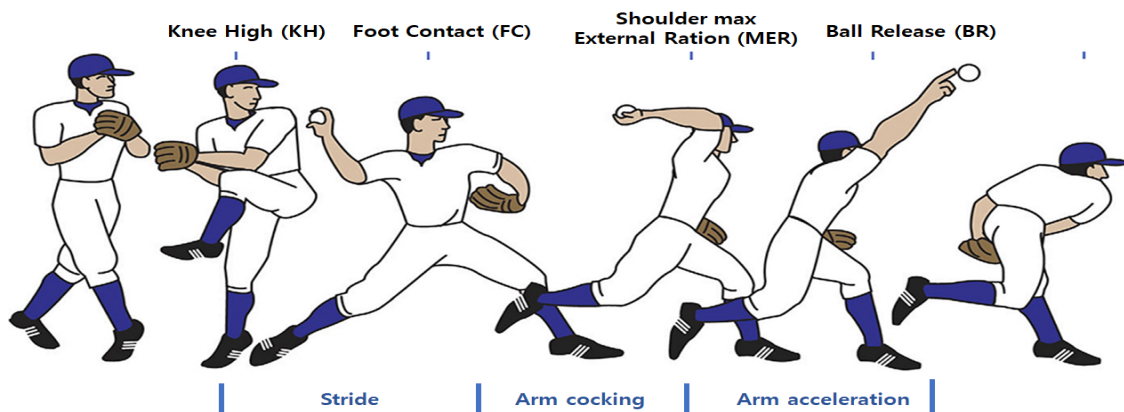


# 2024 Next-Level Training Camp

Name : n53    Date : 20240213    Hand : Right    Ball Velocity : 111 km/h    Weight : 65kg    Height : 165 cm



## PITCHING EFFICIENCY

### 1. KINEMATIC SEQUENCE

#### STRIDE

1. HEIGHT OF KNEE AND PELVIS
2. HIP/SHOULDER SEPARATION
3. ELBOW FLEXION

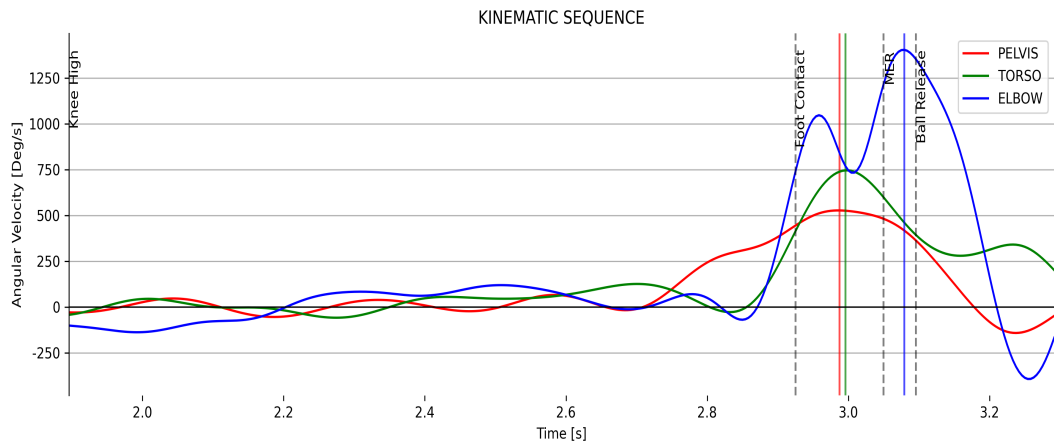
#### ARM COCKING

1. SHANK LATERAL TILT
2. PELVIS HEIGHT
3. SHOULDER EXTERNAL ROTATION
4. SHOULDER HORIZONTAL ABDUCTION
5. LEAD LEG KNEE FLEXION
6. LEAD LEG KNEE EXTENSION ANGULAR VELOCITY

#### ARM ACCELERATION

1. HEAD HAND DISTANCE
2. SHOULDER ABDUCTION
3. TRUNK LATERAL TILT
4. LEAD LEG KNEE FLEXION
5. LEAD LEG KNEE EXTENSION ANGULAR VELOCITY

KINEMATIC SEQUENCE

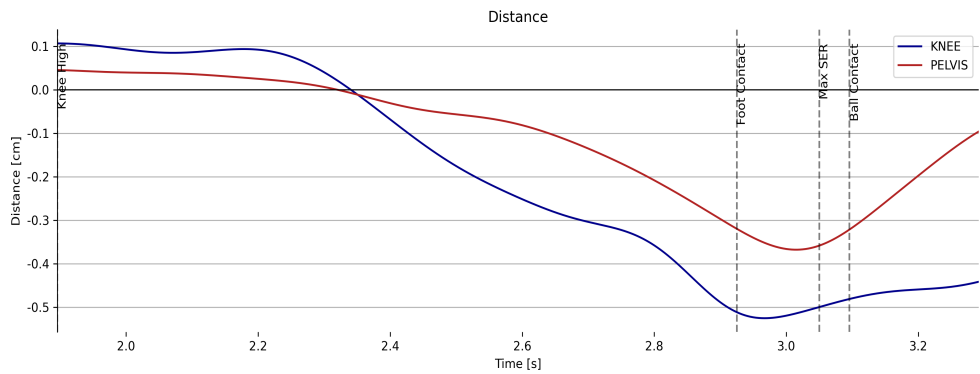
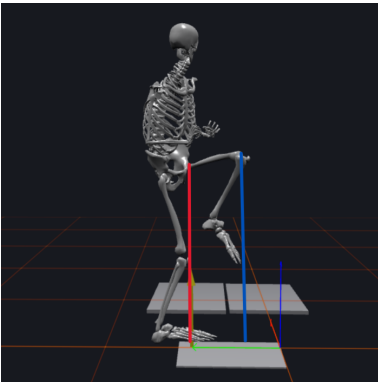


Kinematic Sequence

Segment	Major League	Peak Velocity	Timing [BC - FC (100%)]	Speed Gain
Pelvic	475 ~ 550	528	37 %	
Torso	600 ~ 800	746	41 %	1.41
Elbow	2500 ~ 4500	1405	90 %	1.88

STRIDE

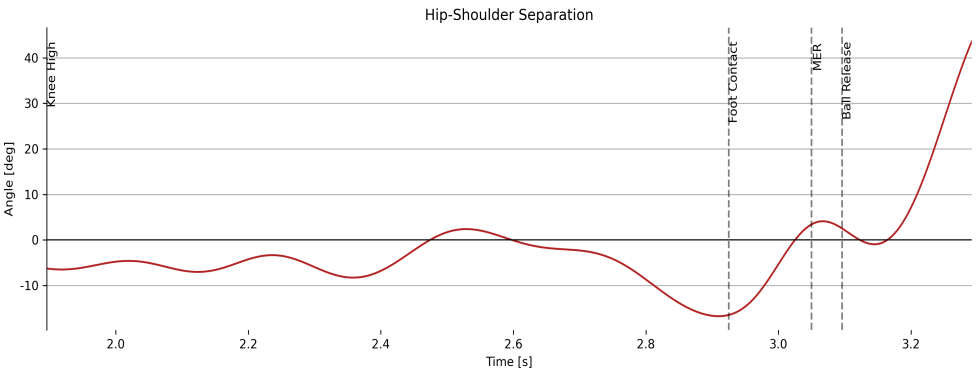
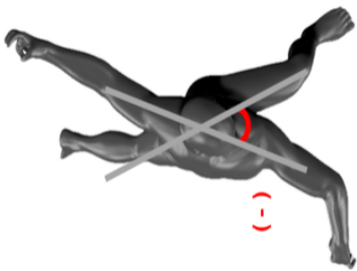
HEIGHT OF KNEE AND PELVIS



Height of knee and pelvis

Segment	at Knee High	Max
Knee	0.11	0.11
Pelvis	0.05	0.05

HIP/SHOULDER SEPARATION

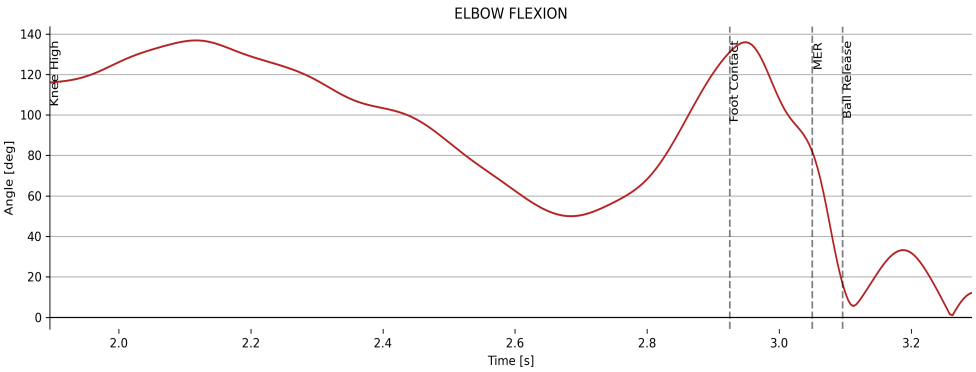
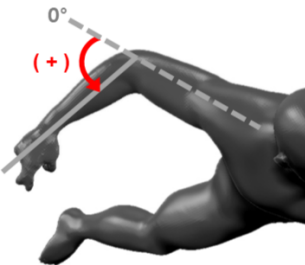


Hip-Shoulder Separation

at Foot Contact	Min	Min Timing [BC - FC (100%)]
-16	-16	0 %



ELBOW FLEXION



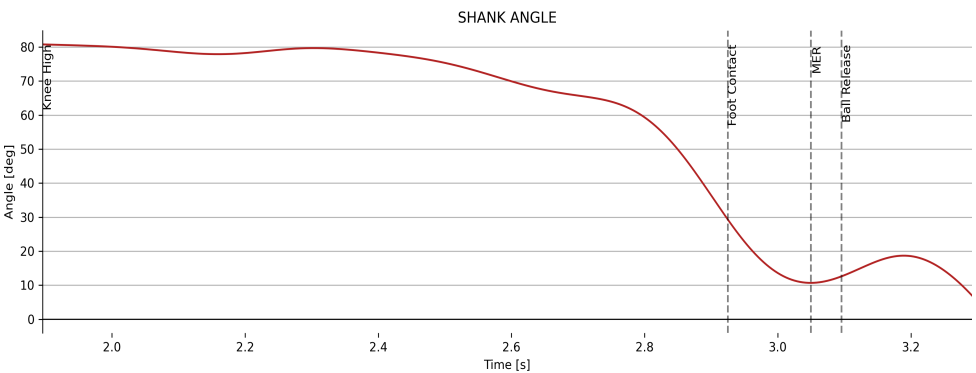
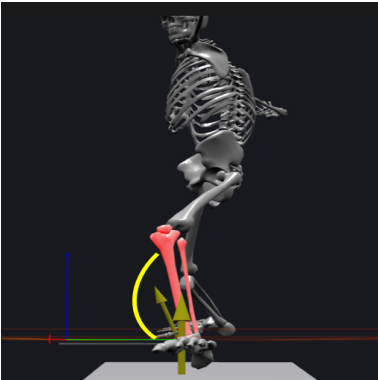
Elbow Flexion

at Foot Contact	Max	Max Timing [BC - FC (100%)]
131	136	15 %



Arm cocking

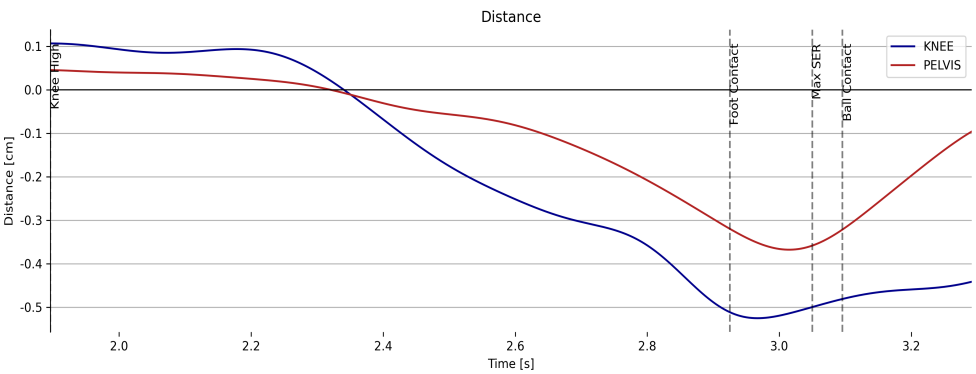
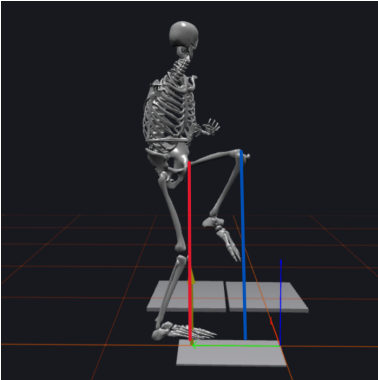
SHANK LATERAL TILT



shank angle

	at Knee High	at Foot Contact
	80.76	29.3

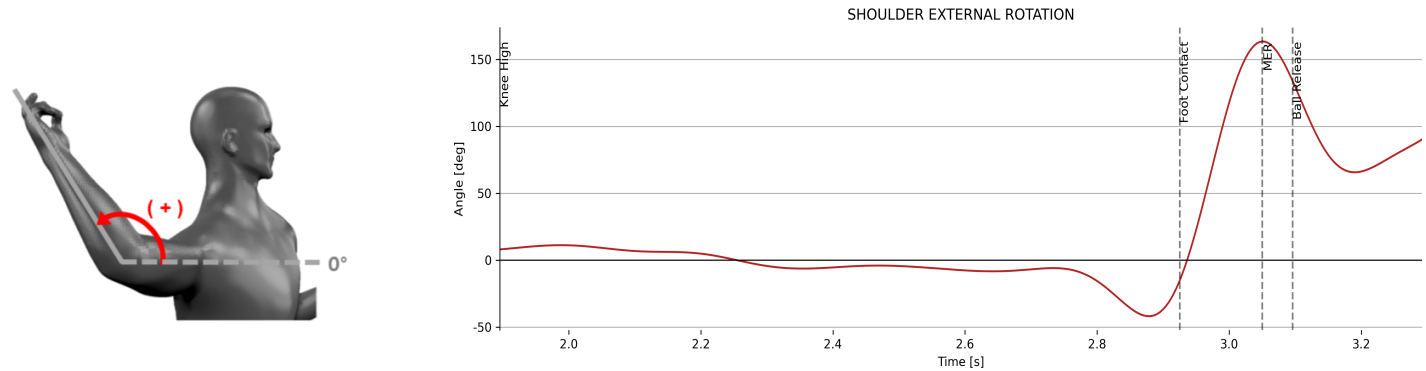
PELVIS HEIGHT



pelvis Height

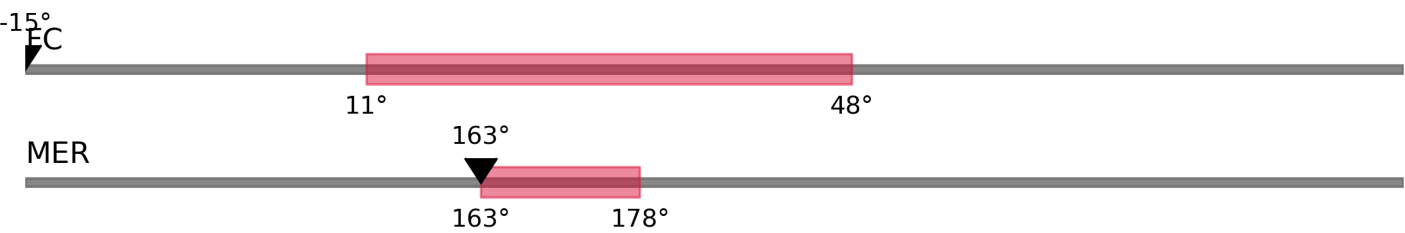
Segment	at Foot Contact	at Max SER	Max
Pelvis	-0.32	-0.36	0.05

SHOULDER EXTERNAL ROTATION

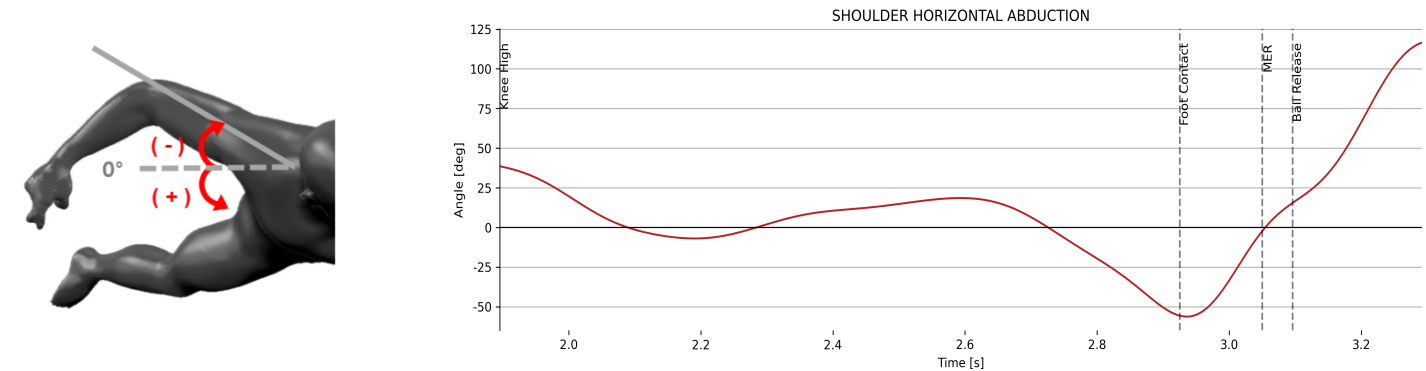


Shoulder External Rotation

at Foot Contact	at Max ER	Max	Max Timing [BC - FC (100%)]
-15	163	163	73 %

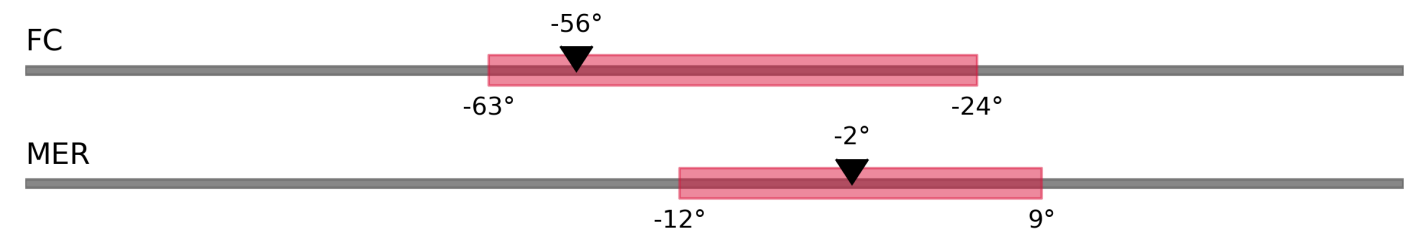


SHOULDER HORIZONTAL ABDUCTION

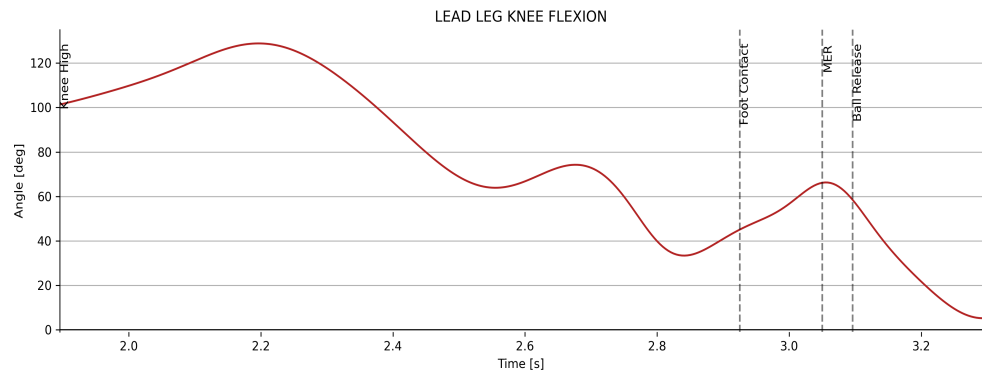
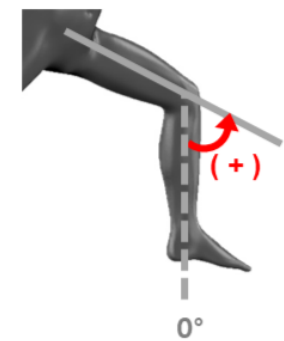


Shoulder Horizontal Abduction

at Foot Contact	at Max ER	Max	Max Timing [BC - FC (100%)]
-56	-2	15	100 %

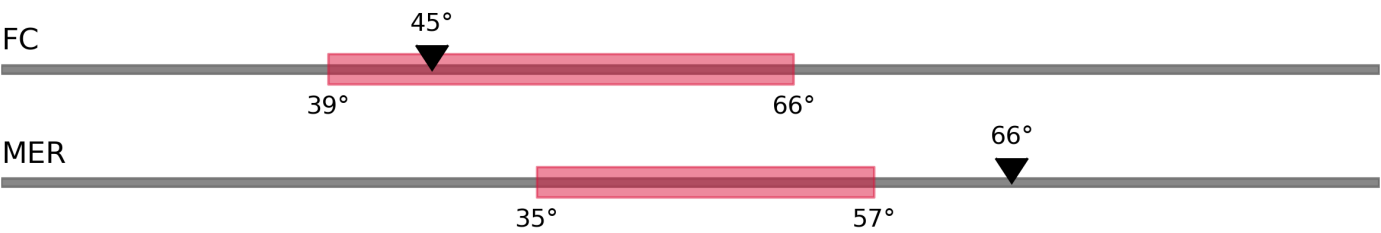


LEAD LEG KNEE FLEXION

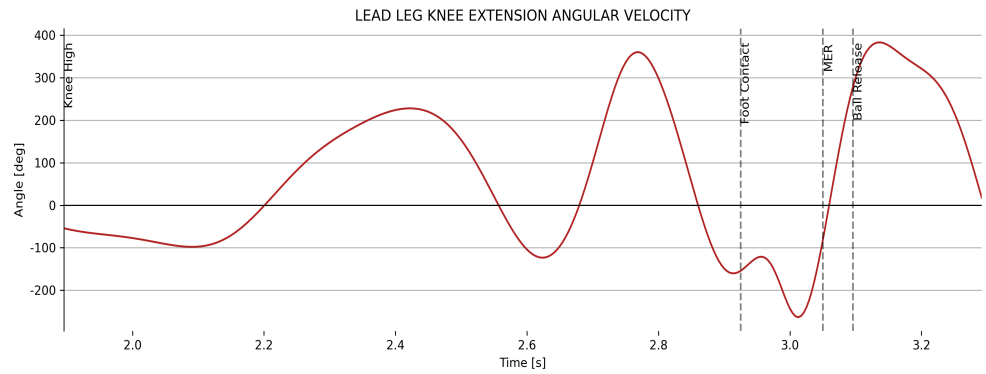


Lead Leg Knee Flexion

at Foot Contact	at Max ER	Max	Max Timing [BC - FC (100%)]
45	66	66	76 %



LEAD LEG KNEE EXTENSION ANGULAR VELOCITY



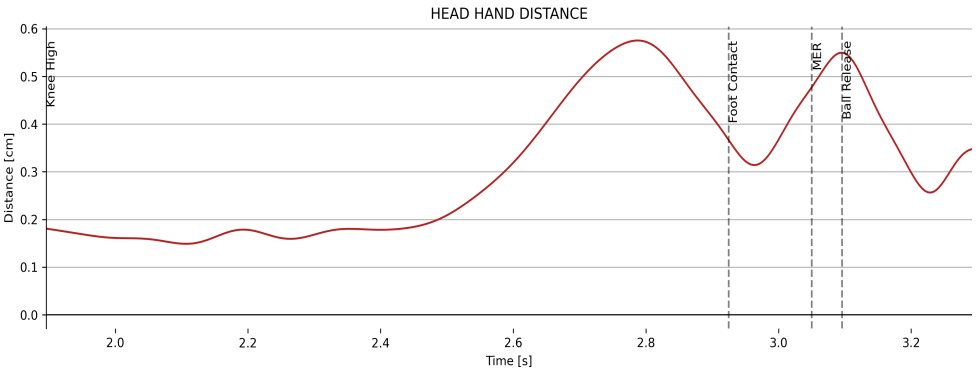
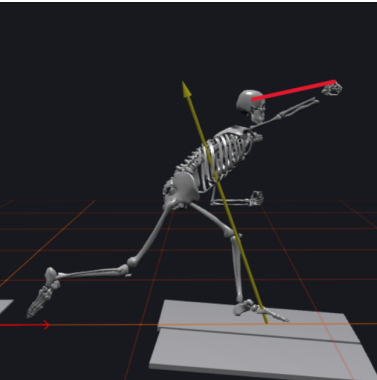
Lead Leg Knee Extension Angular Velocity

at Max ER	Max	Max Timing [BC - FC (100%)]
-82	279	100 %



Arm acceleration

HEAD HAND DISTANCE

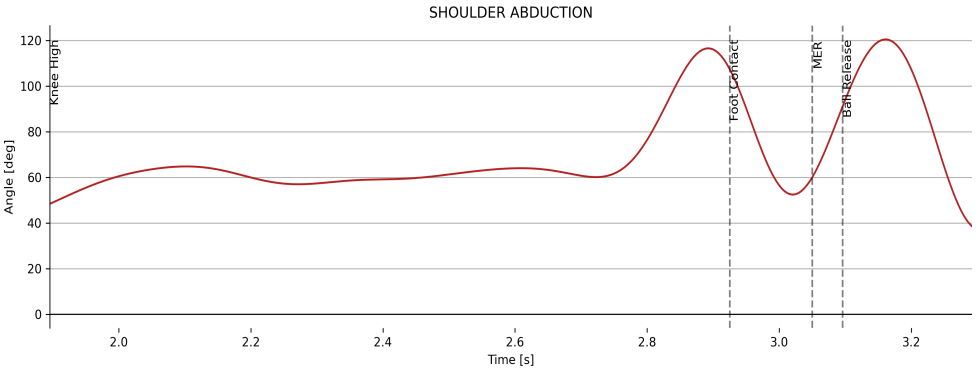
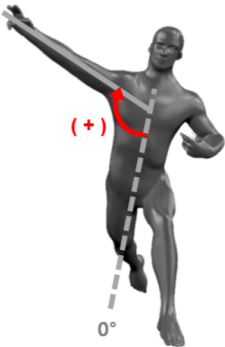


head\_hand\_distance

at Ball Release

0.55

SHOULDER ABDUCTION



Shoulder Abduction

at Ball Release

Max

Max Timing [BC - FC (100%)]

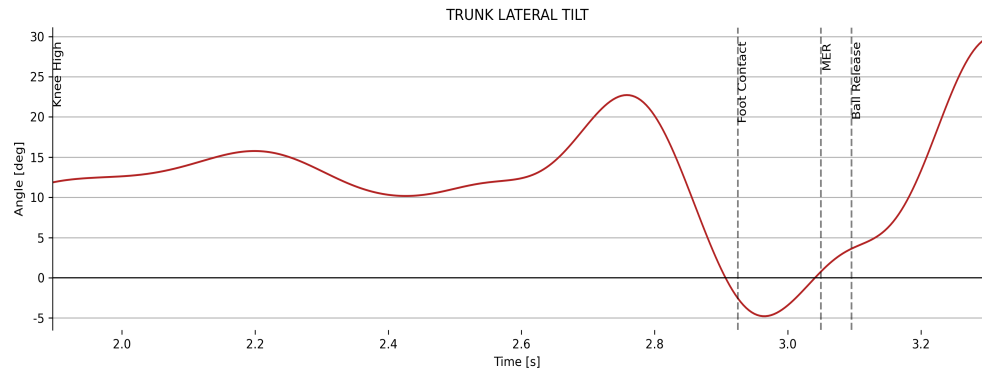
91

107

0 %



TRUNK LATERAL TILT

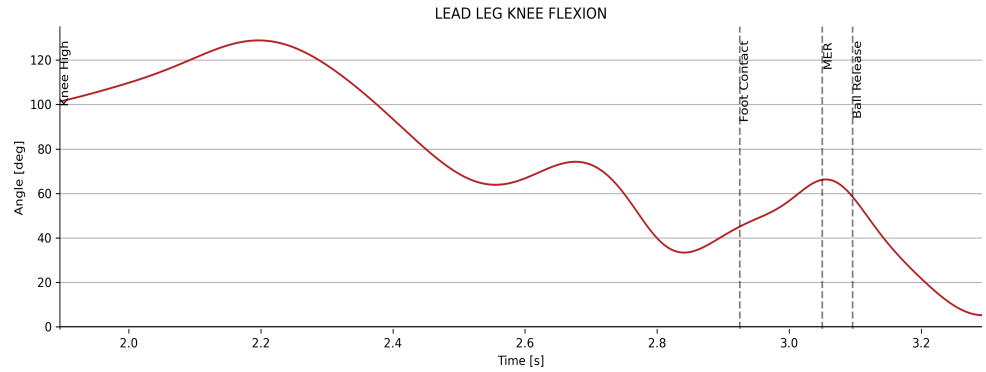
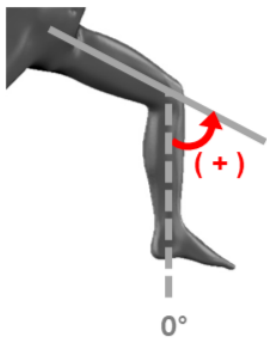


Trunk Lateral Tilt

at Ball Release	Max	Max Timing [BC - FC (100%)]
4	4	100 %



LEAD LEG KNEE FLEXION



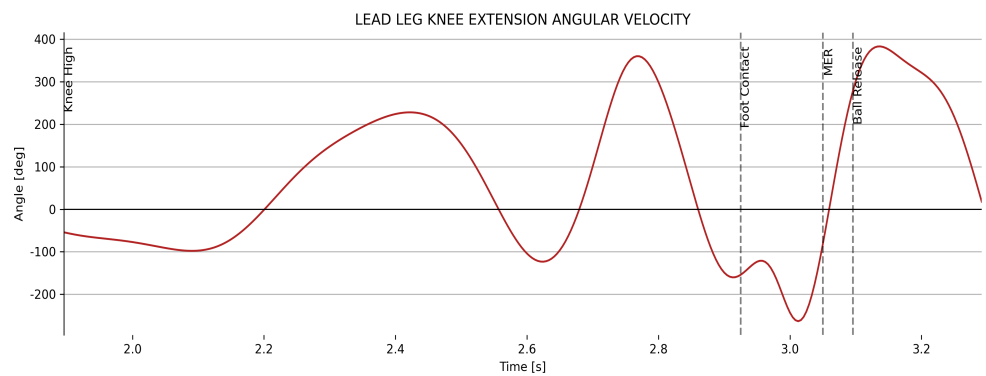
Lead Leg Knee Flexion

at Ball Release	Max	Max Timing [BC - FC (100%)]
59	66	76 %





LEAD LEG KNEE EXTENSION ANGULAR VELOCITY



Lead Leg Knee Extension Angular Velocity

at Ball Release	Max	Max Timing [BC - FC (100%)]
279	279	100 %