

Capstone Monday Meeting 10/22/2018

Meeting with Dr Winfrey

7:00-8:00pm

Team discussion and Topics and challenges for beginning:

- Discussed more on our personalities and capstone project
- Discussed majors and passion
- Dr. Winfrey discussed why he went into his interest in bio-mechanics.
- What do we think the project is? Project description. Sense of normalcy, accomplishment
- Potential clients: 11-year old kid Nate or Basketball Player at NAU

Meeting Update on Project

- Challenge: use sensors to figure out intention: closing or grabbing
- Mechanical design, haptic sense, and intention are the biggest challenges for this project
- Twist: meet with electrical engineers in person to begin weekly meetings.
 1. They have begun to introduce budget and goals for the project (4 people)

Status on project and questions for future:

- Discussed final design for foot-controlled prosthetic
- Wearable computer in show might provide a bit of insight
- Processes: Storyboard, mind mapping
 2. Mind mapping: organizes brainstorming ideas:
 - (a) Be ready to consider other designs: start over to build other ideas to consider
 - (b) Identify different ways of control
 3. Storyboarding; drawing out cartoons to understand function. Low fidelity
 - (a) Types of shoes? Flexibility? Actuation?
 - (b) Assumptions can be realized through this method. Using while walking could be a potential challenge
- Electrical Engineering Input for project:
 - (1) Sensing, Bluetooth
 - (2) Actuation
 - (3) Arduino coding
 - (4) Motors and motor types
- Mechanical Engineering Input
 - (1) Design: shoe type, material
 - (2) Stresses and forces
 - (3) Where to structure gears and wires

Future plans:

- Meet with EE's
- Guide conversation to design considerations, process, and input
- Can we do all of it? Perhaps
- Consider actuation component of design
- Use Ghent chart or kahban for future creation of design
 - i) Want 3 prototypes at least!!!!