20170116 Group Meeting with Supervisor

- 1 PM Dr. Ed Stott's office
- Recorder: Burgess Xu Wang
- Absence: Koral
- We discuss the progress thus far with our project supervisor: Dr. Ed Stott:
    1. Hardware: a complete PCB design is finished. That is compatible with all the physical peripherals and hardware-software interfaces. First Hardware order (25 keys, Teensy controller, 5 LEDs) has been made.
    2. Software: cooperative HW-SW interface reference has been provided by the HW designers. Much researches upon the controller programming and operation algorithms has been done.
    3. Packaging: 3D-printing induction organized by the imperial robotics soc was taken.
    4. Documentation: interim report has started to collect the info from HW, SW, Packaging design subgroups.
- Suggestions and advises given from Ed Stott:
    1. Hardware: familiarizing about the process for components purchasing, especially the PCB manufacturing. We decided to do sufficient pretest before eventually making the PCB, since to make the PCB is going to be expensive($\approx$£50 for our design) and irreversible. And the HW design shall be better proofread by Ed Stott before proceeding to manufacturer. During the talk, we found that to have several LED indicators on our board might be hard to handle referring to the circuitry. We decided to have a small black/white LCD display on our keyboard to show any information wanted. PCB needs to be adjusted according to this.
    2. Software: discussion upon functionality and the means to achieving that has been made. Dr. Stott suggested that we may simplify our user interface for simplicity, since the users may not be expecting to install a software app to manipulate the final product. Other ideas concerning the operation layers and display programming has been discussed. We will wait for the microcontroller to arrive this week to effectively start SW designing.
    3. Packaging: CAD and 3D printing methodology have been discussed. The CAD subteam may need to cooperate with HW subteam and pay more attention on the means for mounting the PCB and peripherals into the package.
    4. Documentation: yet to be discussed on Wednesday's meeting.
- It has been a helpful talk covering all the design fields with Ed Stott!
- Next meeting shall be on Wednesday this week.
- Meeting finished @2pm.