	Requirement	Why ?	Discord username	Category	status
1	Support different ESP modules	ESP32 WROOM, WROVER, S2	wassfila	uC	
2	power cut-off circuit + RTC Timer	Cutting off the power lowers the current draw to <1mA	Informatic0re	power	
4	3v3 Output	Power supply for MCU	Andreas Spiess	power	
5	5V Output	Usefull for sensors which need 5V but should have a on/off	Andreas Spiess	feature	
6	USB charging		Andreas Spiess	charging	
7	Solar charging	Power for the system when it is installed in locations where USB is not available and where swapping the battery every year or so is not desired	Andreas Spiess	charging	
8	Charging while powering		Andreas Spiess	charging	
9	Replacable batteries		Andreas Spiess	battery	
11	Low voltage signal/alarm/interrupt		Andreas Spiess	power	
12	Battery low voltage protection		Andreas Spiess	battery	
13	Over charge and discharge protection		Andreas Spiess	battery	
14	charge indicator		Andreas Spiess	charging	
25	Charger control (enable/disable)	Reduce the number of charging cycles (specially for solar applications, where we may not want to charge the battery constantly) in order to increase lifespan of battery. AND allow to measure the battery voltage accurately	tealbrains	charging	
26	Li-Ion Chemistry as 18650, 16340 and FlatPack	Some users may use Li-Ion 18650 and 16340 or Flat Pack	tealbrains	battery	
28	Hysterisis between battery low and battery ready.	Solar devices in winter may bump along at minimum voltage for extended periods. For some applications, it may be better for the micro to go to sleep for an extended period to allow the battery to charge more than the minimum amount.	metimmee	feature	
32	Modular architecture with optional components	Although this might be the main idea already, I added it as requirement to refer to it and translate its impact on the design. This might have to be broken down into what is modular and what not ? RTC optioanl, ESP32 itself optional as mentionned in req_31 ? ...	wassfila	organisation	
33	Test Points	We need test points at any usefull position for proper validating of the circuit	Informatic0re	feature	
34	Expose ESP32 Serial pinouts for flashing	If we plan to have a module soldered on the PCB, we would need to flash it, a serial to usb converter might not be necessary to be on the pcb as it could be similar to the ESP32-cam with external serial to usb. Use https://randomnerdtutorials.com/esp32-pinout-reference-gpios/ as aa reference (very good) And do not expose GPIO36! Ask Informatic0re why	wassfila	uC	
35	LOW power consumption (of the regulator board itself)	In Solar powered applications, the overhead power consumtion of chargers/regulators can be too much.			
37	Usb C	This will make it more future-proof and its going to be nice to have the new usb standard while not having to worry about wich way you connect the usb	fabrifer020	feature	
38	Reverse voltage protection	To not fry our Boards with a common mistake that could be prevented with just a few components and negligible current loss for saving our boards	fabrifer020	safety	
40	Controllable 3v3 Output	A 3.3V Output which can be tunred on and off by the MCU to power sensors and other things	leven		
43	Expose Battery pins (post protection)	This allows the user to power some modems or loads directly from the battery without extra losses that occur using a voltage regulator	tealbrains	feature	

	Requirement	Why ?	Discord username	Category	status
46	Having Both Holder And Connecter	Having both 18650 Holder and connector terminals for li-po battery would provide grea flexibility	Trance_Paradox	feature	
50	Short Circuit Protection on the output	we all know why..... :D	johnheuk	safety	
53	Barrel Jack / Screw Terminals	not everyone has a soldering iron, or one that's good enough to solder to via stitched ground planes, or may not have a spare usb lead. having a few different connection methods would be great	johnheuk	feature	
63	Expose unused ESP32 GPIO Pins	The reference board in the video shows gpio exposed on a header on the sides, and it makes sense that a maker that needs this PCB also wants to use the ESP32 gpios he paid for.	wassfila	uC	
88	Open Hardware License	We might need to choose a license to open source our hardware properly	Noki		