

Senior Project Meeting Minutes
9/18/14
Meeting Start Time: 7:00 P.M.

- (1) Brainstorming how to contact athletes/coaches/trainers
 - a. Show up at coaches'/trainers' offices and attempt to speak to them
 - b. Email interview questions to athletes
- (2) Case for device
 - a. Alternative to 3D printing?
- (3) Sensors
 - a. Depending on the sport, can we still use all the sensors (are they needed)?
 - b. Heart rate:
 - i. Measure arrhythmia
 - ii. Tachycardia
 - c. Temperature:
 - i. Is there a non-invasive way to measure core temp?
 1. Use infrared sensor to measure heat from temporal artery
- (4) Device in general
 - a. Device should last at least one season
 - b. Should device have carrying case?
 - c. Sterilization of device
- (5) Standards
 - a. Waterproofing (ISO 2281-water resistant watch)
 - b. Skin sensitization standard (ISO 10993-10:2010)
- (6) Questions for BuSha
 - a. What should alarm system entail? (sound, vibration, etc.)
 - b. Should we 3D print?
- (7) Constraints
 - a. Price (Economic constraint)
 - b. Batteries/adhesives (Environmental constraint)
 - c. Life of device (Sustainability)
 - i. How to responsibly manage resources in producing device
 - d. Ethical
 - i. Extensive human testing may be needed if designed for multiple sports
 - ii. Price?
 - e. Health and Safety
 - i. Padding and casing