

Agenda 03 April 2019

Meeting Ran by: Tyler

Minutes Taken by: Tansy

- ☐ Updates on tasks:
  - ☐ RSL10 Communication:
    - ☐ First draft of custom protocol is finished
    - ☐ Still working on reading notification directly into the terminal of a computer
    - ☐ SPI issues (crosstalk on MISO line)- at various points with different wires, the interface would function correctly, but with other wires it would not (MISO line shows the clock signal interfering as well as the MOSI line causing spikes)
      - ☐ Solution: hopefully the board with set traces will provide a stabler interface method, as changing out wires for different lengths provided unreliable results
  - ☐ 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
    - ☐ 440 nm: Tested to see if skin contact can be determined, demonstrated large magnitude of change
    - ☐ 660 nm: Will be used to test hemoglobin, not done yet
    - ☐ 940/970 nm: Calculations done for water vs heavy water, need surface mount LEDs to test
  - ☐ RSL10/AFE Board
    - ☐ Waiting on board from fab
- ☐ Questions for Professor Schafer
  - ☐ If the SPI issue persists on the MISO line, is it possible that a capacitor to ground on the pin that is inputted to the RSL10 might be required?