Designator	Comment	Footprint	Quantity
5V	Header 2	HDR1X2	1
12V	Header 2	HDR1X2	1
AUX-1	Header 4X2	DC8P	1
C1	100uF	RVT	1
C2	220uF/16V	RVT	1
C3	0.1uF	C0603	1
C4	CapC-0603-100nF	C0603	1
C5	CapC-0603-100nF	C0603	1
C6	CapC-0603-100nF	C0603	1
C7	CapC-0603-100nF	C0603	1
C8	CapC-0603-22pF	C0603	1
C9	approved sub OK	C0603	1
C10	150pF	C0603	1
C11	CapC-0603-100nF	C0603	1
C12	1uF	C0603	1
C13	CapC-0603-100nF	C0603	1
C14	CapC-0603-22pF	C0603	1
C15	CapC-0603-22pF	C0603	1
C16	CapC-0603-100nF	C0603	1
C17	CapC-0603-22pF	C0603	1
C18	0.1uF	C0603	1
C19	CapC-0603-22pF	C0603	1
C20	CapC-0603-22pF	C0603	1
C21	CapE-6.3-100uF-35V	RVT	1
C22	CapE-6.3-100uF-35V	RVT	1
C23	CapE-6.3-100uF-35V	RVT	1
C24	CapE-6.3-100uF-35V	RVT	1
C25	CapE-6.3-100uF-35V	RVT	1
C26	approved sub OK	C0603	1
C27	approved sub OK	C0603	1
C28	approved sub OK	C0603	1
C29	approved sub OK	C0603	1
C30	CapE-6.3-100uF-35V	RVT	1
C31	CapE-6.3-100uF-35V	RVT	1
C32	CapE-6.3-100uF-35V	RVT	1
C33	CapC-0603-100nF	C0603	1
C34	100nF	C0603	1
C35	100nF	C0603	1
C36	100nF	C0603	1
C37	100nF	C0603	1
C38	100nF	C0603	1
C39	100nF	C0603	1
D1	S1G	D-SMA	1
D2	Blue	LED0603	1
D3	RED	LED0603	1
D4	B340A-13-F	D-SMA	1
D5	SS12	D-SMA	1
D6	S1A	D-SMA	1
D7	S1A	D-SMA	1
D8	200V/5A	D-SMA	1

D9	RED	LED0603	1
D10	RED	LED0603	1
D11	RED	LED0603	1
D12	RED	LED0603	1
D13	RED	LED0603	1
D14	RED	LED0603	1
E0	A4988BREAKOUT	A4988BREAKOUT	1
E0_MOT	ScrewTerminal-3.5mm-4Way	TERM4 3.5MM	1
E0_MOT_A	Header 4	HDR1X4	1
E0_MS	Header 3X2	HDR2X3	1
E1	A4988BREAKOUT	A4988BREAKOUT	1
E1_MOT	ScrewTerminal-3.5mm-4Way	TERM4 3.5MM	1
E1_MOT_A	Header 4	HDR1X4	1
E1_MS	Header 3X2	HDR2X3	1
E2	A4988BREAKOUT	A4988BREAKOUT	1
E2 MOT	ScrewTerminal-3.5mm-4Way	TERM4 3.5MM	1
E2_MOT_A	Header 4	HDR1X4	1
E2_MS	Header 3X2	HDR2X3	1
			1
ENC_1 ENC_2	Header 4	HDR1X4 HDR1X4	1
ENC_3	Header 4 Header 4	HDR1X4	1
ENC_4	Header 4	HDR1X4	1
EXP1	Header 5X2	HDR2X5_EXP INER ONLY\	1
EXP2	Header 5X2	HDR2X5_EXP INER ONLY\	1
EXP3	Header 7X2	HDR2X7	1
F1	30A	F1206	1
F2	15A	F1206	1
F3	1.5A	MF-MSMF050	1
F4	500MA	MF-MSMF050	1
FAN0	Screw Terminal 3.5mm 2-Way	TERM2 3.5MM	1
FAN0_1	Header 2	HDR1X2	1
FAN1	Screw Terminal 3.5mm 2-Way		1
FAN1_1	Header 2	HDR1X2	1
HB-OUT	Screw Terminal 5mm 2-Way	TERM2 5MM	1
HB-PWR	Screw Terminal 5mm 2-Way	TERM2 5MM	1
HE0	Screw Terminal 3.5mm 2-Way		1
HE1	Screw Terminal 3.5mm 2-Way		1
HE2	Screw Terminal 3.5mm 2-Way		1
ISP1	Header 3X2	HDR2X3	1
ISP2	Header 3X2	HDR2X3	1
J1	USB conector	USB_MINI/SM0.8-6H5	1
JTAG	Header 5X2	HDR2X5	1
L1	Ferrite Bead SMD 0805	R0805	1
L2	功率电感-15uH/1A	DO3316	1
L3	Inductor SMD 47uH 2.2A	SRN8040TA SMD	1
MAIN-PWR	Screw Terminal 5mm 2-Way	TERM2 5MM	1
PS_ON	Header 2	HDR1X2	1
PWR	Header 2	HDR1X2	1
Q1	HY1403	TO-252AA	1
Q2	HY3403	TO-252AA	1
Q3	HY1403	TO-252AA	1

Q4	HY1403	TO-252AA	1
Q5	HY1403	TO-252AA	1
Q6	HY1403	TO-252AA	1
R1	Res-0603-1M	R0603	1
R2	Res-0603-10K	R0603	1
R3	Res-0603-10K	R0603	1
R4	1.8K	R0603	1
R5	100K	R0603	1
R6	24.9k	R0603	1
R7	Res-0603-22R	R0603	1
R8	Res-0603-22R	R0603	1
R9	Res-0603-1M	R0603	1
R10	100K	R0603	1
R11	Res-0603-10K	R0603	1
R12	Res-0603-10K	R0603	1
R13	1.8K	R0603	1
R14	Res-0603-1K	R0603	1
R15	Res-0603-1K	R0603	1
R16	Res-0603-1K	R0603	1
R17	Res-0603-1K	R0603	1
R18	Res-0603-1K	R0603	1
R19	210k	R0603	1
R20	40.2k	R0603	1
R21	Res-0603-10K	R0603	1
R22	Res-0603-100K	R0603	1
R23	Res-0603-10K	R0603	1
R24	Res-0603-100K	R0603	1
R25	Res-0603-10K	R0603	1
R26	Res-0603-100K	R0603	1
R27	Res-0603-10K	R0603	1
R28	Res-0603-100K	R0603	1
R29	Res-0603-10K	R0603	1
R30	Res-0603-100K	R0603	1
R31	Res-0603-10R	R0603	1
R32	Res-0603-100K	R0603	1
R33	Res-0603-1K	R0603	1
R34	Res-0603-10R	R0603	1
R35	Res-0603-100K	R0603	1
R36	Res-0603-1K	R0603	1
R37	Res-0603-10R	R0603	1
R38	Res-0603-100K	R0603	1
R39	Res-0603-1K	R0603	1
R40	Res-0603-4K7	R0603	1
R41	Res-0603-4K7	R0603	1
R42	Res-0603-4K7	R0603	1
R43	Res-0603-4K7	R0603	1
R44	Res-0603-100K	R0603	1
R45	Res-0603-10K	R0603	1
R46	Res-0603-10R	R0603	1
R47	Res-0603-100K	R0603	1
R48	Res-0603-10R	R0603	1

D40	D 0002 100K	R0603	I <sub>4</sub>
R49	Res-0603-100K		1
R50	Res-0603-1K	R0603	1
R51	Res-0603-10R	R0603	1
R52	Res-0603-100K	R0603	1
R53	Res-0603-1K	R0603	1
R54	Res-0603-4K7	R0603	1
R55	Res-0603-1K	R0603	1
R56	Res-0603-1K	R0603	1
R57	Res-0603-8K66	R0603	1
R58	100K	R0603	1
R59	100	R0603	1
R60	100	R0603	1
RPK1	10K	RPACK4	1
RPK2	10K	RPACK4	1
RPK3	10K	RPACK4	1
RX	GREEN	LED0603	1
S1	TS42	TS42	1
THM	Header 5X2	HDR2X5	1
TX	GREEN	LED0603	1
U1	ATMEGA2560	TQFP100N	1
U2	ATMEGA16U2-AU	MLF32A	1
U4	MP1584	SOIC8E	1
U5	LM2596	LM2596S-5.0	1
USB_H	Header 4	HDR1X4	1
VFA0_sel	Header 3	HDR1X3	1
VFA1_sel	Header 3	HDR1X3	1
VHE2_sel	Header 3	HDR1X3	1
X	A4988BREAKOUT	A4988BREAKOUT	1
X+	Header 3	HDR1X3	1
X-	Header 3	HDR1X3	1
X_MOT	ScrewTerminal-3.5mm-4Way	TERM4 3.5MM	1
X_MOT_A	Header 4	HDR1X4	1
X_MS	Header 3X2	HDR2X3	1
Y	A4988BREAKOUT	A4988BREAKOUT	1
Y+	Header 3	HDR1X3	1
Y-	Header 3	HDR1X3	1
Y1	16MHz	X-TAL	1
Y2	16MHz	X-TAL	1
Y_MOT	ScrewTerminal-3.5mm-4Way	TERM4 3.5MM	1
Y_MOT_A	Header 4	HDR1X4	1
Y_MS	Header 3X2	HDR2X3	1
Z	A4988BREAKOUT	A4988BREAKOUT	1
Z+	Header 3	HDR1X3	1
Z-	Header 3	HDR1X3	1
Z1	VARISTOR	R0603	1
Z2	VARISTOR	R0603	1
Z3	VARISTOR	R0603	1
Z_MOT	ScrewTerminal-3.5mm-4Way	TERM4 3.5MM	1
	Header 4		1
Z_MOT_A		HDR1X4	
Z_MS	Header 3X2	HDR2X3	1