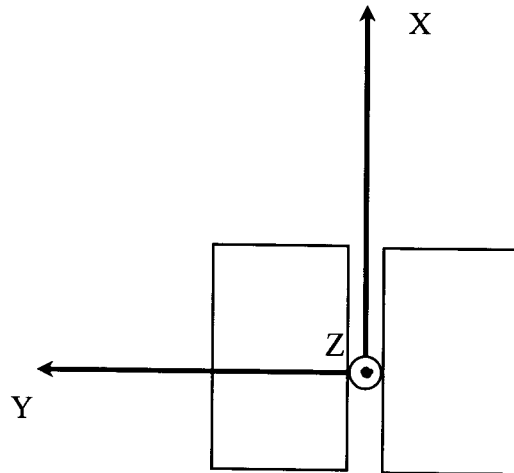
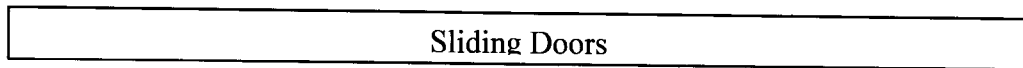


**SPME 430 Data Explanation Handout
Spring, 2009**

All time values are reported in seconds.

Interpretation of the Linear Displacement, Linear Velocity and GRF Data

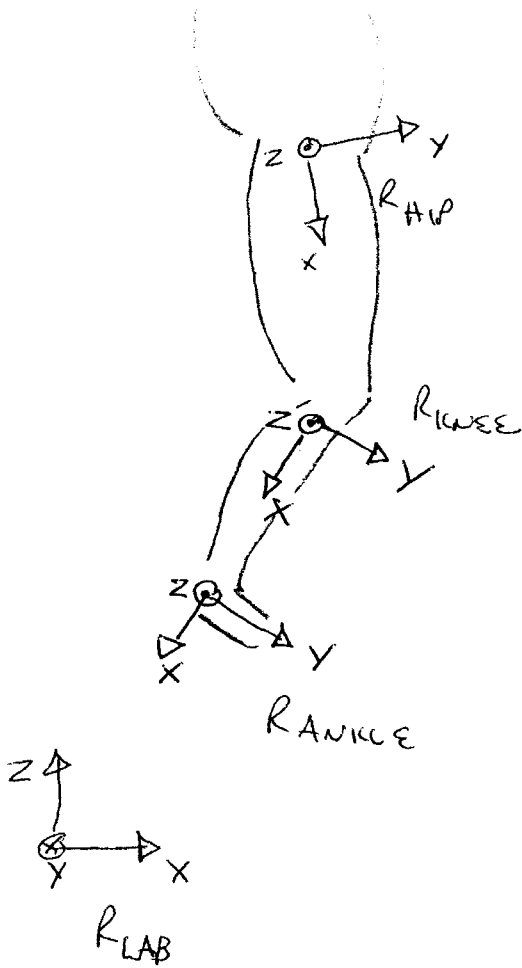


Force
Plate
&
Motion
Analysis
Computers

X is the Anterior/Posterior Direction.
Y is the Medial/Lateral Direction
Z is the Vertical Direction

Interpretation of the RJF and RJT Data

Data provided in the spreadsheet is shown in bold face font below.



R _{ANKLE}		(+)	(-)
	F _X	Distal	Proximal
	F _Y	Anterior	Posterior
	F _Z	Lateral	Medial
	T _Y	Inversion	Eversion
	T_Z	Dorsiflexion	Plantarflexion
R _{KNEE}			
	F _X	Distal	Proximal
	F _Y	Anterior	Posterior
	F _Z	Lateral	Medial
	T _Y	Varus	Valgus
	T_Z	Extension	Flexion
R _{HIP}			
	F _X	Distal	Proximal
	F _Y	Anterior	Posterior
	F _Z	Lateral	Medial
	T _Y	Adduction	Abduction
	T_Z	Flexion	Extension

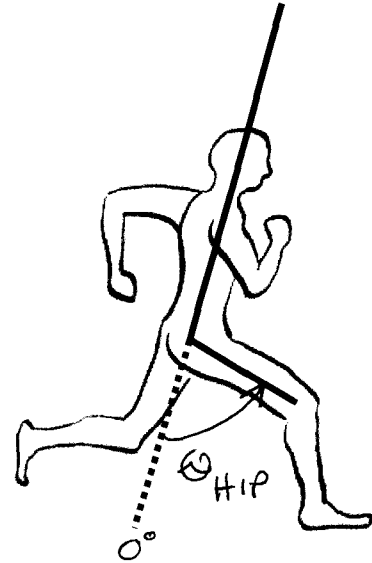
Interpretation of the Angular Kinematic Data

Hip Angles

- Neutral = 0°
- Extension (-)
- Flexion (+)

Hip Angular Velocity

- Flexion (+)
- Extension (-)

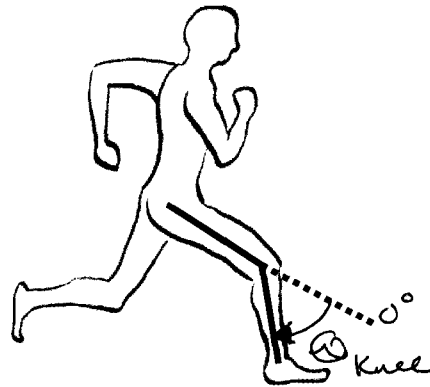


Knee Angles

- Flexion (-)
- Full extension or Neutral is 0°

Knee Angular Velocity

- Flexion (+)
- Extension (-)

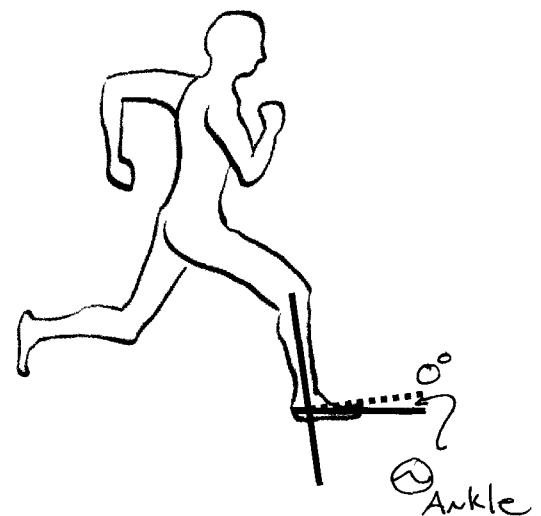


Ankle Angles

- Dorsiflexion (-)
- Plantarflexion (+)
- Neutral (0°) is the foot at a right angle to the Shank

Ankle Angular Velocity

- Dorsiflexion (-)
- Plantarflexion (+)

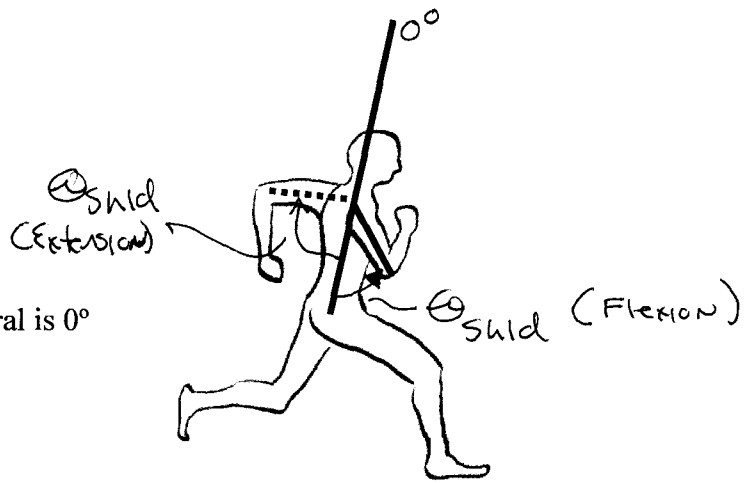


Shoulder Angles

Flexion (+)

Extension (-)

Anatomical Position or Neutral is 0°



Shoulder Angular Velocity

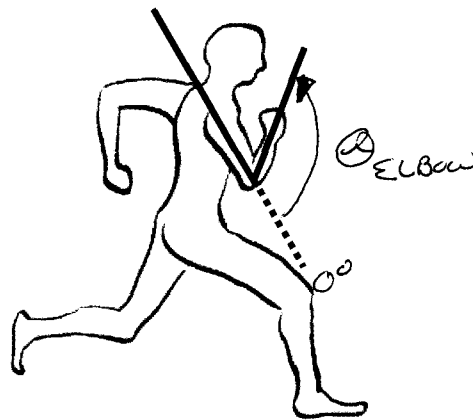
Flexion (+)

Extension (-)

Elbow Angles

Flexion (+)

Full extension or Neutral is 0°



Elbow Angular Velocity

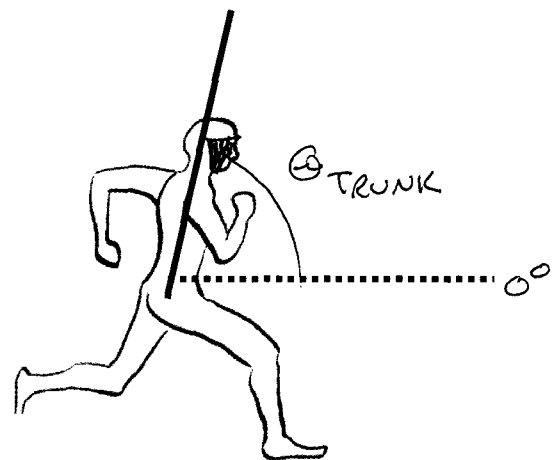
Flexion (+)

Extension (-)

Trunk Angle

90° Flexion Position = 0°

Upright or Anatomical Position = 90°



Trunk Angular Velocity

Flexion (-)

Extension (+)