HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

PROFILE ASSESSMENT
Pedro Boschilia
3rd February, 2024

PROFILE INFORMATION

NAME	Pedro Boschilia
ORGANISATION	On Morumbi Clinica Medica
DATE OF BIRTH	29th March, 2010
GENDER	Male
HEIGHT	175cm / 68in
WEIGHT	60kg / 132lb
AGE	13

HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

Cervical Spine Flexion/Extension
Range of Motion Assessment

Cervical Spine Flexion (forward) / Extension (backwards) calculated by taking the inclination of the head relative to the line of the trunk in the sagittal plane (side view).

RESULTS

PEAK FLEXION SNAPSHOT	PEAK EXTENSION SNAPSHOT

KEY RESULTS	STARTING POSITION	PEAK FLEXION	PEAK EXTENSION	TOTAL RANGE
Flexion/Extension	0.0°	21.3°	13.3°	34.6°
Trunk Flexion	1.7° Posterior	4.8° Anterior	0.8° Anterior	N/A
Trunk lateral flexion	1.5°	0.9° Left ▼	1.6° Left ▼	N/A

PRACTITIONER COMMENTS

HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

Cervical Spine Lateral Flexion
Range of Motion Assessment

Cervical Spine Lateral Flexion (left and right) is calculated by taking the inclination of the head relative to the line of the trunk in the frontal plane (front view).

RESULTS

PEAK LEFT LATERAL FLEXION	PEAK RIGHT LATERAL FLEXION

KEY RESULTS	PEAK FLEXION (LEFT)	PEAK FLEXION (RIGHT)	IMBALANCE
Lateral Flexion	15.5°	22.1°	+6.6°
Trunk Flexion	0.9° Anterior	1.6° Posterior	N/A
Trunk lateral flexion at Peak Flexion	3.1° Left ▼	4.6° Right ▼	+1.6°

PRACTITIONER COMMENTS

HUMANTRAK
MOVEMENT ANALYSIS SYSTEM
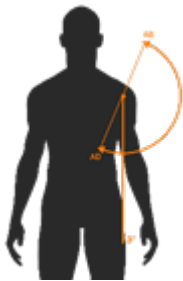
Shoulder Adduction/Abduction

Range of Motion Assessment

Shoulder Adduction/Abduction is calculated by taking the angle created by the humerus (upper arm) relative to the line of the trunk in the frontal plane (front view).

RESULTS

PEAK ADDUCTION		PEAK ABDUCTION	
LEFT	RIGHT	LEFT	RIGHT

KEY RESULTS	LEFT	RIGHT	IMBALANCE
Shoulder Adduction	83.9°	85.3°	+1.4°
Shoulder Abduction	191.0°	179.8°	+11.2°
Trunk lateral flexion at Peak Abduction	2.7° Right ▼	0.8° Left ▼	+1.9°

PRACTITIONER COMMENTS (LEFT)

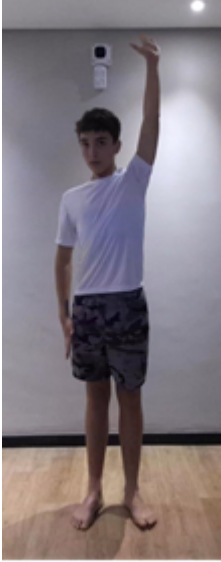**PRACTITIONER COMMENTS (RIGHT)**
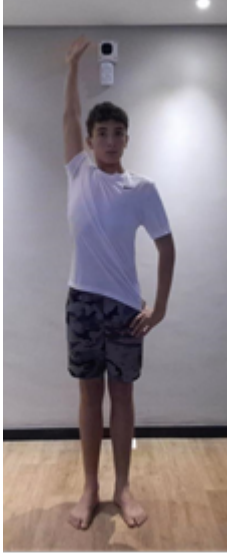
HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

Shoulder Flexion/Extension
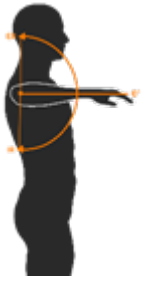**Range of Motion Assessment**

Shoulder Flexion/Extension is calculated by taking the angle created by the humerus (upper arm) relative to the line of the trunk in the sagittal plane (side view).

RESULTS

	PEAK FLEXION		PEAK EXTENSION	
	LEFT	RIGHT	LEFT	RIGHT

KEY RESULTS	LEFT	RIGHT	IMBALANCE
Shoulder Flexion	202.9°	212.2°	+9.3°
Shoulder Extension	73.2°	76.6°	+3.4°
Trunk lateral flexion at Peak Flexion	3.2° Right ▼	2.3° Left ▼	+0.9°

PRACTITIONER COMMENTS (LEFT)

PRACTITIONER COMMENTS (RIGHT)

HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

Shoulder Internal/External Rotation

Range of Motion Assessment

Shoulder Internal/External Rotation calculated by taking the angle created by the forearm relative to horizontal in the sagittal plane (side view).
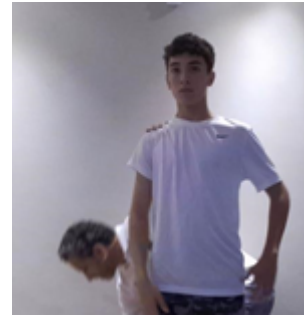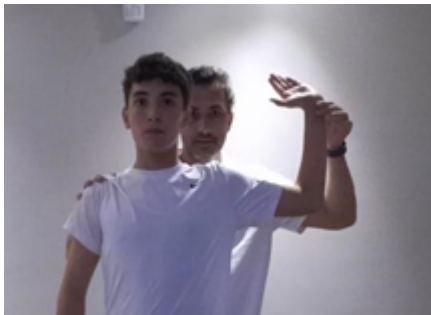
RESULTS

PEAK INTERNAL ROTATION	
LEFT	RIGHT

PEAK EXTERNAL ROTATION	
LEFT	RIGHT

KEY RESULTS	LEFT	RIGHT	IMBALANCE
Shoulder Internal Rotation	57.9°	41.7°	+16.2°
Shoulder External Rotation	94.2°	87.8°	+6.4°
Total ROM	152.1°	129.5°	+22.6°
Trunk lateral flexion at Peak Internal Rotation	1.1° Right ▼	0.3° Right ▼	+0.8°

PRACTITIONER COMMENTS (LEFT)

PRACTITIONER COMMENTS (RIGHT)

HUMANTRAK
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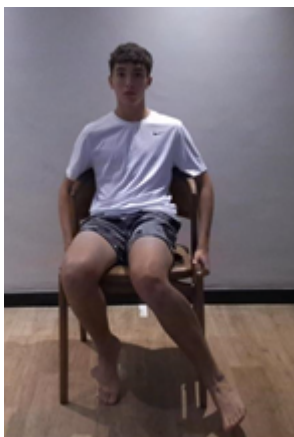
Hip Internal/External Rotation
Range of Motion Assessment

Hip Internal/External Rotation is calculated by taking the angle created by the tibia relative to vertical in the frontal plane (front view) while seated with 90° of hip flexion.
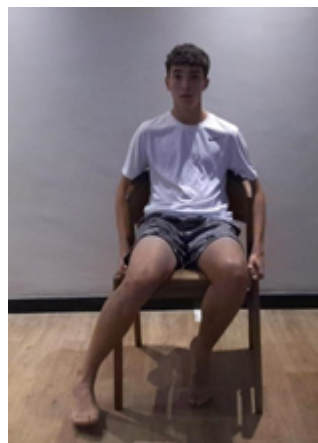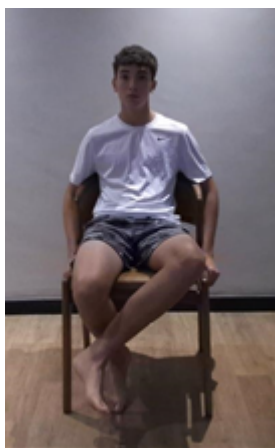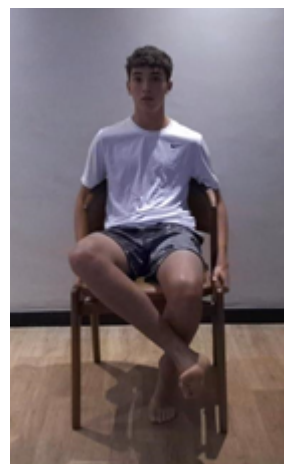
RESULTS

PEAK INTERNAL ROTATION	
LEFT	RIGHT

PEAK EXTERNAL ROTATION	
LEFT	RIGHT

KEY RESULTS	LEFT	RIGHT	IMBALANCE
Peak Internal Rotation	35.9°	35.7°	+0.2°
Peak External Rotation	44.3°	43.7°	+0.6°
Total ROM	80.2°	79.5°	+0.8°

PRACTITIONER COMMENTS (LEFT)

PRACTITIONER COMMENTS (RIGHT)

HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

Single Leg Stand
Balance Assessment

Standing balance over time is assessed while standing on one leg.

Eyes	Open
Surface	Stable
Time	10.0 s

RESULTS

BALANCE RESULTS (LEFT)

SNAPSHOT – START OF TEST	CENTER OF MASS PATH

L   R
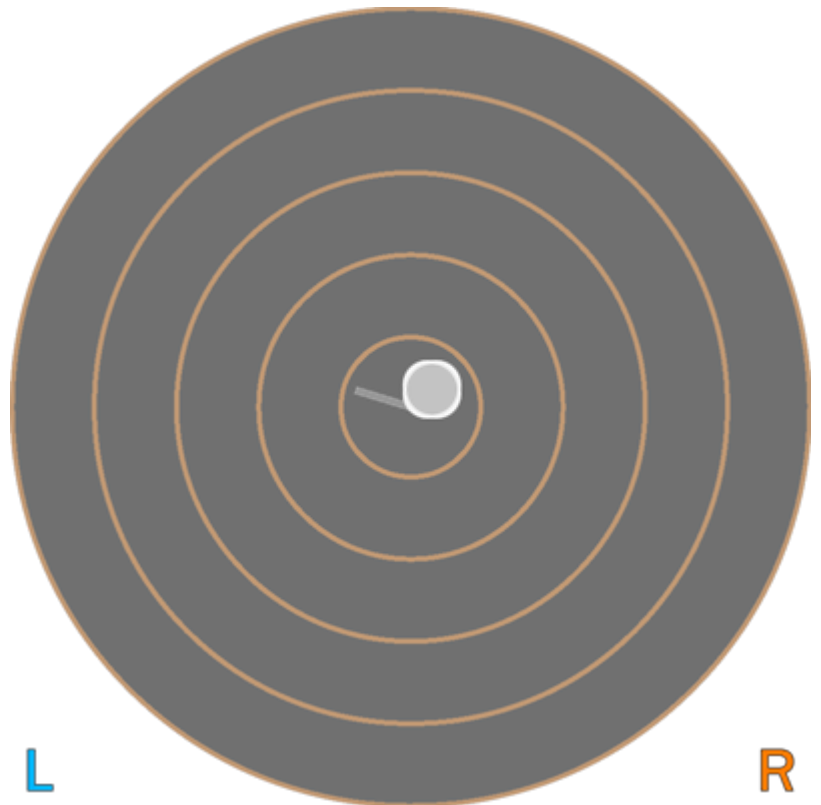
KEY METRICS	RESULTS
Ellipse Area	0.20 cm-2
COM Path Length	13.82 cm
Range − ML	2.08 cm
Range − AP	1.86 cm
Pelvis Lateral Tilt	12.3° Left ▼
Trunk lateral flexion	6.1° Left ▼

PRACTITIONER COMMENTS

HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

Single Leg Stand
Balance Assessment

Standing balance over time is assessed while standing on one leg.

Eyes	Open
Surface	Stable
Time	10.0 s

RESULTS

BALANCE RESULTS (RIGHT)

SNAPSHOT – START OF TEST	CENTER OF MASS PATH
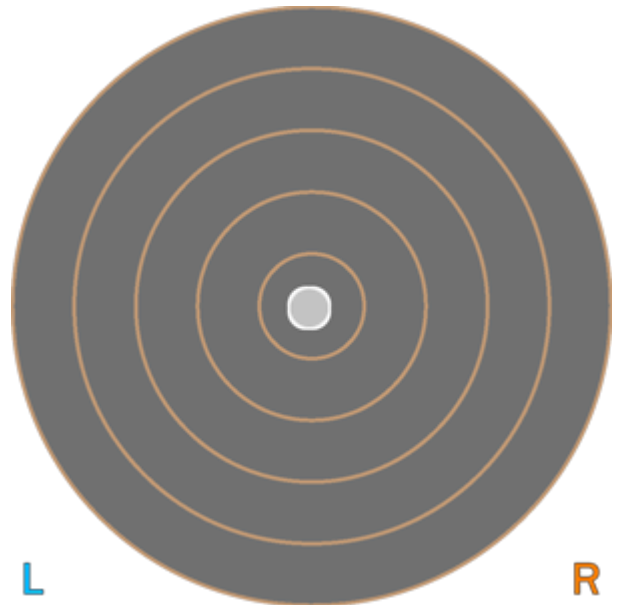
KEY METRICS	RESULTS
Ellipse Area	0.51 cm-2
COM Path Length	13.82 cm
Range – ML	1.81 cm
Range – AP	1.70 cm
Pelvis Lateral Tilt	13.7° Right ▼
Trunk lateral flexion	5.0° Right ▼

PRACTITIONER COMMENTS

HUMANTRAK
MOVEMENT ANALYSIS SYSTEM
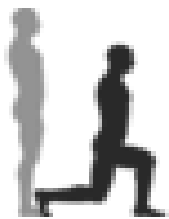
Lunge

Lower Body Dynamic Assessment

The Lunge assesses the strength and range of motion of the knees and hips.

RESULTS

PEAK KNEE FLEXION	
LEFT	RIGHT

KEY METRICS	LEFT LEG	RIGHT LEG	ASYMMETRY
Peak Hip Flexion	62.1°	54.9°	11.6%
Peak Knee Flexion	105.6°	84.4°	20.1%
Peak Spine Lateral Tilt	3.5° Posterior	0.7° Posterior	N/A
Peak Pelvic Lateral Tilt	3.8° Right	0.5° Right	N/A

PRACTITIONER COMMENTS (LEFT)

PRACTITIONER COMMENTS (RIGHT)

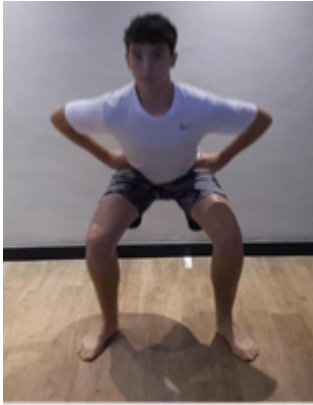HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

Squat

Lower Body Dynamic Assessment

Squat is a dynamic movement assessment providing insight into an individual's balance, stability, flexibility, and strength.

RESULTS

SNAPSHOTS			
START	REP 1: PEAK KNEE FLEXION	REP 2: PEAK KNEE FLEXION	REP 3: PEAK KNEE FLEXION

KEY RESULTS	REP 1	REP 2	REP 3
Peak Knee Flexion (Left)	113.5°	111.5°	111.3°
Peak Knee Flexion (Right)	112.5°	112.5°	111.4°
Spine Tilt at Peak Knee Flexion	30.7° Anterior	31.8° Anterior	29.4° Anterior
Trunk lateral flexion at Peak Knee Flexion	4.5° Right ▼	3.1° Right ▼	2.4° Right ▼

PRACTITIONER COMMENTS

HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

Overhead Squat
Lower Body Dynamic Assessment

Overhead squat is a dynamic movement assessment providing insight into an individual's balance, stability, flexibility, and strength.

RESULTS

SNAPSHOTS			
START	REP 1: PEAK KNEE FLEXION	REP 2: PEAK KNEE FLEXION	REP 3: PEAK KNEE FLEXION

KEY RESULTS	REP 1	REP 2	REP 3
Peak Knee Flexion (Left)	117.3°	111.5°	120.4°
Peak Knee Flexion (Right)	115.0°	110.9°	119.5°
Trunk Flexion at Peak Knee Flexion	22.9° Anterior	27.6° Anterior	25.2° Anterior
Trunk lateral flexion at Peak Knee Flexion	1.9° Right ▼	4.7° Right ▼	1.9° Right ▼

PRACTITIONER COMMENTS

HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

Countermovement Jump
Lower Body Dynamic Assessment

The Countermovement Jump assesses the landing posture during an explosive dynamic exercise.

RESULTS

PEAK KNEE FLEXION
after landing

KEY METRICS (TORSO)

Jump Height	37.35 cm	
Peak Spine Tilt after landing	9.2° **Anterior**	
Peak Lateral Spine Tilt after landing	0.8° **Left**	
Peak Lateral Pelvic Tilt after landing	2.2° **Right**	

KEY METRICS (LEGS)

	LEFT LEG	RIGHT LEG	ASYMMETRY
Peak Hip Flexion after landing	49.5°	48.3°	2.3%
Peak Knee Flexion after landing	76.4°	73.6°	3.8%
Peak Knee Valgus/Varus after landing	26° **Varus**	22° **Varus**	15.6%

PRACTITIONER COMMENTS

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MOVEMENT ANALYSIS SYSTEM

# Drop Jump
Lower Body Dynamic Assessment

Drop Jump is used to assess coordination, balance, joint stability and power, requiring the patient to drop from a box or platform and transition from landing into an explosive jump .

Height   unspecified

RESULTS

PHASE	Initial Contact	Peak Knee Flexion
SNAPSHOTS		
Result		
Knee-Ankle Separation Ratio	0.9	1.1
Hip Flexion (Left)	39.4°	84.8°
Hip Flexion (Right)	38.9°	88.4°
Knee Flexion (Left)	51.0°	115.3°
Knee Flexion (Right)	48.1°	107.5°

PRACTITIONER COMMENTS

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MOVEMENT ANALYSIS SYSTEM
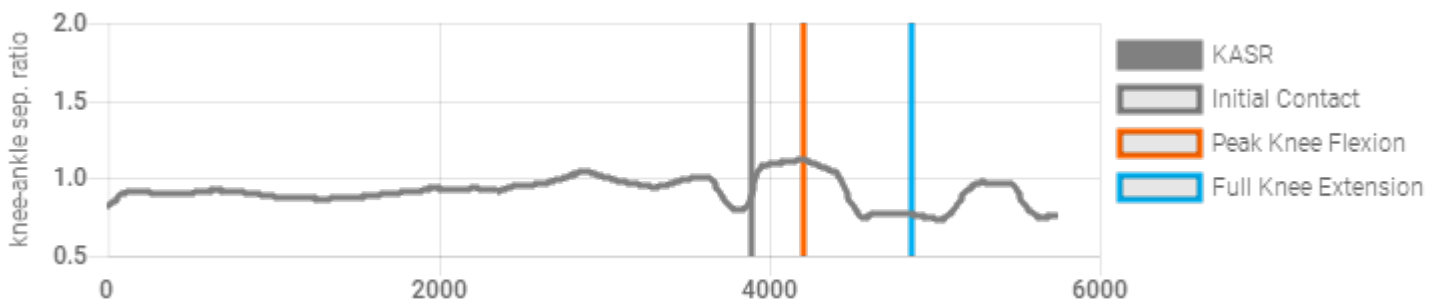
Single Leg Squat
Lower Body Dynamic Assessment

Single Leg Squat is a dynamic movement assessment that provides insight into an individual's balance, stability, flexibility, and strength.

RESULTS

LEFT LEG			
SNAPSHOTS			
START	REP 1: PEAK KNEE FLEXION	REP 2: PEAK KNEE FLEXION	REP 3: PEAK KNEE FLEXION

KEY RESULTS	REP 1	REP 2	REP 3
Peak Knee Flexion	81.6°	87.9°	90.1°
Knee Displacement (total)	13.8 cm	19.8 cm	17.2 cm
Peak Knee Valgus	7.1° **Valgus**	26.5° **Valgus**	27.7° **Valgus**
Peak Knee Varus	6.2° **Varus**	3.8° **Varus**	0.8° **Varus**
Trunk lateral flexion at Peak Knee Flexion	5.1° Left ▼	0.1° Left ▼	1.1° Left ▼

PRACTITIONER COMMENTS

HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

RESULTS

RIGHT LEG			
SNAPSHOTS			
START	**REP 1:** **PEAK KNEE FLEXION**	**REP 2:** **PEAK KNEE FLEXION**	**REP 3:** **PEAK KNEE FLEXION**

KEY RESULTS	REP 1	REP 2	REP 3
Peak Knee Flexion	96.1°	93.0°	96.6°
Knee Displacement (total)	12.4 cm	13.9 cm	12.2 cm
Peak Knee Valgus	10.8° **Valgus**	11.4° **Valgus**	18.1° **Valgus**
Peak Knee Varus	3.9° **Varus**	5.3° **Varus**	6.5° **Varus**
Trunk lateral flexion at Peak Knee Flexion	7.9° Right ▼	6.5° Right ▼	8.4° Right ▼

PRACTITIONER COMMENTS

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