**Schwaner, Nishikawa, Daley - Data sheet - Readme File**

The information below corresponds to the source data published with ‘Kinematic trajectories in response to speed perturbations suggest modular task-level control of leg angle and length’ by Schwaner, Nishikawa, and Daley.

**General**

The data in this data sheet consist of 2179 strides of 7 individual guinea fowl (*Numida meleagris*) walking on a treadmill. The data presented in this datasheet has been used in the statistical analysis to produce the figures and statistics in the paper. Each row represents measurements taken from a single stride (with strides defined from mid-swing to mid-swing). Measurements are taken from the stance phase only, unless otherwise indicated below.

For additional information about the study, please refer to the manuscript.

**Explanation of table information**

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| --- | --- | --- | --- |
| Col# | ColName | Unit | Information |
| 1 | Individual | - | Number indicates assigned animal ID number. |
| 2 | Condition | - | Treadmill perturbation condition.  1 = Steady-state trial  2 = Perturbation trial, with variation in treadmill belt speed (see source manuscript). |
| 3 | Speed | m/s | Steady-state treadmill speed. This corresponds to the steady speed in steady trials and the baseline speed in perturbation trials. |
| 4 | LL\_Exc | % | Leg length (LL) excursion (Exc), expressed as percentage relative to the sum of the segment lengths (femur, tibiotarsus, tarsometatarsus). |
| 5 | LL\_min | % | Minimum leg length (LL) during a stride, as a percent of total available leg length. |
| 6 | LA\_Exc | ∘ | Leg angle (LA) excursion (Exc) in degrees. |
| 7 | Vert\_Exc | % | Maximum vertical excursion of the center of mass (CoM) position during stance.. |
| 8 | Vert\_Disp | % | Net vertical displacement of the center of mass (CoM) position during stance. |
| 9 | Hip\_Ext | ∘ | Extension of the hip joint in degrees. |
| 10 | Knee\_Exc | ∘ | Net knee joint excursion in degrees. |
| 11 | Knee\_Flexion | ∘ | Knee joint flexion in degrees. |
| 12 | Knee\_Ext | ∘ | Knee joint extension in degrees. |
| 13 | Ankle\_Exc | ∘ | Net ankle joint excursion in degrees. |
| 14 | Ankle\_Flexion | ∘ | Ankle joint flexion in degrees. |
| 15 | Ankle\_Ext | ∘ | Ankle joint extension in degrees. |
| 16 | TMP\_Exc | ∘ | Net TMP joint excursion in degrees. |
| 17 | TMP\_Flexion | ∘ | TMP joint flexion in degrees. |
| 18 | TMP\_Ext | ∘ | TMP joint extension in degrees. |
| 19 | CoM\_Vel | m/s | Velocity (m/s) of the Center of Mass (CoM), measured 30 - 60% of the stance phase. |
| 20 | FtSpeed | m/s | Speed (in m/s) of the foot during 30 - 60% of the stance phase. |
| 21 | StepCat\_Vals | - | Assigned step categories:  0 = steady state (S)  1 = deceleration (Dec)  2 = deceleration +1 (Dec +1)  3 = acceleration (Acc)  4 = acceleration +1 (Acc +1)  5 = unperturbed (UnPert) |