Sample REU Plan

Project: Design of New Speed and Acceleration Measurement Device for Wheelchair Testing

Week 1: 5/28 – 6/1
Review pertinent wheelchair testing standards
Observe current device during testing and brainstorm new solutions
Become familiar with encoder and investigate sample code and/or begin writing custom code

Week 2: 6/4 – 6/8
Continue with encoder data collection/analysis code
Investigate appropriate hardware/supplies at HERL (wheels, bearings, etc)
Become familiar with Solidworks
**Milestone – Have working collection/analysis code.**

Week 3: 6/11 – 6/15
Continue Solidworks tutorials/practice
Decide on hardware/supplies

Week 4: 6/18 – 6/22
Continue Solidworks tutorials/practice
Begin designing device integrating encoder, wheels, etc.
Make outline for paper
**Milestone – Have complete outline for final paper**

Week 5: 6/25 – 6/29
Complete first design iteration

Begin paper writing (Intro/background, Methods)

**Milestone – Build 1st prototype, complete intro section of paper**

**Week 6: 7/2 – 7/6**

Test 1st prototype, make any necessary design changes

Continue paper writing (Methods, Results)

**Milestone – Complete Methods section of paper**

**Week 7: 7/9 – 7/13**

Finalize design and test next version

Continue paper writing (Results, Discussion, Abstract)

**Milestone – Build final device that performs as well or better than current device,**

**Complete results section of paper**

**Week 8: 7/16 – 7/20**

Work on final paper - **Complete paper due by 7/30**