

MSDII Testing – Battery Capacity Test

Team: P15001: Active Ankle Foot Orthotic

Engineer: Jared Green and Adam Podelec –Mechanical and Electrical Engineer

Related System: Recharge or Replace Battery (ADB)

This test is designed to ensure that the battery powering the system will last as long as possible before having to be recharged or replaced. It also helps detect how much current is being drawn by the power source.

Engineering Requirements:

ER9: Max current (mA)

Ideal Value: 100

Marginal Value: 200

ER10 Time between charges (hours)

Ideal Value: 8

Marginal Value: 6

Testing Plan

The battery that we plan on using is shown below:

<http://www.amazon.com/HitLights-12V-Rechargeable-Battery-Pack/dp/B007RQW5WG>

To test a battery capacity, first using a multimeter DC voltage and current should be measured. Current drawn can be calculated using the current that each component takes to run. Ohm's law can ultimately help determine how much current is being drawn from the power source and ultimately, help determine how long the power source can last before a recharge is necessary.

Start Date: Pending arrival of battery

End Date: March 2015

Location

BAD lab

Budget

Equipment	Price	Quantity
Total:		