterization data collected for acceleration, data collected for constant power curve, efficiency/cooling experiment data collected, memos written for torque/RPM calibration

Tasks ongoing

GLV - TSI/LV construction and cabling, setting up JGB to interface with TSI (and DAQ), cabling for panels

VSCADA - designing system to log all data, system able to send CAN messages from website, Data received from CANbus can be graphed, Dashboard UI fully implemented, developing subsystems for calibrated values

TSV - writing software for PackMan board, state of charge algorithm report, pack internal cabling being created, integrating pack

MCM - characterization data analysis, writing dynamic characterization report, writing efficiency/cooling report

Tasks due to be complete next week.

TSV - integrated pack to be delivered, state of charge report delivered

GLV - TSI fully integrated, full GLV system wired/integrated

MCM - dynamic characterization report, efficiency/cooling report

VSCADA - designing system to log all data, system able to send CAN messages from website, Dashboard UI fully implemented

Overdue tasks

VSCADA - System logs all received data, System able to send CAN messages from website, Data received from CANbus can be graphed, Dashboard UI fully implemented

TSV - state of charge report (algorithm chose, report forthcoming)

MCM - dynamic characterization analysis report completed, efficiency/cooling analysis report written

GLV - wiring and integration for all panels and GLV systems, JGB software delivered

Cost Summary

Budget Category	New This Period	Total Spent to Date	Budget Remaining	Total Budget
TSV	\$41.70	\$832.76	\$17.24	\$850
GLV	\$264.22	\$850.49	\$49.51	\$900
VSCADA	\$1.34	\$280.17	\$119.83	\$400
Cabling	\$183.41	\$284.78	\$15.22	\$300
MCM (Motor Char. + Model)	\$0	\$0	\$250	\$250
Shipping	\$127.98	\$297.74	\$2.26	\$300
Totals	\$490.67	\$2,538.26	\$461.74	\$3000

Receiving Reports

- Digi-Key (7 items) (Appendix I)
- Amazon (3 items) (Appendix II)

Purchase Requests

- Newark (6 items) (Appendix III)
- Digi-Key (26 items) (Appendix IV)
- McMaster-Carr (9 items) (Appendix V)

Appendix I:

ECE Department Material Request						
Course: ECE 492				Req Number:	018	
Professor: Nadovich/Yu						
Requested By: Joseph Cericola				Vendor:	Digi-Key	
Requested Date: 13-Apr-16				Web Site	www.digik ey.com	
Ship By: Ground				Phone	1-800-344-4539	
#	Quantity	Vendor Part	Description	Unit Price	Total Price	Rcvd
1	4	A30258-ND	TE Connectivity AMP 2-Pos Micro MATE-N-LOK Connector Receptacle	\$0.3100	\$1.24	19-Apr-16
2	2	A30264-ND	TE Connectivity AMP 8-Pos Micro MATE-N-LOK Connector Receptacle	\$0.6500	\$1.30	19-Apr-16
3	25	A107960CT-ND	TE Connectivity AMP Micro MATE-N-LOK 18-22AWG Socket	\$0.1964	\$4.91	19-Apr-16

Appendix II:

		ECE Department Material Request				
	Course: ECE 492			Req Number:	019	
	Professor: Nadovich/Yu					
	Requested By: Joseph Cericola			Vendor: Amazon		
	Requested Date: 14-Apr-16			Web Site www.amazon.com		
	Ship By: Ground			Phone 1-734-414-0900		
#	Quantity	Vendor Part	Description	Unit Price	Total Price	Rcvd
1	4	B00B5HS7TI	YCS Basics Black 6 Inch USB 2.0 High Speed Printer / Scanner Right Angle Cable	\$5.29	\$21.16	
2	1	B00S2KC1ZC	Meind 24v 20a 480w Switching Power Supply for Led Strip Light Input Ac100v-240v Dc 24v Output	\$44.99	\$44.99	18-Apr-16
3	1	B013PKYAV6	bayite DC 6.5-100V 0-20A LCD Display	\$16.98	\$16.98	18-Apr-16

Appendix III:

#	Quantity	Vendor Part	Description	Unit Price	Total Price	Rcvd
1	1	08J0991	Omron 10A 24V G2RS DPDT Relay	\$17.27	\$17.27	
2	6	67K9453	Omron Relay Socket	\$3.80	\$22.80	
3	1	35K4862	Omron Din Rail Relay Socket	\$9.53	\$9.53	
4	1	08J0944	Omron 10A	\$10.50	\$10.50	

Course: ECE 492		Req Number:	020
Professor: Nadovich/Yu			

Requested By: Joseph Cericola on behalf of Timothy Andrews	Vendor: Newark
Requested Date: 21-Apr-16	Web Site: www.newark.com
Ship By: Ground	Phone: 1 800 463 9275

Appendix IV:

#	Quantity	Vendor Part	Description	Unit Price	Total Price	Rcvd
ECE Department Material Request						
Course: ECE 492			Req Number : 021			
Professor: Nadovich/Yu						
Requested By: Joseph Cericola on behalf of Timothy Andrews			Vendor: Digi-Key			
Requested Date: 21-Apr-16			Web Site www.digikey.com			
Ship By: Ground			Phone 1-800-344-4539			
1	4	WM2803-ND	Molex 5-Pos Connector Housing	\$0.4700	\$1.88	
2	10	296-29034-1-ND	Texas Instruments Current Monitor	\$3.0870	\$30.87	
3	2	Q503-ND	Qualtek Panel Mount Circuit	\$2.2300	\$4.46	

			Breake r			
4	50	P10.0KFCT-ND	Panasonic 10KOhm 1% Chip Resistor 1206	\$0.0282	\$1.41	
5	4	P120FCT-ND	Panasonic 120Ohm 1% Chip Resistor 1206	\$0.1000	\$0.40	
6	50	P2.00KHCT-ND	Panasonic 2KOhm 1% Chip Resistor 0603	\$0.0114	\$0.57	
7	50	P3.00KHCT-ND	Panasonic 3KOhm 1% Chip Resistor 0603	\$0.0114	\$0.57	
8	10	490-7202-1-ND	Murata 10uF 25V Ceramic Cap 0603	\$0.3150	\$3.15	
9	10	490-12737-1-ND	Murata 22uF 25V Ceramic Cap 0603	\$0.3150	\$3.15	
10	25	311-1343-1-ND	Yageo 0.1uF 50V Ceramic Cap 0603	\$0.0128	\$0.32	

1 1	10	311-1186-1-ND	Yageo 330pF 50V Cerami c Cap 0603	\$0.0480	\$0.48	
1 2	6	445-2304-1-ND	TDK 1uF 250V Cerami c Cap 2220	\$1.2500	\$7.50	
1 3	2	WM3789CT-ND	Molex 6-Pos Vertica l Surface Mount RJ12 Recept acle	\$1.1600	\$2.32	
1 4	1	1470-3083-5-ND	XP Power DC/DC Conver ter 12V 665mA	\$39.000 0	\$39.00	
1 5	2	AZ1117CH-5.0TRG1DICT-ND	Diodes Incorp orated Linear Volutag e Regula tor 5V 0.8A	\$0.3800	\$0.76	
1 6	2	MCP6001T-I/OTCT-ND	Microc hip Techno logy Low-Po wer Op Amp SOT-23 -5	\$0.2400	\$0.48	
1 7	3	TLP2361(TPLECT-ND	Toshib a 3.75KV	\$1.1000	\$3.30	

			Optoisolator			
18	3	296-38822-5-ND	Texas Instruments Isolation Amplifier	\$5.7200	\$17.16	
19	3	516-2578-5-ND	Broadcom Optically Isolated Voltage Sensor	\$5.6700	\$17.01	
20	4	A111927-ND	TE Connectivity 10-Pos Connector Receptacle, Panel Mount	\$0.2700	\$1.08	
21	4	A30594-ND	TE Connectivity 10-Pos Connector Plug, Free Hanging	\$0.2700	\$1.08	
22	5	CWI502-ND	CW Panel Mount LED Green 14V	\$3.3000	\$16.50	
23	3	CWI496-ND	CW Panel Mount LED	\$3.3000	\$9.90	

Appendix V:

#	Quantity	Vendor Part	Description	Unit Price	Total Price	Rcvd
ECE Department Material Request						
Course: ECE 492			Req Number : 022			
Professor: Nadovich/Yu						
Requested By: Joseph Cericola on behalf of Timothy Andrews			Vendor: McMaster-Carr			
Requested Date: 22-Apr-16			Web Site: www.mcmaster.com			
Ship By: Ground			Phone: (609) 259-8900			
1	1	7113K32	Ring Terminal 12-10A WG 3/8" (pack of 25)	\$7.26	\$7.26	
2	1	69145K66	Spade Terminal 22-18A WG #6 (pack of 100)	\$13.67	\$13.67	

3	1	7060K26	Insulated Barrel Quick Connector 22-18AWG Male (pack of 100)	\$11.96	\$11.96	
4	1	7480T11	Emergency Stop Switch with Panel Cutout	\$28.71	\$28.71	
5	1	89015K48	6061 Aluminum Sheet 24"x24"x1/8"	\$79.97	\$79.97	
6	1	8082K14	Continuous-Flex Unshielded Cable, 12 Wires, 20AWG (30')	\$57.60	\$57.60	
7	1	7343K184	Toggle Switch 1/4" Quick Connector SPST	\$6.53	\$6.53	
8	1	8560K261	Acrylic Sheet 24"x36"x1/8" Clear	\$33.24	\$33.24	
9	2	85635K451	Acrylic Sheet 12"x24"x1/8" Semi-C	\$14.37	\$28.74	

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1 0						\$0.00
					Shippin g Fees	
					Grand Total:	\$267.68