Improved Walker, Part Two

Cage, Walker

The purpose of this experiment is to design a suspension system that is adaptable to a wheeled walker. The goal is to reduce the amount of force it takes to travel over an uneven surface, and to reduce the Y axis acceleration as it travels over the surface. My hypothesis is: the suspension system will reduce both force and Y axis acceleration as it travels over the uneven surface. I researched and conducted tests on a normal walker. This is my control. Based on the limitations of the control walker I designed a suspension system and conducted the same tests using the suspension system. My hypothesis was supported because the amount of force needed to make the walker travel over the uneven surface was reduced. The Y axis acceleration was also reduced. For one of my test the force was reduced by 70%, and the acceleration by 1.98 m/s2.

Awards Won: