Meeting Minutes

**Date:** Friday, September 6, 2019

**In Attendance:** Brittany Hewitson, Corey Myrdal, Wenpei Li, Winsey Chui, HuyThong Bui

**Start Time:** 1:30PM

**Purpose of Meeting:**

1. Discuss increased activity on GitLab
   1. Open and close your own issues
2. Find way to improve communication and time management from group as a whole
   1. Be active and respond on slack
   2. Finish work at set deadlines
   3. Work on collaborative environment
3. Current progress over past month
4. Upcoming milestones
   1. Hardware
      1. Rechargeable Battery (Wenpei and Winsey): find a rechargeable battery with UPS, preferably function for around 9hrs
      2. Protection Circuit (Wenpei): design circuit to protect from overcurrent
      3. SpO2 implementation (Winsey): design circuit for SpO2 implementation to integrate into circuit, but allow for use of singular LED in case software team doesn’t have time
      4. Custom PCB (Wenpei and Winsey): Design custom PCB with angled LEDs and either self-make or send to be made
      5. Charging/Power LEDs (Wenpei and Winsey)
      6. Enclosure (Winsey)
   2. Software
      1. Data Transmission (Thong): make data transmission between rpi and cloud database faster
      2. Facial detection improvement (Brittany): implement new facial detection algorithm
      3. Kron job (Corey): write a kron job to automatically launch pipeline runs whenever new data enter database – collaborate with Thong on this to see if it can happen during data transmission
      4. Real time processing (?): who was working on reading the rpi video stream in real time and sending it to the facial detection algorithm (either Thong or Corey)
      5. RR improvement (Corey): was it tested for significant improvement? Otherwise improve it
      6. HR improvement (Brittany): simple improvements as discussed in beta document
      7. Plan out front end of web app (all of software): discuss what pages willb e in web app and what functionality

**Expected Timelines:**

1. Hardware
   1. Power done by mid to late September
   2. Design PCB by mid-October
   3. Enclosure by end of October
2. Software
   1. Pipeline done by end of September
   2. App done by end of October
   3. Work on improvements through November and December

**Discussion:**

1. More activity, close your own tickets
2. A lot of stress was caused by people not being done on time, since it takes time to go over the document afterwards and fix it to make it sound cohesive, so please keep to the deadlines as set
3. Current Progress
   1. Hardware looking for battery pack
   2. Thong got dlib working
   3. Corey trying different parameters and filters to extract results, gotten slightly better, more accurate results
      1. Possibly work with hardware team to see if can gather controlled data sets to finalize a better algorithm
         1. possibly put this off, since want to prioritize finishing the project before making improvements
      2. Try to record when exact breaths happen to see if algorithm is doing it accurately
   4. Brittany has worked on facial detection algorithm and its better now
4. Milestones
   1. Additional metrics will be left for later on – after app has been developed, because those were just ‘if we have the extra time’

**Action Plan for Future:**

* Check in with software team about SpO2 implementation
  + Responsible: Hardware team
  + Due Date: October 3, 2019
* Collect more data - tracked
  + Responsible: Hardware team + Corey
  + Due Date: September 10, 2019
* Real time transmission
  + Responsible: Thong
  + Due Date: September 13, 2019
* Change timeline on Beta document
  + Responsible: Brittany
  + Due Date: September 10, 2019

**Next Group Meeting Date:** September 13, 1:30PM

**Next Group Hardware Date:** September 10, 11:30AM

**Next Group Software Date:** September 10, 1:30PM

**End Time:** 1:51PM