



Comment	Description	Designator	Footprint	LibRef	Quantity
470uF	Polarized Capacitor (Radial)	C1, C20, C21, C22, C23, C27, C28, C29	CAP10x12	Cap Pol DIP	8
10uF	Capacitor (Semiconductor SIM Model)	C2, C5	CC3216-1206	Cap Semi	2
100nF	Capacitor (Semiconductor SIM Model)	C3, C7, C10, C11, C12, C14, C15, C16, C17, C18, C19	CC2012-0805	Cap Semi	11
2200uF	Polarized Capacitor (Axial)	C4	SV-G	Cap Pol SMD	1
39pF	Capacitor (Semiconductor SIM Model)	C6, C13	CC2012-0805	Cap Semi	2
20pF	Capacitor (Semiconductor SIM Model)	C8, C9	CC2012-0805	Cap Semi	2
10uF	Capacitor (Semiconductor SIM Model)	C24, C25	CC2012-0805	Cap Semi	2
2.2uF	Capacitor (Semiconductor SIM Model)	C26	CC2012-0805	Cap Semi	1
SS54	Schottky Diode	D1, D2	SMA	D Schottky	2
24V	Typical RED GaAs LED	D3	D0805	LED	1
3.3V	Typical RED GaAs LED	D4	D0805	LED	1
BOOT	Typical RED GaAs LED	D5	D0805	LED	1
A	Typical RED GaAs LED	D6	D0805	LED	1
B	Typical RED GaAs LED	D7	D0805	LED	1
PWM	Typical RED GaAs LED	D8	D0805	LED	1
DIR	Typical RED GaAs LED	D9	D0805	LED	1
5V	Typical RED GaAs LED	D10	D0805	LED	1
20A Fuse	Fuse	F1	FUSE SOCKET	Fuse	1
22uH	Inductor	L1	CDRH74	Inductor	1
FB	Inductor	L2	CL3225-1210	Inductor	1
MDRIVE	HIP4081 Motor Driver Module	M1	HIP4081_Driver	HIP4081 Motor Driver	1
MOTOR	Header, 2-Pin	P1	T-CONNECTOR(F)	Header 2	1
MDRIVE	Header, 4-Pin	P2	LOCKEDHDR-4W	Header 4	1
CAN	Header, 4-Pin	P3, P4	LOCKEDHDR-4	Header 4	2
UART	Header, 4-Pin	P5	LOCKEDHDR-4	Header 4	1
SWD	Header, 4-Pin	P6	LOCKEDHDR-4	Header 4	1
POWER	Header, 2-Pin	P7	T-CONNECTOR(F)	Header 2	1
ENC	Header, 5-Pin	P8	lockedHDR-5	Header 5	1
SWL	Header, 3-Pin	P9	LOCKEDHDR-3	Header 3	1
SWH	Header, 3-Pin	P10	LOCKEDHDR-3	Header 3	1
AUX	Header, 3-Pin	P11	LOCKEDHDR-3	Header 3	1
162k	Semiconductor Resistor	R1, R2	CR2012-0805	Res Semi	2
53.6k	Semiconductor Resistor	R3	CR2012-0805	Res Semi	1
10.2k	Semiconductor Resistor	R4	CR2012-0805	Res Semi	1
330R	Semiconductor Resistor	R5, R6, R7, R9, R12, R14, R16, R18, R19, R20, R21, R26	CR2012-0805	Res Semi	12
60R	Semiconductor Resistor	R8, R10	CR2012-0805	Res Semi	2
100k	Semiconductor Resistor	R11, R13, R24	CR2012-0805	Res Semi	3
200k	Semiconductor Resistor	R15, R17, R25	CR2012-0805	Res Semi	3
1k	Semiconductor Resistor	R22, R23	CR2012-0805	Res Semi	2
RST	Single-Pole, Single-Throw Switch	SW1	PUSH SWITCH	SW-SPST	1
PWR	Header, 3-Pin, Dual row	SW2	POWER SWITCH	Header 3X2	1
STM32F103CBT6	STM32 ARM-based 32-bit MCU with 128 Kbytes Flash, 48-pin LQFP, Industrial Temperature	U1	LQFP48_N	STM32F103CBT6	1
TPS54360	60 V, 3.5 A , Step Down DC-DC Converter with Eco-Mode	U2	PDSO-8	TPS54360	1
6N137	Optocoupler	U3, U5	DS1302	6N137	2
TJA1050	5V to 12V Charge Pump	U4	SOP-8	TJA1050	1
LM1117MP-3.3	800mA Low-Dropout Linear Regulator	U6	MP04A_N	LM1117MP-3.3	1
8MHz	Crystal Oscillator	X1	BCY-W2/E4.7	XTAL	1