

6.101 Project Abstract

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Multi-Stage Power Conversion

For our project, we propose to build three power converters: a bench-top regulated adjustable power supply, a wireless battery charger, and a battery-powered smartphone charger. The bench-top supply will take input from a AC-AC wall wart transformer, and have variable outputs from 0-30V with short-circuit protection. It will include our wireless battery charger that charges standard rechargeable batteries. Those batteries can then be used for the smartphone charger, which will take in voltages from 1.5V-14V and output 5V to a USB connector.