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# AST/ASF file generated using VICON BodyLanguage
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:version 1.10
:name VICON
:units
  mass 1
  length 1
  angle deg
:documentation
  .ast/.asf automatically generated from VICON data using
  VICON BodyBuilder and BodyLanguage model BRILLIANT.MOD
:root
  order TX TY TZ RZ RY RX
  axis XYZ
  position 0 0 0
  orientation 0 0 0
:bonedata
begin
  id 1
  name lhipjoint
  direction 0.72854 -0.657115 0.193469
  length 4.44938
  axis 0 0 0 XYZ
end
begin
  id 2
  name lfemur
  direction 0.173648 -0.984808 0
  length 13.0935
  axis 0 0 10 XYZ
  dof rx ry rz
  limits (-180 180)
    (-180 180)
    (-180 180)
end
begin
  id 3
  name ltibia
  direction 0.0451804 -0.998979 0
  length 14.7009
  axis 0 0 10 XYZ
  dof rx
  limits (-180 180)
end
begin
  id 4
  name lfoot
  direction 0.312484 -0.564603 0.763923
  length 5.66153
  axis -90 -1.73656e-015 10 XYZ
  dof rx ry rz
  limits (-180 180)
    (-180 180)
    (-180 180)
end
begin
  id 6

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    name rhipjoint
    direction -0.707962 -0.677497 0.19947
    length 4.31552
    axis 0 0 0 XYZ
end
begin
    id 7
    name rfemur
    direction -0.173648 -0.984808 0
    length 12.3068
    axis 0 0 -10 XYZ
    dof rx ry rz
    limits (-180 180)
        (-180 180)
        (-180 180)
end
begin
    id 8
    name rtibia
    direction -0.0568563 -0.998382 0
    length 15.9958
    axis 0 0 -10 XYZ
    dof rx
    limits (-180 180)
end
begin
    id 9
    name rfoot
    direction -0.229296 -0.505237 0.831961
    length 6.35504
    axis -90 1.73656e-015 -10 XYZ
    dof rx ry rz
    limits (-180 180)
        (-180 180)
        (-180 180)
end
begin
    id 11
    name lowerback
    direction -0.00240015 0.999207 0.0397398
    length 8.95064
    axis 0 0 0 XYZ
end
begin
    id 13
    name thorax
    direction 0 1 0
    length 5.0892
    axis 0 0 0 XYZ
    dof rx ry rz
    limits (-180 180)
        (-180 180)
        (-180 180)
end
begin
    id 16
    name head

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    direction 0.00311059 0.99307 0.117483
    length 10.7689
    axis 0 0 0 XYZ
dof rx ry rz
limits (-180 180)
        (-180 180)
        (-180 180)
end
begin
    id 17
    name lshoulderjoint
    direction 0.173648 0.984808 1.81699e-027
    length 6.73177
    axis -180 -3.55455e-024 -100 XYZ
dof rx ry rz
limits (-180 180)
        (-180 180)
        (-180 180)
end
begin
    id 18
    name lhumerus
    direction 1 4.4894e-011 8.8429e-011
    length 10.1922
    axis -180 -8.9338e-010 -90 XYZ
dof rx ry rz
limits (-180 180)
        (-180 180)
        (-180 180)
end
begin
    id 19
    name lradius
    direction 1 4.48978e-011 8.8429e-011
    length 12.1731
    axis -180 -8.9338e-010 -90 XYZ
dof rx
limits (-180 180)
end
begin
    id 21
    name lhand
    direction 0.987411 -0.158176 -5.4193e-005
    length 3.72487
    axis -108.334 -90 -161.666 XYZ
dof rx ry rz
limits (-180 180)
        (-180 180)
        (-180 180)
end
begin
    id 22
    name rshoulderjoint
    direction -0.173648 0.984808 7.72749e-028
    length 6.74019
    axis -180 3.55455e-024 100 XYZ
dof rx ry rz

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        limits (-180 180)
            (-180 180)
            (-180 180)
    end
begin
    id 23
    name rhumerus
    direction -1 -4.7092e-005 -7.98367e-005
    length 11.1722
    axis -180 8.9338e-010 90    XYZ
    dof rx ry rz
    limits (-180 180)
        (-180 180)
        (-180 180)
end
begin
    id 24
    name rradius
    direction -1 4.48966e-011 8.8429e-011
    length 10.4198
    axis -180 8.9338e-010 90    XYZ
    dof rx
    limits (-180 180)
end
begin
    id 26
    name rhand
    direction -0.989067 -0.147468 8.31408e-011
    length 4.0046
    axis -108.334 90 161.666    XYZ
    dof rx ry rz
    limits (-180 180)
        (-180 180)
        (-180 180)
end
:hierarchy
begin
    root lhipjoint rhipjoint lowerback
    lhipjoint lfemur
    lfemur ltibia
    ltibia lfoot
    rhipjoint rfemur
    rfemur rtibia
    rtibia rfoot
    lowerback thorax
    thorax lshoulderjoint rshoulderjoint
    thorax head
    lshoulderjoint lhumerus
    lhumerus lradius
    lradius lhand
    rshoulderjoint rhumerus
    rhumerus rradius
    rradius rhand
end

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