Coordination of human movement includes temporal and spatial aspects. Under the assumption that the implicit movement sequence of body segments may be associated with visual feedback information, the activation timing, time to peak velocity of the hand and sequencing of joint movements were investigated in this study. The results show that variations in movement time with target azimuth and distance fit a quadratic regression model. In addition, the time to peak velocity reveals a movement scaling property in the context of self-imposed movement speed. Finally, the sequencing of joint movement also varies with target azimuth and distance. These motor behavior properties and movement characteristics can be used to model human reach movement in a dynamic manner and to estimate task durations.