

Bill Of Materials For Robotics Hand - (Intern) Thum Wei Aun Marcus

4.0 Enforcement

All users will be held accountable for the loss of the organization's confidential data. Non-compliance and violations of this Policy will be investigated, leading to disciplinary actions in accordance with the organization's disciplinary procedures.

Users must also not engage in any activities that will be in violation of National Electronic Health Records (NEHR) System Terms of Use and the laws of Singapore, in particular (but not limited to), the Computer Misuse and Cybersecurity Act (Cap 50A), Copyright Act (Cap 63), Spam Control Act (Cap 311A), Undesirable Publications Act (Cap 338) and the Personal Data Protection Act 2012 as may be amended from time to time.

NO.	Item Description	Qty.	Amount (\$)	Link (HTML)
1	Drive Gear (S50B45B+0203)	1	\$ 10.45	https://sg.misumi-ec.com/vona2/detail/221000069279/?HissuCode=S50B45B%2b0203&PNSearch=S50B45B%2b0203&KWSearch=S50B45B%2b0203&searchFlow=results2type
2	Screw Gear (101281016FAR)	1	\$ 0.81	https://sg.element14.com/huco/101281016far/gear-spur-acetal/dp/3471172?st=spur%20gear%20m0.5
3	Worm Wheel Gear (G50B20+R1)	1	\$ 21.15	https://sg.misumi-ec.com/vona2/detail/221000110917/?rid=rid3
4	Worm Wheel Screw (W50SUR1+B)	1	\$ 19.30	https://sg.misumi-ec.com/vona2/detail/221000120367/?HissuCode=W50SUR1%2bB&PNSearch=W50SUR1%2bB&KWSearch=W50SUR1%2bB&searchFlow=results2type
5	Miniature Ball Bearings [OD9] (F-W603ZZ1/1K)	10	\$ 4.86	https://sg.misumi-ec.com/vona2/detail/221000058378/?HissuCode=F-W603ZZ1%2f1K&PNSearch=F-W603ZZ1%2f1K&KWSearch=F-W603ZZ1%2f1K&searchFlow=results2type
6	Miniature Ball Bearings [OD6] (F-WA673SSA/1K)	10	\$ 5.18	https://sg.misumi-ec.com/vona2/detail/221000058378/?HissuCode=F-W603ZZ1%2f1K&PNSearch=F-W603ZZ1%2f1K&KWSearch=F-W603ZZ1%2f1K&searchFlow=results2type
7	MG996R Motor: Parallax Inc Servo Servo Motor, 140 mA, 4 → 6 V, 27 Ncm	1	\$ 24.13	https://sg.rs-online.com/web/p/dc-motors/7813058?cm_mmc=SG-PLA-DS3A--google--PLA_SG_EN_Automation%26_Control_Gear_Whoop--(SG:Whoop%21)+DC+Motors+(2)--7813058&matchtype=&pla-478037629623&gclid=EAlaQobChMIeODc2p677QIV2AkrCh0_vgAgEAQYASABEgI-VfD_BwE&gclid=aw.ds
8	MG90s Motor	1	\$ 3.80	https://www.lazada.sg/products/on-sale-mg90s-micro-metal-gear-9g-servo-for-rc-plane-helicopter-boat-car-48v-6v-11325044493-s5547278673.html?exlaz=d:1:mm_150050845_51350205_2010350205::12:1025267241!54483208270!lpla-297963845945!cl297963845945!5547278673!283193235&gclid=EAlaQobChMI9vWKop-77QIVgiQrCh3Sgg6xEAQYCIABEgIASvD_BwE
9	RS DC Brushed DC Motor	1	\$ 19.93	https://sg.rs-online.com/web/p/dc-motors/7522002/
10	PTFE Tubing Teflon (ID = 1mm), ID = Internal Diameter	2	\$ 10.00	https://www.lazada.sg/products/3d-printer-part-1meter-bowden-extruder-ptfe-tube-teflon-pipe-for-i-head-hotend-v5-v6-175mm-3mm-filament-id-2mm-1mm-3mm-od-4mm-i1124444421-s4356288934.html?spm=a2o42.searchlist.lis_t.1.7c16150eY7t4XN&search=1
11	Dowel Pins – Straight: MSC3-40	19	\$ 3.03	https://sg.misumi-ec.com/vona2/detail/110300255260/?KWSearch=dowel%20pin&searchFlow=results2products
12	Adafruit 16-Channel 12-bit PWM/Servo Driver - I2C interface - PCA9685	1	\$ 19.88	https://www.adafruit.com/product/815

13	SN-360 Rotary Encoder	2	\$ 3.26	https://shopee.sg/Arduino-360-Degree-Encoder-i.199385036.5407549250
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14	CJMCU-103 Rotation Angle Sensor	2	\$ 8.33	https://shopee.sg/Potentiometer-103-module-rotation-angle-sensor-SV01A103AEA01R00-fine-tuning-potentiometer-i.133454223.3354812787
			\$ 7.01	https://shopee.sg/Arduino-199-MCU-103-Rotation-Angle-Sensor-Module-i.319177698.6256924889
			\$ 7.17	https://sea.banggood.com/CJMCU-103-Rotation-Angle-Sensor-Module-SV01A103AEA01R00-Trimmed-10K-Potentiometer-Analog-Voltage-p-1221722.html?cur_warehouse=CN

Gear	\$ 51.71
Ball Bearing	\$ 100.40
Motor	\$ 47.86
Tubing	\$ 20.00
Pins	\$ 57.57
Motor Driver	\$ 19.88
Potentiometer & Encoder (1)	\$ 23.18
Potentiometer & Encoder (2)	\$ 20.54
Potentiometer & Encoder (3)	\$ 20.86
TOTAL (Option 1)	\$ 320.60
TOTAL (Option 2)	\$ 317.96
TOTAL (Option 3)	\$ 318.28

Take a Graph

