

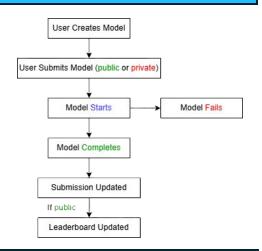
SOCALGOTestingPlatform



What Is SOC?

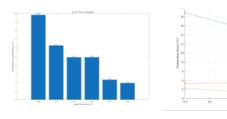
- Battery State of Charge (SOC) is a measure of the available energy in a battery compared to its total capacity.
- Expressed as a % of the battery's total usable capacity.
- Is not directly measured, rather various algorithms make use of battery voltage, current, internal resistance, and temperature, to provide an estimate.

Use Case



Technology

SOC Graphs



Usability



Detailed landing page

Descriptive User Guides

Hosting Cost

Users	VM (cores + gb of ram)	VM (cores + gb of ram)	Redis (cores + gb of ram)	Postgre SQL (GB)	Objects (GB)	AWS Cost (per year)	Hetzner Cost (per month)
150	2+2	9+9	2+8	0.09125	19.16	1291.20	1469.28
1500	2+2	27+27	2+8	6.57	1343	2487.48	3415.68
50 00	2+2	45+45	2+8	21.9	4599	42 24.72	50 23. 68

Declan Young, Nathan Uy, Aidan Mariglia, Ben Dubois

Problem

- A standardized testing suite was developed by Dr. Phillip Kollmeyer to compare different battery SOC methods.
- The suite produces various statistics and charts, allowing for SOC estimation methods to be compared.
- The testing suite was difficult to use, involved submitting a google form and waiting for an email with results.

Features



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Output File Download

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Submissions Running in Parallel

We would like to thank our supervisor Dr. Phillip Kollmeyer and his RA Atjen von Liebenstein for all their guidance and contributions.





