

Project Status Letter

PSL Number 07-ALL-GG

Covering period from 3/5/16 to 3/11/16

Prepared by: ECE 492 Design Team

Tasks that have been completed in the previous week:

TSV - PackMan layout complete and board ordered, parts for PackMan ordered

VSCADA - Implemented CANbus abstraction on the dev machines, basic read only interface for maintenance, can read and send real traffic from motor controller

GLV - Purchased remaining parts required to build TSI and safety loop

MCM - Calibration analysis for torque data

Tasks ongoing

Team - Revising ATP final draft for submission (until acceptable, by CDR), generating materials for CDR report and presentation

GLV - full GLV system design and individual system designs, KiCAD drawings, bill of materials

VSCADA - Add in write functionality to web interface, developing dashboard UI

TSV - Designing control panel PCB, creating wiring diagram for accumulator, drafting software outline

MCM - Compiling analysis report for static characterization, DAQ calibration ongoing

Tasks due to be complete next week.

Team - Acceptable ATP final draft to be submitted prior to CDR, CDR report and presentation created by CDR

TSV - Designed control panel PCB, wiring diagram for accumulator completed, software outline drafted

VSCADA - Graphing spoofed CANBus, adding logging to subsystem models, Coms demo working

GLV - full GLV system design and individual system designs, JGBs transmitting CAN for coms demo

MCM - Calibration of torque and other sensors in DAQ using windyno-800 software, analysis results completed for static characterization

Overdue tasks

Team - ATP accepted, (still generating test diagrams, will submit acceptable draft by CDR)

VSCADA - Graphing spoofed CANBus (graphing not yet implemented), adding logging to subsystem models (possibly working, not yet tested)

MCM - Calibration of torque and other sensors in DAQ using windyno-800 software, analysis results completed for static characterization

Cost Summary

Budget Category	New This Period	Total Spent to Date	Budget Remaining	Total Budget
TSV	\$162.60	\$162.60	\$687.80	\$850
GLV	\$99.18	\$217.05	\$682.95	\$900
VSCADA	\$0	\$233.50	\$166.50	\$400
Cabling	\$0	\$0	\$300	\$300
MCM (Motor Char. + Model)	\$0	\$0	\$250	\$250
Shipping	\$0	\$36.32	\$263.68	\$300
Totals	\$262.08	\$649.07	\$2,350.93	\$3000

Receiving Reports

N/A

Purchase Requests

- Components for packs (54 items) (Appendix I)
- Mallory Sonalert 2.9 KHz buzzer (Appendix I)
- Lumex Panel Mount LED Green (Appendix I)
- Switchcraft Panel Mount HDMI Receptacle (Appendix I)
- Conec Panel Mount USB Receptacle (Appendix I)
- Conec Panel Mount RJ45 Coupler (Appendix I)
- Switchcraft RJ45 Connector Dust Cap (Appendix I)
- TE Connectivity Female Crimp Quick Connect (Appendix I)

Appendix I :

ECE Department Material Request							
	Course:	ECE 492			Req Number:	006	
	Professor:	Nadovich/Yu					
	Requested By:	Joseph Cericola			Vendor:	Digi-Key	
	Requested Date:	9-Mar-16			Web Site	www.digikey.com	
	Ship By:	Ground			Phone	1-800-344-4539	
#	Quantity	Vendor Part	Description	Customer Reference	Unit Price	Total Price	Rcvd
1	50	P0.0GCT-ND	Panasonic 0.00Ohm Chip Resistor 0603	R30, R31	\$0.01260	\$0.63	
2	50	P120CCT-ND	Panasonic 120Ohm 1% Chip Resistor 0805	R25	\$0.02200	\$1.10	
3	100	P10.0KHCT-ND	Panasonic 10KOhm 1% Chip Resistor 0603	R1, R2, R5, R9, R10, R16, R34, R37, R38	\$0.00840	\$0.84	
4	50	P10.0KCCT-ND	Panasonic 10KOhm 1% Chip Resistor 0805	R18, R19, R20	\$0.02200	\$1.10	
5	50	P113KHCT-ND	Panasonic 113KOhm 1% Chip Resistor 0603	R15	\$0.01140	\$0.57	
6	50	P115KHCT-ND	Panasonic 115KOhm 1% Chip Resistor 0603	R17	\$0.01140	\$0.57	
7	50	P300KHCT-ND	Panasonic 300KOhm 1% Chip Resistor 0603	R14	\$0.01140	\$0.57	
8	10	CSNL1206FT1L00CT-ND	Stackpole 0.0010Ohm 1% Chip Resistor 1206	R3	\$0.53900	\$5.39	
9	10	RMCF0603FT10MOCT-ND	Stackpole 10MOhm 1%	R32	\$0.01900	\$0.19	

			Chip Resistor 0603				
10	50	490-12530-1-ND	Murata 10pF 50V Ceramic Cap 0603	C1, C4	\$0.04380	\$2.19	
11	10	490-1616-1-ND	Murata 220pF 50V Ceramic Cap 0805	C14	\$0.11000	\$1.10	
12	10	490-12330-1-ND	Murata 1uF 50V Ceramic Cap 0603	C12	\$0.16300	\$1.63	
13	10	490-1891-1-ND	Murata 10uF 50V Ceramic Cap 1210	C9, C11, C15	\$0.58000	\$5.80	
14	10	493-6214-1-ND	Nichicon 220uF 20% 16V Aluminum Cap	C16	\$0.29300	\$2.93	
15	10	493-9379-1-ND	Nichicon 220uF 20% 50V Aluminum Cap	C10	\$0.75700	\$7.57	
16	10	445-173047-1-ND	TDK 220uH Fixed Inductor	L1	\$0.46000	\$4.60	
17	50	SK310A-LTPMS CT-ND	Micro Commercial 100V 3A Schottky Diode	D5, D6, D8, D9, D15, D18, D19, D21	\$0.32880	\$16.44	
18	10	PTZTE2533BCT -ND	Rohm 35V 1W Zener Diode	D7	\$0.38500	\$3.85	
19	10	568-6370-1-ND	NXP 5.1V 500MW Zener Diode	D20	\$0.16600	\$1.66	
20	10	732-4980-1-ND	Würth LED Green 0603	D1	\$0.24000	\$2.40	
21	25	RRR015P03TLC T-ND	Rohm P-Fet 30V 1.5A SC-96	Q1, Q2, Q3, Q4	\$0.37200	\$9.30	
22	6	1297-1132-1-ND	Würth Flyback Transformer LT8302	T1	\$4.55000	\$27.30	
23	25	507-1077-1-ND	Bel Fuse 1A Board Mount Fuse 1206	F1	\$0.26800	\$6.70	
24	6	Z3697-ND	Omron 10A 3V Relay	RLY1	\$1.43000	\$8.58	
25	6	PB1014-ND	TE Connectivity 30A 5V Relay	RLY2	\$4.22000	\$25.32	
26	10	887-1741-1-ND	TXC 10MHz Surface Mount Crystal	X1	\$0.60500	\$6.05	
27	6	CKN9363CT-ND	C&K 0.1A 42V Pushbutton Switch	SW1	\$2.43000	\$14.58	
28	6	ED2983-ND	On Shore Technology	J1	\$0.58000	\$3.48	

			4-Pos USB Receptacle				
29	5	5237FE-ND	Norcomp 37-Pos D-Sub Receptacle	J2	\$4.08000	\$20.40	
30	6	WM3789CT-ND	Molex 6-Pos Vertical Surface Mount RJ12 Receptacle	J3	\$1.16000	\$6.96	
31	5	A113982-ND	TE Connectivity 4-Pos Blade Socket Receptacle	P1	\$8.66000	\$43.30	
32	5	WM1340-ND	Molex 2-Pos Connector Header	P2	\$2.61000	\$13.05	
33	5	WM1344-ND	Molex 6-Pos Connector Header	P3	\$4.20000	\$21.00	
34	3	3M11931-ND	Sullins 16-Pos Connector Header	P4	\$0.55000	\$1.65	
35	10	609-4054-ND	Amphenol 10-Pos Connector Header	P5	\$0.96800	\$9.68	
36	3	AT90CAN128-16AURCT-ND	Atmel 128KB Microcontroller	U1	\$10.40000	\$31.20	
37	5	ADM6320CY29ARJZ-R7CT-ND	Analog Devices External Watchdog	U2	\$1.44000	\$7.20	
38	5	568-1074-1-ND	NXP I2C I/O Expander	U3	\$1.22000	\$6.10	
39	6	296-29034-1-ND	Texas Instruments Current Monitor	U4	\$3.44000	\$20.64	
40	5	296-38849-1-ND	Texas Instruments 16-Bit ADC	U5	\$5.65000	\$28.25	
41	5	LTC3638EMSE#PBF-ND	Linear Technology Buck Converter	U6	\$7.79000	\$38.95	
42	6	336-2048-5-ND	Silicon Labs 3.75KV Digital Isolator	U8	\$3.33000	\$19.98	
43	2	NCP1117ST33T3GOSCT-ND	ON 3.3V Voltage Regulator	U9	\$0.46000	\$0.92	
44	6	296-13493-1-ND	Texas Instruments Inverter	U10	\$0.54000	\$3.24	
45	6	MCP2551-I/SN-	Microchip	U11	\$1.02000	\$6.12	

		ND	Technology Can Transceiver				
46	5	768-1007-1-ND	FTDI USB/UART Serial Interface	U12	\$4.50000	\$22.50	
47	6	TLP2361(V4-TPLECT-ND	Toshiba 3.75KV Optoisolator	U13	\$1.14000	\$6.84	
48	5	603-1284-ND	Delta 5VDC 200mA Fan		\$12.08000	\$60.40	
49	10	F5984-ND	Littlefuse 30A In-Line Blade Fuseholder		\$4.45500	\$44.55	
50	25	F4195-ND	Littlefuse 25A Blade Fuse		\$0.24000	\$6.00	
51	6	556879-4-ND	TE Connectivity 4-Pos Blade Plug		\$4.83000	\$28.98	
52	25	A104027CT-ND	TE Connectivity Blade Pin		\$0.63200	\$15.80	
53	10	609-4055-ND	Amphenol 10-Pos Connector Receptacle		\$2.38800	\$23.88	
54	6	237ME-ND	Norcomp 37-Pos D-Sub Connector Header		\$2.30000	\$13.80	
55	1	458-1150-ND	Mallory Sonalert 2.9KHz Buzzer		\$16.66000	\$16.66	
56	2	67-1184-ND	Lumex Panel Mount LED Green		\$1.32000	\$2.64	
57	1	SC2106-ND	Switchcraft Panel Mount HDMI Receptacle		\$19.74000	\$19.74	
58	2	626-1355-ND	Conec Panel Mount USB Receptacle		\$13.16000	\$26.32	
59	1	626-1461-ND	Conec Panel Mount RJ45 Coupler		\$15.77000	\$15.77	
60	1	SC2102-ND	Switchcraft RJ45 Connector Dust Cap		\$2.05000	\$2.05	
61	100	A27828-ND	TE Connectivity Female Crimp Quick Connect		\$0.16000	\$16.00	
62						\$0.00	

					Shipping Fees	\$0.00	
					Grand Total:	\$763.01	
		Instructor Approval:					
		Department Approval:					
		(Over \$500)					