

Team RP

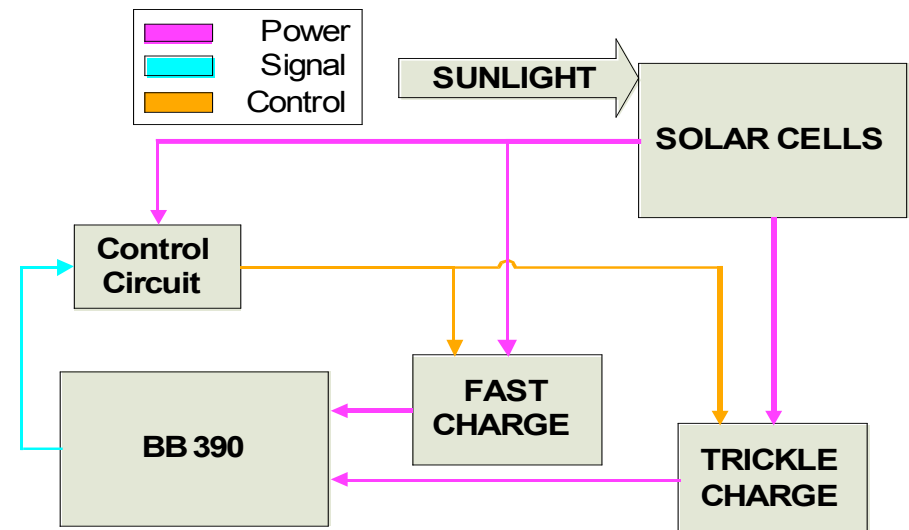
Universal Battery Charger

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SOLDIER PROBLEM / CHALLENGE

Problem: Current battery chargers are limited to locations with an AC or DC generator for performing charging. There is no lightweight, portable powered universal battery charger fielded.

Challenge: Design a lightweight, portable powered universal battery charger that can recharge different standard size and voltage military batteries.



PROTOTYPE DESIGN HIGHLIGHTS

- Charges BB-390 to 90% capacity (15.1V) in under 3.5h
- Renewable power source
- Simple circuit design for low cost and maintenance

PROJECTED FINAL CAPABILITIES

- Completely man portable (MANPAC)
- Charge time ≤ 2.5 h
- Flexible solar array power ≥ 60 W
- Fielded and easily integrated to all tactical units (compact, lightweight, etc.)