Minutes #14

11/5/18

11:30 PM - 12:30 PM

**Attendance**

Donghyun (David) Seo, Sobur Carim Sanni, Radhanath Purakait, Eric Luu, Shalih Miah

Meeting among the group members.

Group member discussed about possible design for our headgear and circuit design.

1. Electrical Safety
   1. Current amplitude
      * below 4mA to prevent skin and neural damage, u
      * Current would be specified on the headgear with a label.
   2. Electrode interactions
      * Electrodes must use an electrolyte, and the current must not pass through metal or rubber materials as this can cause undesirable chemical interactions.
      * Electrode size matters, high current (1mA) requires larger electrodes (larger than 4 cm × 4 cm).
      * Long term exposure and excessive current can cause itching and redness and skin damage, electrical safety mechanism to automatically stop current should be implemented.
   3. Component selection/consistency
      * Components selected should have correct tolerances to be safe within physiological current and voltage limits.
      * Devices should be reliable between each other to provide consistent current output.
   4. Dosage
      * Dosage should not exceed 30 minutes
   5. Safety precautions
      * clear instructions on the device itself to prevent misuse. However, actual use of the device should be intuitive.
   6. Battery safety
      * A shelf stable alkaline battery should be used to power the device, it doesn't need to be reusable or high capacity.