

Electronics	Description	Notes
18	MG996R Servo	I paid about \$5 each on Amazon for MG996R clones in packs of 10 - mine were marked LKY62.
1	YEP 20A HV (2~12S) SBEC	I removed the shrink wrap and remounted it in the 3D printed mount. Required resoldering the power leads.
1	Mega 2560 (Arduino)	Mine is an arduino clone bought on ebay.
1	Logitech PS2 wireless controller (and receiver)	I carefully removed the receiver circuit board from its case and remounted it in my new 3D printed mount.
1	5000mAh 3S 20C LiPo battery	This is what I had on-hand. Probably would work fine with a smaller mAh capacity (but I would still use a 3 cell 3S pack).
1	Logic Level Converter	I bought mine on Amazon. Link on the webpage.
Electronics		
Hardware	Description	Notes
1	battery connector	I used XT60.
1	SPST toggle switch	
2	7x15 perfboard	servo headers
1	9x17 perfboard	LED status display board
1	1N4004 diode	Keeps the Mega 2560 processor from back-powering the SBEC regulator when it's connected to a computer via its USB port.
1	1/8W 1K ohm resistor	used for the voltage divider to A0 input for battery monitoring
1	1/8W 2K ohm resistor	used for the voltage divider to A0 input for battery monitoring
8	1/8W 680 ohm resistor	LED status display board
8	red/green bicolor common cathode LEDs	used for the LED status display board
misc	3/4" velcro	used to mount the battery
misc	header strips	used for connection to the Mega 2560 processor and for the perfboards.
misc	wire	stranded ribbon cable (separated) for signal wires, heavier stranded wire for power
Mechanical		
Hardware	Description	Notes
18	624Z Bearing	I bought mine on ebay.
54	4-40 nuts	Bought in packs of 100 from McMaster-Carr (90480A005) https://www.mcmaster.com/90480A005
210	4-40 x 3/8" machine screws	Bought in packs of 100 from McMaster-Carr (90272A108) https://www.mcmaster.com/90272A108
96	4-40 x 1/2" machine screws	Bought in packs of 100 from McMaster-Carr (90272A110) https://www.mcmaster.com/90272A110
12	4-40 x 5/8" machine screws	Bought in packs of 100 from McMaster-Carr (90272A112) https://www.mcmaster.com/90272A112
84	#2 1/4" screws	Bought in packs of 100 from McMaster-Carr (92470A095) https://www.mcmaster.com/92470A095
3D Printed		
Parts	Description	Notes
1	Body Bottom Plate	Printed at 30% infill, no support needed
6	Body Riser	Printed at 30% infill, no support needed
1	Body Top Plate	Printed at 30% infill, no support needed
12	Femur Bracket End Cap	Printed at 30% infill, no support needed
12	Femur Bracket	Printed at 30% infill, no support needed
1	Receiver Holder	Printed at 30% infill, with support.
1	SBEC Holder	Printed at 30% infill, with support.
18	Servo Bearing Center	Printed at 30% infill, no support needed
18	Servo Mount	Printed at 30% infill, with support.
6	Tibia Base Plate	Printed at 30% infill, no support needed
6	Tibia Bracket End Cap	Printed at 30% infill, no support needed
6	Tibia Bracket	Printed at 30% infill, no support needed
6	Tibia Foot Bumper	Printed in TPU, 10% infill, no support needed
6	Tibia Foot Plate	Printed at 30% infill, no support needed
6	Tibia Side 1	Printed at 30% infill, no support needed. Sides are identical, just printed with opposing sides down.
6	Tibia Side 2	Printed at 30% infill, no support needed. Sides are identical, just printed with opposing sides down.
6	Tibia Spacer Tube	Printed at 30% infill, no support needed
6	Wire Guide	Printed at 30% infill, with support.