BITNG PROJECT UPDATE

Carl Demolder

Date 9/28/2020

Outline

- Progress to date
- Shriner’s project
- Schedule
  - Gantt Chart update
- Path forward

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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
    - Waiting for coils
  - RF wireless power harvesting [IN PROGRESS]
    - Waiting for ICs
- Pediatric wearable
  - Literature review [IN PROGRESS]
  - Block diagram [FINISHED]
  - Schematic [FINISHED]
  - PCB design [IN PROGRESS]

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SHRINER'S PROJECT

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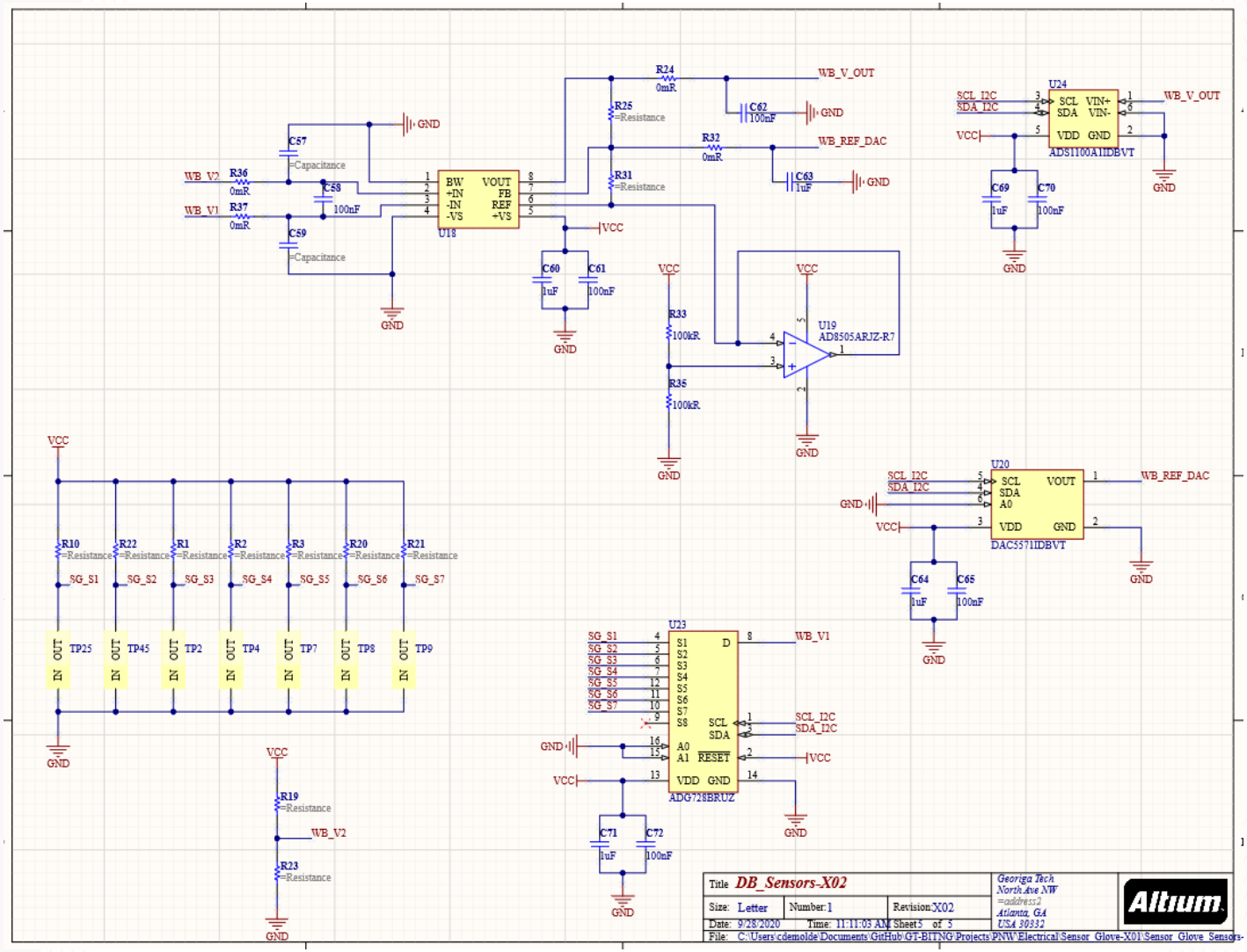
Resistive sensing circuit



Up to 8 resistance sensors

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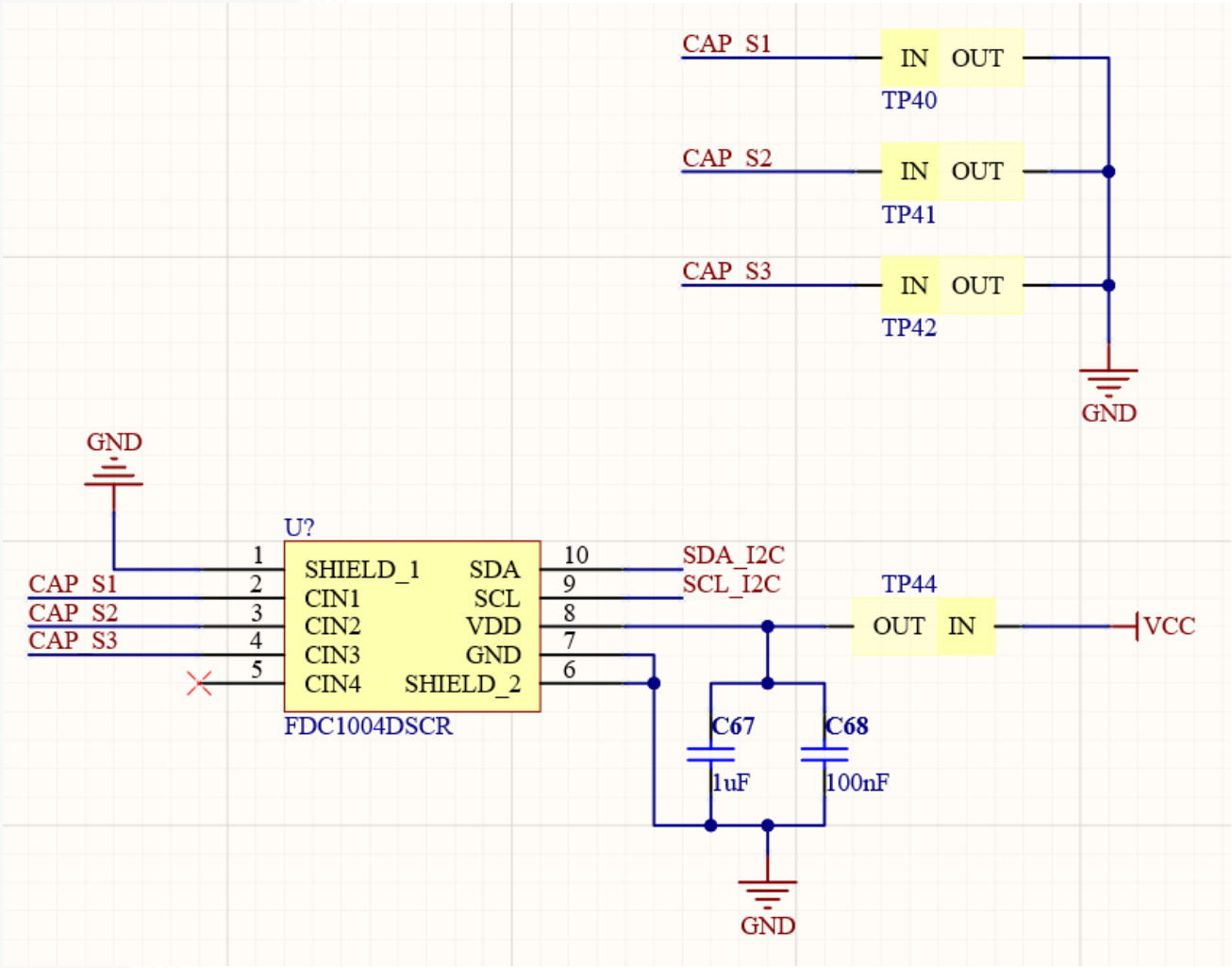
Capacitive sensing circuit

Up to 4 Capacitance sensors**



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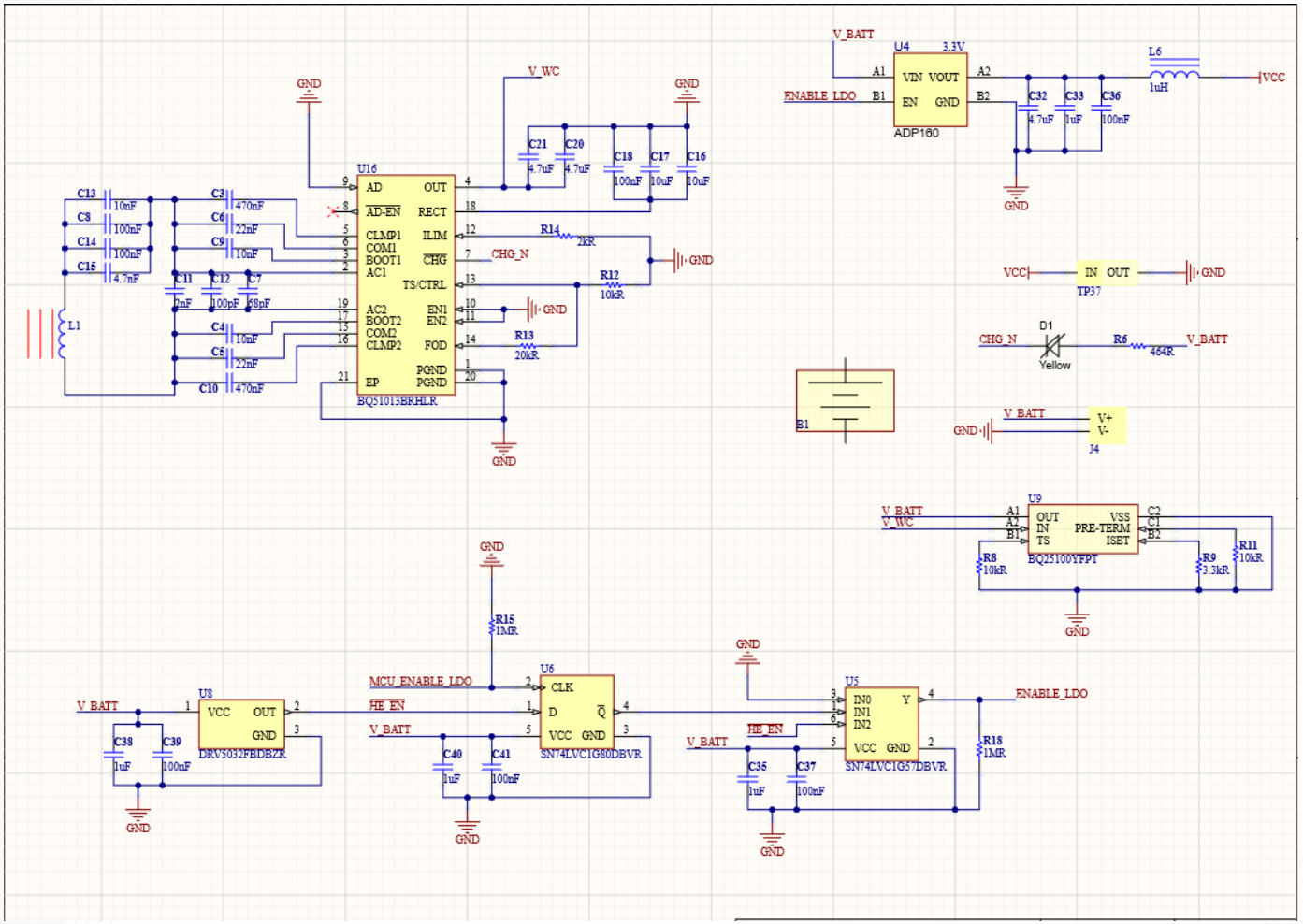
Power circuit



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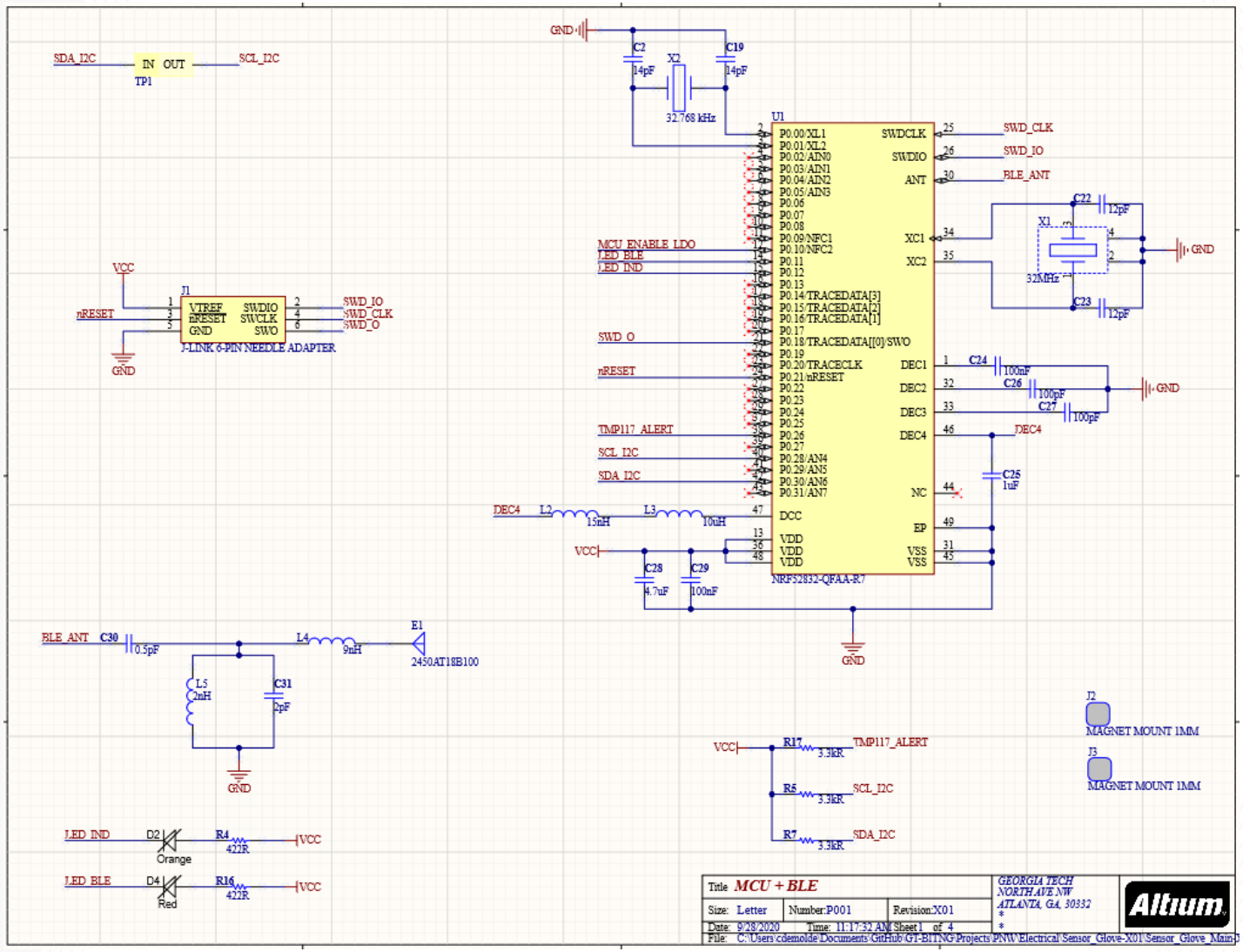
MCU circuit



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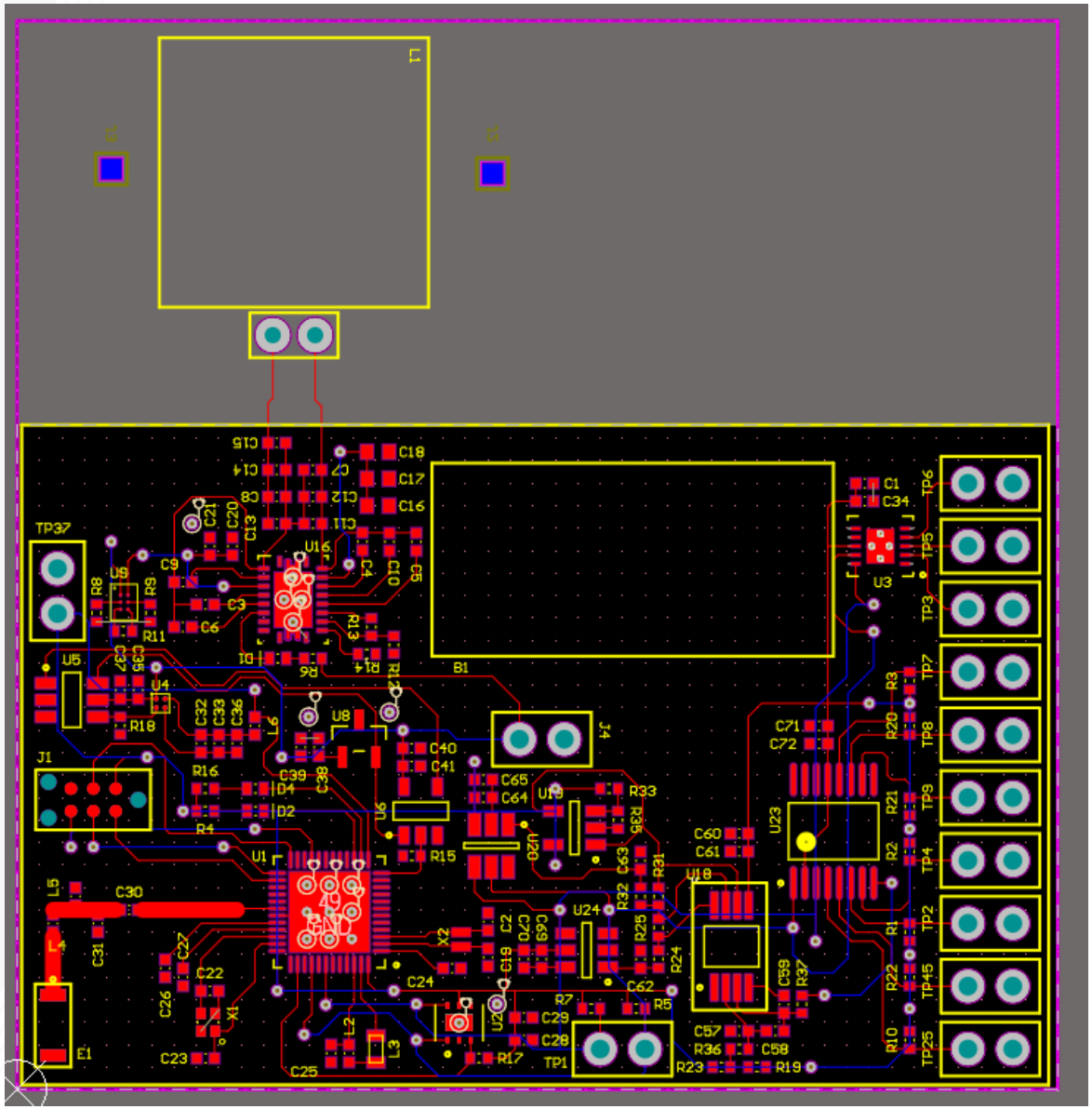
PCB design



~60mm x ~40mm

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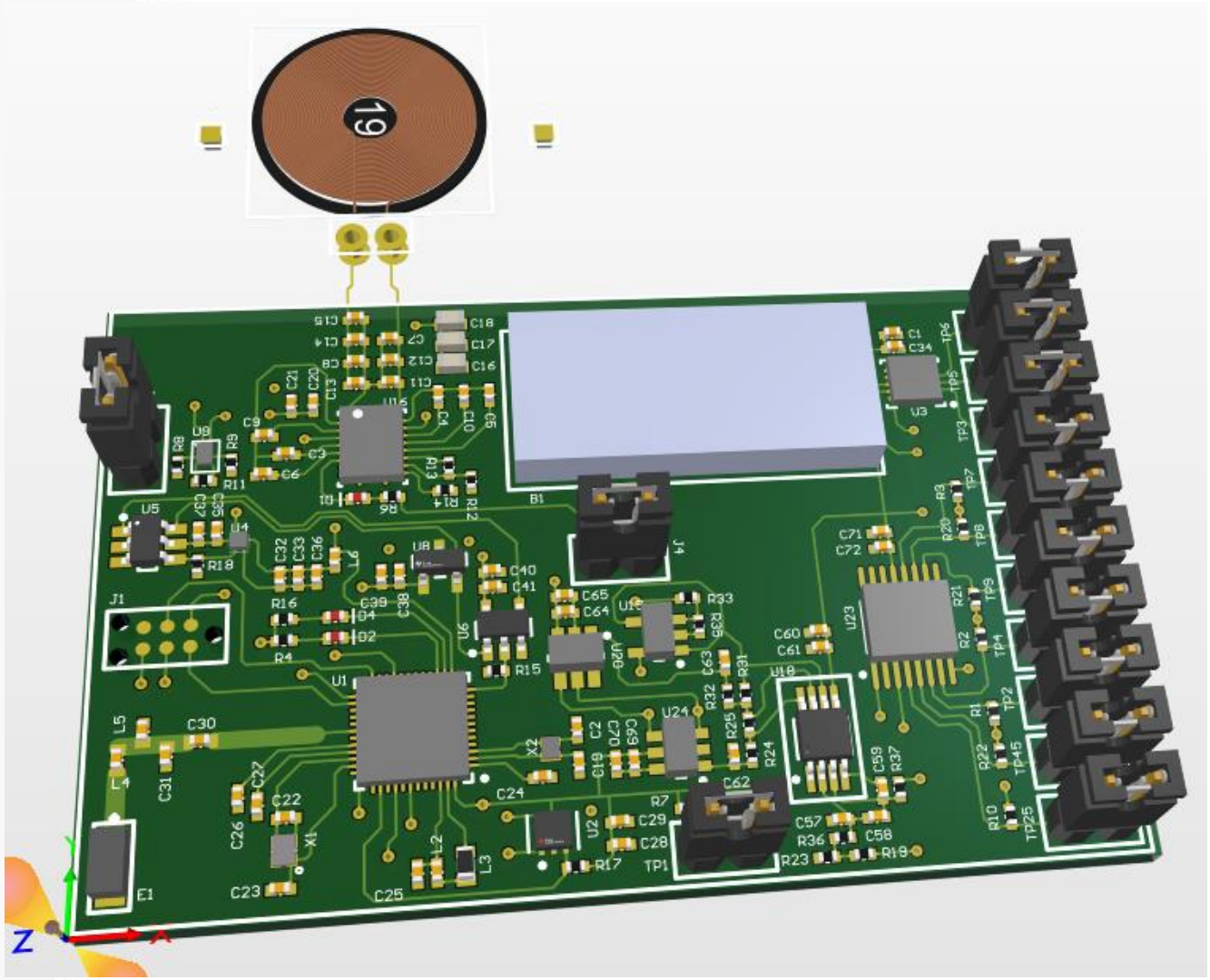
PCB design



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SCHEDULE

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Schedule Gantt chart

Task	9/20-9/27	9/27-10/4	10/4-10/11	10/11-10/18	10/18-10/25	10/25-11/01	11/01-11/01
DEVELOPMENT BOARD	✖						
-HARDWARE DEBUGGING	✖	●					
-FIRMWARE DEBUGGING	✖	●					
NEUROMOTOR PEDIATRIC WEARABLE							
-LITERATURE REVIEW	✖	●	●				
-SCHEMATIC	✖						
-PCB DESIGN REV #1	✖	●					
YEO GENERAL LAB							
- PRESSURE SENSOR PROPOSAL	✖	●	●	●			
-LOW POWER ECG	✖	●	●	●	●	●	●

LEGEND

✖ FINSHED

● TO-DO

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PATH FORWARD

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Path forward (9/28/20 – 10/05/20)

- Hardware:
  - Sensor glove
    - Overall schematic design
    - Finalize PCB layout
- Pediatrics Wearable:
  - Literature review
    - Existing landscape matrix
    - Overview presentation
- IRB testing

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APPENDIX

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