

Inertia Documentation

Introduction / Login

NOTICE: The prior Inertia application has been replaced with an Internet based on-line version.

The application requires a license key to operate, and it can be found at <http://inertia.c-motion.com>

The login screen only requires the license key, which is provided by C-Motion when access to the application is purchased. The license is only saved on the PC as a web cookie for a few hours, so save it carefully to keep running the application.



Subject Data

The right side of the screen is used to input the measurements that you have taken of a subject.

The fields at the top are critical, and the 3 tabs (Torso, Arms, Legs) are for the input of anthropometric measurements. All fields must be filled in for the calculations to work.

The forth tab shows the resulting inertial properties once you click the "Calculate Inertial Values" button. The export buttons save the results as text files, in the same format(s) as the earlier application.

The pink area at the top is where warning or error messages about the data you've entered. Any system errors appear here too.



Measurements and Ranges

This application is for use with adults (post-pubescent) and is not intended for use with children.

Mass: need to be able to enter to one decimal place e.g. 75.2 kg Default: Range Mass 70: 40 – 130
Standing Height: 1700: 1300 – 2100 HEADING: TORSO LENGTHS Acromion to Hip Center 550: 400 – 700
Acromion to Apex of Head 270: 170 – 370 HEADING: TORSO PERIMETERS Hip Perimeter 900: 700 – 1300
Umbilicus Perimeter 800: 500 – 1300 Lower Ribcage Perimeter 800: 500 – 1300 Nipple Level Perimeter 900: 600 – 1200
Neck Perimeter 350: 250 – 500 Top of Ear Perimeter 570: 450 – 700 HEADING: TORSO WIDTHS Hip Width 350: 200 – 500
Umbilicus Width 300: 200 – 500 Lower Ribcage

Width 300: 200 – 500 Nipple Level Width 320: 200 – 500 Shoulder Center Width 350: 250 – 500
HEADING: LEFT ARM LENGTHS Shoulder to Wrist Center 500: 400 – 650 Wrist Center to Finger End
180: 140 – 250 HEADING: LEFT ARM PERIMETERS Upper Arm Perimeter 280: 180 – 500 Elbow
Perimeter 270: 170 – 400 Max Forearm Perimeter 270: 170 – 400 Wrist Perimeter 170: 120 – 250
Knuckle Perimeter 200: 140 – 300 HEADING: RIGHT ARM LENGTHS Use same default and ranges as for
left arm HEADING: RIGHT ARM PERIMETERS Use same default and ranges as for left arm HEADING:
LEFT LEG LENGTHS Hip to Ankle Center 850: 650 – 1100 Ankle Center to Toe End 200: 150 – 330
HEADING: LEFT LEG PERIMETERS Crotch Perimeter 600: 300 – 900 Mid-Thigh Perimeter 530: 300 – 900
Knee Perimeter 380: 200 – 600 Max Calf Perimeter 370: 200 – 600 Min Ankle Perimeter 230: 150 – 350
Heel Perimeter 330: 200 – 500 Ball of Foot Perimeter 240: 150 – 350 HEADING: RIGHT LEG LENGTHS
Use same default and ranges as for left leg HEADING: RIGHT LEG PERIMETERS Use same default and
ranges as for left leg Fred Yeadon, May 2013

From:
<https://has-motion.com/wiki/> - **Wiki Documentation Site**

Permanent link:
https://has-motion.com/wiki/doku.php?id=visual3d:documentation:inertia:inertia_documentation&rev=1753811557

Last update: **2025/07/29 17:52**

