

Component list

Sr no.	Name	Position	Qty.
1	Arduino Mega2560	PCB	1
2	Compressor	Robot	2
3	Proximity Sensor 5-550mm	Scissor Mech. Home Pos.	1
4	Proximity Sensor 5-550mm	Cutter Mech. For./Rev.	1
5	Proximity Sensor 5-550mm	Both Leg Extension	2
6	Proximity Sensor 5-550mm	Overload Detect	2
7	Proximity Sensor 5-550mm	Cutter Pivot Mech.	1
8	SIM808 GSM Module	PCB	1
9	AS-10 (Light Sensor)	Robot	1
10	Camera	Robot	1
11	0.55hp Motor	Robot Base	16
12	0.55hp Motor	Sciss. Mech. motor	1
13	0.55hp Motor	Cutter Mech. UP-Down	1
14	0.55hp Motor	Cutter Mech. For-Rev.	1
15	3hp Motor	Cutter motor	1
16	24V/12V 13W LED	Robot Left/Right	2
17	24V/12V 24W LED	Robot Front	2
18	Req. Total		
19	Current Sensor 200A	PCB Box (For Cutter Motor)	1
20	24V 150Ah LiFePo4 Battery	PCB Box	4 (Parallel)
21	24V 100A LiFePo4 Charger	Charging station	1
22	24V to 12V DC-DC Buck converter	PCB Box	1
23	IFI VEX Pro Victor 885	PCB Box	1
24	SmartDrive Duo 60A	PCB Box	6 (2 Channel)



Op. Vol.	Max. Amp. Consumption	Con. Amp. Consumption
----------	-----------------------	-----------------------

12 VDC	800mA	800mA
12 VDC	15A*2	13A*2
12 VDC	30mA	30mA
12 VDC	30mA	30mA
12 VDC	30mA*2 = 60mA	30mA*2 = 60mA
12 VDC	30mA*2 = 60mA	30mA*2 = 60mA
12 VDC	30mA	30mA
12 VDC	1A	50mA
24 VDC		
24 VDC	1.6A	1.6A
24 VDC	74A *8	58A*8 = 464A
24 VDC	40A	28A
24 VDC	40A	12A
24 VDC	40A	4A
24 VDC	120A	60A
24 VDC	542mA	542mA
24 VDC	1.25A	1.25A

595.342A	336A
----------	------

5 VDC	3mA	3mA
-------	-----	-----

24 VDC	180*4 = 720A (<30 sec)	120*4 = 480A
--------	------------------------	--------------

Input Voltage	Charge Voltage Absorption	Charge Voltage Float
90 - 265 VAC	28.5V	27V
	Output Voltage	O/P Current Max.
18 - 35 VDC	12V Continuos	40A
6 - 30 VDC	24 VDC	300A(<1 Sec.) , 200A(<2Sec.)
10 - 45 VDC	24 VDC	100A (1 Sec.)



5hr Op.	Motor Max. Load %	Req. Capacity for 5hr	Relay(200mA)
5		4A	
3		78A	
5		150mA	
5		150mA	
5		150mA	
5		150mA	
5		150mA	
5		250mA	
5		8A	
2	77%	928A	
1.25	70%	35A	
1.25	30%	15A	
1.25	10%	5A	
1.5	50%	90A	
5		2.71A	
5		6.25	
		1173A	
5			
Max. Parallel Assembly	Dimensions (mm)	Rated Capacity	
16	500 x 239 x 217	150*4 = 600Ah	32.6 Kg
Max. Charging current			
100A	505x255x230	400 - 1000Ah	16 Kg
O/P Current Cont.			
40A	100x80x39		0.5 Kg
120A			
60A			



Approx. work time
>4.5 Hr and <5 Hr
6 Hr