Day 2 Project Planning

Tuesday, July 11, 2023   8:46 AM

Goals:
- Fully setup Microsoft Project
- Figure out important metrics to consider for thresholds in biometric measurements
- Establish the first list of materials to purchase
- Start thinking about Arduino and app coding

Important Doc for HRV:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5900369/

https://emersonkeenan.net/arduino-hrv/#softwaresetup

*# Admin Item
Research software.*

Shopping List:
Nano IoT: https://store-usa.arduino.cc/products/arduino-nano-33-iot ($25)
Pulse: https://www.amazon.com/PulseSensor-com-Original-Pulse-Sensor-project/dp/B01CPP4QM0/ref=sr_1_3?keywords=arduino+heart+rate+sensor&gid=1689012927&sr=8-3 ($25)

SD Module: https://www.amazon.com/HiLetgo-Adater-Interface-Conversion-Arduino/dp/B07BJ2P6X6/ref=sr_1_3?keywords=arduino+sd+card+module&gid=1689103794&sr=8-3 (5/$7)

SD card + Batteries + Connection????

 # Finalize Sloppy List @

Week 1
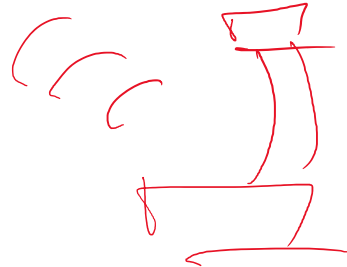
Storage solution with the SD card module (Flash memory not enough for storing data records over time)
Possible BLE connection (RESEARCH THIS)
Power solution (figure out with Eunice)
    9V for now?

App making: Use a native framework?
    Pros: Multiplatform with ease
    Cons: a bit of a learning curve
    Frameworks: React Native (Quick but a bit limited), Ionic (Balanced freedom and ease of use),
    Flutter (Very unrestrictive and looks good, but uses Dart programming language)

Arduino DAQing:
    Pretty well documented
    Combine from: https://emersonkeenan.net/arduino-hrv/#softwaresetup
    And the PulseSensor example code from the Arduino IDE.

Device design:
    Pivoting back to a glove?
    PulseSensor has some design files that may be of help.

Day 3 Requirements

Tuesday, July 11, 2023   8:19 PM

Goals:
- Get finishing touches for the first week shopping list and send out the order by 1 pm (w/ Eunice)
    Current List:
    - Nano IoT: https://store-usa.arduino.cc/products/arduino-nano-33-iot ($25)
    - Pulse: https://www.amazon.com/PulseSensor-com-Original-Pulse-Sensor-project/dp/B01CPP4QM0/ref=sr_1_3?keywords=arduino+heart+rate+sensor&qid=1689012927&sr=8-3 ($25)

    - SD Module: https://www.amazon.com/HiLetgo-Adater-Interface-Conversion-Arduino/dp/B07BJ2P6X6/ref=sr_1_3?keywords=arduino+sd+card+module&qid=1689103794&sr=8-3 (5/$7)

    - SD card: …
    - Batteries: …
    - Battery Connector: …
- Work on the requirements document (w/ All group members)
- Complete the team evaluation (")
- Continue researching app solutions and start prototyping the Arduino DAQing software (Individual)
- Continue researching HRV thresholds (w/ Diego?)