



BITNG LAB UPDATE

Carl Demolder

Date 4/08/2021

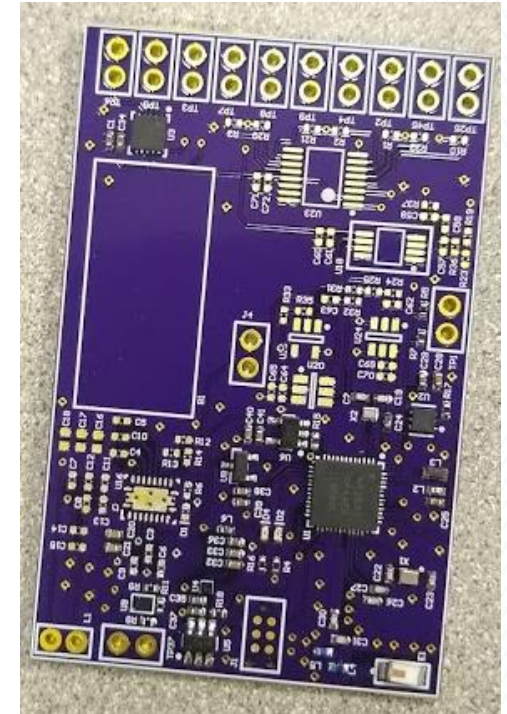
Progress from last week

- Shriner's project
 - Firmware
 - Literature review
 - Strain sensor
- Low Power ECG
 - Debugging

SHRINER'S PROJECT

Firmware/Software Development

- Strain Sensor firmware (3/29 – 4/15)
 - ADG728: Finished
 - DAC5571: TO-DO
 - ADS1100: TO-DO
- Sensor Glove GUI (4/15 – 4/30)
 - Python
 - BLE dongle

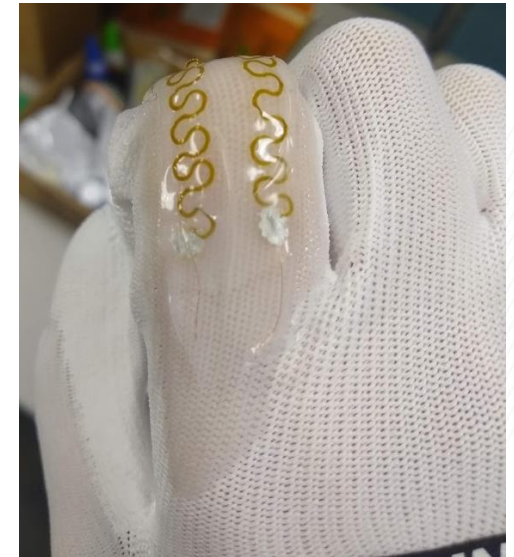


Literature review

- Editing literature review
 - Working on new summary figure
 - Going to add citations and sources from Alicia
 - Citations received yesterday
 - Going to implement today

Strain Sensor #9

- New pattern
 - Does not rip when finger bending
 - Serpentine pattern is too close together
 - need to increase spacing
 - PI layers occasionally stick together
 - AgNW layer didn't print properly
 - No connectivity

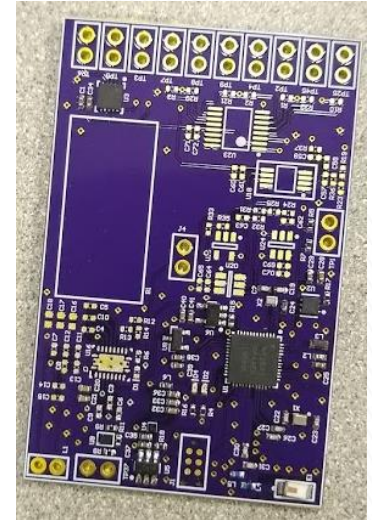


LOW POWER ECG

Low Power ECG

Debugging Problems:

1. Random Disconnection
 1. Fixed – Logging was stalling processor
2. Wireless Charging Coil
 1. In Progress – Implemented smaller antenna to operate at higher frequency
3. ECG Noise
 1. In progress – Have a hunch on problem
4. BLE Antenna RSSI
 1. Lowest priority



PATH FORWARD

Path forward (4/06/21 – 4/12/21)

- Shriner's Project:
 - Strain gauge, round #10
 - Firmware development
 - Literature review update
- LP-ECG:
 - Support for Shinjae/Bu

APPENDIX