



# BITNG LAB UPDATE

Carl Demolder

Date 6/01/2021

# Progress from last week

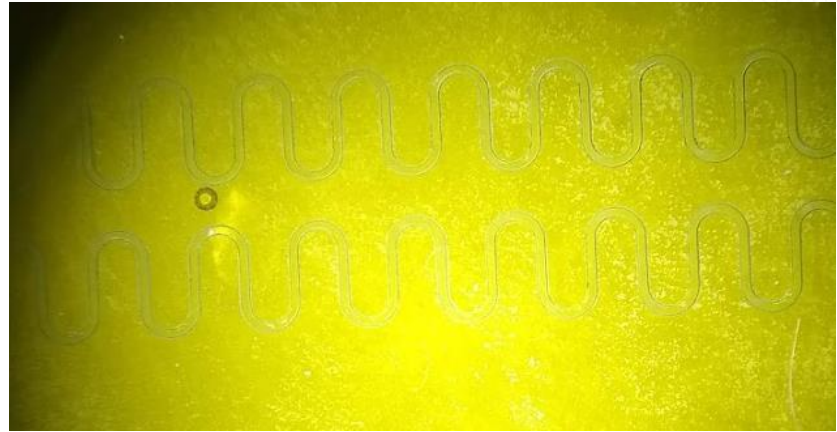
- Shriner's project
  - Literature review revisions
  - Laser cutter training
  - PCB redesign
- LP ECG
  - PCB redesign
- Chip socket programmer
  - Waiting for components

# SHRINER'S PROJECT

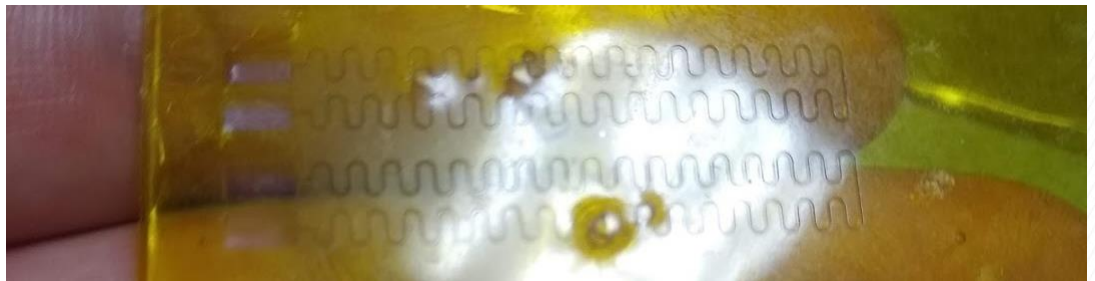
# Strain sensor



Strain Sensor

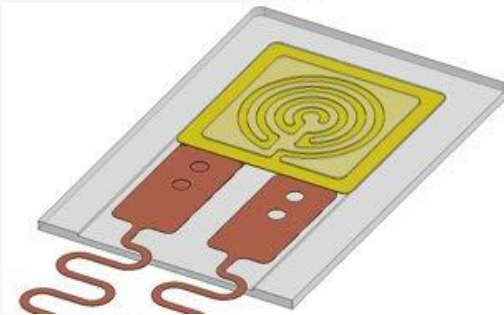
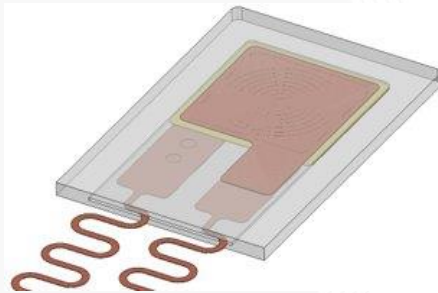
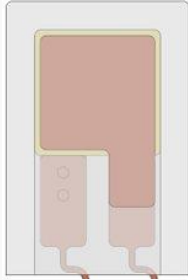


PI Stencil for Strain Sensor

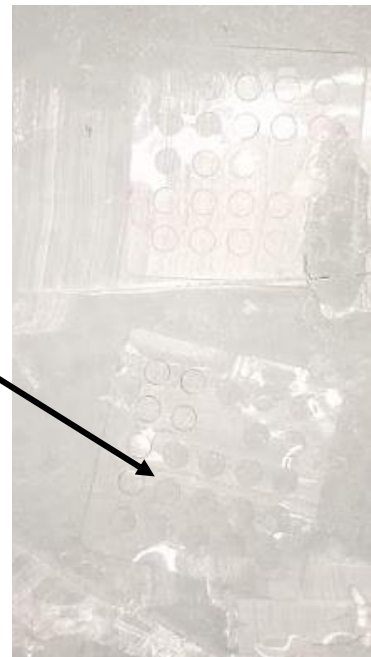


PI Stencil for Strain Sensor

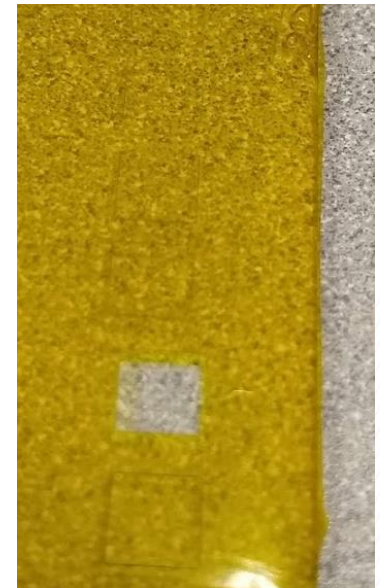
# Pressure sensor



Copper Conductors



PDMS Dielectric

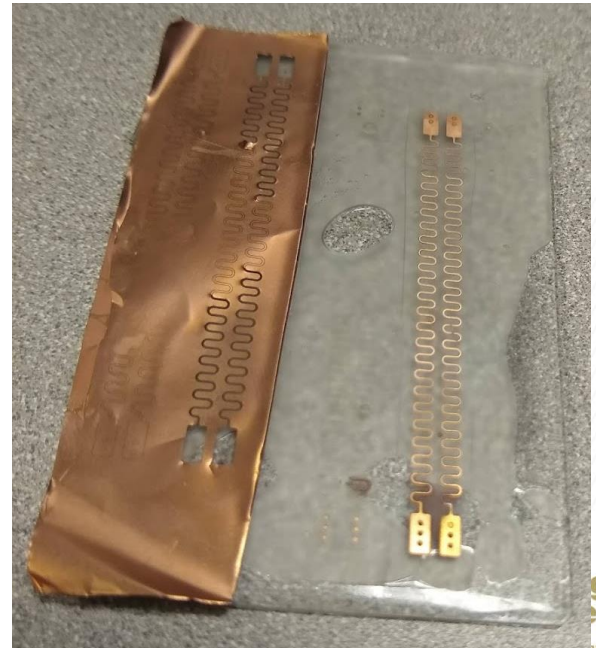
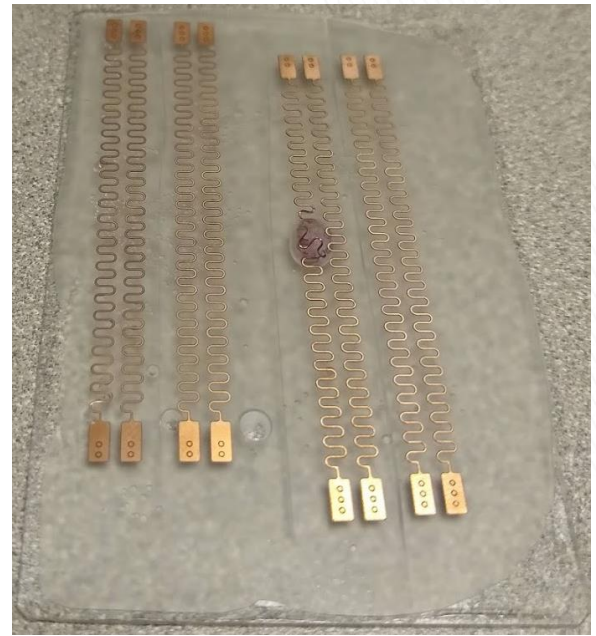
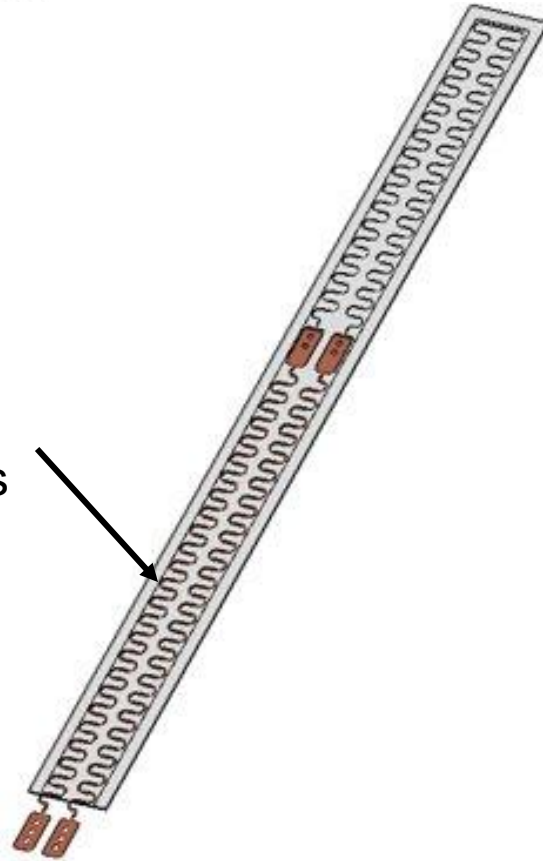


PI Insulator



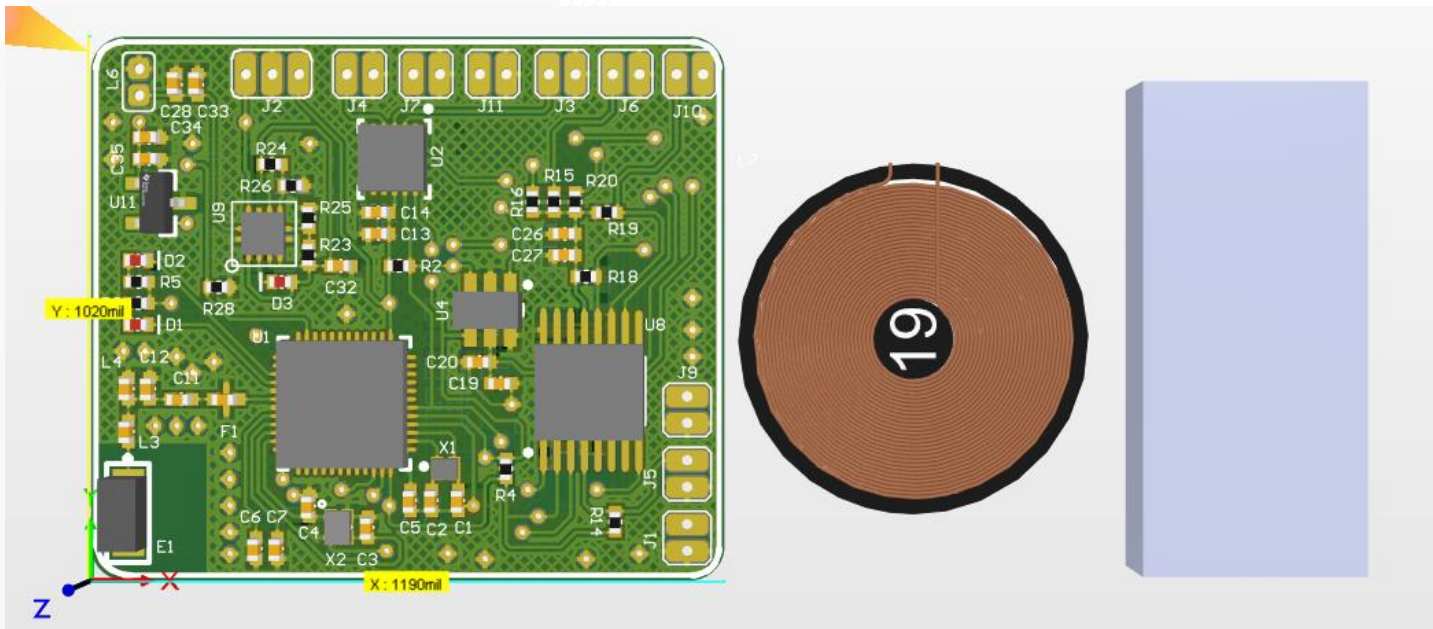
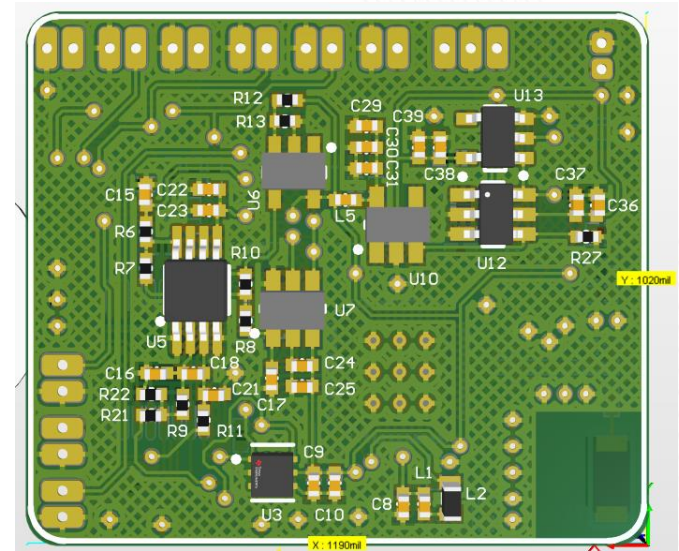
# Copper interconnects

Copper  
Interconnects



# WSG PCB redesign

- Finished flex PCB redesign
- Going to submit for fulfillment

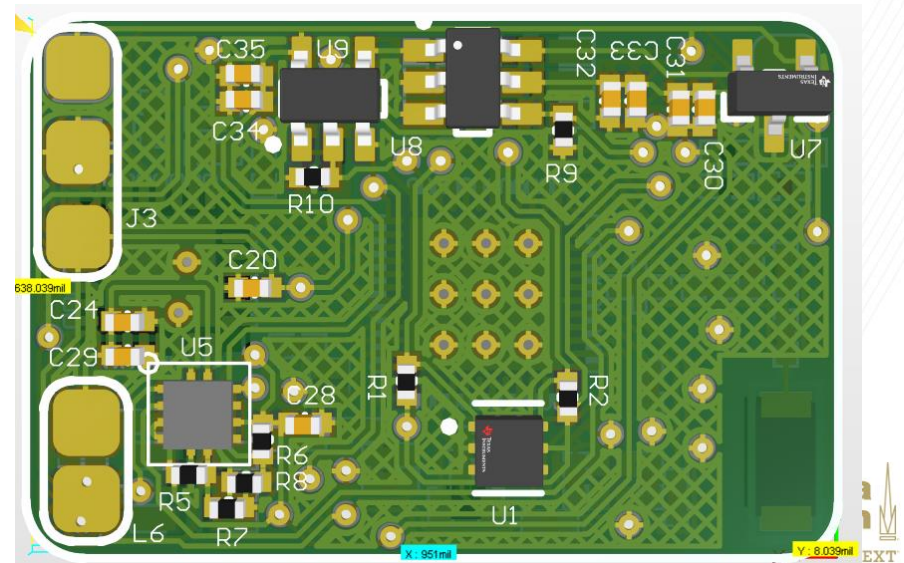
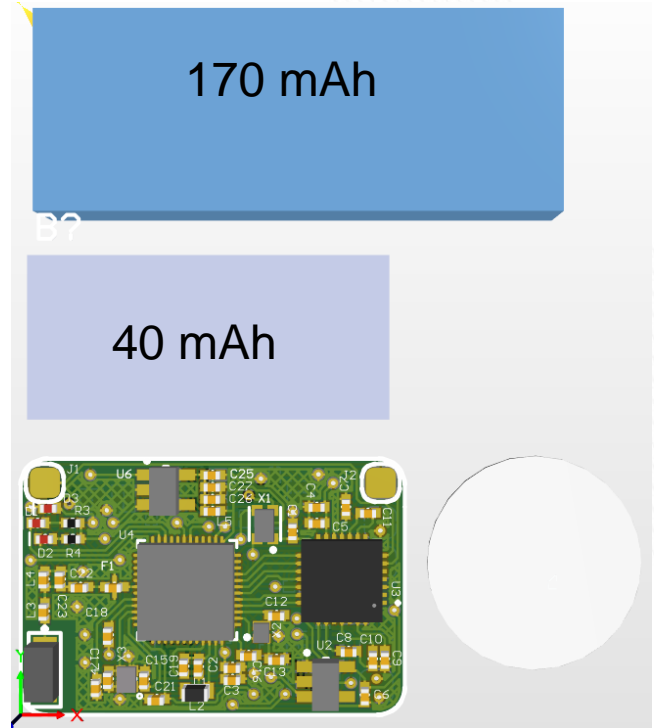


# SHRINER'S PROJECT



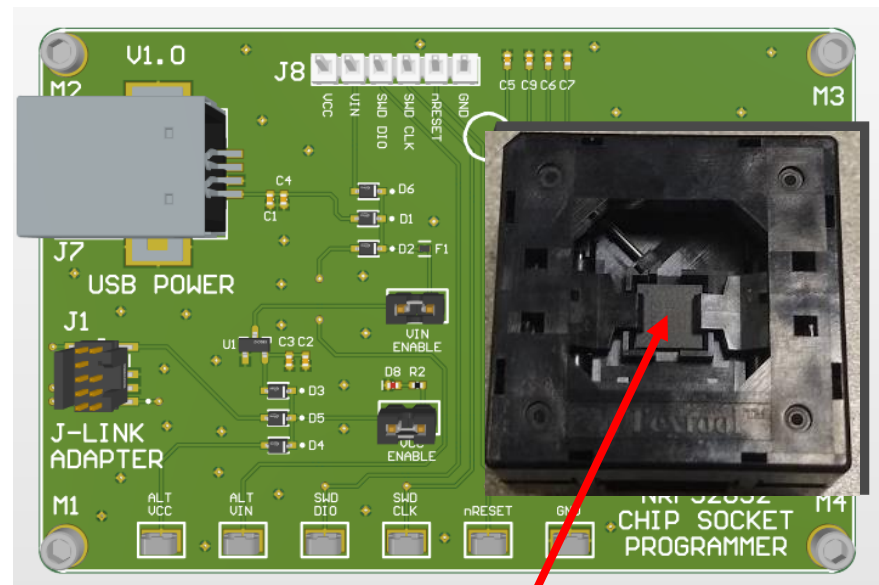
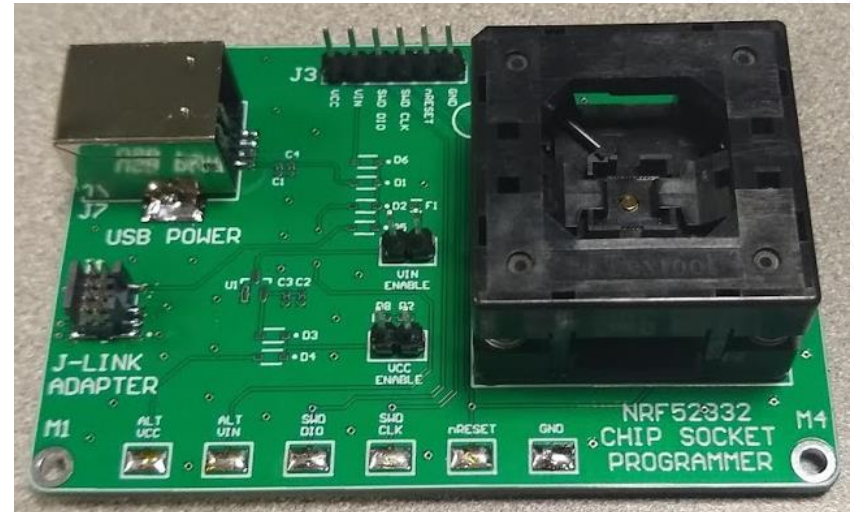
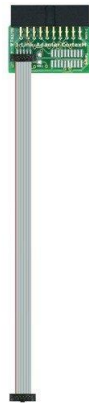
# LP-ECG PCB Redesign

- Dimensions
  - 0.95" x 0.64"
- Ground Plane = Cross hatch
  - More flexible PCB
  - Rounded corners
- More efficient LDOs
- **Waiting to be ordered...**



# Chip Socket Programmer

- PCB: DELIVERED
- COMPONENTS: 6/01



NRF52

# PATH FORWARD

# Path forward (6/01/21 – 6/07/21)

- Shriner's Project:
  - Sensor fabrication:
    - Strain sensor
    - Pressure sensor
  - Sensor characterization:
    - Strain sensor
    - Pressure sensor



# APPENDIX