

Segment Mass

Default Segment Mass

The default segment masses defined in Visual3D are based on [Dempster's regression equations](#).

The default segment masses (relative to total body mass) are:

foot	0.0145
shank	0.0465
thigh	0.10
hand	0.006
forearm	0.016
upper arm	0.028
pelvis	0.142
thorax/abdomen	0.355
head	0.081
trunk	0.497

Modifying Segment Mass

Segment Mass can be modified under the segment properties tab in Visual3D's model builder.

Segments | Segment Properties | IK Constraints | Right Thigh

Segment Name: Right Thigh

☒ Kinetic ☐ Kinetic But No Force Assignment ☐ Kinematic Only

Segment Mass: 0.1*Mass = 8.21 kgs

Segment Length: 0.420917 Meters

Segment Geometry: CONE

Inertial Values*

Expression	Value
IXX:	0.12846
IYY:	0.12846
IZZ:	0.01735

Center of Mass (Meters)*

ML :	0*RTH_SEG_
AP :	0*RTH_SEG_
Axial :	0.464927*RTI

*May be modified for custom geometry

Model File: rthigh.v3g Browse

Material File: Browse

☐ Override Color Black

Rotate/Scale Graphic Model

Copy Override Color to Active Subject

Modify Segment Coordinate System

Apply

Build Model

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