Wearable Power Bank
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Project Objective
Build a wearable power bank capable of providing emergency power to a phone that is comfortable and stylish enough to wear every day.

Design Metrics
- Contains a 300+ mAh battery
- Waterproof up to IPX-5 standards
- Charges a phone in less than 25 minutes
- Weighs less than 100 g
- Includes a 6+ inch charging cable
- Compatible with apple bands

Electronics
iPhone 15 charging: 1.47A @ 5V, t(Δ5%) = 4:00.
Pixel (Google) charging: 1.42A @ 5V, t(Δ5%) = 5:30.
iPhone 7 charging: t(Δ5%) = 4:30.

Achieved Metrics
- Contains a 380 mAh battery
- Waterproof to at least IPX-5 standards
- Charges a variety of phones in less than 10 minutes
- Weighs 40 g
- Includes a 4 inch charging cable
- Compatible with apple bands
- Aesthetically pleasing
- Shows three battery state on the display
- Wearable while charging
- Safe to wear
- Lightweight and comfortable to wear

Conclusion
We designed a light weight, waterproof housing for the electronics that is compatible with apple bands. We designed a PCB to charge an internal battery and later discharge the battery to a phone.

User Feedback
- Aesthetically pleasing
- Comfortability
- Ease of use

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