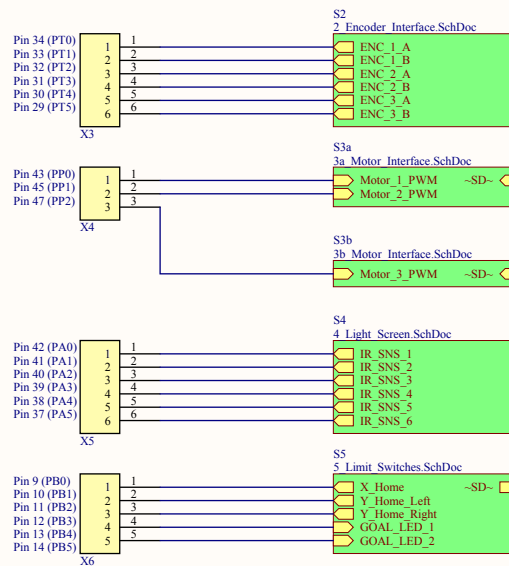
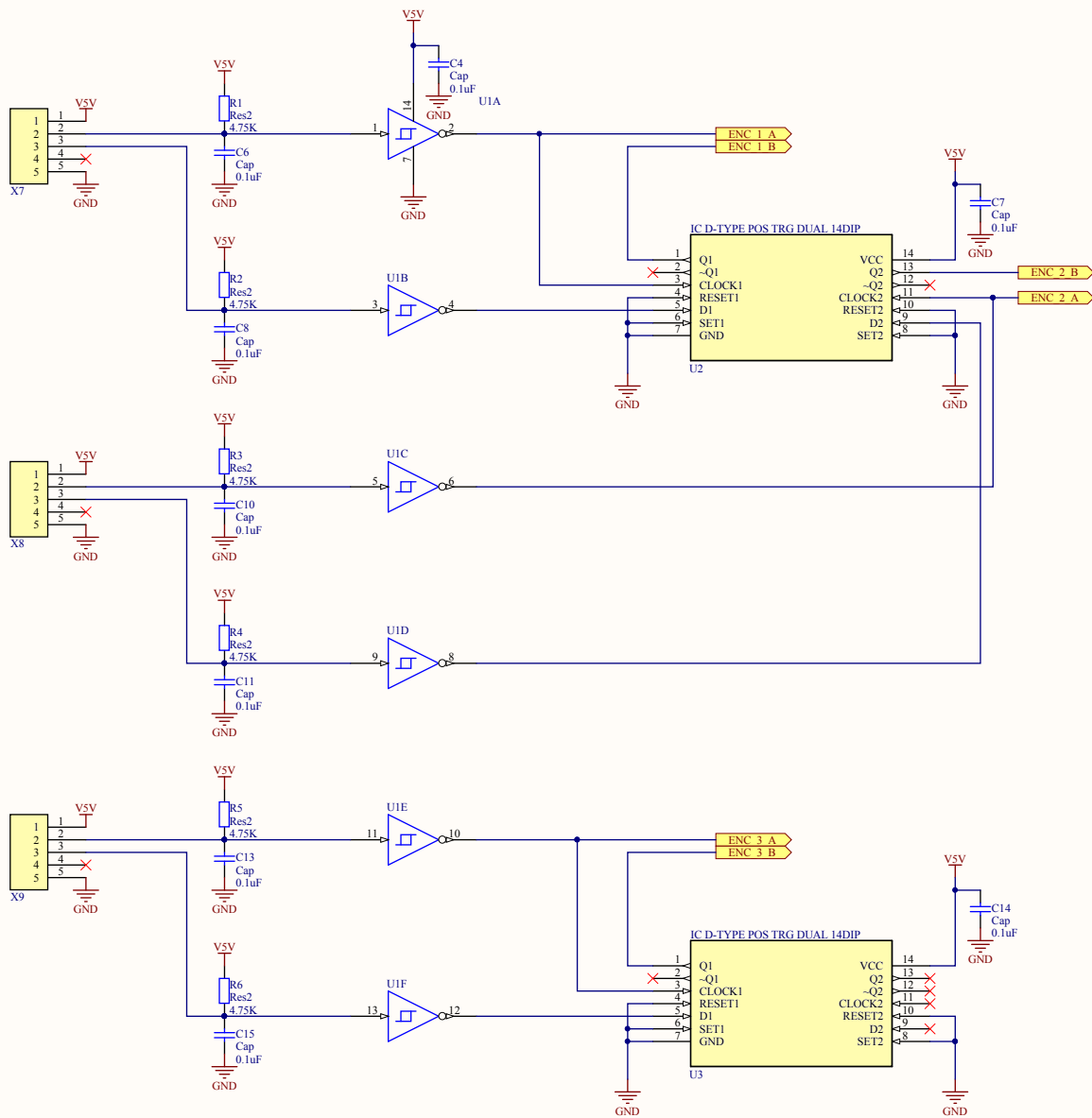


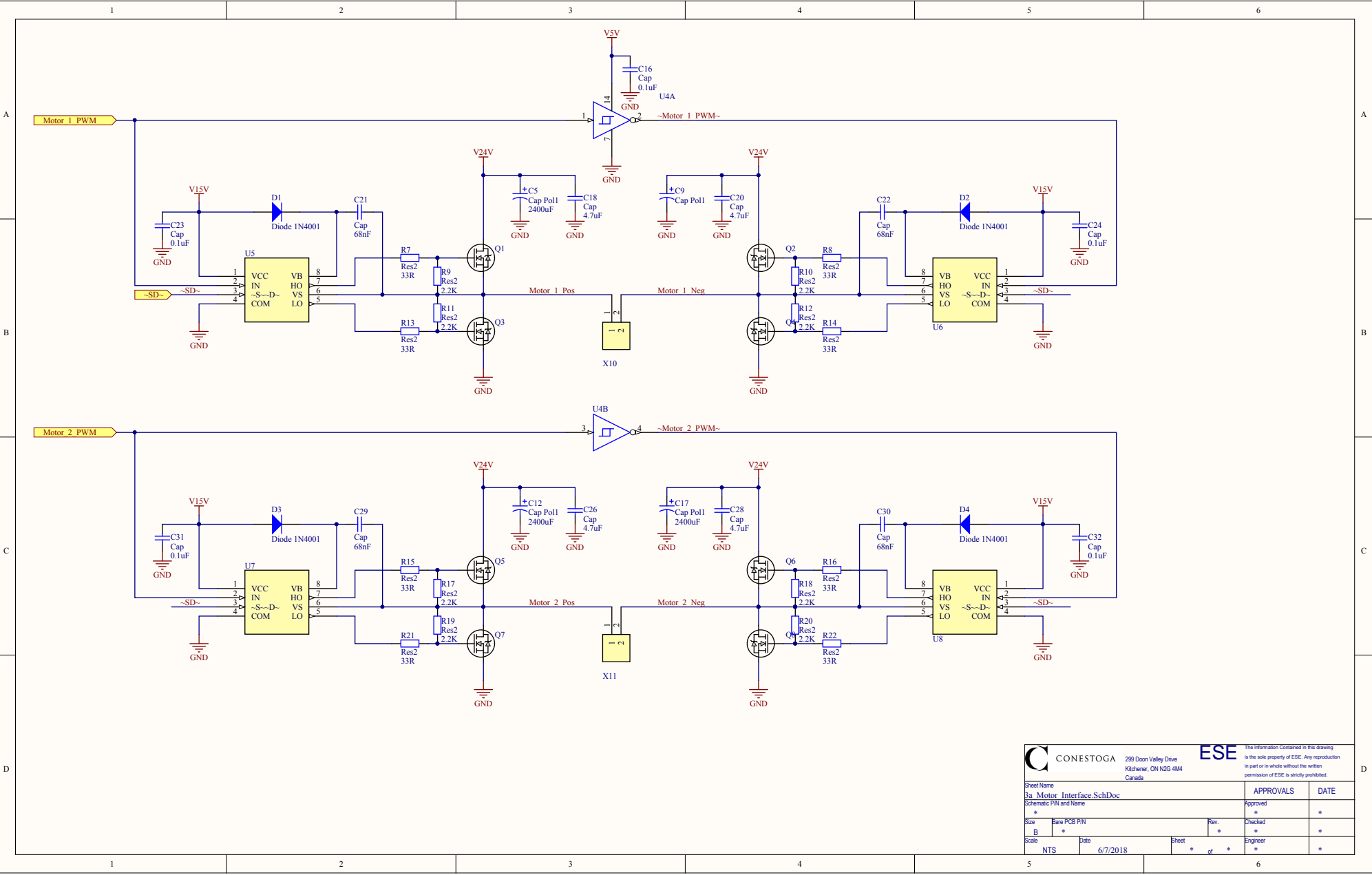
- H1
6-32" Standoff
- H2
6-32" Standoff
- H3
6-32" Standoff
- H4
6-32" Standoff



C CONESTOGA 299 Doon Valley Drive Kitchener, ON N2G 4M4 Canada		ESE		<small>The information contained in this drawing is the sole property of ESE. Any reproduction in part or in whole without the written permission of ESE is strictly prohibited.</small>	
Sheet Name 1 Top Sheet.SchDoc				APPROVALS	
Schematic PIN and Name *				Approved *	
Size B				Checked *	
Scale NTS				Engineer *	
Date 6/7/2018		Sheet * of *		DATE *	



C CONESTOGA 299 Doon Valley Drive Kitchener, ON N2G 4M4 Canada		ESE The information contained in this drawing is the sole property of ESE. Any reproduction in part or in whole without the written permission of ESE is strictly prohibited.	
Sheet Name 2 Encoder Interface SchDoc		APPROVALS	DATE
Schematic PIN and Name *		Approved	*
Size	Bare PCB PIN	Rev.	*
Scale	*	Engineer	*
NTS	6/7/2018	Sheet	of



C

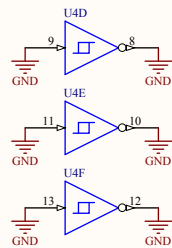
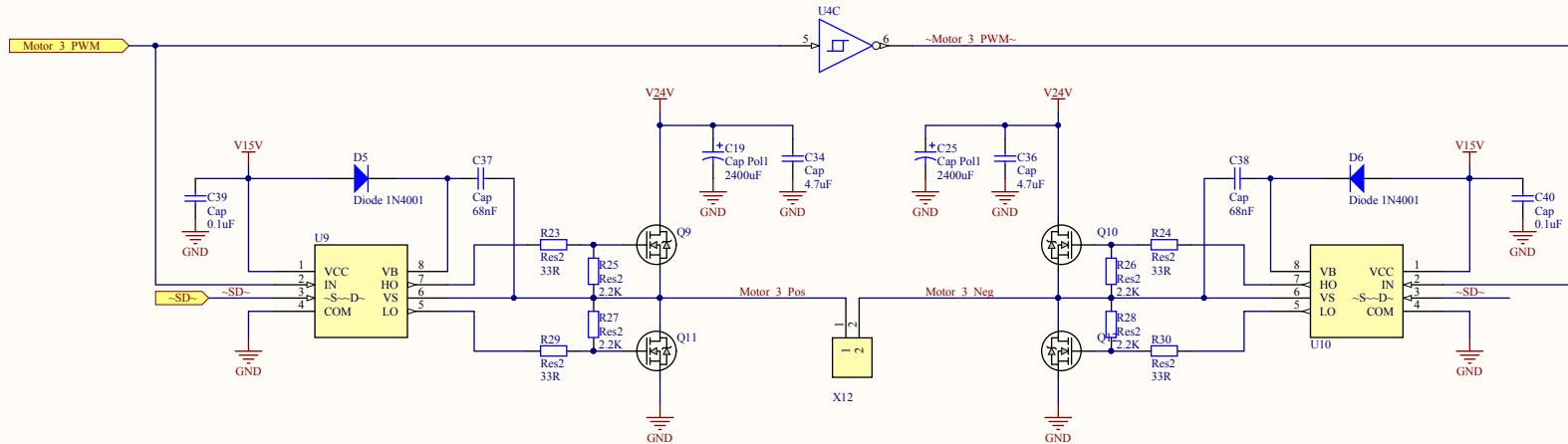
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Canada

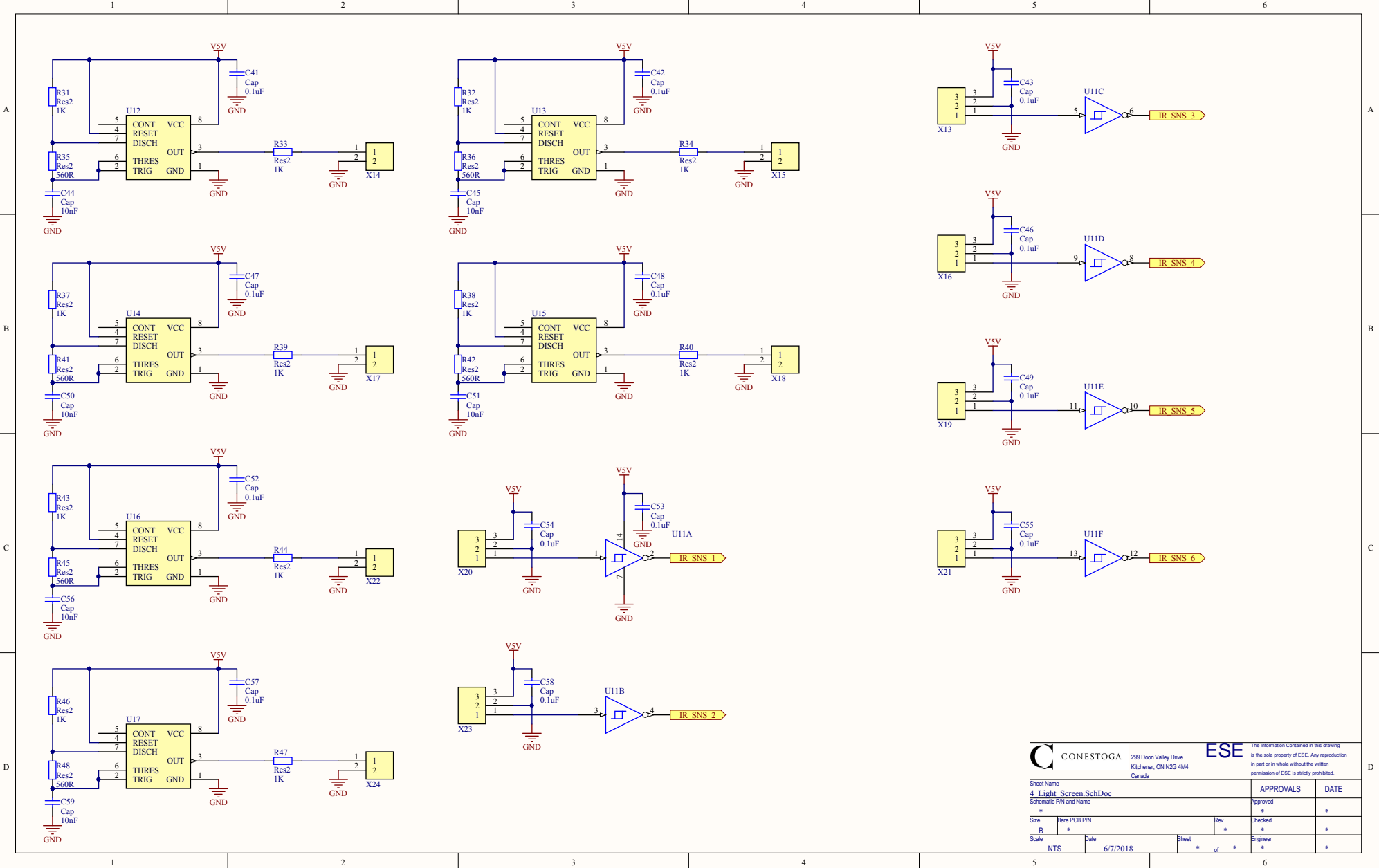
ESE

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Sheet Name		APPROVALS		DATE	
3a Motor Interface SchDoc		Approved		*	
Schematic P/N and Name		Checked		*	
Size	Bare PCB P/N	Rev.	*	*	
Scale	Date	Sheet	Engineer	*	
NTS	6/7/2018	* of *			

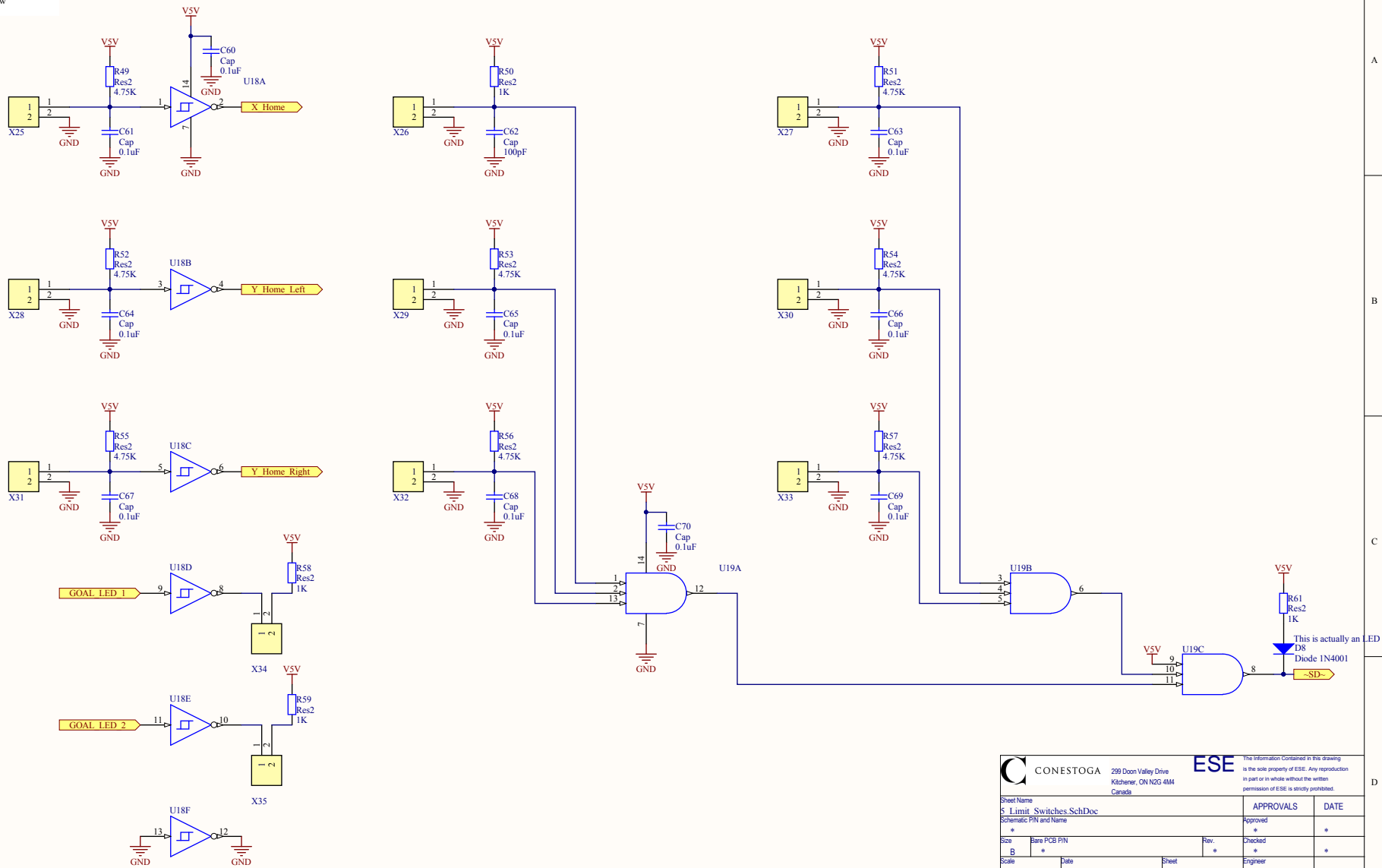


		CONESTOGA		299 Doon Valley Drive Kitchener, ON N2G 4M4 Canada				The information contained in this drawing is the sole property of ESE. Any reproduction in part or in whole without the written permission of ESE is strictly prohibited.	
Sheet Name 3b Motor Interface SchDoc						APPROVALS		DATE	
Schematic PIN and Name *						Approved *			
Size B		Bare PCB PIN		Rev.		Checked *			
Scale NTS		Date 6/7/2018		Sheet * of *		Engineer *			

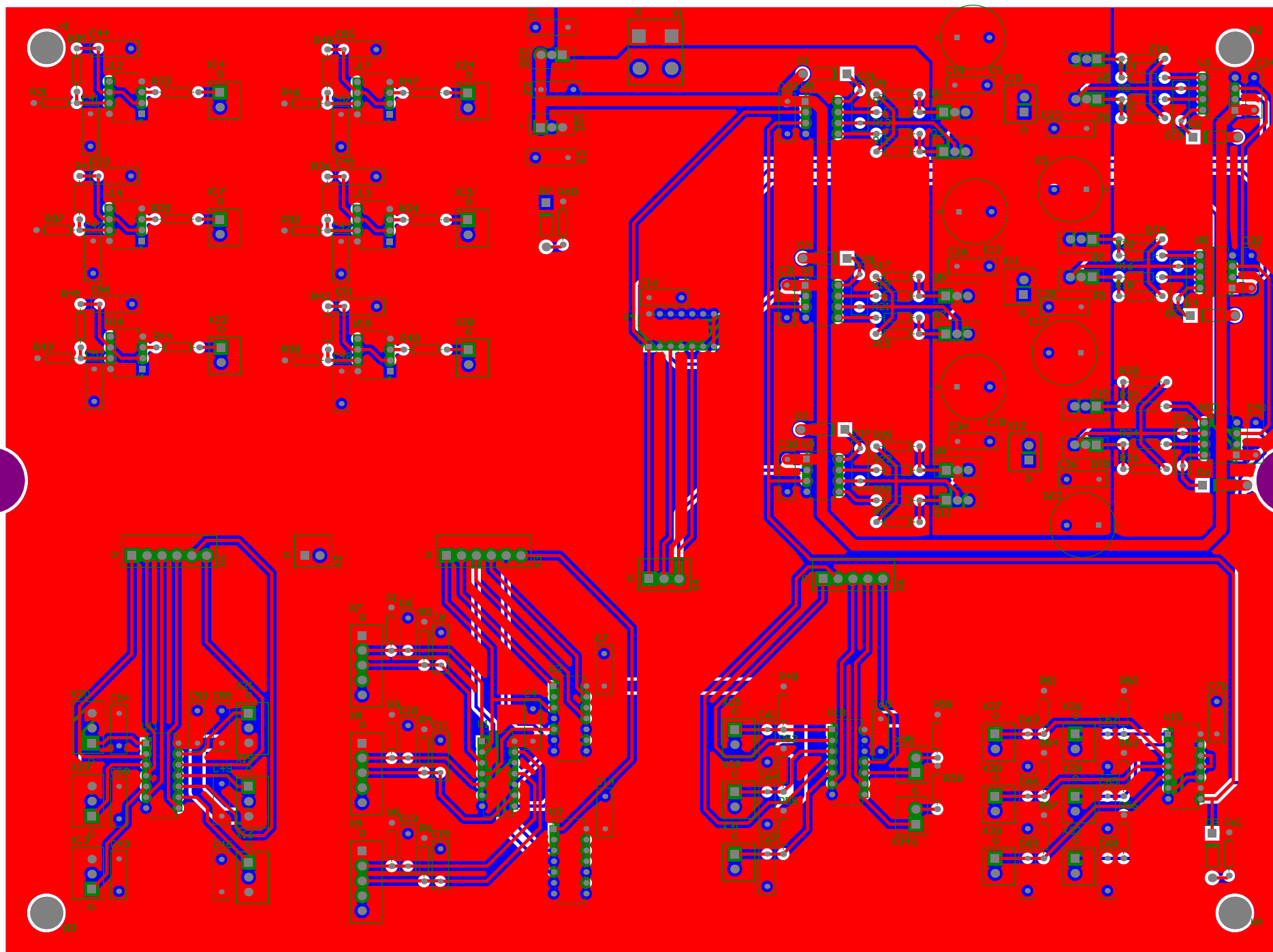


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Sheet Name		4 Light Screen SchDoc		APPROVALS		DATE	
Schematic P/N and Name		Approved		*		*	
Size		Bare PCB PIN		Rev.		Checked	
Scale		NTS		Date		Sheet	
		6/7/2018		* of *		Engineer	
						*	

Home Switches through Schmidt
trig/inverter
Pressed = Output High
Not Pressed = Output Low



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Sheet Name S Limit_Switches.SchDoc Schematic P/N and Name *		APPROVALS	DATE
Size B Bare PCB PIN		Checked *	* *
Scale NTS	Date 6/7/2018	Sheet * of *	Engineer * *



Comment	Description	Designator	Footprint	LibRef	Quantity
Cap	Capacitor	C1, C2, C3, C4, C6, C7, C8, C10, C11, C13, C14, C15, C16, C18, C20, C21, C22, C23, C24, C26, C28, C29, C30, C31, C32, C34, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70	RAD-0.3	Cap	61
Cap Pol1	Polarized Capacitor (Radial)	C5, C9, C12, C17, C19, C25	RB7.6-15	Cap Pol1	6
Diode 1N4001	1 Amp General Purpose Rectifier	D1, D2, D3, D4, D5, D6, D7, D8	DO-41	Diode 1N4001	8
6-32" Standoff	Mounting hole for 6-32 Standoff	H1, H2, H3, H4	6-32" Standoff	6-32" Standoff	4
STP100N6F7		Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10, Q11, Q12	TO-220	STP100N6F7	12
Res2	Resistor	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	AXIAL-0.4	Res2	61
IC HEX SCHMITT TRIG INV 14-DIP		U1, U4, U11, U18	14-DIP	IC HEX SCHMITT TRIG INV 14-DIP	4
IC D-TYPE POS TRG DUAL 14DIP		U2, U3	14-DIP	IC D-TYPE POS TRG DUAL 14DIP	2
IC DRIVER HALF BRIDGE 8DIP		U5, U6, U7, U8, U9, U10	8-DIP	IC DRIVER HALF BRIDGE 8DIP	6
IC OSC SINGLE TIMER 100KHZ 8-DIP		U12, U13, U14, U15, U16, U17	8-DIP	IC OSC SINGLE TIMER 100KHZ 8-DIP	6
IC GATE AND 3CH 3-INP 14DIP		U19	14-DIP	IC GATE AND 3CH 3-INP 14DIP	1
IC REG LINEAR 15V 1A TO220-3		U20	TO-220	IC REG LINEAR 15V 1A TO220-3	1
IC REG LINEAR 5V 1.5A TO220-3		U21	TO-220	IC REG LINEAR 5V 1.5A TO220-3	1
TERM BLOCK HDR 2POS VERT 7.62MM		X1	PCV 4-2	TERM BLOCK HDR 2POS VERT 7.62MM	1
TERM BLOCK HDR 2POS VERT 3.5MM		X2, X10, X11, X12, X14, X15, X17, X18, X22, X24, X25, X26, X27, X28, X29, X30, X31, X32, X33, X34, X35	WR-TBL-3211 2	TERM BLOCK HDR 2POS VERT 3.5MM	21
TERM BLOCK HDR 6POS VERT 3.5MM		X3, X5	WR-TBL-3211 6	TERM BLOCK HDR 6POS VERT 3.5MM	2
TERM BLOCK HDR 3POS VERT 3.5MM		X4, X13, X16, X19, X20, X21, X23	WR-TBL-3211 3	TERM BLOCK HDR 3POS VERT 3.5MM	7
TERM BLOCK HDR 5POS		X6, X7, X8, X9	WR-TBL-3211 5	TERM BLOCK HDR 5POS	4