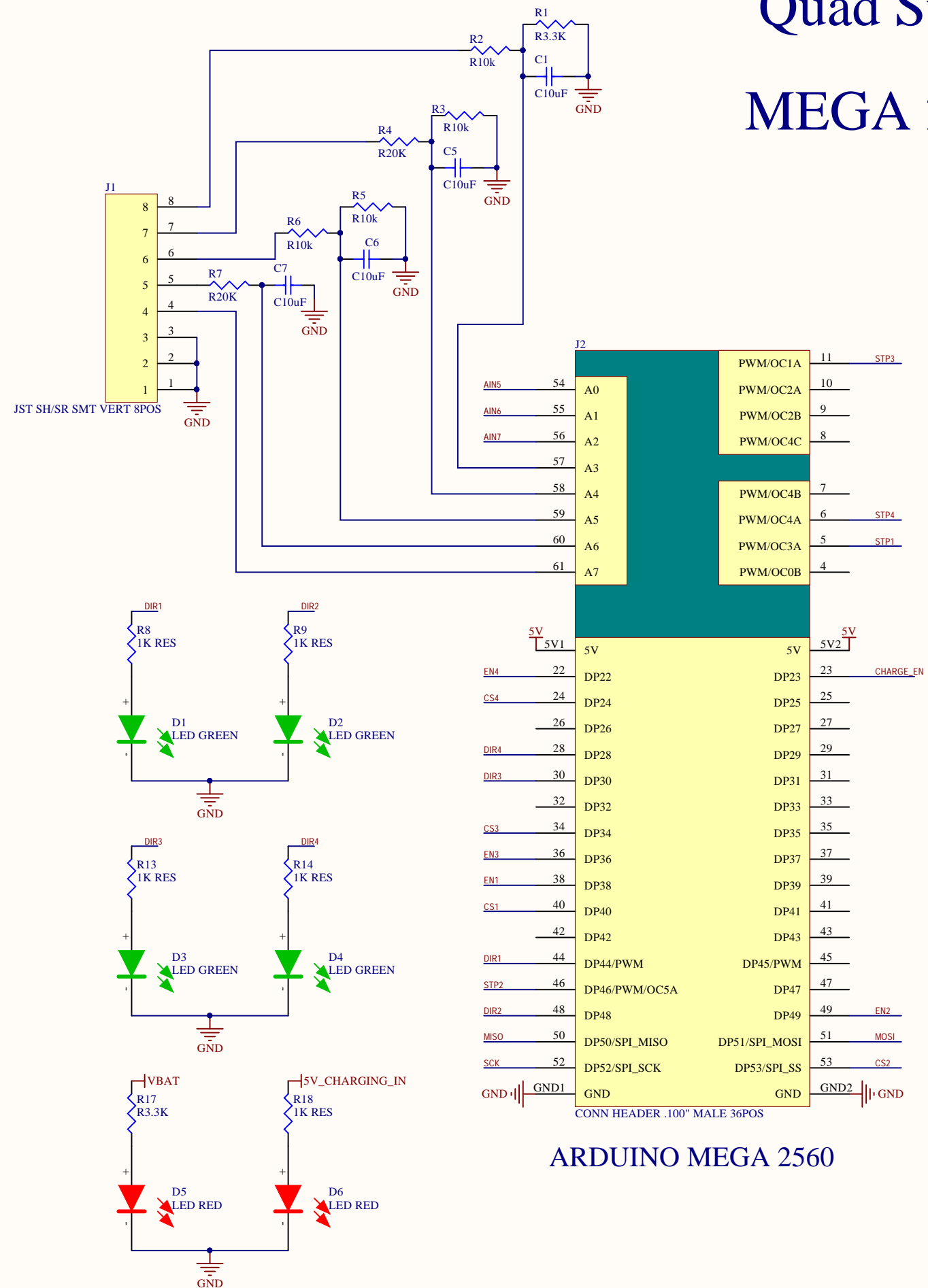
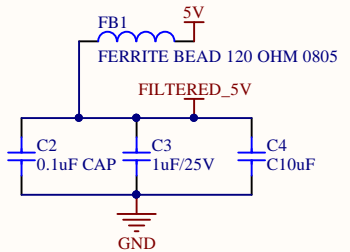
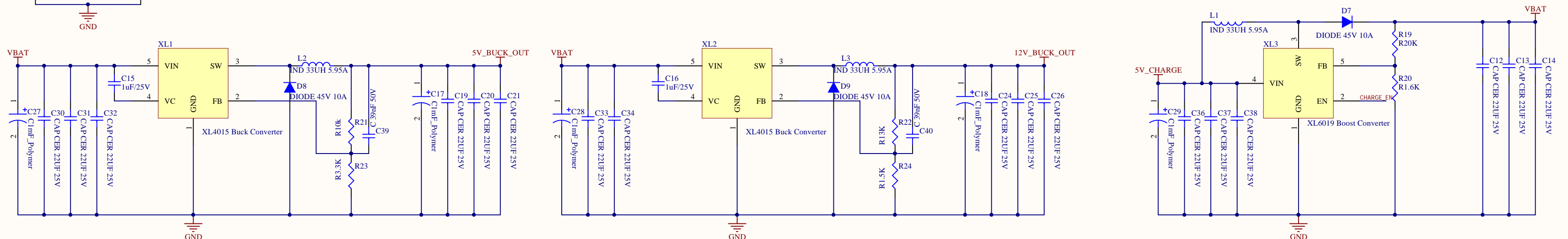
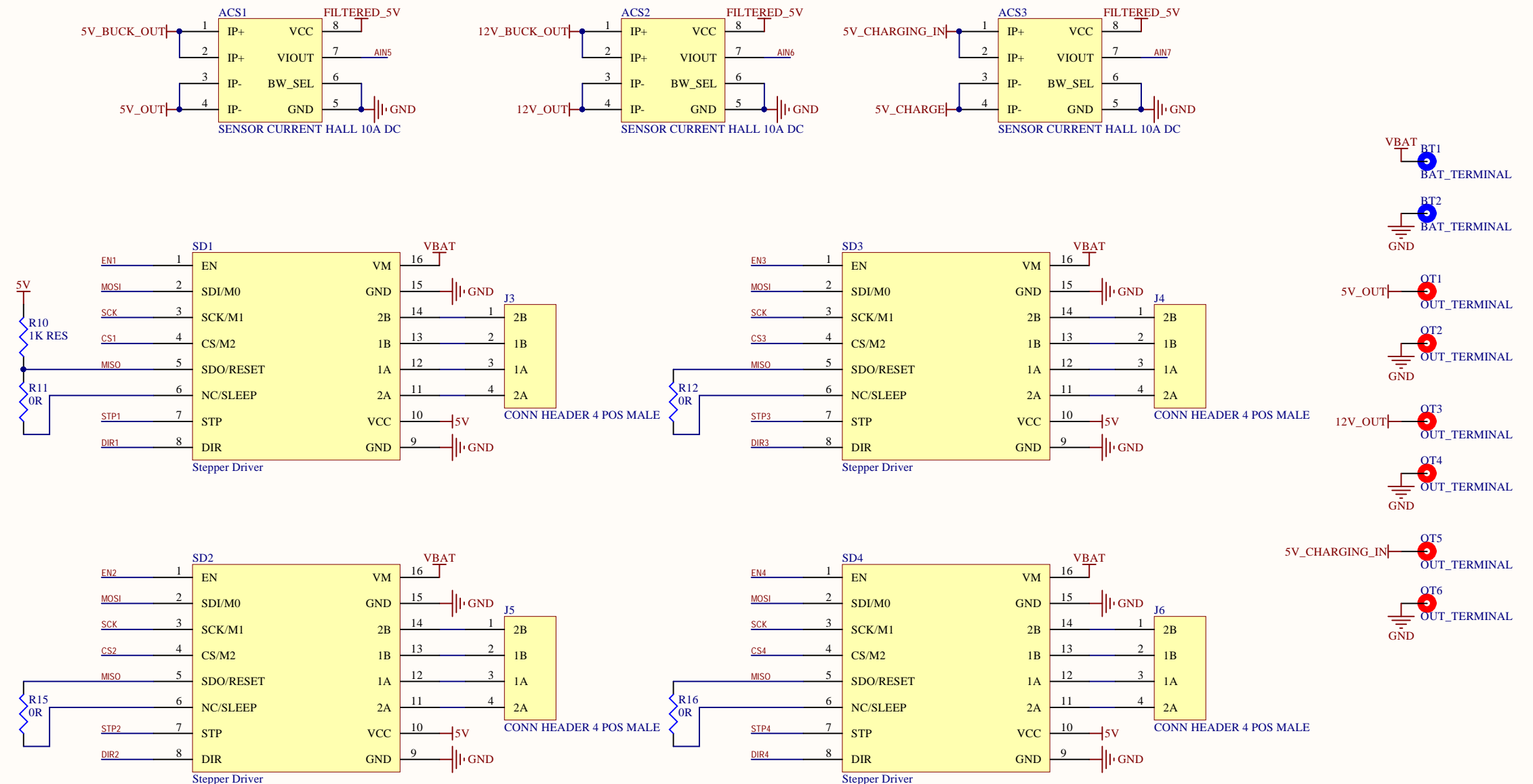


MEGA 2560 Shield, For Mobile Robot Platforms



ARDUINO MEGA 2560



Title		
Size C	Number	Revision
Date:	12/25/2019	Sheet of
File:	E:\Hardware Accelerated Robot\Drivers\Brand\SubDoc	

Comment	Description	Designator	Footprint	LibRef	Manufacturer 1	Manufacturer Part Number 1	Quantity	Supplier 1	Supplier Currency 1	Supplier Order Qty 1	Supplier Part Number 1	Supplier Stock 1	Supplier Subtotal 1	Supplier Unit Price 1
OUT_TERMINAL	OUT_TERMINAL	5V+, 5V GND, 12V+, 12V GND, CHARGE IN+, CHRNG GND	OUTPUT_TERMINALS	OUT_TERMINAL			6							
SENSOR CURRENT HALL 10A DC	SENSOR CURRENT HALL 10A DC	ACS1, ACS2, ACS3	SOIC_8	ACS723LLCTR-10AU-T	Allegro Microsystems	ACS723LLCTR-10AU-T	3	Digi-Key	USD	3	620-1643-1-ND	783	15.81	5.27
BAT_TERMINAL	BAT_TERMINAL	BAT+, BAT-	BATTERY_TERMINALS	BAT_TERMINAL			2							
C10uF	Cap Ceramic 10uF 10V X5R 10% SMD 0805 85C Embossed T/R	C1, C4, C5, C6, C7	C0805	CL21A106KPFNNNG	Sams	CL21A106KPFNNNG	5	Digi-Key	USD	5	1276-6456-1-ND	1253336	0.65	0.13
0.1uF CAP	Cap Ceramic 0.1uF 50V Y5V -20% to 80% SMD 0805 85C Paper T/R	C2	C0805	CL21F104ZBCNNNC	Samsung	CL21F104ZBCNNNC	1	Digi-Key	USD	1	1276-1007-1-ND	3496959	0.1	0.1
1uF/25V	CAP CER 1UF 25V X5R 0805	C3, C15, C16	C0805	C2012X5R1E105K125AA	TDK	C2012X5R1E105K125AA	3	Digi-Key	USD	3	445-1419-1-ND	49231	0.81	0.27
CAP CER 22UF 25V	CAP CER 22UF 25V X5R 1210	C12, C13, C14, C19, C20, C21, C24, C25, C26, C30, C31, C32, C33, C34, C36, C37, C38	C1210	CL32A226MAJNNNE	Samsung	CL32A226MAJNNNE	17	Digi-Key	USD	17	1276-3373-1-ND	56471	7.004	0.412
C1mF_Polymer	Cap Aluminum Polymer 680uF 20VDC 20% (10 X 11.5mm) Radial 5mm 0.012 Ohm 5400mA 2000h 105C Bulk	C17, C18, C27, C28, C29	POLY_CAP_10X21	APSG200ELL681MJB5S	United Chemi-Con	APSG200ELL681MJB5S	5	Digi-Key	USD	5	565-3623-ND	499	10.7	2.14
C 39nF 50V	Multilayer Ceramic Capacitors 50volts 39000pF X7R 10%	C39, C40	C0805	C0805C39K5RACTU	KEMET	C0805C39K5RACTU	2	Digi-Key	USD	2	399-8076-1-ND	16773	0.46	0.23
LED RED	LED RED CLEAR SMD	CHRG LED, VBAT LED	LED_0805	LTST-C171KRKT	Vishay Lite-On	LTST-C171KRKT	2	Digi-Key	USD	2	160-1427-1-ND	80457	0.58	0.29
DIODE 45V 10A	DIODE SCHOTTKY 45V 10A DPAK	D7, D8, D9	TO252_3	MBRD1045T4G	ON Semiconductor	MBRD1045T4G	3	Digi-Key	USD	3	MBRD1045T4GOSCT-ND	4036	2.16	0.72
LED GREEN	LED GREEN CLEAR CHIP SMD	DIR1, DIR2, DIR3, DIR4	LED_0805	LTST-C171GKT	Vishay Lite-On	LTST-C171GKT	4	Digi-Key	USD	4	160-1423-1-ND	241771	1.12	0.28
FERRITE BEAD 120 OHM 0805	FERRITE BEAD 120 OHM 0805 1LN	FB1	FB_0805	742792023	Würth Electronics	742792023	1	Digi-Key	USD	1	732-1613-1-ND	10715	0.22	0.22
JST SH/SR SMT VERT 8POS	CONN RCPT SR 8 POS 1.0MM TIN	J1	JST_SH_8	08SR-3S	JST	08SR-3S	1	Digi-Key	USD	1	455-2189-ND	1699	0.55	0.55
CONN HEADER .100" MALE 36POS	CONN HEADER .100" DUAL STR 36POS	J2	DIP36_MALE	PREC018DAA-N-RC	Sullins	PREC018DAAN-RC	1	Digi-Key	USD	1	S2012EC-18-ND	1371	0.69	0.69
CONN HEADER 4 POS MALE	CONN HEADER VERT 4POS 2.54MM	J3, J4, J5, J6	DIP4	PREC004SAAN-RC	Sullins	PREC004SAAN-RC	4	Digi-Key	USD	4	S1012EC-04-ND	1946	0.48	0.12
IND 33UH 5.95A	COILCRAFT SER1390-333MLD INDUCTOR, 33UH, 5.95A, 20%, 15.7MHZ, REEL	L1, L2, L3	13X13X9IND	SER1390-333MLD	Coilcraft	SER1390-333MLD	3	Mouser	USD	3	994-SER1390-333MLD	434	7.98	2.66
1K RES	RES 1K OHM 1% 1/4W 0805	PULLUP, R8, R9, R13, R14, R18	R0805	RNCP0805FTD1K00	Stackpole Electronics	RNCP0805FTD1K00	6	Digi-Key	USD	6	RNCP0805FTD1K00D-KR-ND	248519	0.6	0.1
R3.3K	RES SMD 3.3K OHM 1% 1/8W 0805	R1, R17, R23	R0805	RC0805FR-073K3L	Yageo	RC0805FR-073K3L	3	Digi-Key	USD	3	311-3.30KCRCT-ND	640027	0.3	0.1
R10K	RES SMD 10K OHM 1% 1/8W 0805	R2, R3, R5, R6, R21	R0805	RC0805FR-0710KL	Yageo	RC0805FR-0710KL	5	Digi-Key	USD	5	311-10.0KCRCT-ND	35892568	0.5	0.1
R20K	RES SMD 20K OHM 0.1% 1/8W 0805	R4, R7, R19	R0805	RT0805BRC0720KL	Yageo	RT0805BRC0720KL	3	Digi-Key	USD	3	311-20KNFCT-ND	3644	2.43	0.81
0R	RES SMD 0 OHM JUMPER 1/8W 0805	R11, R12, R15, R16	R0805	RC0805JR-070RL	Yageo	RC0805JR-070RL	4	Digi-Key	USD	4	311-0.0ARCT-ND	13282663	0.4	0.1
R1.6K	RES SMD 1.6K OHM 1% 1/8W 0805	R20	R0805	RC0805FR-071K6L	Yageo	RC0805FR-071K6L	1	Digi-Key	USD	1	311-1.60KCRCT-ND	362785	0.1	0.1
R13K	RES SMD 13K OHM 1% 1/8W 0805	R22	R0805	RC0805FR-0713KL	Yageo	RC0805FR-0713KL	1	Digi-Key	USD	1	311-13.0KCRCT-ND	335093	0.1	0.1
R1.5K	RES SMD 1.5K OHM 1% 1/8W 0805	R24	R0805	RC0805FR-071K5L	Yageo Phycomp	RC0805FR-071K5L	1	Digi-Key	USD	1	311-1.50KCRCT-ND	2052513	0.1	0.1
Stepper Driver	TMC2130, DRV8825, TB67S109, A4988	SD1, SD2, SD3, SD4	DIP16_STEPPEER	SilentStepStick_BigTreeTech_TMC2130V1.1			4							
XL4015 Buck Converter	XL Semi Buck Converter, not available in USA	XL1, XL2	TO263-5L	XL4015			2							
XL6019 Boost Converter	XL Semi Boost Converter, not available in USA	XL3	TO263-5L	XL6019			1							