
Smart Power Sprint 2

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Goals for this sprint

- Identify USB PD capabilities/constraints
 - Depending on version of the specification, different capabilities are present
 - Will stick to max 100W, 20V 5A spec since it is currently commercially available
 - Without communication power draw is limited to 5V
 - Need to have USB PD hardware/communication with attached charger to enable higher power levels
 - TO DO: Get more specification details and information about varying power levels, battery charging interactions
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Goals for this sprint

- Identify target number of outputs and potential power capabilities
 - Taking into account different chargers/sources and potential inefficiencies, use an initial power budget of 80W
 - Aiming for 4-6 outputs
 - 3 USB-PD 20W max “fast charging” outputs (USB C)
 - 2-3 5V outputs with combined 20W draw (USB C or A)
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Goals for next sprint

- Identify commercially available USB PD interfaces and converters to use
 - Research potential simulation methods to verify stable operation with various converters and loads onboard
 - Simulate converter interactions
 - Put together preliminary schematic with ports, converters, and interfaces
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