Category	Item	Quantity	Specification	Description	Example Item	Category|Item|Quantity|Specification|Description|Example Item
Body	Aluminum Frame	1	see cabot2_e2.stp file			Body|Aluminum Frame|1|see cabot2_e2.stp file||
Body	Rivet	100	1/8" x 23/64"		https://www.amazon.com/dp/B0727XS1XC/	Body|Rivet|100|1/8" x 23/64"||[Link](https://www.amazon.com/dp/B0727XS1XC/)
Body	Suitcase (Cover)	1	Carry-on lagguage fits to CaBot	Delivered through Amazon (CMU version)	https://www.amazon.com/dp/B0727XS1XC	Body|Suitcase (Cover)|1|Carry-on lagguage fits to CaBot|Delivered through Amazon (CMU version)|[Link](https://www.amazon.com/dp/B0727XS1XC)
Body	Screw	25	M3, 16mm length, Hex Socket			Body|Screw|25|M3, 16mm length, Hex Socket||
Body	Screw	10	M3, 32mm length, Hex Socket			Body|Screw|10|M3, 32mm length, Hex Socket||
Body	Washer	20	M3			Body|Washer|20|M3||
Body	Lock nut	20	M3, 0.5 mm thread, Hex lock Nut			Body|Lock nut|20|M3, 0.5 mm thread, Hex lock Nut||
Body	Screw	8	M6, 10mm length, Hex Socket (no nuts required)	to fix handle and the force sensor		Body|Screw|8|M6, 10mm length, Hex Socket (no nuts required)|to fix handle and the force sensor|
Body	Spacer	4	Φ3mm, 60mm height, dual female hex pillar		https://www.newegg.com/p/0PS-008N-00223	Body|Spacer|4|Φ3mm, 60mm height, dual female hex pillar||[Link](https://www.newegg.com/p/0PS-008N-00223?item=9SIA27C3TJ0345)
Handle	Handle Print	1	see stl files under handle directory	print one each		Handle|Handle Print|1|see stl files under handle directory|print one each|
Handle	Tactile push button	4	6x6x4.3mm	handle buttons		Handle|Tactile push button|4|6x6x4.3mm|handle buttons|
Handle	Prototype PCB	1	2.54mm interval, 6 x 9 holes	attach 4 buttons and insert into the handle		Handle|Prototype PCB|1|2.54mm interval, 6 x 9 holes|attach 4 buttons and insert into the handle|
Handle	Arduino Nano	1	Arduino Nano	Can be merge into Arduino Mega, but keep separated configuration		Handle|Arduino Nano|1|Arduino Nano|Can be merge into Arduino Mega, but keep separated configuration|
Handle	cables/headers	10	wire and pin header between handle and nano	wire from handle to Arduino Nano		Handle|cables/headers|10|wire and pin header between handle and nano|wire from handle to Arduino Nano|
Handle	Vibrators	3	Dimension: 10mm diameter, 2.7mm thick	attached to handle	https://www.adafruit.com/product/1201	Handle|Vibrators|3|Dimension: 10mm diameter, 2.7mm thick|attached to handle|[Link](https://www.adafruit.com/product/1201)
Handle	Soft double adhesive tape	1	1/8 inch thinkness x 7/8 inch width x 5 inch length total	needs to put this between vibrator and the handle	https://www.amazon.com/dp/B07GBMT736	Handle|Soft double adhesive tape|1|1/8 inch thinkness x 7/8 inch width x 5 inch length total|needs to put this between vibrator and the handle|[Link](https://www.amazon.com/dp/B07GBM...)
Mobility	Motor	2	DUAL SHAFT MOTOR - D5065 270KV		https://odriverobotics.com/shop/odrive-custom	Mobility|Motor|2|DUAL SHAFT MOTOR - D5065 270KV||[Link](https://odriverobotics.com/shop/odrive-custom-motor-d5065)
Mobility	Encoder	2	CUI AMT102-V		https://odriverobotics.com/shop/cui-amt-102	Mobility|Encoder|2|CUI AMT102-V||[Link](https://odriverobotics.com/shop/cui-amt-102)
Mobility	Controller	1	56V, connector is optional	with connector is easy to insatll	https://odriverobotics.com/shop/odrive-v36	Mobility|Controller|1|56V, connector is optional|with connector is easy to insatll|[Link](https://odriverobotics.com/shop/odrive-v36)
Mobility	Wheel	2	2 7/8 inch ~ 3 inch, black or matched color with the suitcase cover		http://www.banebots.com/product/T81P-294B	Mobility|Wheel|2|2 7/8 inch ~ 3 inch, black or matched color with the suitcase cover||[Link](http://www.banebots.com/product/T81P-294BO.html)
Mobility	Wheel Hub	2	8mm shaft		http://www.banebots.com/product/T81H-RM8	Mobility|Wheel Hub|2|8mm shaft||[Link](http://www.banebots.com/product/T81H-RM81.html)
Mobility	Caster	2	1 5/8 inch wheel, 3/8 16 thread		https://www.mcmaster.com/2834T11	Mobility|Caster|2|1 5/8 inch wheel, 3/8 16 thread||[Link](https://www.mcmaster.com/2834T11)
Mobility	Nut	4	3/8 16 thread	two nuts under body (kind of spacer)		Mobility|Nut|4|3/8 16 thread|two nuts under body (kind of spacer)|
Mobility	Lock nut	2	3/8 16 thread	one lock nut above body		Mobility|Lock nut|2|3/8 16 thread|one lock nut above body|
PC	Zotac	1	ZBOX-EN72070V		https://store.zotac.com/magnus-en72070v-wit	PC|Zotac|1|ZBOX-EN72070V||[Link](https://store.zotac.com/magnus-en72070v-with-windows-10-zbox-en72070v-u-w2b)
PC	Memory	2	DDR4 SODIMM 2666, 16 GB			PC|Memory|2|DDR4 SODIMM 2666, 16 GB||
Power	Power connector	1	7.4 x 5.0 mm connector (Zotac 2070)	This is an example connection 5.5x2.1 -> 7.4x5.0 + 5.5x2.1 cable Needs to find a proper connector to the computer. Possible option is to cut official AC adapter cable		Power|Power connector|1|7.4 x 5.0 mm connector (Zotac 2070)|This is an example connection 5.5x2.1 -> 7.4x5.0 + 5.5x2.1 cable Needs to find a proper connector to the computer. Possible option is to cut official AC adapter cable|
Power	DC/DC Regulator	1	15A (300w @ 19.5v)	36v -> 19.5v, PC, force sensor, and LiDAR	https://www.amazon.com/dp/B01GFVI6R6	Power|DC/DC Regulator|1|15A (300w @ 19.5v)|36v -> 19.5v, PC, force sensor, and LiDAR|[Link](https://www.amazon.com/dp/B01GFVI6R6)
Power	Cable+connector	1	XT60 Female, 14AWG	battery2 (parallel) to regulator		Power|Cable+connector|1|XT60 Female, 14AWG|battery2 (parallel) to regulator|
Power	Battery on off switch	1	XT60 Female, 14AWG	between battery1 and motor controller		Power|Battery on off switch|1|XT60 Female, 14AWG|between battery1 and motor controller|
Power	12 Gage cable	1	12AWG	motor controller to motor		Power|12 Gage cable|1|12AWG|motor controller to motor|
Power	Battery	3	36V 98Wh (less than 100wh)	CaBot requires at least 3 (2 for computer, 1 for motor)	https://www.ebikes.ca/shop/electric-bicycle-pa	Power|Battery|3|36V 98Wh (less than 100wh)|CaBot requires at least 3 (2 for computer, 1 for motor)|[Link](https://www.ebikes.ca/shop/electric-bicycle-parts/batteries/36v-ligo-battery.html)
Power	Charger	2	36V 2A Charger	2 chargers are combenient	https://www.ebikes.ca/shop/electric-bicycle-pa	Power|Charger|2|36V 2A Charger|2 chargers are combenient|[Link](https://www.ebikes.ca/shop/electric-bicycle-parts/chargers/36v-2a-charger.html)
Sensor	Force Sensor	1	3kg		https://item.taobao.com/item.htm?spm=a1z09	Sensor|Force Sensor|1|3kg||[Link](https://item.taobao.com/item.htm?spm=a1z09.2.0.0.66402e8dYOsXl3&id=534342186657&_u=43jn0h9vc1e9)
Sensor	Sensor Amplifier	1			https://item.taobao.com/item.htm?spm=a1z10	Sensor|Sensor Amplifier|1|||[Link](https://item.taobao.com/item.htm?spm=a1z10.5-c.w4002-4299160466.30.16598d968WM9IO&id=547565359463)
Sensor	Arduino mega	1	Arduino Mega		https://store.arduino.cc/usa/mega-2560-r3	Sensor|Arduino mega|1|Arduino Mega||[Link](https://store.arduino.cc/usa/mega-2560-r3)
Sensor	BNO055 adafruit	1	BNO055 adafruit, not from other company because they also provides library to ctonrol sensors	IMU (connecting to Arduino Mega)		Sensor|BNO055 adafruit|1|BNO055 adafruit, not from other company because they also provides library to ctonrol sensors|IMU (connecting to Arduino Mega)|
Sensor	MPR121 adafruit	1	MPR121 adafruit, not from other company because they also provides library to ctonrol sensors	capacitive Touch sensor (connecting to Arduino Mega)		Sensor|MPR121 adafruit|1|MPR121 adafruit, not from other company because they also provides library to ctonrol sensors|capacitive Touch sensor (connecting to Arduino Mega)|
Sensor	Conductive tape	1	Condactive			Sensor|Conductive tape|1|Condactive|
Sensor	Arduino mega shield	1	General shield or Cabot's custom PCB	with pins	https://github.com/RealCabot/simplePCB	Sensor|Arduino mega shield|1|General shield or Cabot's custom PCB|with pins|[Link](https://github.com/RealCabot/simplePCB)
Sensor	RealSense D435	1				Sensor|RealSense D435|1|||
Sensor	Velodyne	1	Velodyne VLP16 (Pack Lite)			Sensor|Velodyne|1|Velodyne VLP16 (Pack Lite)||
Sensor	Camera mount pall	1	1/4 inch - 20 thread (female and male), 10cm long	Something like in the url		Sensor|Camera mount pall|1|1/4 inch - 20 thread (female and male), 10cm long|Something like in the url|
Sensor	Screw	1	1/4 inch - 20 thread			Sensor|Screw|1|1/4 inch - 20 thread||
Sensor	Flat washer	2	1/4 inch - 1 inch	to protect pipe from vending		Sensor|Flat washer|2|1/4 inch - 1 inch|to protect pipe from vending|
Sensor	Lock Nut	1	1/4 inch - 20 thread	to shorten the male threads (put it between pole and lidar)		Sensor|Lock Nut|1|1/4 inch - 20 thread|to shorten the male threads (put it between pole and lidar)|
Misc	Ethercable	1	RJ45, 1 feet			Misc|Ethercable|1|RJ45, 1 feet||
Misc	HDMI dumy	1			https://www.amazon.com/dp/B07FB64V4Y	Misc|HDMI dumy|1|||[Link](https://www.amazon.com/dp/B07FB64V4Y)
Misc	USB hub	1	USB2.0	to prevent wireless signal interference from USB3.0		Misc|USB hub|1|USB2.0|to prevent wireless signal interference from USB3.0|
Misc	Speaker	1	Small, USB power, Line-in	Optional	https://www.amazon.com/dp/B07QDPRYYD	Misc|Speaker|1|Small, USB power, Line-in|Optional|[Link](https://www.amazon.com/dp/B07QDPRYYD)