

Solar cell experiment 20160128

No charge pump, only solar cells:

- No load:
 - 8w desk lamp close: 2W 5.5V 7mA, 0.6W 5.5V 2mA
 - 400W halogen @ 20cm: 2W 7.2V 500mA, 0.6W 160ma 7.3V.
- Tp4056 direct from solar cell:
 - 2W @ 20cm, Vsol 3.85, Icharge 135mA
 - 2W @ 100cm, Vsol 4.11, Icharge 39mA
 - 0.6W @ 20cm, Icharge 80mA, Vsol 4.03V
 - 0.6W @ 100cm, Icharge 12mA, Vsol 3.96V
- Tp4056 with schottky and 470uF capacitor:
 - 0.6W @ 30cm, Icharge 52mA, Vsol 3.8V
 - 0.6W @ 100cm, Icharge 14mA, Vsol 3.8V
- Max1555 with schottky and 470uF capacitor:
 - 0.6W @ 30cm, Icharge 60mA
 - 0.6W @ 100cm, Icharge 12mA

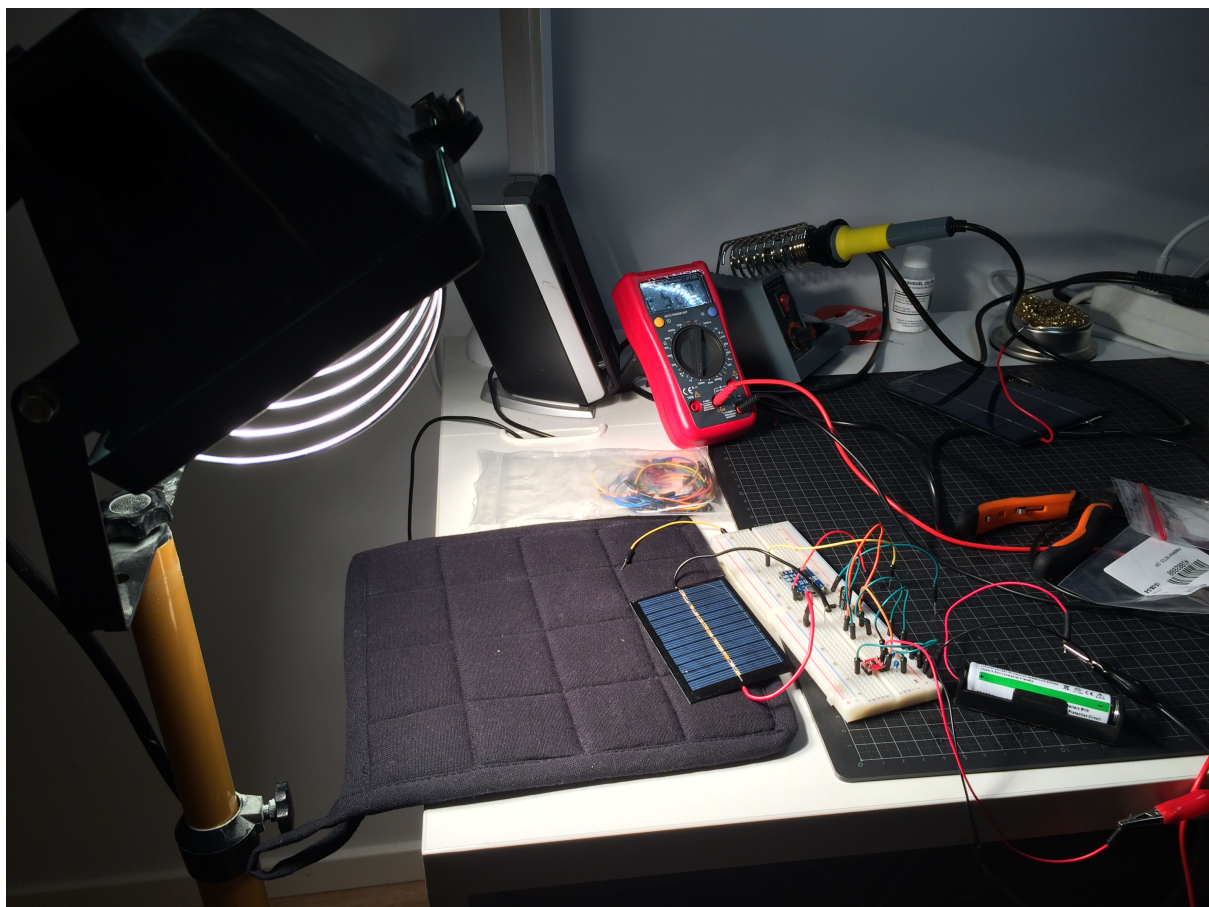
Further research:

How will a 4700uF cap improve?

Test with resistive load

Conclusions:

- Cap and schottky improves charge current
- Max1555 is at least comparable to Tp4056



Schematic below from <https://learn.adafruit.com/usb-dc-and-solar-lipoly-charger>

