

Meeting with BuSha
9/26/14

- (1) Need to start prototyping by mid-October
 - a. Need to start sketching
 - b. Finalize requirements
 - c. Be ready to order parts after final senior project presentation
- (2) Spoke to athletes, coaches, etc
 - a. Decided on placing device on lower back
 - b. Auditory alarm system
 - c. Practice/ game
 - i. Field Hockey Practice: 3 hours (longest of all sports)
- (3) What we are measuring
 - a. Core body temp
 - i. Find temp from skin temp and heart rate?
 - ii. **Use neoprene over electrode to insulate skin and measure core temp more accurately**
 - b. Heart rate
 - i. **Infrared → if it can be used on the back**
 - ii. **200 = MAX**
 - iii. **single throw switch or double throw**
 1. **does alarm stay on once 200 is reached or turn off once no longer in danger zone?**
 - iv. **Need minimum heart rate**
 - c. Hydration
 - i. Galvanic skin response sensor
 - d. Alarm
 - i. Panic alarm as well as broken/nonresponsive sensor alarm
 - e. Impact force
- (4) 3D Printing
 - a. Go with cheaper machine if possible
 - i. Design doesn't require such a high resolution printer
 - ii. Curves, not sharp edges