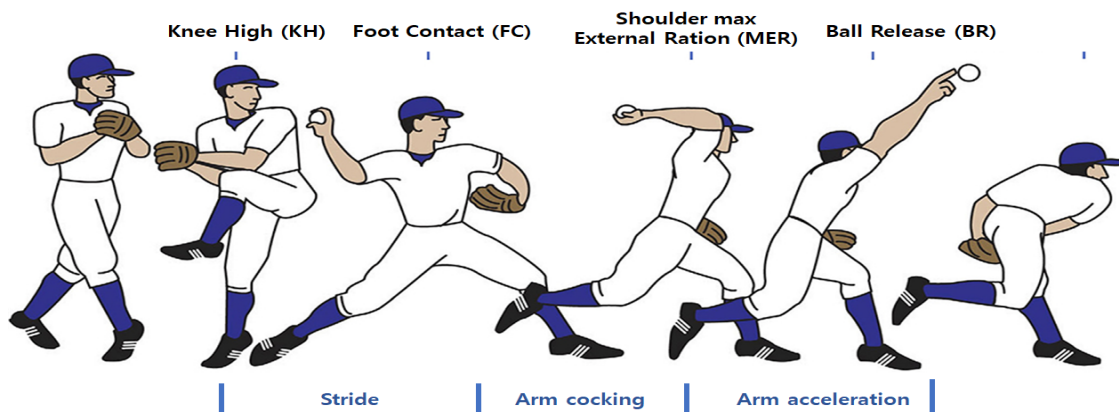


# 2024 Next-Level Training Camp

Name : n64 Date : 20240213 Hand : Left Ball Velocity : 120 km/h Weight : 70kg Height : 172 cm



## PITCHING EFFICIENCY

### 1. KINEMATIC SEQUENCE

#### STRIDE

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

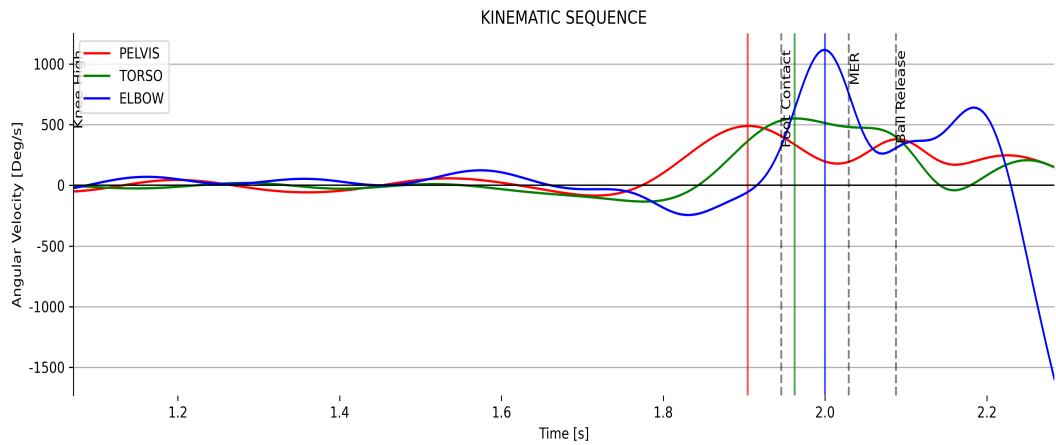
#### ARM COCKING

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

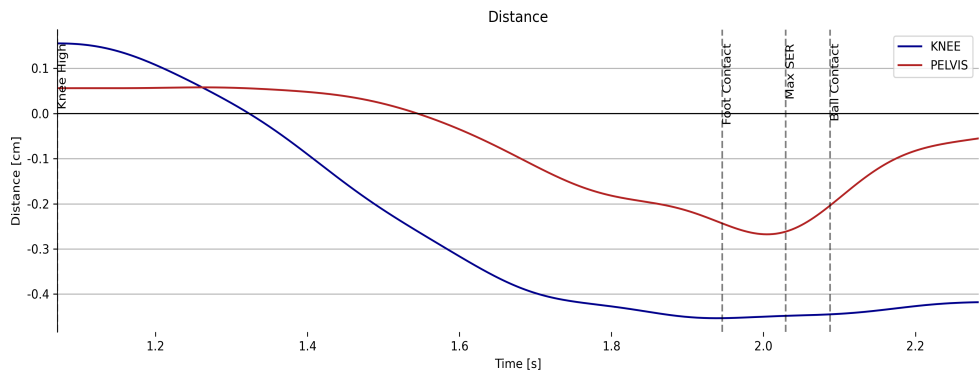
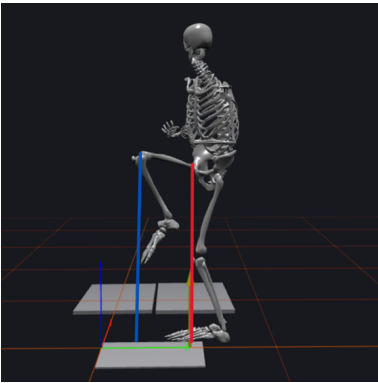


Kinematic Sequence

| Segment | Major League | Peak Velocity | Timing [BC - FC (100%)] | Speed Gain |
|---------|--------------|---------------|-------------------------|------------|
| Pelvic  | 475 ~ 550    | 489           | -29 %                   |            |
| Torso   | 600 ~ 800    | 551           | 12 %                    | 1.13       |
| Elbow   | 2500 ~ 4500  | 1117          | 38 %                    | 2.03       |

STRIDE

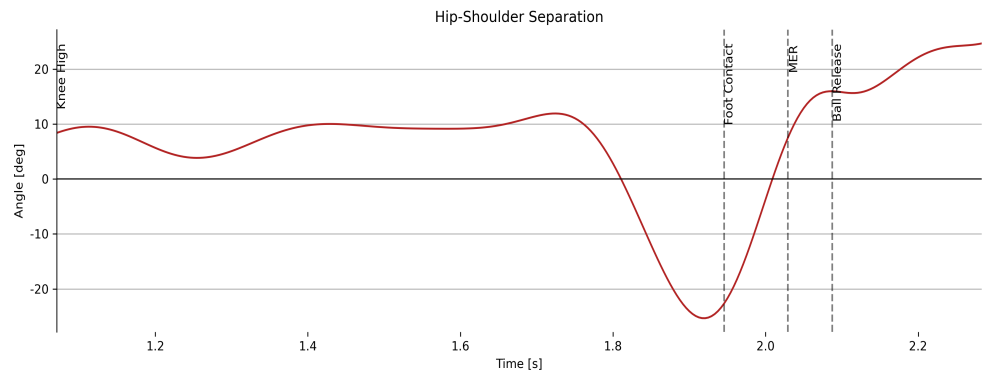
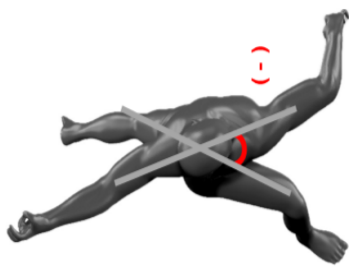
HEIGHT OF KNEE AND PELVIS



Height of knee and pelvis

| Segment | at Knee High | Max  |
|---------|--------------|------|
| Knee    | 0.16         | 0.16 |
| Pelvis  | 0.06         | 0.06 |

HIP/SHOULDER SEPARATION

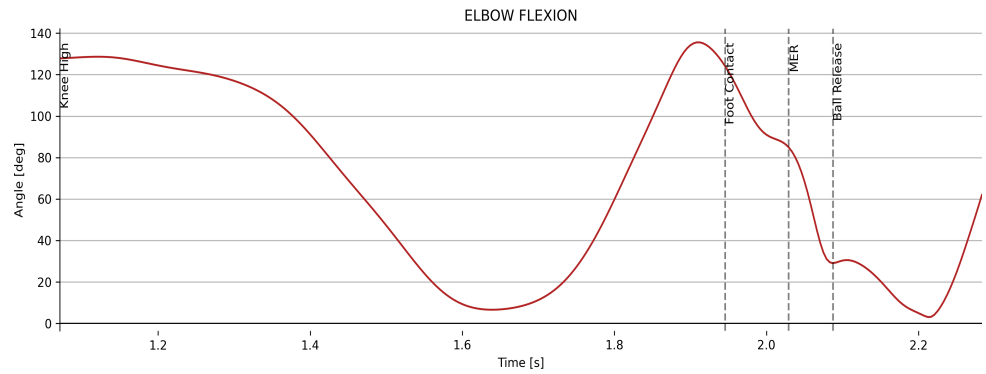
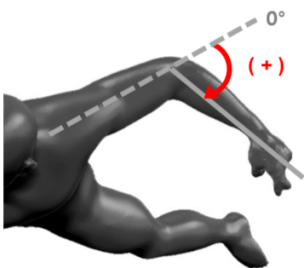


Hip-Shoulder Separation

| at Foot Contact | Min | Min Timing [BC - FC (100%)] |
|-----------------|-----|-----------------------------|
| -23             | -23 | 0 %                         |



ELBOW FLEXION



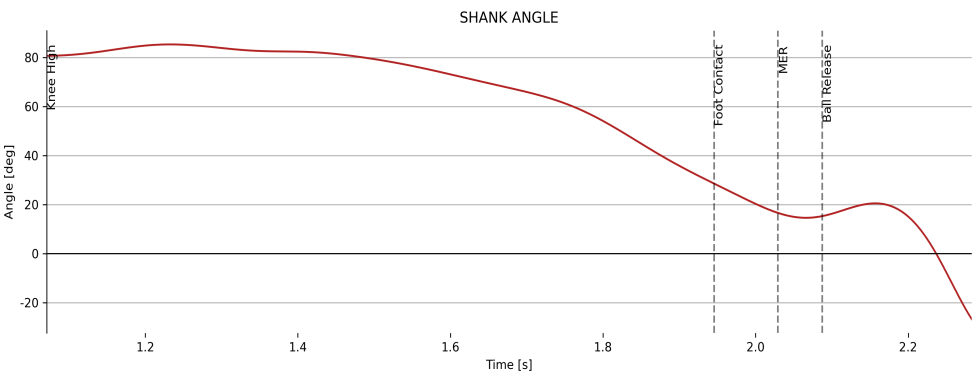
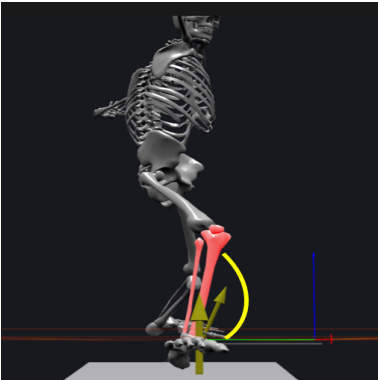
Elbow Flexion

| at Foot Contact | Max | Max Timing [BC - FC (100%)] |
|-----------------|-----|-----------------------------|
| 124             | 124 | 0 %                         |



Arm cocking

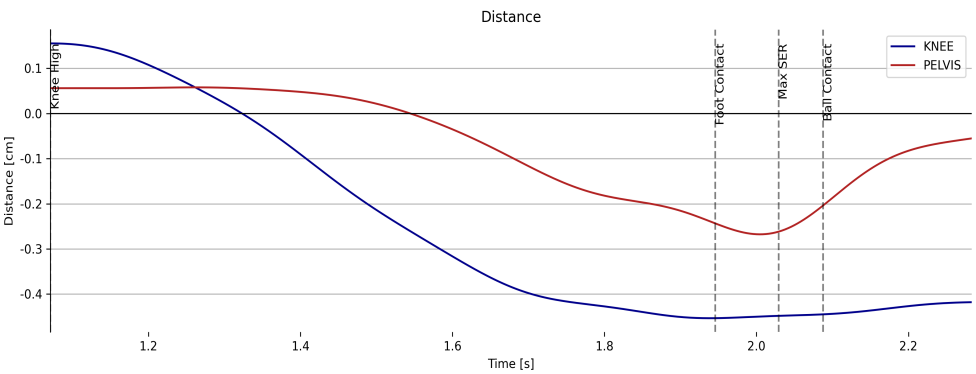
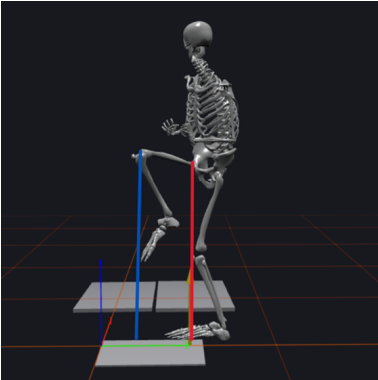
SHANK LATERAL TILT



shank angle

|  | at Knee High | at Foot Contact |
|--|--------------|-----------------|
|  | 80.64        | 28.53           |

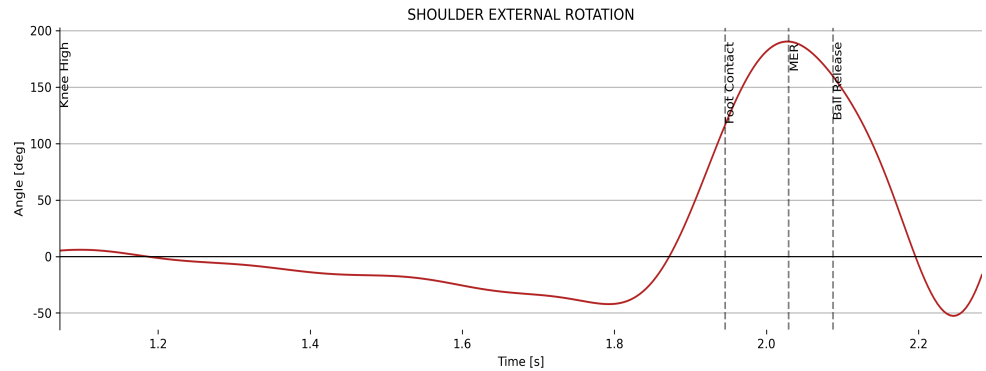
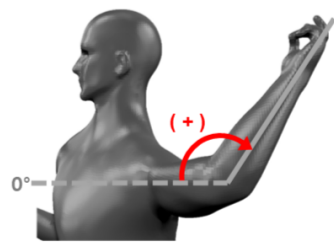
PELVIS HEIGHT



pelvis Height

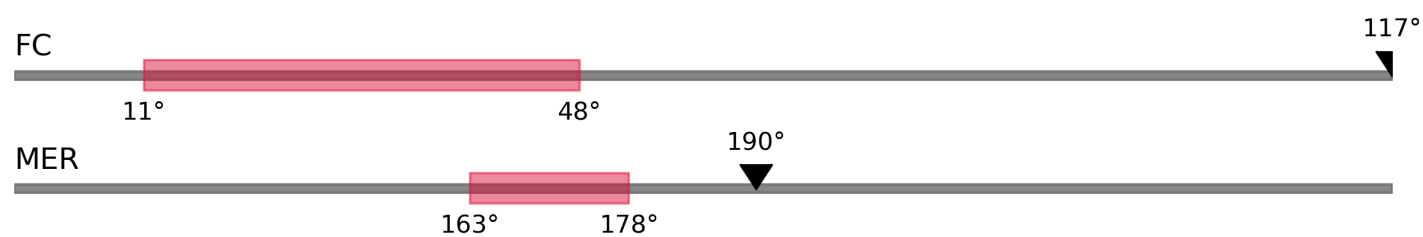
| Segment | at Foot Contact | at Max SER | Max  |
|---------|-----------------|------------|------|
| Pelvis  | -0.24           | -0.26      | 0.06 |

SHOULDER EXTERNAL ROTATION

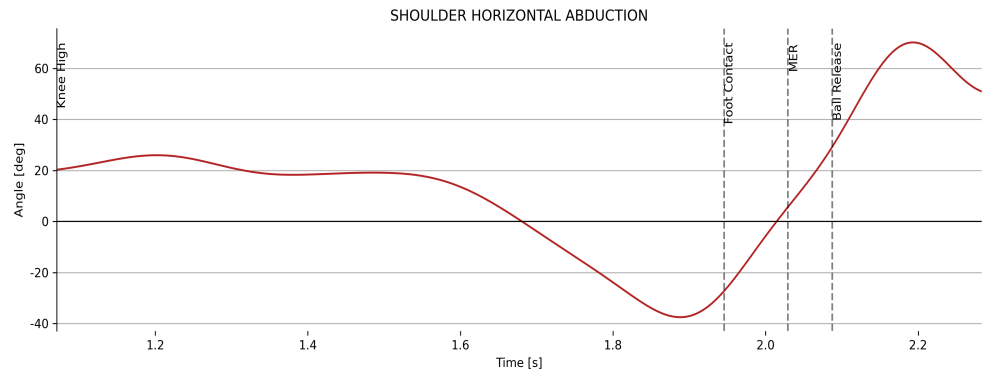
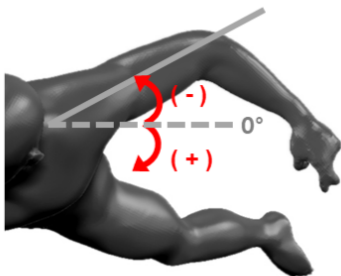


Shoulder External Rotation

| at Foot Contact | at Max ER | Max | Max Timing [BC - FC (100%)] |
|-----------------|-----------|-----|-----------------------------|
| 117             | 190       | 190 | 59 %                        |

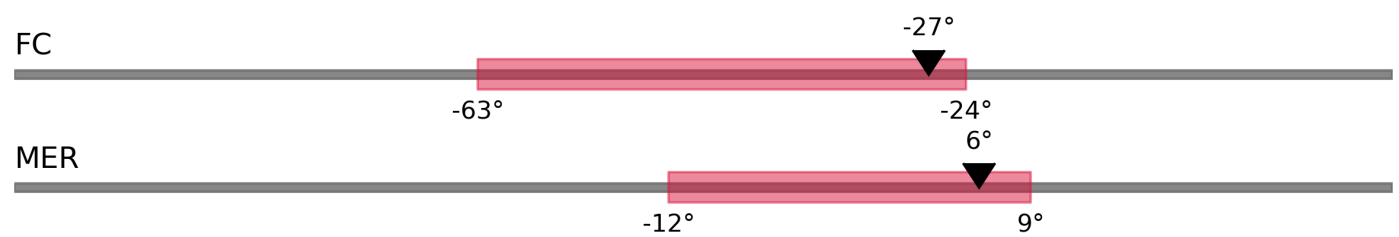


SHOULDER HORIZONTAL ABDUCTION

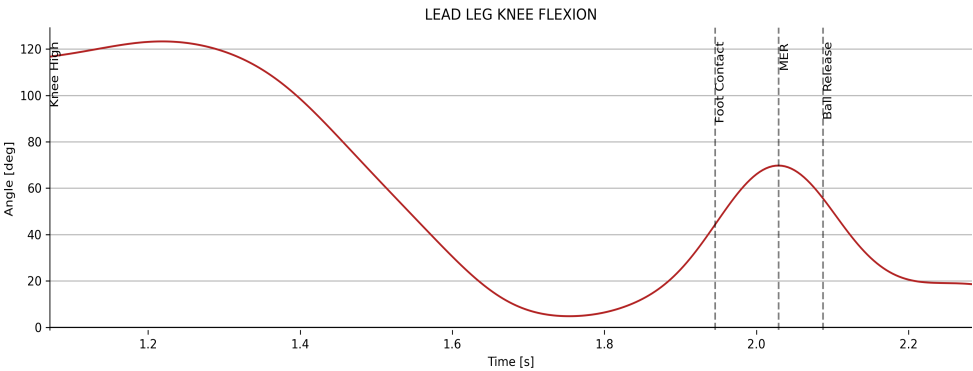
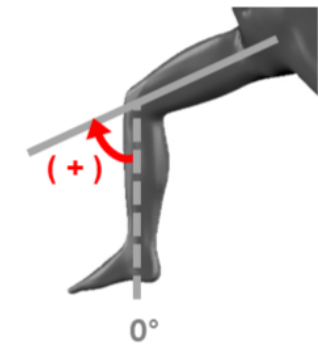


Shoulder Horizontal Abduction

| at Foot Contact | at Max ER | Max | Max Timing [BC - FC (100%)] |
|-----------------|-----------|-----|-----------------------------|
| -27             | 6         | 29  | 100 %                       |

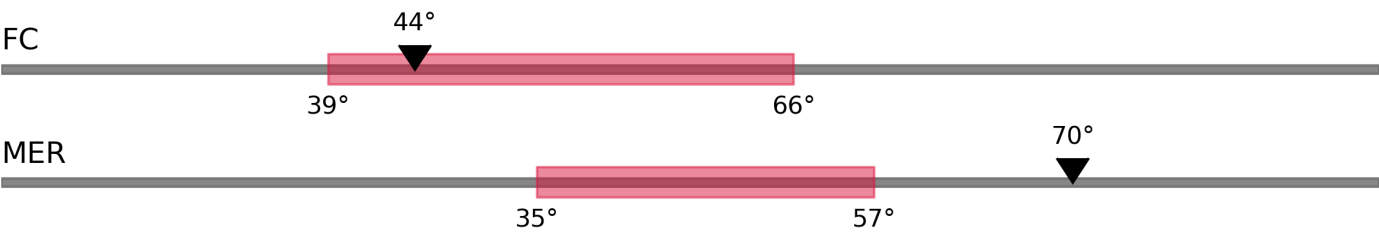


LEAD LEG KNEE FLEXION

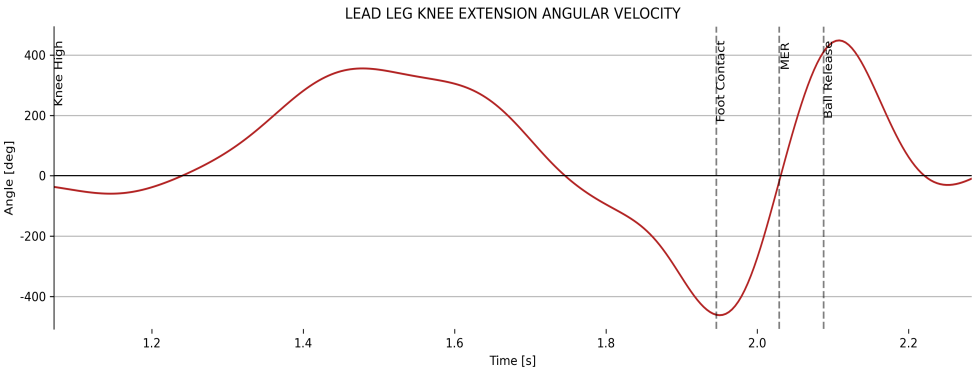


Lead Leg Knee Flexion

| at Foot Contact | at Max ER | Max | Max Timing [BC - FC (100%)] |
|-----------------|-----------|-----|-----------------------------|
| 44              | 70        | 70  | 59 %                        |

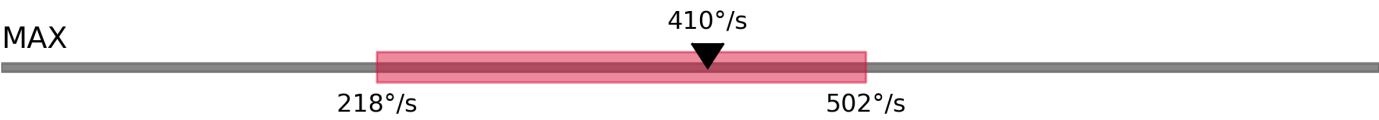


LEAD LEG KNEE EXTENSION ANGULAR VELOCITY



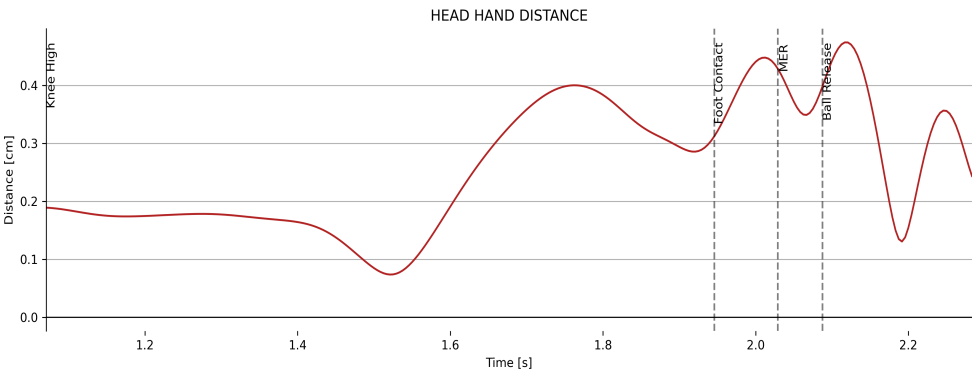
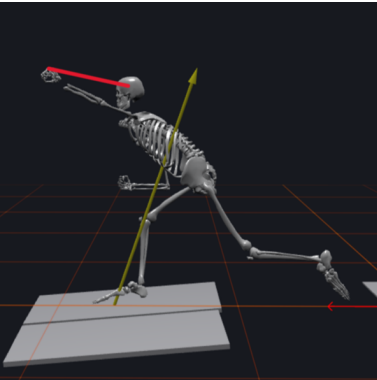
Lead Leg Knee Extension Angular Velocity

| at Max ER | Max | Max Timing [BC - FC (100%)] |
|-----------|-----|-----------------------------|
| -17       | 410 | 100 %                       |



# Arm acceleration

## HEAD HAND DISTANCE

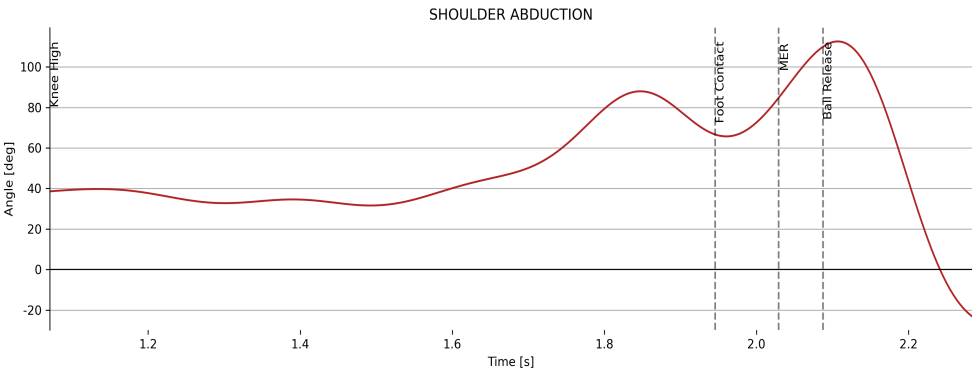
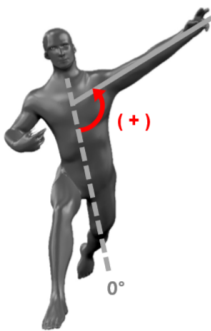


head\_hand\_distance

at Ball Release

0.4

## SHOULDER ABDUCTION

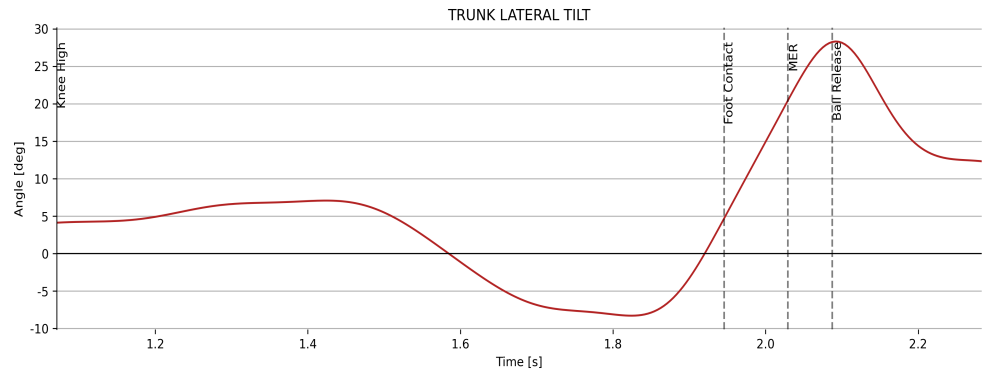


Shoulder Abduction

| at Ball Release | Max | Max Timing [BC - FC (100%)] |
|-----------------|-----|-----------------------------|
| 110             | 110 | 100 %                       |



TRUNK LATERAL TILT

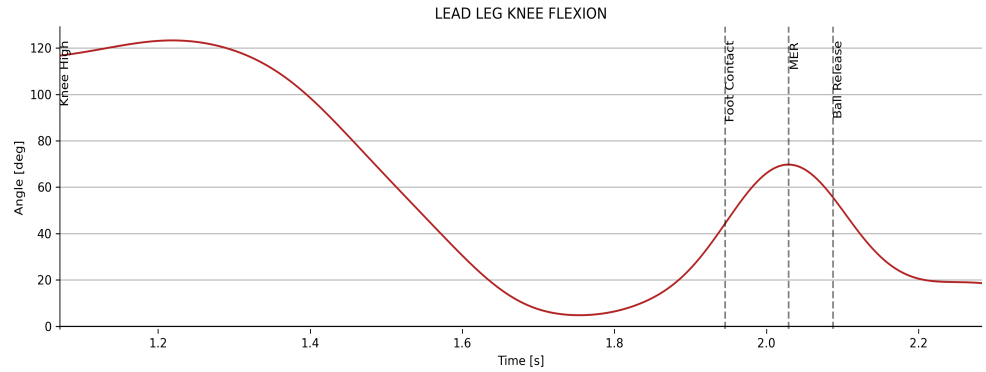
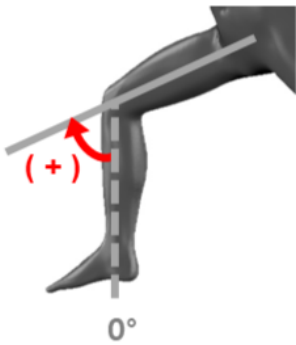


Trunk Lateral Tilt

| at Ball Release | Max | Max Timing [BC - FC (100%)] |
|-----------------|-----|-----------------------------|
| 28              | 28  | 100 %                       |



LEAD LEG KNEE FLEXION



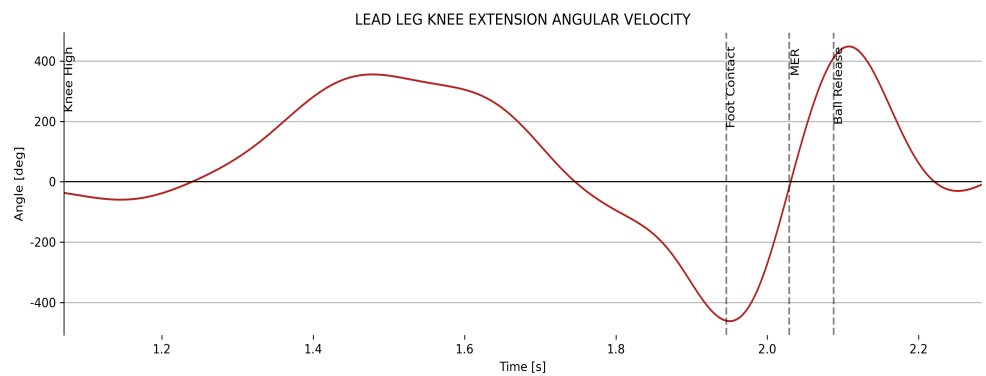
Lead Leg Knee Flexion

| at Ball Release | Max | Max Timing [BC - FC (100%)] |
|-----------------|-----|-----------------------------|
| 56              | 70  | 59 %                        |





LEAD LEG KNEE EXTENSION ANGULAR VELOCITY



Lead Leg Knee Extension Angular Velocity

| at Ball Release | Max | Max Timing [BC - FC (100%)] |
|-----------------|-----|-----------------------------|
| 410             | 410 | 100 %                       |