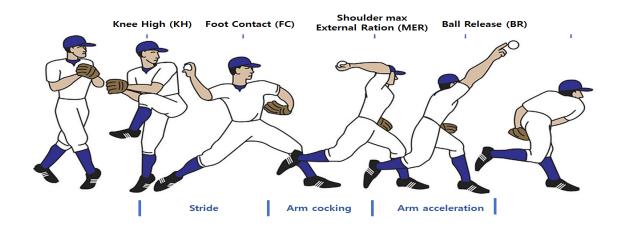
# **2024 Next-Level Training Camp**

Name: n57 Date: 20240213 Hand: Left Ball Velocity: 119 km/h Weight: 68kg Height: 175 cm



#### **PITCHING EFFICIENCY**

1. KINEMATIC SEQUENCE

#### **STRIDE**

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

#### **ARM COCKING**

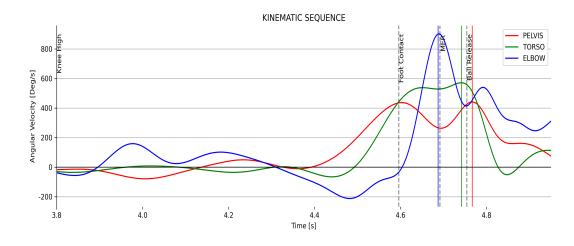
- 1. SHANK LATERAL TILT
- 2. PELVIS HEIGHT
- 3. SHOULDER EXTERNAL ROTATION
- 4. SHOULDER HORIZONTAL ABDUCTION
- 5. LEAD LEG KNEE FLEXION
- 6. LEAD LEG KNEE EXTENSION ANGULAR VELOCITY

#### **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**



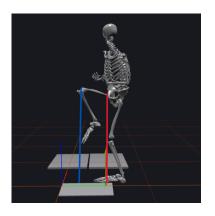


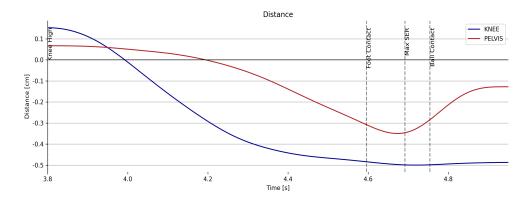
#### **Kinematic Sequence**

Segment	Major League	Peak Velocity	Timing [BC - FC (100%)]	Speed Gain
Pelvic	475 ~ 550	441	108 %	
Torso	600 ~ 800	571	92 %	1.29
Elbow	2500 ~ 4500	902	58 %	1.58

# **STRIDE**

## **HEIGHT OF KNEE AND PELVIS**

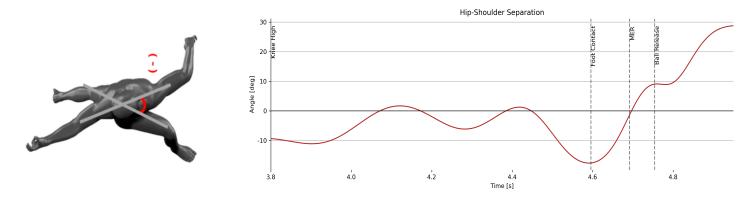




## Height of knee and pelvis

Segment	at Knee High	Max
Knee	0.15	0.15
Pelvis	0.07	0.07

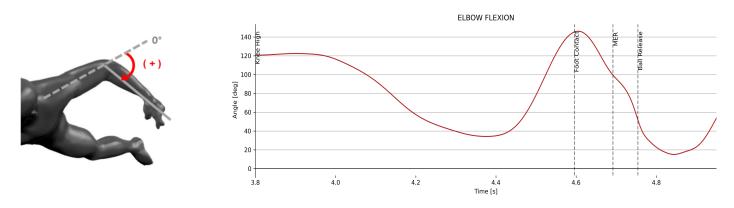
# **HIP/SHOULDER SEPARATION**



## **Hip-Shoulder Separation**

at Foot Contact	Min	Min Timing [BC - FC (100%)]
-18	-18	0 %
FC		-18°
	-39° -25°	•

# **ELBOW FLEXION**

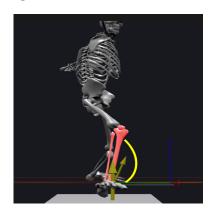


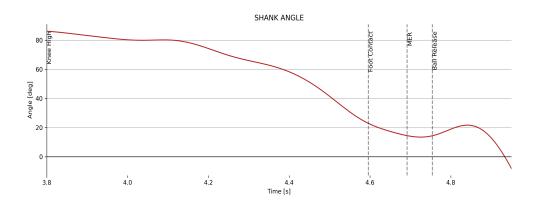
#### **Elbow Flexion**

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at Foot Contact		Max	Max Timing [BC - FC (100	%)]
	145	146	5 %	
FC				145°
	76°		115°	

# **Arm cocking**

## **SHANK LATERAL TILT**

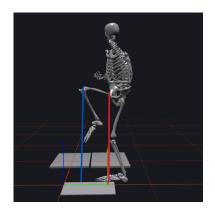


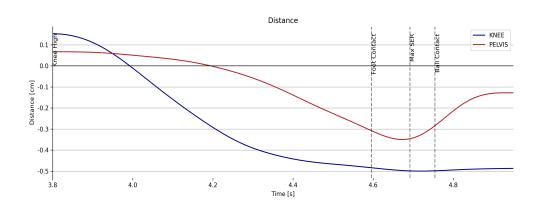


#### shank angle

at Knee High	at Foot Contact
86.24	22.98

# **PELVIS HEIGHT**

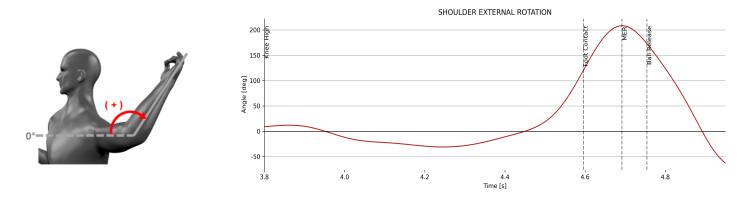




## pelvis Height

Segment	at Foot Contact	at Max SER	Max
Pelvis	-0.31	-0.35	0.07

## SHOULDER EXTERNAL ROTATION

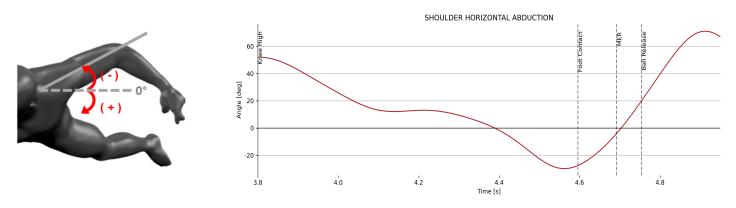


#### **Shoulder External Rotation**

at Foot Contact	at Max ER	Max	Max Timing [BC - FC (100%)]
121	208	208	61 %



## SHOULDER HORIZONTAL ABDUCTION

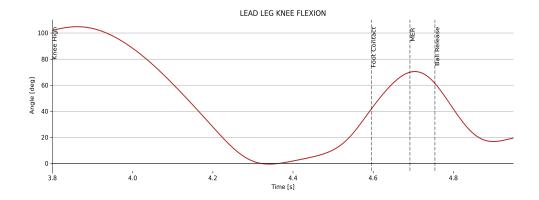


#### **Shoulder Horizontal Abduction**

at Foot Contact	at Max ER	Max	Max Timing [BC - FC (100%)]
-27	-4	20	100 %
FC		-27°	
MER	-63°	-4°	
		-12°	9°

# **LEAD LEG KNEE FLEXION**



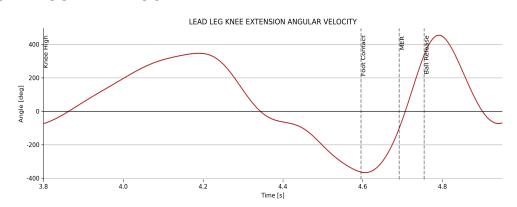


#### **Lead Leg Knee Flexion**

•				
at Foot Contac	ct a	: Max ER	Max	Max Timing [BC - FC (100%)]
42		70	70	68 %
FC	42°			
	39°		66°	
MER				70°
		35°	57°	

## LEAD LEG KNEE EXTENSION ANGULAR VELOCITY



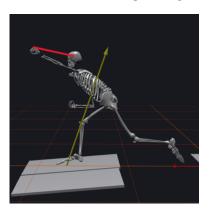


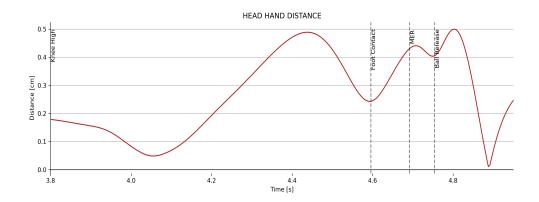
## Lead Leg Knee Extension Angular Velocity

	at Max ER	Max		Max Timing [BC - FC (100%)]
	-100	338		100 %
MAX		338°/s		
	218	3°/s	502°/s	

# **Arm acceleration**

## **HEAD HAND DISTANCE**

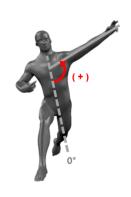


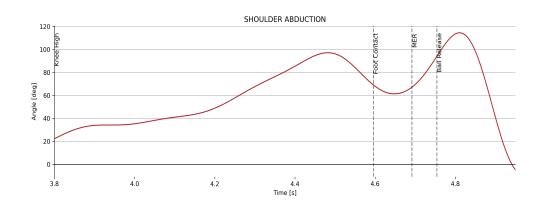


## head\_hand\_distance

at Ball Release	
0.41	

## **SHOULDER ABDUCTION**



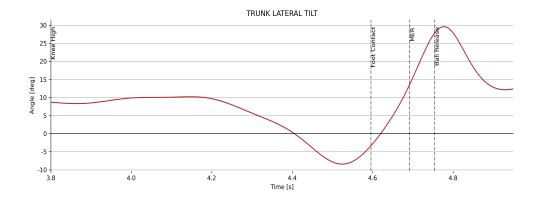


#### **Shoulder Abduction**

at Ball Release	Max	Max Timing [BC - FC (100%)]
94	94	100 %
BR		94°
	81°	99°

## TRUNK LATERAL TILT



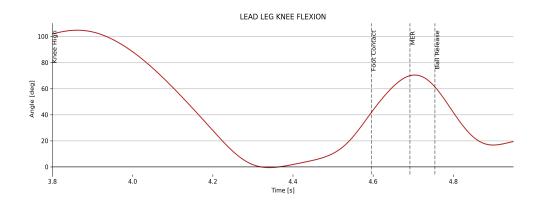


#### **Trunk Lateral Tilt**

at Ball Release	Max	Max Timing [BC - FC (100%)]
28	28	100 %
BR	28°	
	9° 23	

# **LEAD LEG KNEE FLEXION**



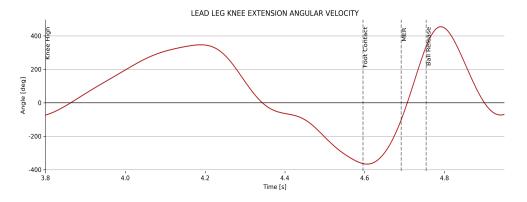


#### **Lead Leg Knee Flexion**

at Ball Release	Max	Max Timing [BC - FC (100%)]	
61	70	68 %	
BR		61°	
	5° 53°		

# LEAD LEG KNEE EXTENSION ANGULAR VELOCITY





## Lead Leg Knee Extension Angular Velocity

at Ball Release	Max	Max Timing [BC - FC (100%)]
338	338	100 %