



# BITNG LAB UPDATE

Carl Demolder

Date 3/15/2021

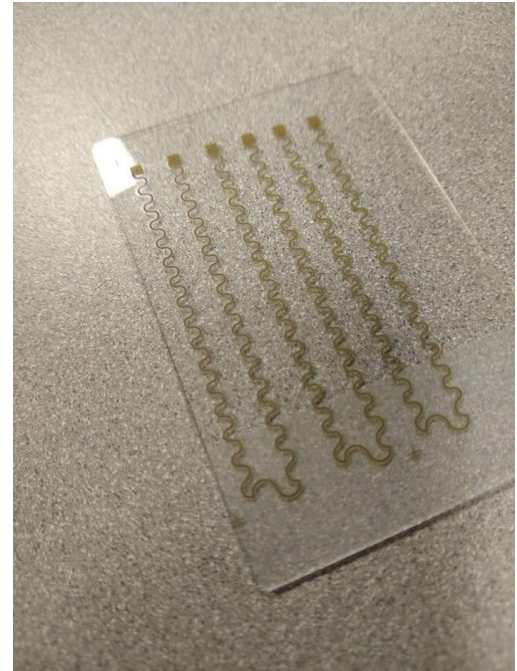
# Progress from last week

- Shriner's project
  - Strain gauge
  - Firmware
  - Literature review

# SHRINER'S PROJECT

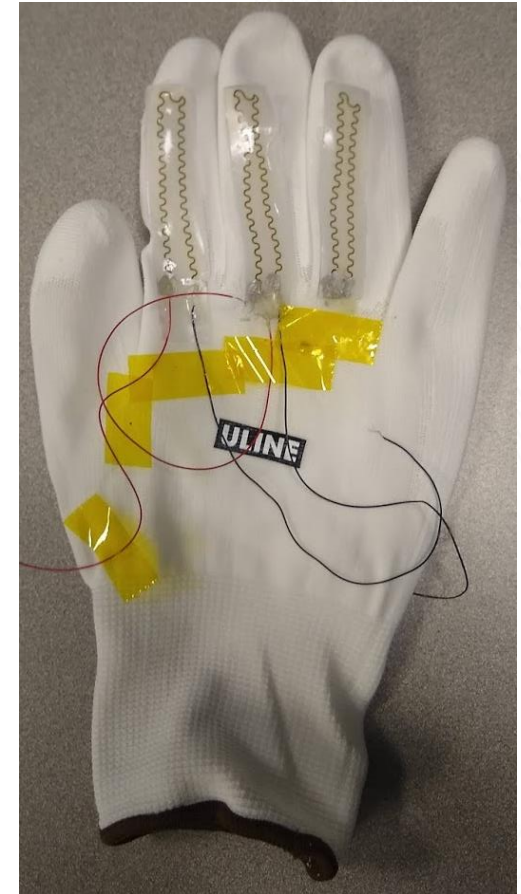
# Strain Sensor: Round #8

- Sensor batch: 2/26
  - Manufacturing: Finished
  - Conductivity Test: ~600 ohms
  - ASSEMBLY: Finished
- Sensor batch: 3/12
  - Manufacturing: Finished
  - Assembly: To do
- Takeaways:
  - Changing 200 um nozzle to 300 um nozzle
  - Vibrating vial of AgNW to break up clumps
  - Change out vial frequently to ensure enough material is deposited



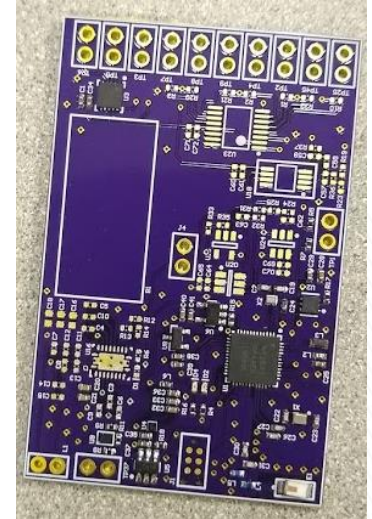
# Strain Sensor Glove: #1

- Strain Sensor #1:
  - Broke during finger bending
- Strain Sensor #2:
  - Not responsive
- Strain Sensor #3:
  - Ag paint connection broke
- Takeaways:
  - Reduce strain sensor length
  - Increase the radius of the serpentine pattern
  - Increase the number of serpentines to increase the gauge factor



# Firmware Development

- Pressure sensor Flex PCB:
  - Arrived 3/12
  - Will assemble by 3/19
- Strain Sensor firmware (3/15 – 3/29)
  - ADG728: TO-DO
  - DAC5571: TO-DO
  - ADS1100: TO-DO





# Literature review

- Initial draft complete
  - Emailed for review 3/15
- Figures complete

# PATH FORWARD



# Path forward (3/15/21 – 3/22/21)

- Shriner's Project:
  - Strain gauge, round #9
  - Firmware development
- LP-ECG:
  - Battery testing to confirm battery life
- Personal Schedule
  - Remote work: 3/20 – 3/28

# APPENDIX