Establishing the functional viability and dose response of Duck, Duck Punch: A Stroke Rehabilitation Computer Game.

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STATISTICAL ANALYSIS PLAN

<u>Data Analysis of Primary Outcome Variables</u>: Two, two-way mixed model ANOVAs will be used to assess the main effects of Treatment on the primary outcome measures (FMA-UE, WMFT <u>Covariate</u>: intensity of training (averaged number of minutes of game play per day). Significance for all comparisons will be alpha = 0.05.

<u>Data Analysis of Secondary Outcome Variables</u>: We will utilize ANOVAs to test the effect of Treatment on the average change in the kinematic variables including interjoint coordination and trunk displacement. The secondary outcome data have an important purpose. At the conclusion of this study we anticipate a subsequent Phase III SBIR proposal of a larger, multi-site RCT that will enable clear decisions regarding the clinical utility and commercialization of DDP to therapists and stroke survivors. Our plan is to power that study on a measure of change in measures of coordination and capacity.