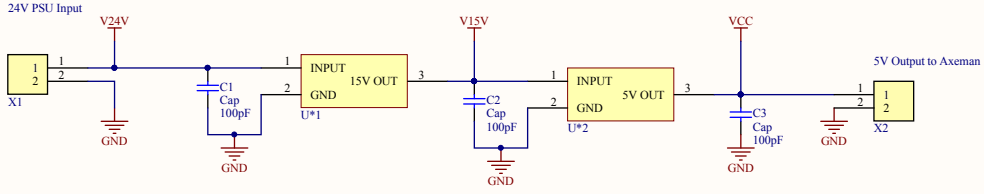

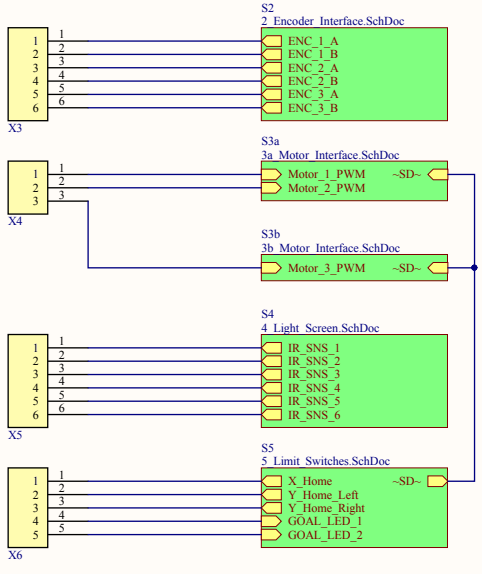

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Canada

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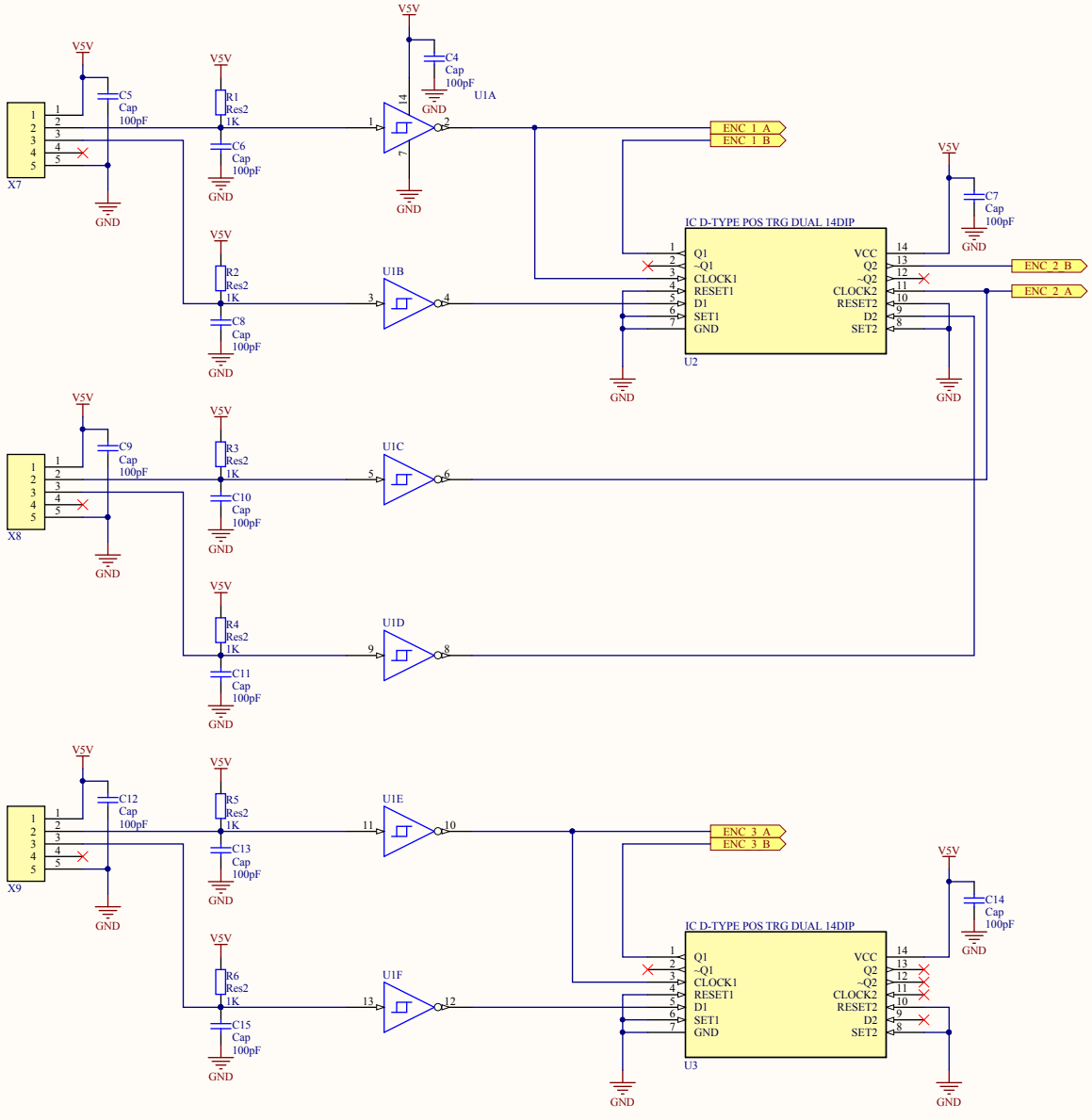
Sheet Name: 1_Top_Sheet.SchDoc		APPROVALS	DATE
Schematic P/N and Name: *		Approved: *	*
Size: B	Bare PCB P/N: * Rev.: *	Checked: *	*
Scale: NTS	Date: 04/06/2018 Sheet: * of *	Engineer: *	*



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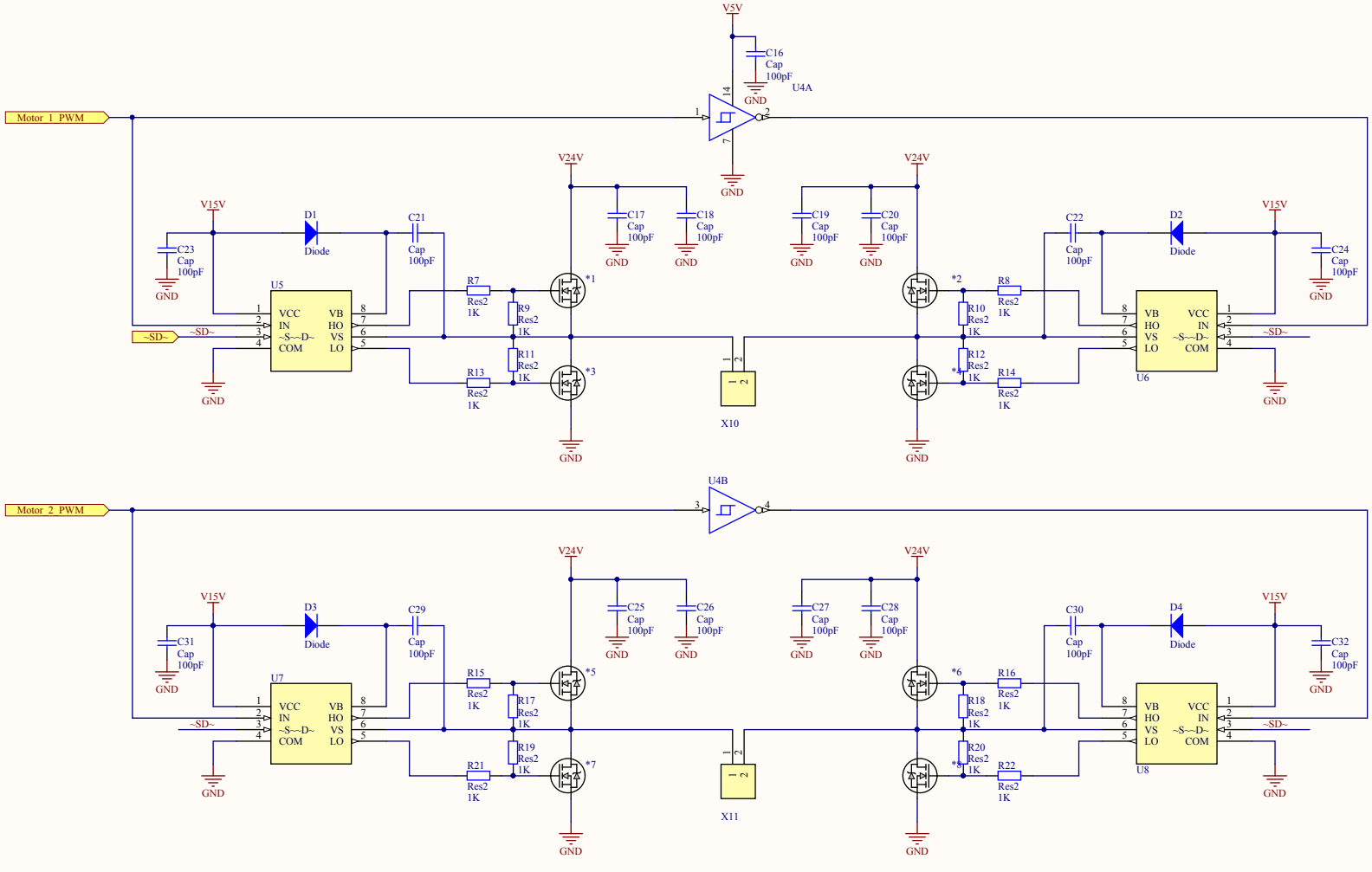
Sheet Name: 2 Encoder Interface.SchDoc		APPROVALS	DATE
Schematic P/N and Name: *		Approved: *	*
Size: B	Bare PCB P/N: * Rev.: *	Checked: *	*
Scale: NTS	Date: 04/06/2018 Sheet: * of *	Engineer: *	*



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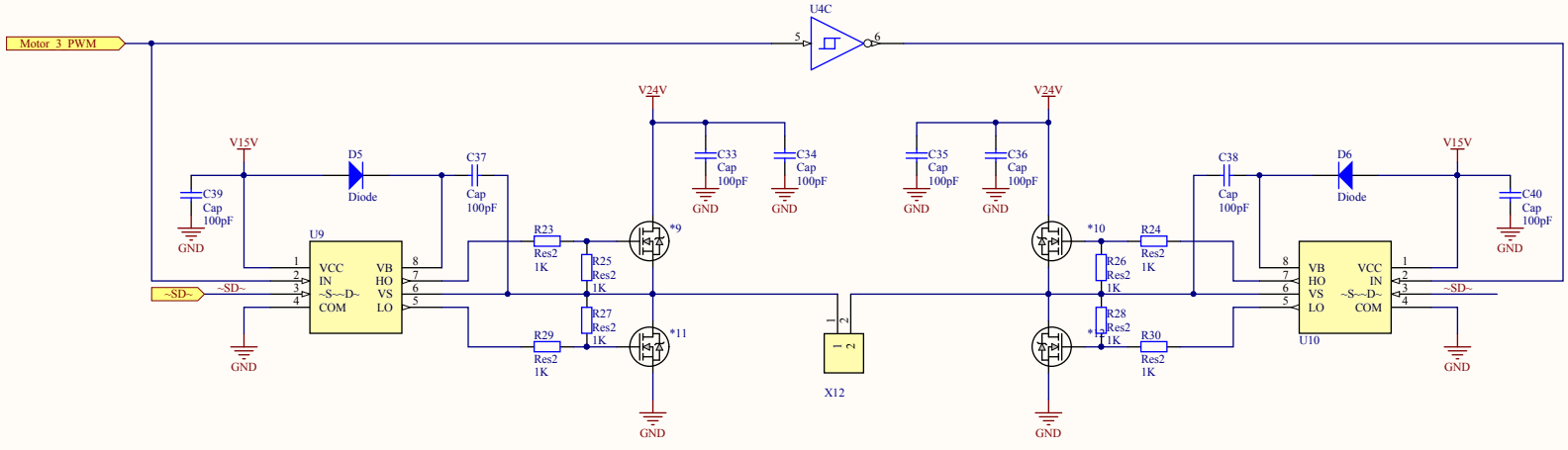
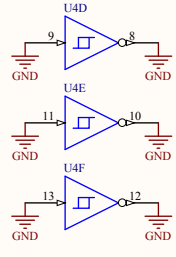
Sheet Name: 3a_Motor_Interface.SchDoc			APPROVALS / DATE
Schematic P/N and Name: *			Approved: * / *
Size: B	Bare PCB P/N: *	Rev.: *	Checked: * / *
Scale: NTS	Date: 04/06/2018	Sheet: * of *	Engineer: * / *





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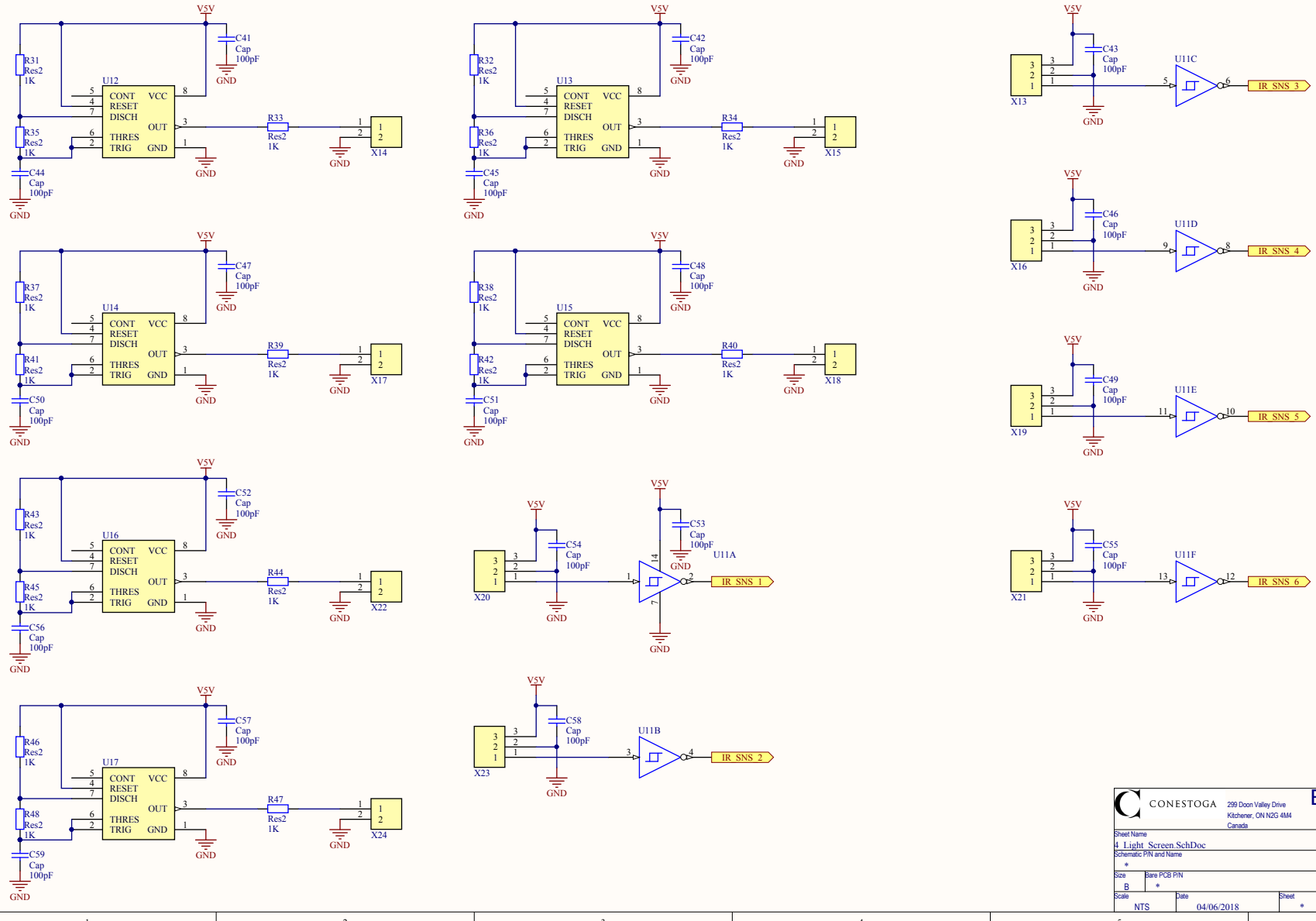
Sheet Name: 3b_Motor_Interface.SchDoc			APPROVALS / DATE
Schematic P/N and Name: *			Approved: * / *
Size: B	Bare PCB P/N: *	Rev.: *	Checked: * / *
Scale: NTS	Date: 04/06/2018	Sheet: * of *	Engineer: * / *



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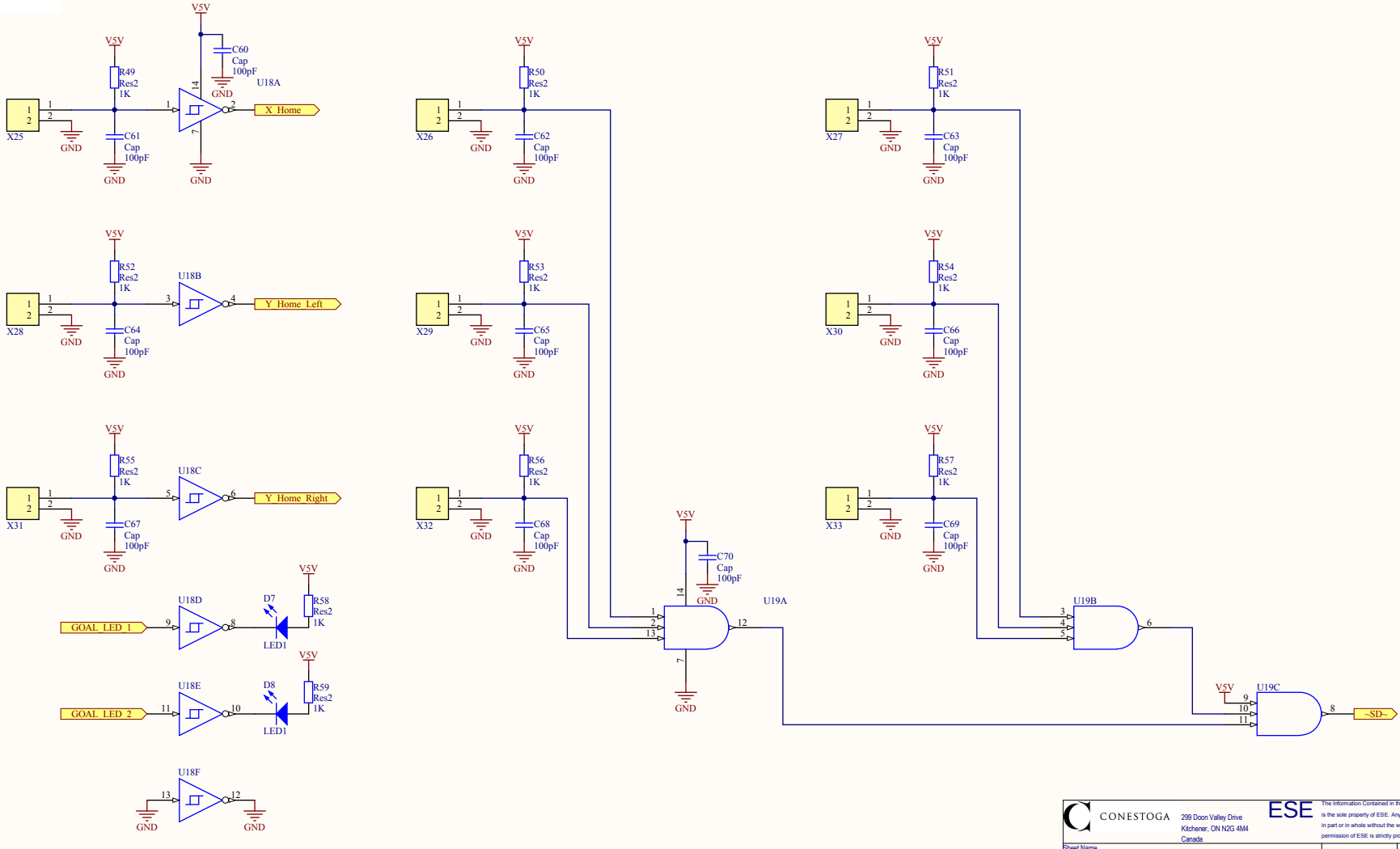
Sheet Name		APPROVALS	DATE
4_Light_Screen.SchDoc			
Schematic P/N and Name		Approved	
*		*	*
Size	Bare PCB P/N	Rev.	Checked
B	*	*	* *
Scale	Date	Sheet	Engineer
NTS	04/06/2018	* of *	* *

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



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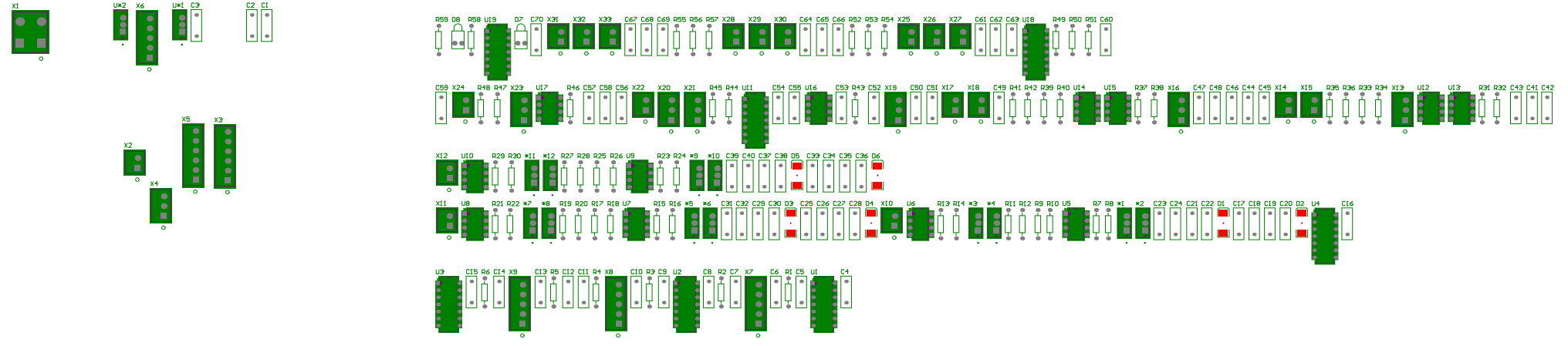
ESE	The Information Contained in this drawing is the sole property of ESE. Any reproduction in part or in whole without the written permission of ESE is strictly prohibited.
Sheet Name	5_Limit_Switches.SchDoc
Schematic P/N and Name	*
Size	B
Bare PCB P/N	*
Rev.	*
Scale	NTS
Date	04/06/2018
Sheet	* of *
APPROVALS	DATE
Approved	* / *
Checked	* / *
Engineer	* / *


X1
U#2
X6
U#1
C3
C2
C1
X5
X3
X2
X4
R59 D8 R58 UI9 D7 C70 X31 X32 X33 C67 C68 C69 R55 R56 R57 X28 X29 X30 C64 C65 C66 R52 R53 R54 X25 X26 X27 C61 C62 C63 UI8 R49 R50 R51 C60
C59 X24 R48 R47 X23 UI7 R46 C57 C58 C56 X22 X20 X21 R45 R44 UI1 C54 C55 UI6 C53 R43 C52 XI9 C50 C51 XI7 XI8 C49 R41 R42 R39 R40 UI4 UI5 R37 R38 XI6 C47 C48 C46 C44 C45 XI4 XI5 R35 R36 R33 R34 XI3 UI2 UI3 R31 R32 C43 C41 C42
XI2 UI0 R29 R30 *II *I2 R27 R28 R25 R26 U9 R23 R24 *9 *I0 C39 C40 C37 C38 D5 C33 C34 C35 C36 D6
XII U8 R2I R22 *7 *8 RI9 R20 RI7 RI8 U7 RI5 RI6 *5 *6 C3I C32 C29 C30 D3 C25 C26 C27 C28 D4 XIO U6 RI3 RI4 *3 *4 RII RI2 R9 RI0 U5 R7 R8 *I *2 C23 C24 C2I C22 DI CI7 CI8 CI9 C20 D2 U4 CI6
U3 CI5 R6 CI4 X9 CI3 R5 CI2 CII R4 X8 CI0 R3 C9 U2 C8 R2 C7 X7 C6 RI C5 UI C4

Comment	Description	Designator	Footprint	LibRef	Quantity
STP100N6F7		*1, *2, *3, *4, *5, *6, *7, *8, *9, *10, *11, *12	TO-220	STP100N6F7	12
Cap	Capacitor	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, 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	70
Diode	Default Diode	D1, D2, D3, D4, D5, D6	SMC	Diode	6
LED1	Typical RED GaAs LED	D7, D8	LED-1	LED1	2
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	AXIAL-0.4	Res2	59
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		U*1	TO-220	IC REG LINEAR 15V 1A TO220-3	1
IC REG LINEAR 5V 1.5A TO220-3		U*2	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	WR-TBL-3211 2	TERM BLOCK HDR 2POS VERT 3.5MM	19
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