



**Figure 3—figure supplement 5. Impact of a Simplified Model with Fewer Muscles.** Predicted movement duration to a target in a reaching task when varying the target size when we use a model with 14 important muscles missing (deltoid anterior, deltoid posterior, infraspinatus, teres minor, etc.). The x-axis is the index of difficulty of the reaching movement. We use CMA-ES with 20 iterations and 20 samples to generate the trajectories. We see that the model's mean predictions are in close agreement with Fitts' law ( $R^2 = 0.93$ ). The standard deviations are not statistically correlated with the experimental data in Fig. 3A. The vertical bars are one standard deviation from the mean.