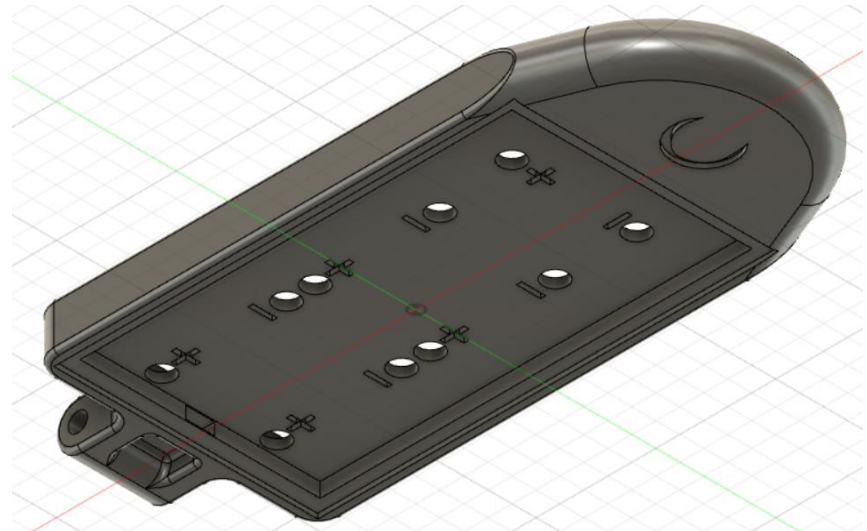
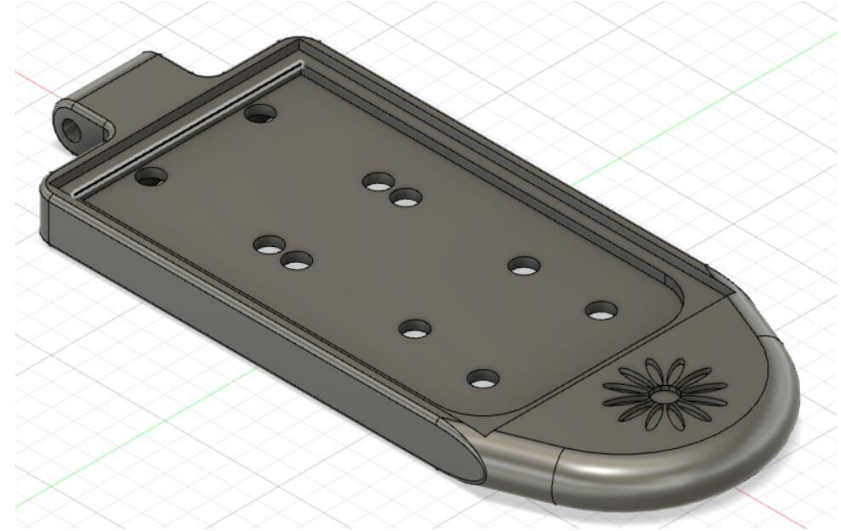
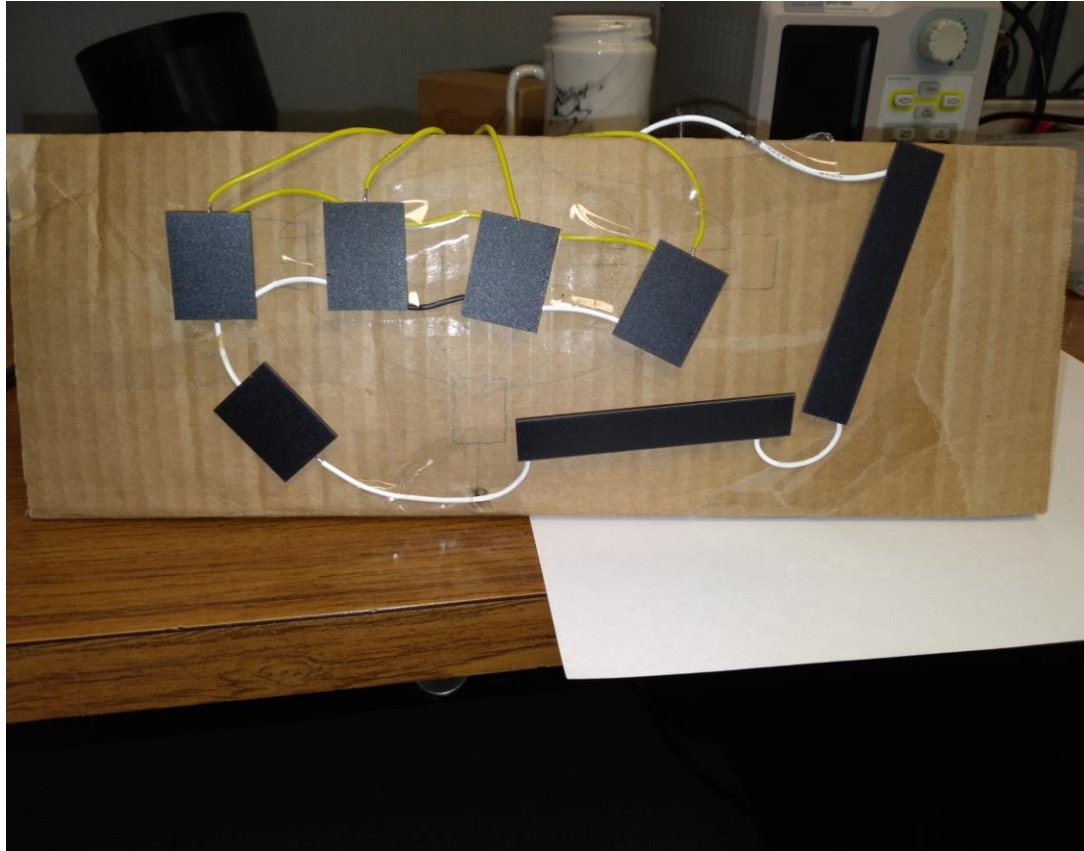


# SENSOR PACKAGE DESIGN

- Solar Petal
  - Will hold 5 solar cells that will produce 16 volts.
  - 3 of these items.
  - Round end to take force from water.
  - Going to have the wires and cells enclosed.



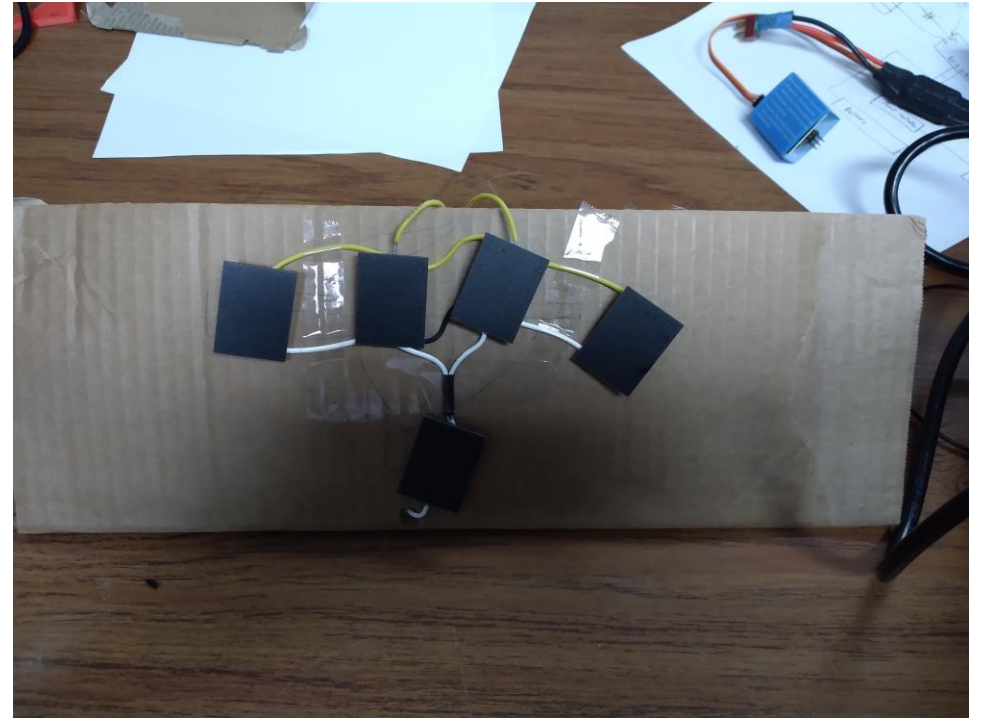
# SOLAR CELLS CONT.



- More solar cells were added to the design.
  - Volts: 25 volts

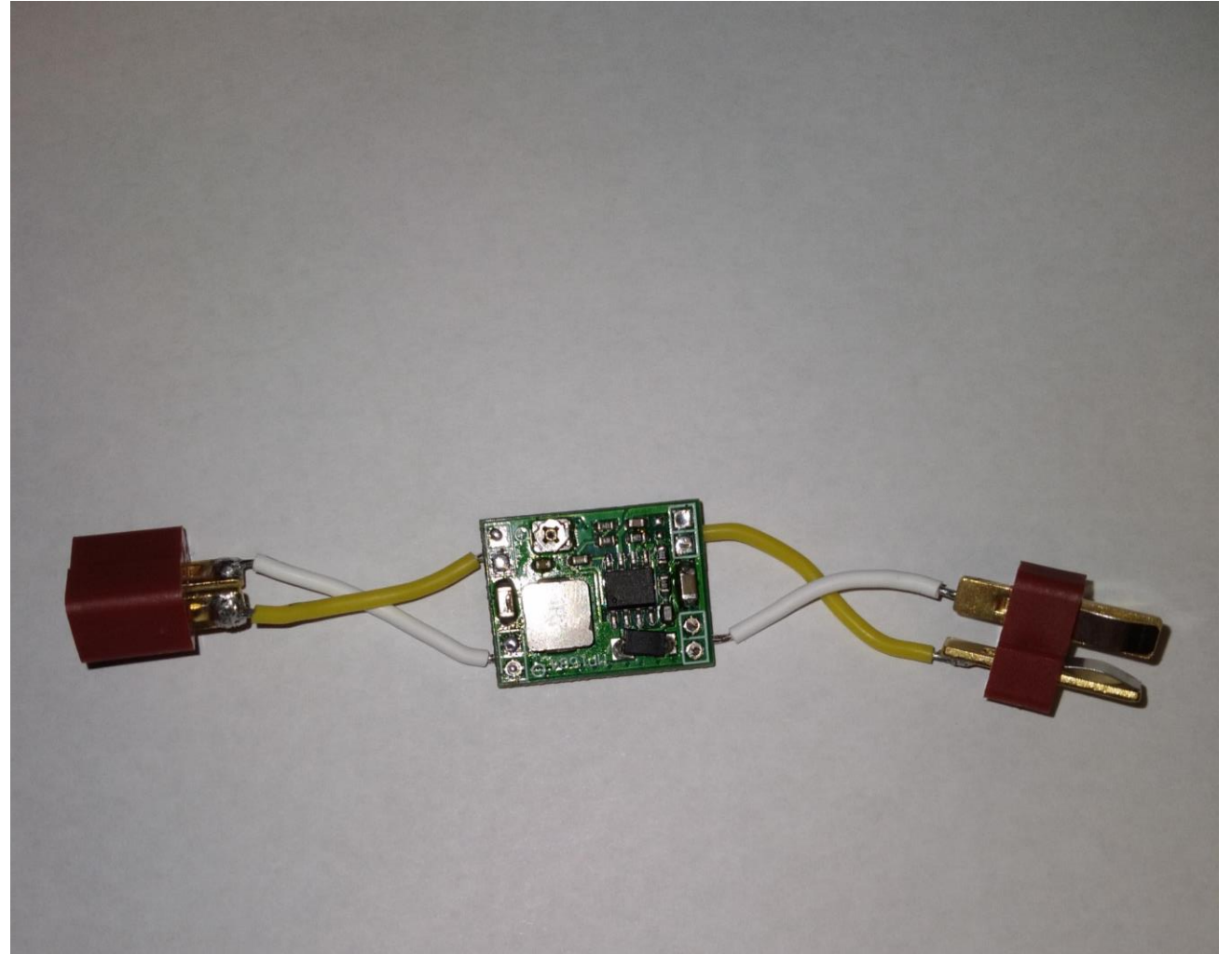
# SOLAR CELLS

- Soldered together solar cell in parallel and series.
  - Volts: 16 V
  - Amps: 7.9 milliamps.



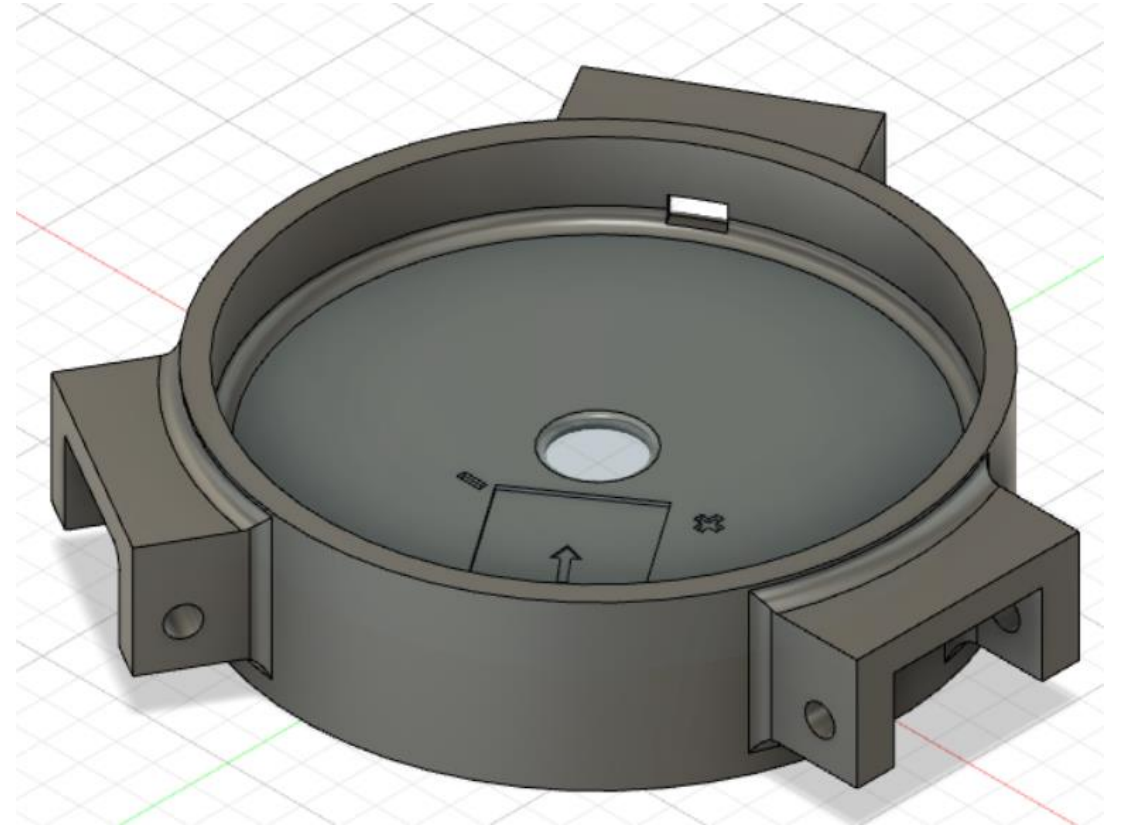
# SOLAR CELLS UPDATE

- Solar cells have been given DC step-down.
  - To decrease voltage and increase amperage.
  - The battery and solar cells both have DC step-down.
  - Voltage: 5V.
  - Amps: 15 milliamps.



# SENSOR PACKAGE DESIGN CONT.

- Solar connector
  - Will connect all solar petals to the sensor package.
  - Will have metal top for the magnets.
  - A DC stepdown to drop the voltage from 16 to around 5-6 Volts.
  - Current 15 milliamps.





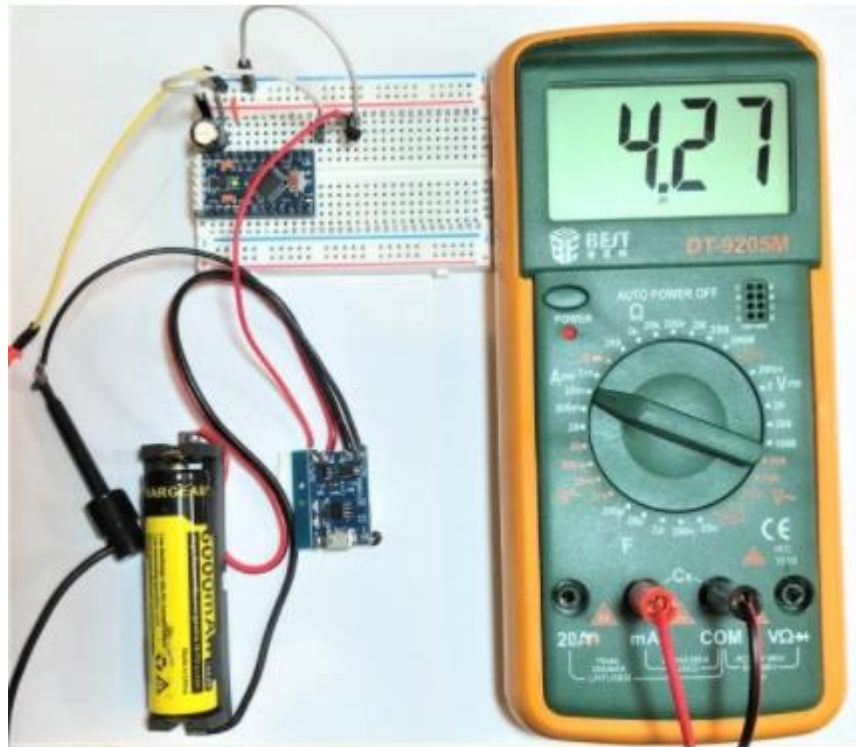
# BATTERY CHARGER

- Will be connected to the solar cells.
- The diode is used to prevent voltage backlash.
- Will charge a battery from the solar cells.

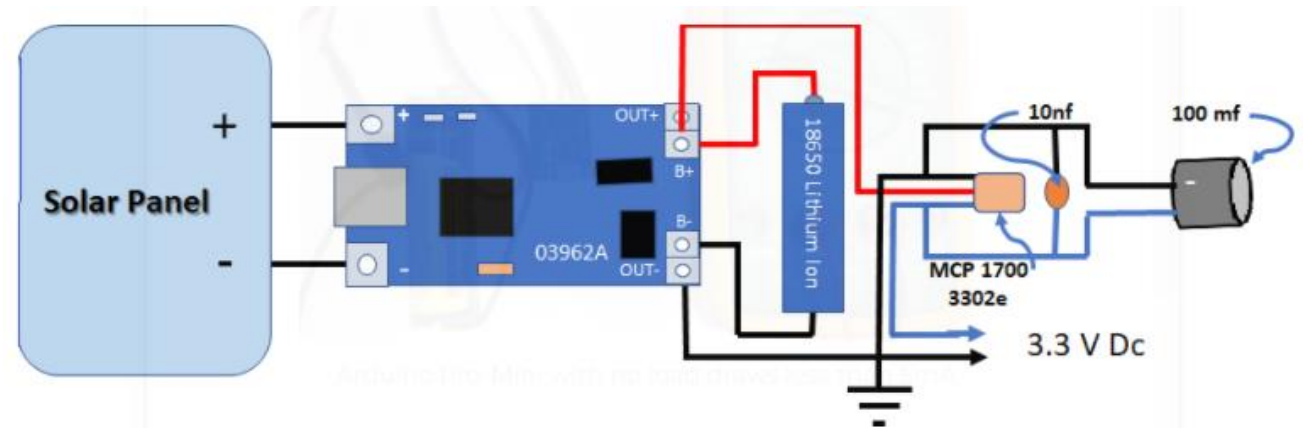


# BATTERY CHARGING SYSTEM

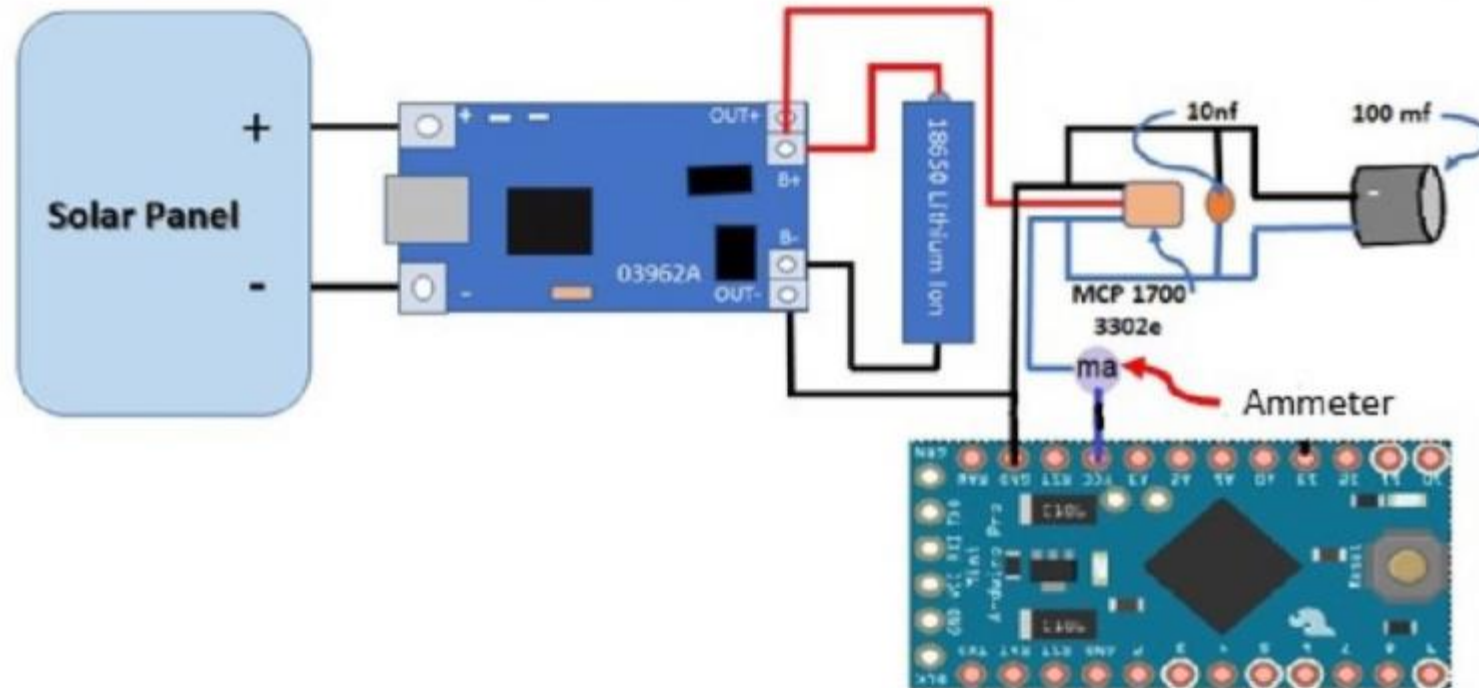
- <https://www.circuitbasics.com/how-to-use-solar-panels-to-power-the-arduino/>



Arduino Pro-Mini with no load draws less than 5mA



# SCHEMATIC





# **YOUTUBE VIDEO EXAMPLE PROJECT**

- <https://www.youtube.com/watch?v=37kGva3NW8w>

# SETUP FOR MORE BATTERIES

