
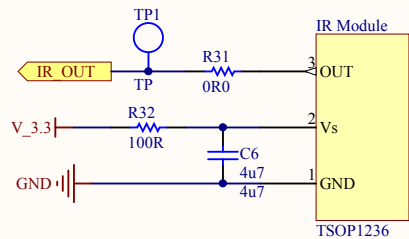

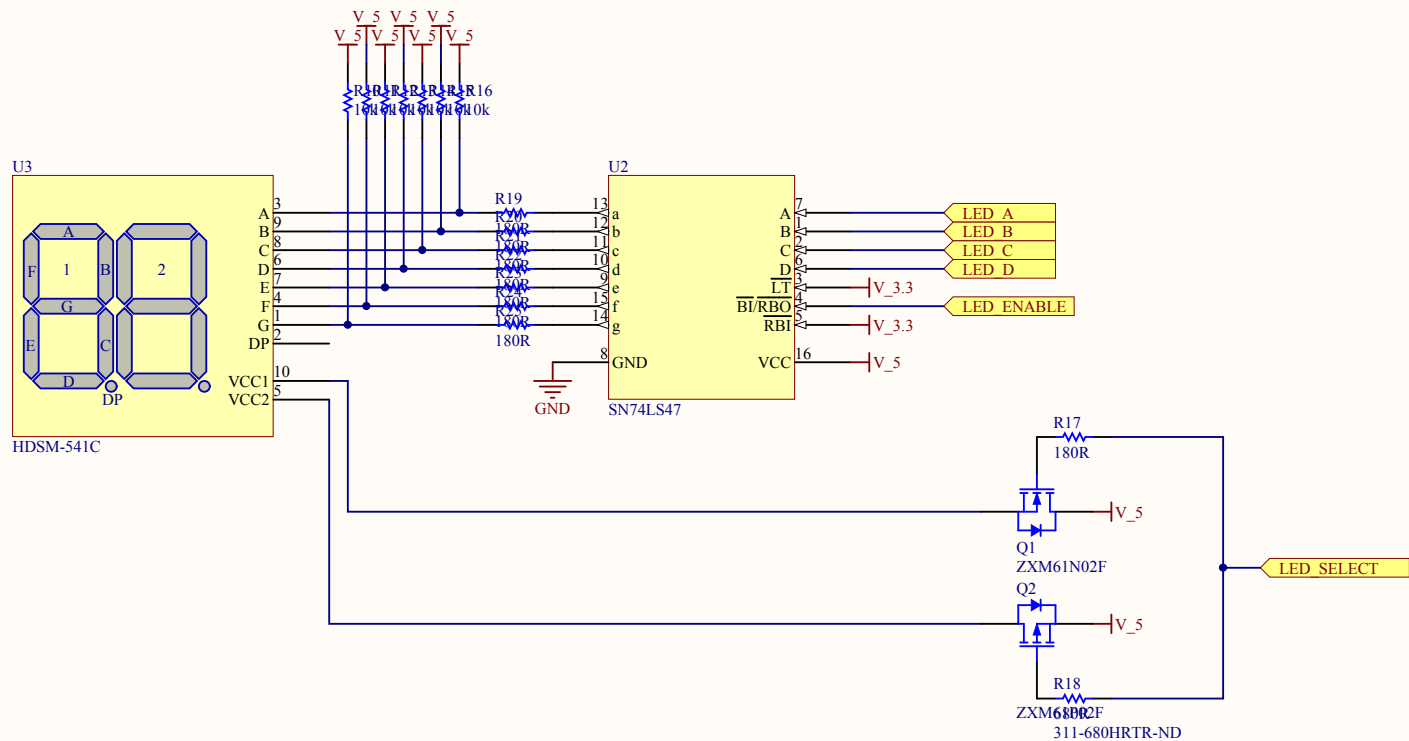


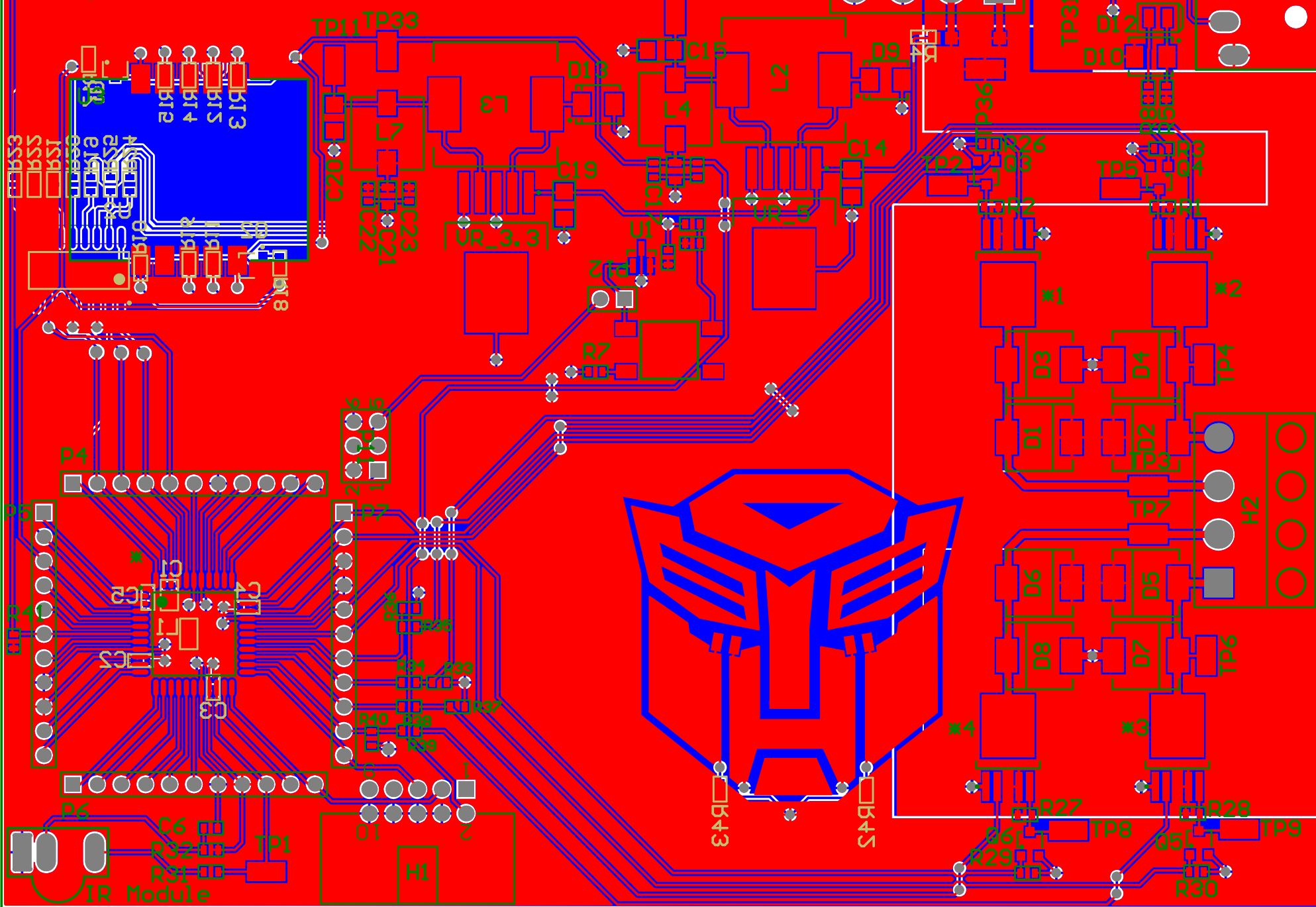
Title Motor Driver		ENEL429 Group 9 ECE Department University of Canterbury Christchurch 8041 New Zealand	 UNIVERSITY OF CANTERBURY Te Whare Wānanga o Waitaha CHRISTCHURCH, NEW ZEALAND
Drawn by wgl18	Revision: 1		
Date: 16/05/2011	Time: 11:32:35 p.m.	Sheet 4 of 5	
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Title <i>IR Module</i>		ENEL429 Group 9 ECE Department University of Canterbury Christchurch 8041 New Zealand	 UNIVERSITY OF CANTERBURY Te Whare Wānanga o Waitaha CHRISTCHURCH, NEW ZEALAND
Drawn by djb216	Revision: 2		
Date: 16/05/2011	Time: 11:32:35 p.m.	Sheet 5 of 5	
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Group 9 Motor Board



Comment	Description	Designator	Manufacturer	Manufacturer PN	Quantity	Supplier 1	Supplier Part Number 1
ATXMEGA16A4-AU			ATMEL	ATXMEGA16A4-AU	1	Element 14	1748552
FDD8424H		*1, *2, *3, *4	Fairchild Semiconductor	FDD8424H	4	DigiKey	FDD8424HCT-ND
10uF	CAP 10uF 10% 10V X5R 0805	C1, C16, C21	Murata	GRM219R61A108K E44D	3	Digi-Key	490-4735-1-ND
100nF	CAP CER 100UF 50V X5R 0603	C2, C3, C4, C5, C8, C9	Taiyo Yuden	UMK107B7104KA-T	6	Digi-Key	478-6206-1-ND
4u7	CAP CER 4.7UF 10V X5R 0603	C6	Taiyo Yuden LMK107BJ475KA-T		1	Digi-Key	587-1441-1-ND
100uF 6V3	100uF 6.3V 1206 multi-layer ceramic capacitor	C14, C15, C19, C20	Kemet	C1206C107M9PAC TU	4	Digi-Key	399-5620-1-ND
1uF	CAP CER 1.0UF 50V X7R 0603	C17, C22	Taiyo Yuden	UMK107C5105KA-T	2	Digi-Key	445-5090-2-ND
10nF	CAP CER 10000PF 100V X7R 0603	C18, C23	Taiyo Yuden	HMK107B7103KA-T	2	Digi-Key	587-1446-2-ND
5A/ 40V	DIODE SCHOTTKY 5A 40V SMC	D1, D2, D3, D4, D5, D6, D7, D8	Vishay	SSC54-E3/ 57T	8	Digi-Key	SSC54-E3/ 57T GICT-ND
2A/ 40V	Schottky Diode - 2A/ 30V	D9, D10, D13	Discrete Semiconductor Products	SS23	3	Digi-Key	SS23-TPMSTC-ND
LED Green	Green LED 0805	D11	Vishay		1	Digi-Key	160-1179-2-ND
LED Red	Red LED 0805	D12, D14, D15	Vishay	TLMS2100-GS08	3	Digi-Key	350-2038-1-ND
Comms	Header, IDC 10-Pin	H1			1		
Twin Motor Connector	5.08mm Pluggable Terminal Header	H2			1		
Twin Battery Connector	5.08mm Pluggable Terminal Header	H3			1		
TSOP1236		IR Module	VISHAY	TSOP1236	1	Element14	4913048
1N_FERRITE CHIP 120 OHM 800mA 0805	FERRITE CHIP 120 OHM 800mA 0805	L1	TDK	MMZ2012Y121B	1	Digi-Key	445-2196-2-ND
Inductor	INDUCTOR POWER SHIELD 33UH 2.6A SMD	L2, L3	Coiltronics	DR124-330-R	2	Digi-Key	513-1435-1-ND
10uH	INDUCTOR POWER 10UH 2.0A SMD	L4, L7	Würth Electronics Inc	744777910	2	Digi-Key	732-1191-1-ND
Header 3	Header, 3-Pin	P1			1		
Header 11	Header, 11-Pin	P4, P5, P6, P7			4		
Header 3X2	Header, 3-Pin, Dual row	P11			1		
Header 2	Header, 2-Pin	P12			1		
ZXM61N02F	20V N-channel enhancement mode MOSFET	Q1, Q3, Q4, Q5, Q6	Zetex		5	Element 14	9525270
ZXM61P02F	20V P-channel enhancement mode MOSFET	Q2	Zetex		1	Element 14	9525297
10k	RES 10.0K OHM 1/10W 1% 0603 SMD	R1, R2, R3, R6, R10, R11, R12, R13, R14, R15, R16, R26, R27, R28, R29, R30, R33, R36, R37, R40, R41	Yageo	RC0603FR-0710KL	21	Digi-Key	311-10.0KHRTR-ND
4R7	RES 4.7R 1/10W 5% 0603 SMD	R5	Yageo	RC0603JR-074R7L	1	Digi-Key	311-4.7GRTR-ND
330R	RES 330 OHM 1/10W 1% 0603 SMD	R7	Yageo	RC0603FR-07330RL	1	Digi-Key	311-330HRTR-ND
100R	RES 100 OHM 1/10W 1% 0603 SMD	R8, R32, R34, R35, R38, R39	ROHM	MCR03EZPFX1000	6	Digi-Key	RHM100HTR-ND
2k2	RES 2.2K OHM 1/10W 5% 0603 SMD	R9	Yageo	RC0603JR-072K2L	1	Digi-Key	311-2.2KGRTR-ND
180R	RES 180 OHM 1/10W 1% 0603 SMD	R17, R19, R20, R21, R22, R23, R24, R25	Panasonic - ECG	ERJ-3EKF1800V	8	Digi-Key	P180HTR-ND
680R	RES 680 OHM 1/10W 1% 0603 SMD	R18	Yageo	RC0603FR-07680RL	1	Digi-Key	311-680HRTR-ND
150R	RES 150 OHM 1/10W 1% 0603 SMD	R42, R43	ROHM	MCR03EZPFX1500	2	Digi-Key	RHM150HTR-ND
FSM2JSMA	DPST SMD Switch	S1	Tyco Electronics		1	Element 14	3801287
MCP130T-300I/TT	Microcontroller Supervisory Circuit with Open Drain Output, 3-Pin SOT-23, Industrial Temperature, Tape and Reel	U1			1	Digi-Key	MCP130T-300I/TTTR-ND
SN74LS47	SN74LS47	U2	Texas Instruments	SN74LS47NSR	1	Digikey	296-13223-1-ND
HDSM-541C	2 character 7 segment display	U3	AVAGO TECHNOLOGIES	HDSM-541C	1	Digikey	516-2248-1-ND
TL2575-33IKTTR		VR_3,3	TEXAS INSTRUMENTS	TL2575-33IKTTR	1	Ti Samples	TL2575-33IKTTR
TL2575-05IKTTR		VR_5	TEXAS INSTRUMENTS	TL2575-05IKTTR	1	Ti Samples	TL2575-05IKTTR