

1 Preliminary Cost Estimates

1.1 Puff

Component	Weight(g)	Price (\$)
Motor	42	3
Battery container	50	3
Wheels	28	1.12
Chassis	185	7.40
Axles	16	0.64
Servos	50	10
Arduino	10	27
Arduino battery	25	11
Brakes	0	5
Transmission	50	0.75
Differential	n/a	n/a
Miscallaneous	50	10
Turn detection device	50	2
Total	556	80.91

Table 1: Cost and weight of Puff

1.2 Get Hitched

Component	Weight(g)	Price (\$)
Motor	42	6
Battery container	50	3
Wheels	28	1.12
Chassis	185	7.40
Axles	16	0.87
Servos	50	10
Arduino	10	27
Arduino battery	25	11
Brakes	0	5
Transmission	50	0.75
Differential	n/a	n/a
Miscallaneous	50	10
Turn detection device	50	8.50
Total	556	90.64

Table 2: Cost and weight of Get Hitched

1.3 Pump Chump

Component	Weight(g)	Price (\$)
Motor	42	3
Battery container	50	3
Wheels	28	1.12
Chassis	185	7.40
Axles	16	0.87
Servos	50	10
Arduino	10	27
Arduino battery	25	11
Brakes	0	5
Transmission	50	0.75
Differential	n/a	n/a
Miscellaneous	50	10
Turn detection device	50	6
Total	556	85.14

Table 3: Cost and weight of Pump Chump

1.4 Simplicity

Component	Weight(g)	Price (\$)
Motor	42	3
Battery container	50	3
Wheels	28	1.12
Chassis	185	7.40
Axles	16	0.87
Servos	50	10
Arduino	10	27
Arduino battery	25	11
Brakes	0	5
Transmission	50	0.75
Differential	n/a	n/a
Miscellaneous	50	10
Turn detection device	50	0
Total	556	79.14

Table 4: Cost and weight of Pump Chump