

Agenda 27 Mar 2019

Meeting Ran by: Rebecca

Minutes Taken by: Tyler

- ☐ Updates on tasks:
  - ☐ RSL10 Communication:
    - ☐ First draft of custom protocol is finished
    - ☐ Still working on reading notification directly into the terminal of a computer
  - ☐ Software
    - ☐ Python log file post processing first draft
    - ☐ First draft of MATLAB with python integration is complete
      - ☐ Will be fleshed out based on spectrum of LEDS used
  - ☐ LEDs/Photodiodes
    - ☐ Discussing experimental methods for phantoms
  - ☐ RSL10/AFE Schematic
    - ☐ First draft of final board is out
- ☐ Questions for Professor Schafer
  - ☐ Could we get python and matlab installed on the desktop?

Minutes:

RSL10: Trying to build custom protocol for Hydrowatch, stopped for now to focus on SPI. Decide if we want a custom one or just use a UART. SPI not well documented for RSL10,

contacted tech support, not super helpful, they recommended other drivers. Will keep working on the SPI

LED and Photodiodes: Going to solder LEDs before break, Photodiodes worked, setup tested and simulation ran, tested on cuvette with different LEDs, showed that different LEDs produced different current output. Need to talk with O'Sullivan to see why our differences aren't apparent. Better setup should help.

RSL10 Schematic: Not ordered yet, need to fix antenna. Work with Dr. Fay? Move the antenna closer?

AFE board: AFE working with LCD to display register values and converted voltages from photodiode, pulse ox clip is working and showing difference when being tested on finger and when empty

Setup MATLAB as a COM port, echo data back into the terminal.

O'Sullivan Meeting

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