

Minutes

Cross-talk issue

- Smaller wires (works on Pickit)

  - Change pin definitions (certain wire configuration worked)

  - When wires were put back in the same configuration, did not work

- When MOSI spikes MISO spikes (capacitor to ground on MISO)

- There might be marginal wires, make sure everything is grounded properly

Software

- Log file draft and matlab draft are complete

Photodiodes

- Three different wavelengths

- 440nm LED to test is it on the skin?

  - Testing configurations: off the skin (on and off LED), on the skin (on and off LED)

  - On the skin: little is detected by the photodiode, all the light is being absorbed

  - Off the skin: about 0.6 uA difference is detected between on and off state of LED 970nm

- LED to test for water, currently doing testing by comparing water versus heavy water, did calculations for difference between heavy water and water (37% difference)

Currently building board

- Use hot air to solder back of board

- “Not at all bad” - Schafer 2019