

Field Name	Field Definition
Subject	Seven subjects (S3, S5, S6, S7, S8, S9, S10) participated in this study.
Device	There are four device conditions: without wearing an exoskeleton (NoExo), wearing Exo1, wearing Exo2 and wearing Exo3.
Level	The subjects were asked to lift a cinder block from the production table and place it on the simulated wall. The simulated wall height was set at two different levels— the subject's elbow height (elbow) and the shoulder height (shoulder).
Biceps_mean	The mean value of the normalized EMG data for Biceps muscle of the participant's dominant side (unitless)
Biceps_peak	The peak value of the normalized EMG data for Biceps muscle of the participant's dominant side (unitless)
Triceps_mean	The mean value of the normalized EMG data for Triceps muscle of the participant's dominant side (unitless)
Triceps_peak	The peak value of the normalized EMG data for Triceps muscle of the participant's dominant side (unitless)
PostDeltoid_mean	The mean value of the normalized EMG data for posterior deltoid muscle of the participant's dominant side (unitless)
PostDeltoid_peak	The peak value of the normalized EMG data for posterior deltoid muscle of the participant's dominant side (unitless)
MedDeltoid_mean	The mean value of the normalized EMG data for medial deltoid muscle of the participant's dominant side (unitless)
MedDeltoid_peak	The peak value of the normalized EMG data for medial deltoid muscle of the participant's dominant side (unitless)
AntDeltoid_mean	The mean value of the normalized EMG data for anterior deltoid muscle of the participant's dominant side (unitless)
AntDeltoid_peak	The peak value of the normalized EMG data for anterior deltoid muscle of the participant's dominant side (unitless)
UppTrapezius_mean	The mean value of the normalized EMG data for upper trapezius muscle of the participant's dominant side (unitless)

UppTrapezius_peak	The peak value of the normalized EMG data for upper trapezius muscle of the participant's dominant side (unitless)
MDIST-ML	The mean distance (MDIST) of the center of pressure (COP) in the medio-lateral (ML) direction (unit: mm)
MDIST-AP	The mean distance (MDIST) of the COP in the antero-posterior (AP)direction (unit: mm)
MDIST	The total mean distance (MDIST) of the COP (unit: mm)
EXCUR_ML	The total excursion (EXCUR) of COP in the ML direction (unit: mm)
EXCUR_AP	The total excursion (EXCUR) of COP in the AP direction (unit: mm)
EXCUR	The total excursion (EXCUR) of COP (unit: mm)
Vel-ML	The mean velocity of the COP movement in the ML direction (unit: mm/s)
Vel-AP	The mean velocity of the COP movement in the ML direction (unit: mm/s)
Vel	The total mean velocity of the COP movement (unit: mm/s)