Sub Assembly	Components	Qty	Material	Mass (lb)
Frame & Structure	Main frame	1	1018 tube	9.5
	Side stiffeners	2	1018 plate	2.5
Front Axle	20" tire + hub + 4" crank + coaster	1	Steel Hub/Coaster, Al Rim,	12.1
Steering Mechanism	Stem extension	1	1018	4.7
	Head-set screw	1	10.9 alloy	0.19
	Handle-bars	1	6061-T6	0.84
	Handle-bar grips	2	Rubber	0.24
Seat	Pedals (pair)	2	Steel/Alu	0.66
	Banana seat	1	Vinyl/steel	1.4
	T-piece (under seat support)	1	6061-T6	0.55
	Seat spacers + bolts	1 set	Alloy	0.25
	Rear support rods	2	1018 tube	0.7
Rear Axle	Center Tube	1	4130	0.73
	Axle Bushings	1	4130 / C360	4
	Brass spacers	2	C360	0.16
	Center Frame Bushing	2	1018	0.9
Total				**39.4**

Fab. process	Key Specs.	Source	Actual $	Market $
TIG	TIG-welded donor	Re- used	0	35
TIG	¼ in gussets	In- house	0	8
Purchased	coaster + arms	Purcha sed	35	35
CNC-turn + TIG	+7 in, Ø1 in	Jeff lab	0	20
Std	M10 × 1	Re-used	0	1
—	9 in width	Re- used	0	25
—	130 mm	Purcha sed	12	12
—	½-20, 4 in crank	Purcha sed	28	28
—	460 × 115 mm	Purcha sed	45	45
CNC-mill	Ø1.25 × 3 in	Jeff lab	0	18
—	M8, ¼ in	Incl. kit	0	3
Cut + TIG	Ø½ × 15 in	Purcha sed	0	6
CNC-turn	11.3 L × 1.25 OD × 1.13 ID ± 0.002 in	Jeff lab	0	22
CNC + press-fit + heat treated	stepped Ø0.385 in	Jeff lab	0	40
CNC-turn	Ø1.25 × 0.25 in	Jeff lab	0	6
CNC-turn	Ø1.80 OD × 1.25 ID × 0.25 t in	Jeff lab	0	8
			$120	**$312**