

Bill of Materials

* indicates optional items

Total Cost (without samples)	\$1,865.74	Total Cost with Samples	\$2,086.35
Budget	\$2,000.00		
Spending Money Left	\$134.26		

Item	Description	Part Number	Quantity	Price (ea)	Shipping	Price total	Lead Time	Company	Phone	Email	Web Address	Note
FRAME												
	Steel Stock											
	Bike Frame											
1	2" OD 1/8" thick x 4ft tube (Axel)	T22125	1	27.05	0	27.05	Received	SMC Metal			meatalsdepot.com	
2	1.5" OD .12 " Thick x 8ft tube (Handle bar)	T2W112120	1	16.38	0	16.38	Received	SMC Metal			meatalsdepot.com	
	Base											
3	1ft x 1ft X 3/4 Plate	P134	1	36.00	0	36.00	Received	SMC Metal			meatalsdepot.com	
4	.75" OD x .12 wall x 6ft	T234120	1	16.25	0	16.25	Received	SMC Metal			meatalsdepot.com	
5	Pillow block bearings	6667K17	2	83.58	7.50	174.66	Received	McMaster-Carr	(609) 259-8900		mcmaster.com	
6	Powder coating / paint		1	100.00	0	100.00	Received	Mike Wlostowski	(716) 674-8954	mwspray@hotmail.com		
7	Hardware - nuts, bolt, locitite, odds and ends		1	114.84	0	114.84						
TILT RESISTANCE												
8	Pullies	1VN48	3	8.69	0	26.07	Received	Grainger			grainger.com	
9	Hinges	16175A22	2	4.49	0	8.98	Received	Grainger			mcmaster.com	
10	2" x 2" 3/16 X 4 Square tube	T122316	1	17.00	0	17.00	Received	SMC Metal			meatalsdepot.com	
11	Steel Plate for top of Post/ pulley brackets	S111	1	10.00	0	10.00	Received	SMC Metal			meatalsdepot.com	
12	Winch		1	386.97	12.68	399.65	Received	Outdoor Distributors			www.outdoordistributors.com	
13	Springs		1	87.76	0	87.76	Received	Century Spring				
14	Cover Guard (36x72)		1	13.49	0	13.49	Received	Home-depot	(609) 259-8900		mcmaster.com	
15	Spring Cartridges			243.98	0	243.98	Received	Grainger				
HANDLE BARS												
16	Handle bars		1	donation (\$8)	0	8.00	Received	Bert's Bikes	(716) 646-0028	tengel@bertsbikes.com	bertsbikes.com	
17	Pivot for Handle Bars		1	67.00	7	74.00	Received	Adjustable Lock Tech	(248) 443-9664			
18	Spacer for handle bar pivot to mount	R3114	1	0.00	0	0.00	Received	left over plastic			meatalsdepot.com	
19	1" OD x .125" Wall X 2ft (Aluminum handle bars up right)	T3R1125	1	5.12	0	5.12	Received	SMC Metal			meatalsdepot.com	
20	Handle bars T connection	4698T115	1	12.99	0	12.99	Received	McMaster-Carr	(609) 259-8900		mcmaster.com	
21	*Handlebar Grips		1	13.98	0	13.98	Received	Dick's				
22	*Hand Straps - Nordic Walking		1	donation (\$20)	0	20.00	Received	Leki	1-800-255-9982 (x18)	lindy@leki.com	www.leki.com	
SEAT												
23	Schwinn Airdyne Seat		1	donation (\$40)	0	40.00	Received	G & G Fitness	(585) 427-7630	tgarbach@livefit.com	livefit.com	
24	Seat Post		1	donation (\$7.42)	0	7.42	Received	G & G Fitness	(585) 427-7630	tgarbach@livefit.com	livefit.com	
25	Pin for telescoping seat height		1	donation(\$4.82)	0	4.82	Received	G & G Fitness	(585) 427-7630	tgarbach@livefit.com	livefit.com	

PEDALS											
26	Schwinn Wide Ride Pedals		1	donation (\$33)	0	33.00	Received	G & G Fitness	(585) 427-7630	tgarbach@livefit.com	livefit.com
27	Friction pedal device		1	donation (\$39.94)	0	39.94	Received	furniture store			
MISC											
28	Pin for locked position	Multi	1	0	0	0.00	Received				
29	Antifatigue Rubber Mat	6914T35	1	86.70	86.70			McMaster-Carr	(609) 259-8900		mcmaster.com
30	Leveling Feet	90595	1	1.96	1.96			Sportsmith			
FEEDBACK SYSTEM											
Ordered Items											
31	LED array	HDSP-4836	3	6.53	19.59		Received	Mouser			Avago Tech.
32	Sensor (requested)	H4A1-30	1	189.00	189.00		Received	Rieker			Rieker
33	1.0K Pot	106W-103-ND	5	0.71	3.55		Received	Digi-Key			
34	2.5K Pot	102R252B-ND	8	0.51	4.08		Received	Digi-Key			
35	2.0K Pot	106W-202-ND	8	0.71	5.68		Received	Digi-Key			
36	5.0K Pot	106W-502-ND	5	0.71	3.55		Received	Digi-Key			
37	IC Sockets - 16 PIN	A24809-ND	10	0.53	5.28		Received	Digi-Key			
38	IC Sockets - 14 PIN	A32879-ND	5	0.96	4.80		Received	Digi-Key			
39	IC Sockets - 8 PIN	ED3308-ND	5	0.65	3.25		Received	Digi-Key			
40	Buzzer (Fast Pulse)	CPE-351	1	5.17	5.17		Received	Digi-Key			CUI Inc.
41	Buzzer (Slow Pulse)	CPE-353	1	4.95	4.95		Received	Digi-Key			
42	Printed Circuit Board	V1044-ND	2	23.00	46.00		Received	Digi-Key			Vector, Inc.
43	Audio Logic - XOR Gates	N74LVC2G86	3	0.45	1.35		Received	Digi-Key			Texas Instruments
Samples											
44	Instrumentation Amplifier	AD620	3	5.84	17.52		Received	Analog			Analog Devices
45	Comparator	AD8564AN	6	7.21	43.26		Received	Analog			Analog Devices
46	Voltage Regulator (9V to 5V)	LM340	5	1.33	6.65		Received	National			National Semiconductor
From EE Dept.											
47	Audio Logic - NAND Gates	CD74AC00M	2	0.56	0.00		Obtained from EE dept.	Digi-Key			**Obtain from RIT EE Dept.
48	Op-Amp	LM741	4	0.39	0.00		Obtained from EE dept.	Digi-Key			**Obtain from RIT EE Dept.
From RadioShack											
49	Enclosure 5x7x3	2701807	1	5.99	5.99		Purchased	Radio Shack			
50	9V 800mA Power Supply	2731760	1	18.99	18.99		Purchased	Radio Shack			
51	Adaptaplug - N Type	2731717	1	0.00	0.00		Purchased	Radio Shack			
52	1K Multi-turn Potentiometer	2710342	5	2.69	13.45		Purchased	Radio Shack			
53	10K Multi-turn Potentiometer	2710343	7	2.42	16.94		Purchased	Radio Shack			
54	Electrical Tape	6402373	1	1.99	1.99		Purchased	Radio Shack			
55	Power Jack N-Type	2741583	1	2.99	2.99		Purchased	Radio Shack			
56	Yellow SMM LED	2760351	2	2.79	5.58		Purchased	Radio Shack			
57	Red SMM LED	2760309	2	1.49	2.98		Purchased	Radio Shack			
58	Green SMM LED	2760304	3	1.49	4.47		Purchased	Radio Shack			
59	SPST Rocker Switch	2750693	1	2.99	2.99		Purchased	Radio Shack			
60	PCB Standoff	2760195	1	1.79	1.79		Purchased	Radio Shack			
61	LED Snap-Holder	2760079	3	1.49	4.47		Purchased	Radio Shack			