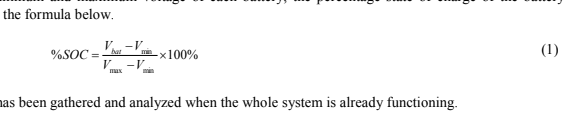
Hi,

Nakuha ko na yung mga corresponding battery voltages for each state of charge (SOC) formula sa paper ni Sir Ostia:

**From Ang et al. (Implementation of a fuzzy controlled buck-boost converter for photovoltaic systems)**

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**%SOC – State of Charge battery (100,90,80,70,60,50,40….)**

**Vbat – current battery voltage**

**Vmax- max voltage that can be handled by lead-acid battery**

**Vmin- min voltage that can be handled by lead-acid battery**

Based sa mga nakita ko sa web and max voltage(Vmax) ng lead-battery is around 13.7 V-14.7 and yung min voltage (Vmin) is around 10.5-11.5 V. Given this, di tayo mag extreme cutoff values para di masira battery:

Vmax = 13.7 V

Vmin=11.5 V

Using the formula above, gawa ako table na magdictate kung ano yung voltage ng battery (Vbat) for each %SOC:

|  |  |  |  |
| --- | --- | --- | --- |
| %SOC | Vmin | Vmax | **Vbat** |
| 100 | 11.5 | 13.7 | 13.7 |
| 90 | 11.5 | 13.7 | 13.48 |
| 80 | 11.5 | 13.7 | 13.26 |
| 70 | 11.5 | 13.7 | 13.04 |
| 60 | 11.5 | 13.7 | 12.82 |
| 50 | 11.5 | 13.7 | 12.6 |
| 40 | 11.5 | 13.7 | 12.38 |
| 30 | 11.5 | 13.7 | 12.16 |
| 20 | 11.5 | 13.7 | 11.94 |
| 10 | 11.5 | 13.7 | 11.72 |
| 0 | 11.5 | 13.7 | 11.5 |

**Question:** Okay lang ba sa inyo value ng Vmax na 13.7V or gusto niyo ilimit lang natin to 12V vmax para sure na di mag overcharge battery? Same goes with Vmin?

Since nacompute na yung sa SOC, gagawin ko na yung draft code nung sa fuzzy logic, at gagamitin kong reference yung rulesets na binigay niyo at yung fuzzy logic graph sa discord**. Please let me know kung may changes man sa graph**

**Question:** Lastly, tatanong ko lang if may wires na ba yung solar charger controller, na pinareserve, may wires na ba yon included? If meron, at least bawas na sa mga bibilhin if ever.

Baka need din perfboard sa list of materials, dahil di ata kakayanin breadboard input ng solar charger. Update ako mamaya or bukas, at vinavalidate ko pa sa isang kakilala ko.

Ito pala address ko:

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**Contact: 09954381123**

If ever dadalhin niyo yung mga reserved items sa akin, sabihian niyo ako a day before para alam ko. Please let me know if you have any other questions

Thank you!