

Electronic Speed Controller

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Expense Report

Line	Vendor	Quantity	Vendor Part Number	Description	Unit Price	Extended Price
1	Amazon	1	MY6812	100W 24VDC Brushed Motor	\$36.99	\$36.99
2	Battery Hookup	1	GNS6	36V/5.2Ah Lithium Ion E-bike battery	\$22.00	\$22.00
3	Jameco	1	2355231	DSM-VC288 Voltage/Amp meter	\$4.95	\$4.95
4	Digikey	20	IRF530NPBF-ND	N channel MOSFET 100V/17A	\$1.42	\$28.40
5	Digikey	14	IR2011PBF-ND	MOSFET gate driver IC	\$2.785	\$38.99
6	Digikey	10	497-19621-ND	Linear voltage regulator 1.5A	\$0.411	\$4.11
7	Mouser	10	MBRF10200	200V/10A Schottky diode	\$0.809	\$8.09
8	Digikey	10	1N4148FS-ND	1N4148 small signal diode	\$0.055	\$0.55
9	Mouser	10	232-50ZLH100MEFC8X15	50V, 100uF electrolytic radial capacitor	\$0.125	\$1.25
10	Digikey	10	C323C200KA G5TA-ND	20pF ceramic radial capacitor, +/-10%	\$0.241	\$2.41
11	Digikey	10	399-9793-ND	0.01uF ceramic radial capacitor, +/-10%	\$0.786	\$7.86
12	Digikey	20	1276-6720-1-ND	0.1uF ceramic 0402 capacitor, +/-10%	\$0.006	\$0.12
13	Digikey	50	399-4331-ND	0.1uF ceramic radial capacitor, +/-20%	\$0.181	\$9.07
14	Digikey	10	399-13979-1-ND	0.47uF ceramic radial capacitor, +/-20%	\$0.297	\$2.97
15	Digikey	10	1276-1102-1-ND	1uF ceramic 0402 capacitor, +/-10%	\$0.012	\$0.12

16	Digikey	10	1276-1244-1-ND	4.7uF ceramic 0805 capacitor, +/-10%	\$0.057	\$0.57
17	Digikey	50	13-CFR-25JR-52-10RCT-ND	1/4W 10 Ohm 5% resistor, axial	\$0.027	\$1.33
18	Digikey	50	13-CFR-25JR-52-47RCT-ND	1/4W 47 Ohm 5% resistor, axial	\$0.027	\$1.33
19	Digikey	50	CF14JT470R CT-ND	1/4W 470 Ohm 5% resistor, axial	\$0.023	\$1.16
20	ECE Dept.	3	N/A	1/4W 2.2k Ohm 5% resistor, axial	\$0.00	\$0.00
21	Digikey	50	CF14JT5K60 CT-ND	1/4W 5.6k Ohm 5% resistor, axial	\$0.023	\$1.16
22	ECE Dept.	3	N/A	1/4W 10k Ohm 5% resistor, axial	\$0.00	\$0.00
23	Hackerspace	3	N/A	100k Ohm potentiometer	\$0.00	\$0.00
24	ECE Dept.	2	N/A	Red LED, radial package	\$0.00	\$0.00
25	Digikey	3	732-13783-ND	Ferrite bead, 976 Ohm @ 100MHz	\$0.50	\$1.50
26	Digikey	3	50-ECS-80-18-4X-CKM-ND	8MHz Crystal Oscillator, 2 pin	\$0.42	\$1.26
27	Digikey	6	296-40063-1-ND	Hall effect sensor, TO-92-3 package	\$0.634	\$3.80
28	Digikey	8	6236BG-ND	TO-220 heatsink with clip	\$2.94	\$23.52
29	Digikey	25	2057-ICS-308-T-ND	8 pin DIP IC socket	\$0.086	\$2.16
30	Digikey	1	2183-2106-ND	DC DC Converter, 36V input, 3.3V output	\$6.95	\$6.95
31	Adafruit	5	805	SPDT breadboard-friendly slide switch	\$0.95	\$4.75
32	Digikey	6	497-17992-ND	STM32L476RGT3 surface mount chip	\$8.61	\$51.66
33	Amazon	1	RM-6X3-100P	100ct 6x3MM magnets	\$7.99	\$7.99
34	Amazon	1	S36	Smraza 30ct solder board kit with pin headers and sockets	\$13.99	\$13.99
35	Digikey	3	501-1080-ND	Female banana plug, red	\$2.56	\$7.68
36	Digikey	3	501-1078-ND	Female banana plug, black	\$2.56	\$7.68

37	JLCPCB	1	N/A	94mm x 74.3mm PCB, 1oz copper	\$2.00	\$2.00
38	JLCPCB	1	N/A	159.5mm x 62.5mm PCB, 2oz copper	\$25.10	\$25.10
				TOTAL COST:		\$333.47