

Power Budget				
Modules	Parts	Voltage (V)	Amps (A)	Power (W)
Micro Controller				
Micro Controller	Raspberry Pi 4	5 V	3 A	15 W
Temperature Regulation				
Temperature Sensor	DHT11	5V	0.3 mA	1.5 mW
Refrigerator	Thermoelectric Refrigerator x2	12 V	6 A x 2 = 12 A	144 W
Power Control Unit				
Charging Applications	Qi Wireless Charging Transmitter	5 V	1 A	5 W
Wired USB Charging	YM1236 Dual USB Charger	5 V	2.1 A x 2 = 4.2 A	21 W
Solar Panel	ECO-Worthy	12 V	.833 A	10 W
Locking Mechanism				
Servo	Betu 25KG	5V	1.9 A x 3 = 5.7 A	28.5 W
RFID	RC 522	3.3V	26 mA	85.8 mW
GPS				
GPS Module	BN-880 GPS Module	5V	50 mA	250 mW
Inputs				
TouchScreen	Sunfounder 7"	5V	480mA	2.4W
Outputs				
Speaker	Low Profile Marine Speakers			
Amp board	TPA3116,DAMGOO	5 - 27 V	> 3 A	UP to 200 W
Other Components				
Analog to Digital Converter	MCP3008	5V	500 uA	2.5 mW
Servo Controller	SunFounder PCA9685	5V	25 mA	125 mW
Total			30.81 A	426.13 W