Bio-Sensor Wearable Development Board

Carl Demolder

Date 9/10/2020

Outline

- Schedule
  - Gantt Chart update
- Progress update
  - Current progress
  - Path forward

SCHEDULE

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Schedule Gantt chart

Task	8/30-9/6	9/6-9/13	9/13-9/20	9/20-9/27	9/27-10/4	10/4-10/11	10/11-10/18
DEVELOPMENT BOARD	✖						
-HARDWARE DEBUGGING	✖	●					
-FIRMWARE DEBUGGING	✖	●					
NEUROMOTOR PEDIATRIC WEARABLE							
-LITERATURE REVIEW	✖	●					
-DESIGN PROPOSAL		●	●	●			
-BLOCK DIAGRAM		●	●				
YEO GENERAL LAB							
-IEN TRAINING	✖	●					
-LOW POWER ECG	✖	●	●	●	●	●	●

LEGEND

✖ FINSHED

● TO-DO

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PROGRESS TO DATE

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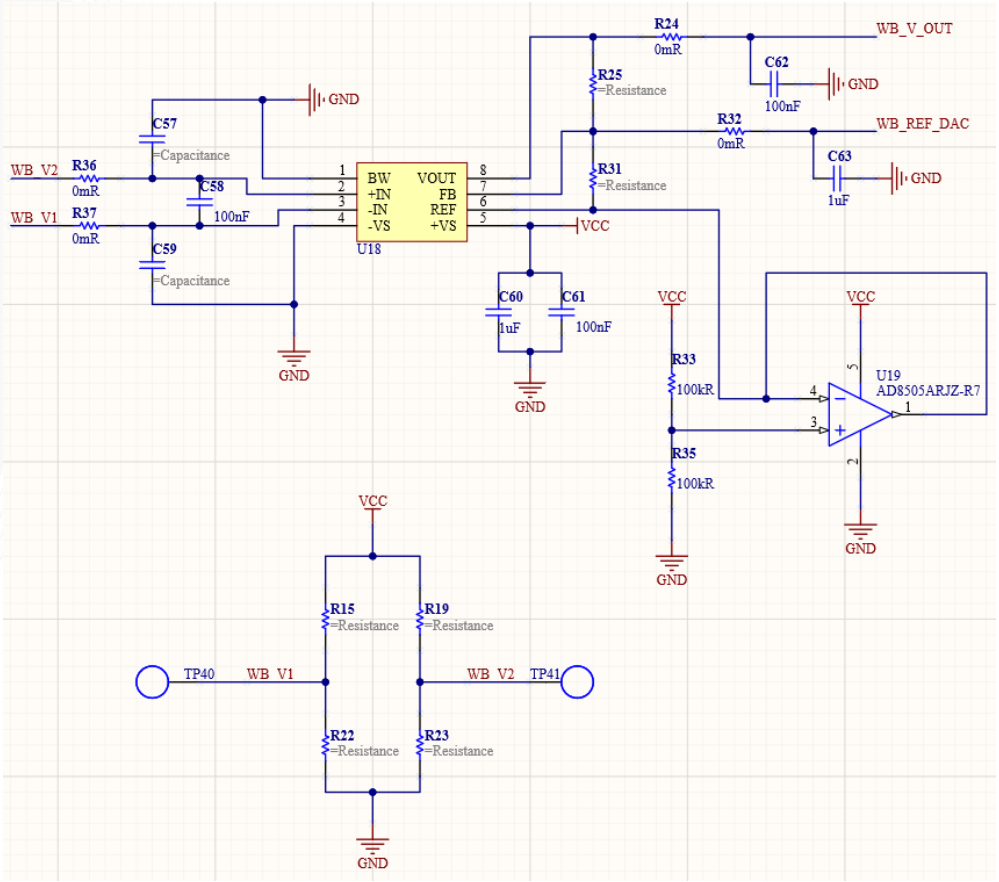
Progress from last week

- Firmware
  - DAQ Slave driver [IN PROGRESS]
- Hardware
  - Inductive charging [IN PROGRESS]
    - Trying to optimize coil size
  - RF wireless power harvesting
    - Waiting for ICs
- IEN training
  - Online lecture [FINISHED]
  - In person training with Robbie [FINISHED]
- Pediatric Wearable
  - Literature review [IN PROGRESS]
  - Introductory meeting [IN PROGRESS]

Strain gauge circuitry

- Circuitry used for:
  - Read resistive strain gauges and pressure sensors
- Circuit design for Desai lab group



PATH FORWARD

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Path forward (9/8/20 – 9/14/20)

- Hardware:
  - Wireless charging
    - Inductive charging: waiting for more samples
    - RF: waiting for samples
- Pediatrics Wearable:
  - Literature review
    - Initial draft and construction
  - Lab meeting to go pneumatic bladder construction
  - Block diagram
  - Design proposal
- IEN training:
  - Online assessment

APPENDIX

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