MSDII Testing – Prototype Aesthetics

Team: P15001: Active Ankle Foot Orthotic Engineer: Geni Giannotti – Biomedical Engineer

Related System: AA- Apply AFO (easily)

This test will inform the team of whether or not the developed prototype is aesthetically pleasing to users and determine if any adjustments are needed to make the product more aesthetically pleasing.

Engineering Requirements:

| rqmt. # | Importance | Source | Engr. Requirement (metric) | Unit of Measure | Ideal Value | Marginal Value | Direction of improvement | Mapping to Functional Decomposition |
|---------|------------|-------------|----------------------------|--------------------|----------------|-------------------|--------------------------|---|
| ER17 | 1 | CF1, CF6 | Aesthetically Pleasing | yes/no | yes | yes | • | (AA) Apply AFO (easily) |

Testing Plan

A total of at least 10 volunteers will be asked to examine the AFO and answer the following survey questions.

1.) Compared to current commercially-available ankle-foot orthotics, would you consider this device aesthetically pleasing? (better, same, worse)

| Commercially | Rating | | | | |
|---------------|-------------------------------------|------|-------|--|--|
| Available AFO | (circle one answer for each device) | | | | |
| | Better | Same | Worse | | |

P15001: Active Ankle Foot Orthotic - Updated on February 2, 2015

| Better | Same | Worse |
|--------|------|-------|
| Better | Same | Worse |
| Better | Same | Worse |

2.) Are there any specific features that make our device not aesthetically pleasing? Please be specific and feel free to offer suggestions for improvement.

Overall, this test will take approximately 3-4 minutes for each volunteer to complete. A table displaying the device and project information will be set up in one or more academic building(s) on campus. We will select individuals who express interest, in the study, at the booth and will only allow individuals who are over the age of 18 to participate.

Start Date: 03/09/2015 End Date: 03/26/2015

Budget

| Equipment | Price | Quantity |
|---------------------------------|-------|----------|
| Working Prototype with Air Tank | - | 1 |
| | | |
| | | |
| | | |
| Total: | - | 1 |