BITNG LAB UPDATE

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Date 7/06/2021

Progress from last week

- Shriner’s project
  - Strain sensor manufacturing
  - Temperature sensor calibration

SHRINER'S PROJECT

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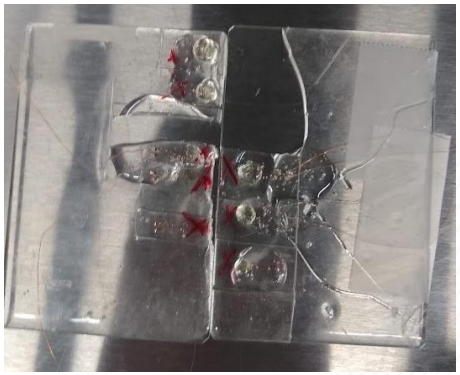
Glove Assembly: Temperature

- Problem:
  - Temperature sensors are too fragile
    - Gold deposited spiral pattern breaks due to high strain when placing glove onto hand
- Possible solution:
  - Place epoxy on spiral pattern to prevent high strain from breaking gold spiral pattern
- Result:
  - Epoxy did not prevent spiral pattern from breaking. Temperature sensors are too fragile to be placed on finger of glove.



Broken temperature sensors

Glove Assembly: Pressure

- Progress:
  - Mounted pressure sensors on glove
  - Encapsulated in EcoFlex

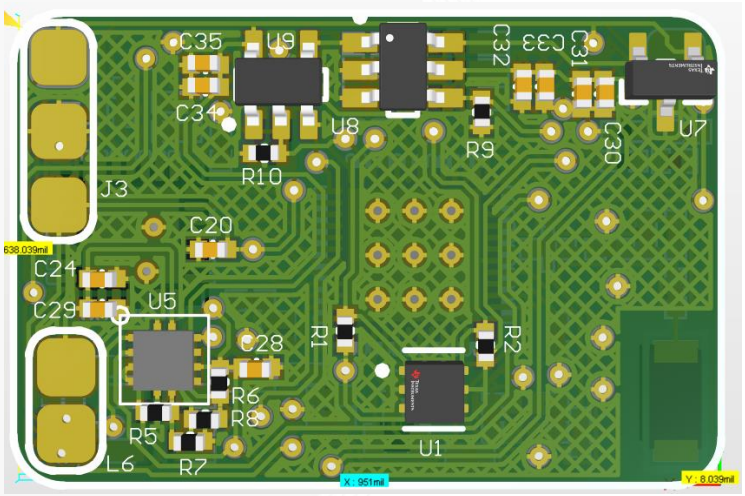
- To-Do:
  - ~~Mount Flex PCB on back of glove~~
  - ~~Solder wires to Flex PCB~~
  - Test glove capabilities

Firmware Development

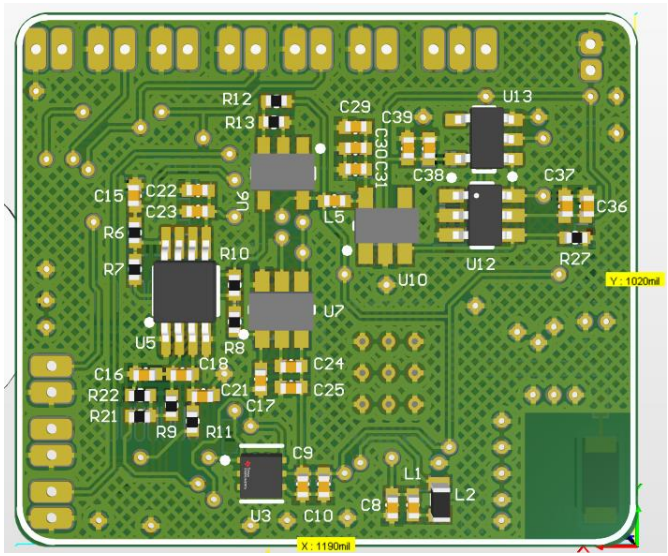
- Firmware progress through Github:
  - Created nRF52 library holding to following:
    - Sensor drivers
    - Software drivers
    - SDK
    - Soft device
  - Created nRF52 project template:
    - Each repository will represent a new PCB
      - Contain the following:
        - Firmware
        - PCB
        - Assembly instructions
        - Operation instructions

Flex PCB: Procurement update

- Flex PCBs Arrived: 7/2



Low Power ECG X02



Wearable Sensor Glove X02

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PATH FORWARD

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Path forward (7/06/21 – 7/12/21)

- Shriner's Project:
  - Sensor fabrication:
    - Strain sensor
      - screen printing
  - Sensor glove assembly:
    - Strain sensor

APPENDIX