

MRSD Project Course 16681-A

Task 7.3 Bill of Materials

Team D

Item No.	Part Name	Quantity	Value	Part Designator	Manufacturer Part Number	Vendor	Unit Price (USD)
1	PCB Power Relay	4	Relay, 5V, 10A	K1	SRD-05VDC-SL-C	Amazon	\$4.79
2	DC Supply Connector	2	20V, 5A	J1	DCJ200-10-A-K1-K	DigiKey	\$0.720
3	Fuse Holder	2	-	CP1	4628	DigiKey	\$0.81
4	Schottky Diode	8	100v, 5A	D1	SR510 A0G	DigiKey	\$0.29
5	Capacitor	4	0.1uF, 50V	C1	C317C104M5U5TA7317	DigiKey	\$0.34
6	Capacitor	4	10nF, 25V	C2	C322C103K3G5TA	DigiKey	\$0.54
7	Capacitor	4	82uF, 35V	C3	ESW826M035AE4AA	Mouser	\$0.44
8	Buck Converter	3	40V, 5A	U1	LM2678T-ADJ	DigiKey	\$7.93
9	Capacitor	4	330uF, 25V	C4	MAL217056331E3	Mouser	\$1.60
10	Resistor	4	2.05K Ohm	R2	MFR-25FRF52-2K05	DigiKey	\$0.10
11	Resistor	4	1K Ohm	R3	CFR-25JB-52-1K	DigiKey	\$0.10
12	Emergency Stop	2	-	SW1	A01ESDM	DigiKey	\$13.44
13	2-pin Connector	4	300V, 13.5A	J2	282837-2	DigiKey	\$0.90
14	Inductor	4	100uH, 5.1A	L1	7447471100	DigiKey	\$2.36
15	Fuse	6	6A	F1	0234006.MXP	DigiKey	\$1.19

Parts not on the Board but necessary:

Item No.	Part Name	Quantity	Value	Part Designator	Manufacturer Part Number	Vendor	Unit Price (USD)
1	Cable Sleeve	1	Cable Sleeve	-	704256852238	Amazon	\$15.99
2	Standoff Kit	1	Standoffs	H1	-	Amazon	\$14.98
3	Heat Sink	2	-	-	577202B00000G	DigiKey	\$0.84
4	AC-DC Adaptor	2	12V, 5A	-	WO DC12V5A-US	B&H	\$29