## Tools

Item	Quantity	Price	Link	Desc
Center Drill Bit	1	13	.99 <u>Amazon.com</u>	Used for counter sinking the Lazy Susan
				Used for getting the correct amount of ballast in the S2S and
Small Level	1	6	.99 <u>Amazon.com</u>	front/rear balancers
Metal File	1		4.7 <u>Amazon.com</u>	Used to file down the edges of certain 3D printed parts.
Total		20	.98	3

## Hardware

Item	Quantity	Price	Link	Desc
				A majority of screws used in this build are M3 so I
M3 Allen Bolt and Nut Kit		1	10.99 Amazon.com	recommend this kit
				The remaining majority of screws are M4. Note in the manual
				I used 8-32 because that's what I already had on had from
M4 Allen Long Bolts		1	10.99 Amazon.com	other projects, but I recommend the M4.
M4 Lock Nuts		1	7.99 Amazon.com	Used with the M4 Allen bolts
M4 Washers		1	6.29 Amazon.com	Used with the M4 Allen bolts
				One is used under the flywheel for the S2S Balancer; you can
				use a normal nut instead to save a few bucks but these are a
M3 Insert		1	5.99 Amazon.com	bit nicer.
				Used underneath the Susan to allow clearance for the
M4 Flat Screws		1	9.99 Amazon.com	flywheel
				The screw that goes under the S2S motor from the flywheel. I
M3 Flat Screws		1	12.99 Amazon.com	used a 6-32 but M3 would be better.
Total			65.23	7

## Misc

Item	Quantity	Price	Link	Desc

			Use this on all threads facing vertically, ie the ones holding
Blue Locktite	1	5.99 Amazon.com	the battery and ones holding the Susan to the A-frames
			I just bought some at my local Home Depot. Also 12" would
14" Zip Ties	1	7.52 <u>Amazon.com</u>	probably be okay.
Total		13.51	2

## Electrical

Item	Quantity	Price	Link	Desc
62/36/2 Silver Solder		1	24.49 Amazon.com	The best solder to use, hands down.
Flux Paste		1	7.95 Amazon.com	Really helps with soldering the nickel strips to the battery
				Note: search "16 awg PTFE" on ebay as this link will probably
				change frequently. This is a kit of 6 colors 5 feet each. You
16 awg (gauge) PTFE wire		1	17.99 Amazon.com	could get by with 4 wires @ 5 feet each.
				I highly recommend a kit with lots of sizes as this comes in
Heat shrink		1	9.49 Amazon.com	handy for lots of projects.
Total			59.92	4

## Power Switch Holder - CHOOSE ONE (or omit)

#### Simple

Item	Quantity	Price	<u>Link</u>	Desc
				Main power switch. I actually used an illuminated one from
				Ace hardware that I had in my parts bin but this seems to be
				the same size. If you want an illuminated one, there's a good
				option here:
				https://www.amazon.com/gp/product/B081CTDM9X/ref=as
Rocker Power Switch		1 7.	.99 Amazon.com	k_ql_qh_dp_hza

			Accepts the male 2.1mm barrell jack for charging (portable
Switchcraft 2.1mm Charge Port	1	7.9 <u>Amazon.com</u>	jump starter already uses it on their charger).
			This link will probably get old. Search 24 AWG PTFE on eBay. I
22 or 24 AWG PTFE Wire	1	14.95 <u>Ebay.com</u>	like the seller NavShips.
Total		30.84	3

### Voltage

Item	Quantity	Price	<u>Link</u>	Desc
				Main power switch. I actually used an illuminated one from
				Ace hardware that I had in my parts bin but this seems to be
				the same size. If you want an illuminated one, there's a good option here:
				https://www.amazon.com/gp/product/B081CTDM9X/ref=as
Rocker Power Switch		1	7.99 Amazon.com	k_ql_qh_dp_hza
Nockel Fower Switch			7.55 Amazon.com	κ_qι_qιι_up_1128
				Accepts the male 2.1mm barrell jack for charging (portable
Switchcraft 2.1mm Charge Port		1	7.9 Amazon.com	jump starter already uses it on their charger).
3.				This link will probably get old. Search 24 AWG PTFE on eBay. I
22 or 24 AWG PTFE Wire		1	14.95 <u>Ebay.com</u>	like the seller NavShips.
				AV (Anti-vandal). I actually used an illuminated one (had it
				from another project) but putting a non-illuminated one here
12mm Momentary AV switch		1	7.98 Amazon.com	for simplicity.
				Used to thread the 3D Voltage Adapter part. You can use
M3 tap		1	7.69 Amazon.com	sheet metal screws instead.
				Very important to get this exact one; if not you'd need to
Bayite 0-30v Mini Voltmeter		1	12.98 Amazon.com	make a new adapter.
Total			59.49	6

# Battery - CHOOSE ONE

#### 21700 Pack

|--|

	100.47	5
1	23.5 Amazon.com	manually soldered to the leads of this.
		For charging the pack. One EC5 connector will need to be
1	8.99 Amazon.com	charging. Charger will get one end as well.
		Used to allow the battery to disconnect from the drive for
1	12.99 Amazon.com	so the 100mm is much easier to work with.
		and save some money but you have to piece two together,
		For soldering the battery pack. Note: you can get the 50mm
1	9.99 Amazon.com	from the 6 21700 cells
		Needed to manage the 3S2P battery pack that is constructed
6	7.5 <u>Illumn.com</u>	5000mAh version
		discharge. Performs better (from research) than the
		Rockstar battery that performs even at a 20amp continuous
	1 1 1	1 9.99 <u>Amazon.com</u> 1 12.99 <u>Amazon.com</u> 1 8.99 <u>Amazon.com</u> 1 23.5 <u>Amazon.com</u>

#### Portable Jump Starter

Item	Quantity	Price	Link	Desc
				This replaces the Suoaki that is no longer avialble. I'm
DB Power 800 Amp 18000mAh		1	69.99 Amazon.com	confident this will work but haven't tested it.
				Wire this to your drive's main power and hook to the
EC5 Connector		1	9.99 Amazon.com	portable jump starter
				I actually used one that had no leads, but this is probably
2.1mm Male Barrell Jack		1	5.99 Amazon.com	easier for most
				I have this stuff left over from shipping; the amount you need
1/16" Foam Sheet for packing		1	12.99 Amazon.com	is very small.
Total			92.97	4

Portable Jump TOTAL 252.61 21700 Pack TOTAL 260.11

Simple Power Switch 30.84

Power Switch Voltmeter 59.49

NOTE: Please check parts carefully as you might have a lot of the hardware already from Joe's build