

THE TWO WHEEL DEAL BILL OF MATERIALS

Item	Reference	Amount	Paid By	Net Cost	Extended Cost
Chassis/Power					
12 V Sealed Lead Acid		2	Greg	\$44.99	\$89.98
NPC-T74 Gearmotors		2	Donation	\$324.00	\$648.00
16" Skyway Utility Wheel with Keyed Hub		2	Greg	\$25.29	\$50.58
16" Bicycle Tube		2	Pete	\$4.99	\$9.98
16" Bicycle Tire		2	Pete	\$8.99	\$17.98
Futurlec 20x4 LCD		1	Eric	\$20.90	\$20.90
1 ft - 10 AWG Black High Current Power Cable		5	Greg	\$0.60	\$3.00
10 ft - 10 AWG Red High Current Power Cable		8	Greg	\$0.60	\$4.80
50 - 1/4" Ring Terminals		1	Greg	\$5.89	\$5.89
AMP 50A Red Power Connector		4	Greg	\$1.30	\$5.20
AMP 50A Blue Power Connector		2	Greg	\$1.63	\$3.26
AMP 50A Yellow Power Connector		2	Greg	\$2.45	\$4.90
AMP Connector 10 AWG Contact		18	Greg	\$0.68	\$12.31
Brain Board					
Analog Devices ADXL203	U3	1	Sample	\$39.95	\$39.95
Melexis MLX90609 ±150°/s Gyroscopic Angular Rate Sensor	U4	1	Sample	\$39.95	\$39.95
ATmega32	U1	1	Sample	\$7.27	\$7.27
1N4734A 5.6V Zener Diode	D1	1	Greg	\$0.20	\$0.20
1uF 1206 Surface Mount Capacitor	C1,C2	2	Cabinet	\$0.10	\$0.20
0.1uF 1206 Surface Mount Capacitor	C3,C8,C11,C12	4	Cabinet	\$0.10	\$0.40
0.22pF 1206 Surface Mount Capacitor	C4,C9,C10	1	Cabinet	\$0.10	\$0.10
0.22uF 1206 Surface Mount Capacitor	C7	1	Cabinet	\$0.10	\$0.10
10KΩ 1206 Surface Mount Resistor	R2,R3	2	Cabinet	\$0.02	\$0.04
50KΩ 1206 Surface Mount Resistor	R4	1	Cabinet	\$0.02	\$0.02
Molex KK 90° 4-pin Header	J1,J4	2	Greg	\$0.53	\$1.07
Molex KK 90° 10-pin Header	J5	1	Greg	\$0.96	\$0.96
Molex KK 90° 12-pin Header	J3	1	Greg	\$1.91	\$1.91
3M 10-pin 4-wall Header	J6	1	Greg	\$0.34	\$0.34
Omron B3F-1000 Tactile Switch	SW2	1	Greg	\$0.22	\$0.22
LM340T-5.0 5V Linear Voltage Regulator	U6	1	Greg	\$2.42	\$2.42
Vantis PALCE22V10D	U7	1	Cabinet	\$4.83	\$4.83
Avago Technologies ASCL 6400 4 Channel Photocoupler	U13	1	Greg	\$5.50	\$5.50
Citizen HC49US 16MHz Crystal	Y1	1	Greg	\$0.79	\$0.79
Motor Controllers					
Intersil HIP4081A Full Bridge FET Driver	U1	2	Sample	\$4.37	\$8.74
LM340T-12 12V Linear Voltage Regulator	U2	2	Greg	\$2.42	\$4.84
HRF3205 100A, 55V N-Channel MOSFET	Q1-Q12	24	Greg	\$1.46	\$35.09
Diodes Inc SD101AW Schottky Diode	D3-D8,D12-D17	24	Greg	\$0.31	\$7.42
P150ECT 150Ω 1206 Surface Mount Resistor	R3-R14	24	Greg	\$0.09	\$2.26
1.5KE51CA 1500W Transient Voltage Suppressor	D9-D11	6	Greg	\$0.60	\$3.57
250KΩ 1206 Surface Mount Resistor	R1,R2	4	Cabinet	\$0.02	\$0.08
Diodes Inc UF1002 Rectifier	D1,D2	4	Greg	\$0.29	\$1.15
0.47uF 1206 Surface Mount Capacitor	C1	2	Cabinet	\$0.10	\$0.20
1uF Electrolytic Capacitor	C2,C3	4	Cabinet	\$0.20	\$0.80
0.22uF 1206 Surface Mount Capacitor	C4	2	Cabinet	\$0.10	\$0.20
0.1uF 1206 Surface Mount Capacitor	C5	2	Cabinet	\$0.10	\$0.20
1200uF Electrolytic Capacitor	C6	2	Greg	\$3.23	\$6.46
Molex KK 90° 4-pin Header	J1	2	Greg	\$0.53	\$1.06
3-pin Straight Header	J2	2	Cabinet	\$0.10	\$0.20
2-pin Straight Header	J5	2	Cabinet	\$0.10	\$0.20
TOTAL COST =				\$1,055.51	