

3D FULL BODY TRACKING

2022.1

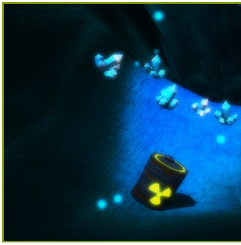
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WHAT IS NEEDED?

HARDWARE REQUIREMENTS

Please make sure the PC where you want this module to be active have VAST.Rehab Patient Panel installed and that the following hardware requirements are met:

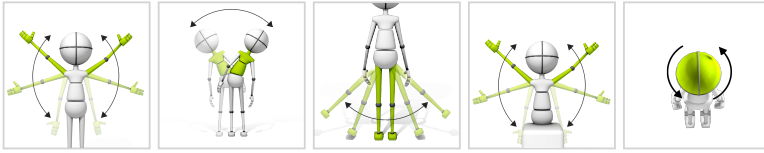
- Windows 10
- INTEL i5 processor
- 8GB RAM
- nVidia RTX2060 graphic card
- ZED 2



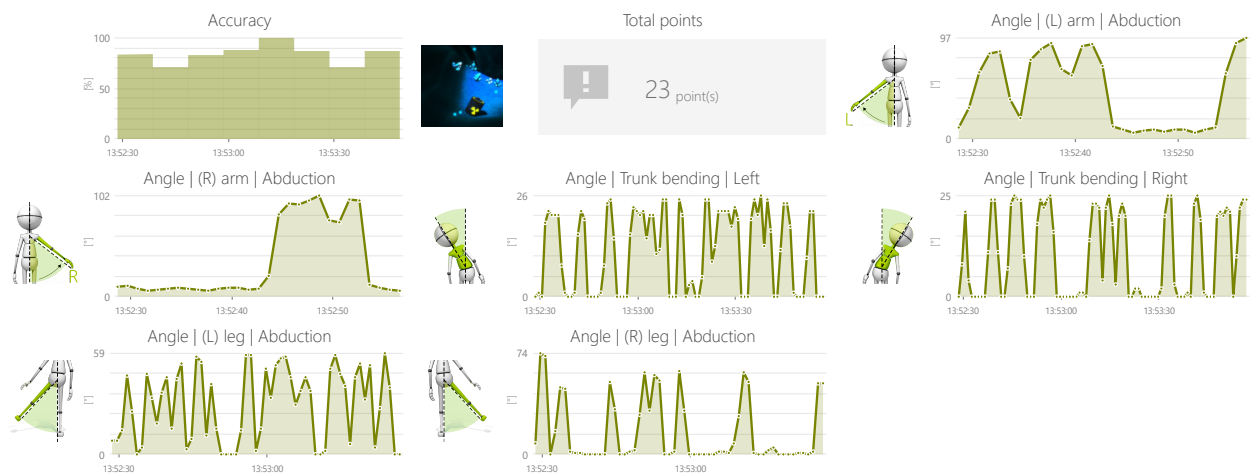
RANGE OF MOTION CRYSTALS

Measure and gently motivate to increase individual's range of motion in predefined movement patterns.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
-
- Player speed

OBJECTIVES

- Improve range of motion
- Perceptivity
- Response to negative visual stimuli
- Reaction to the positive visual stimuli

INSTRUCTION FOR PATIENT

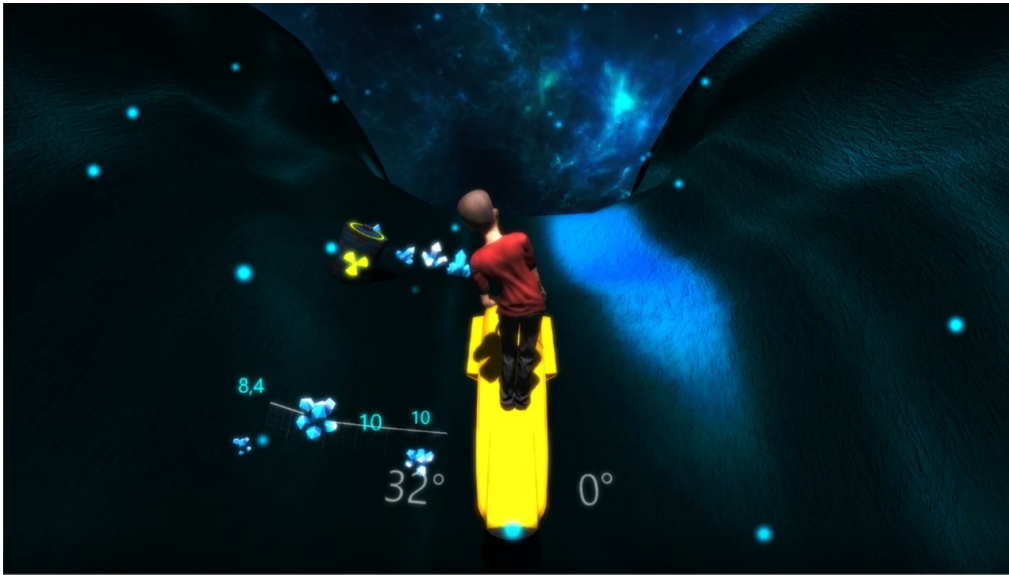
Collect the crystals and avoid the radioactive barrels



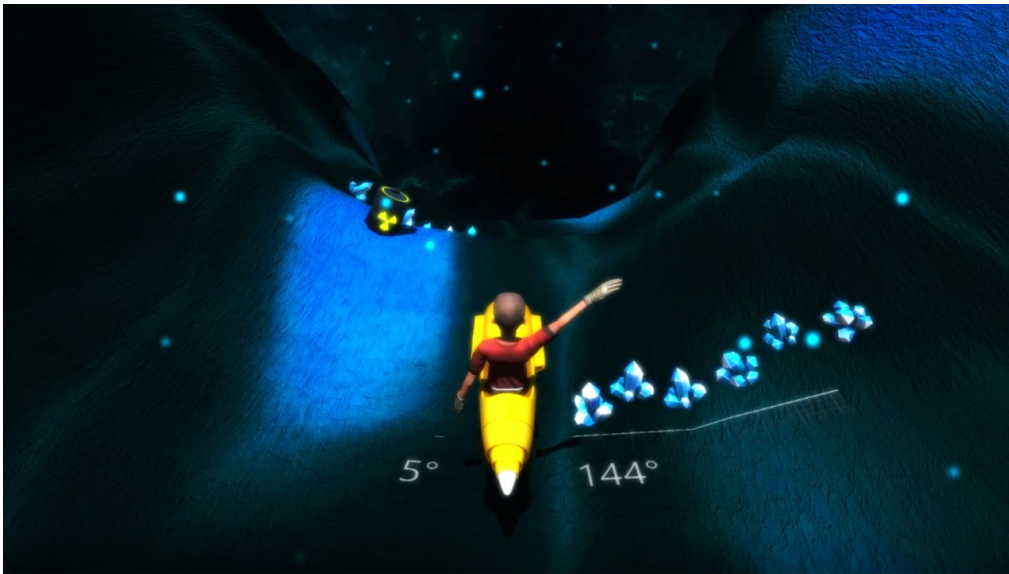
RANGE OF MOTION

CRYSTALS

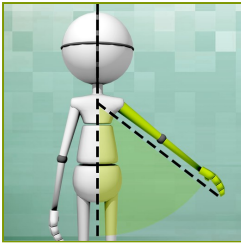
SAMPLE SETTINGS



Difficulty 1/4	
Duration 30s	Angle 40°
	Angle 40°
Player speed 100%	



Difficulty 1/4	
Duration 30s	Angle 180°
	Angle 180°
Player speed 100%	

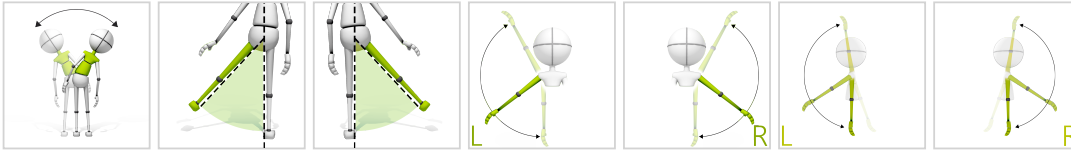


RANGE OF MOTION

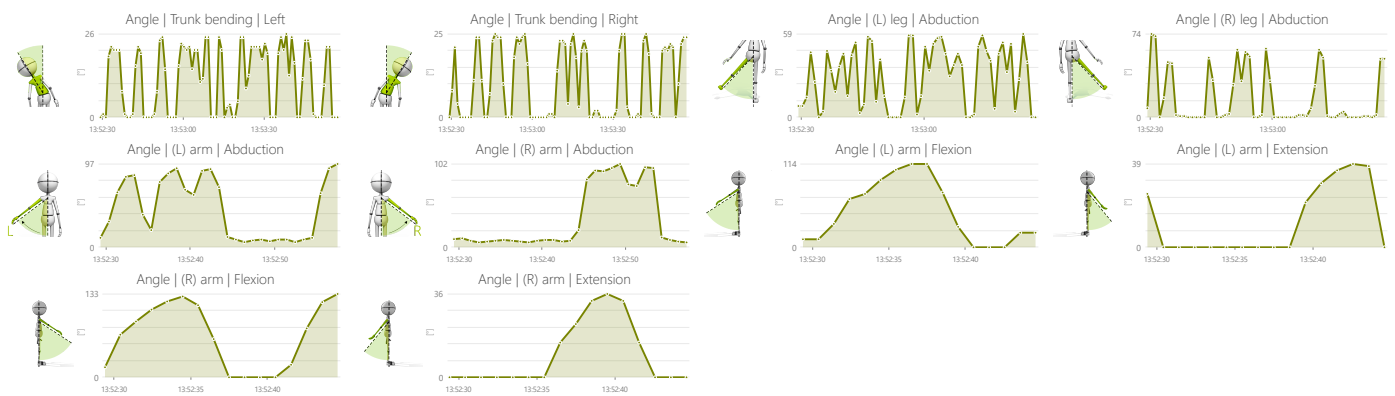
ANGLES EVALUATION

Measure and gently motivate to increase individual's range of motion in predefined movement patterns.

CONTROL MODES



RESULTS



OBJECTIVES

- Range of motion examination

INSTRUCTION FOR PATIENT

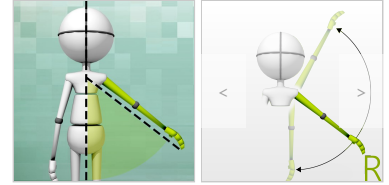
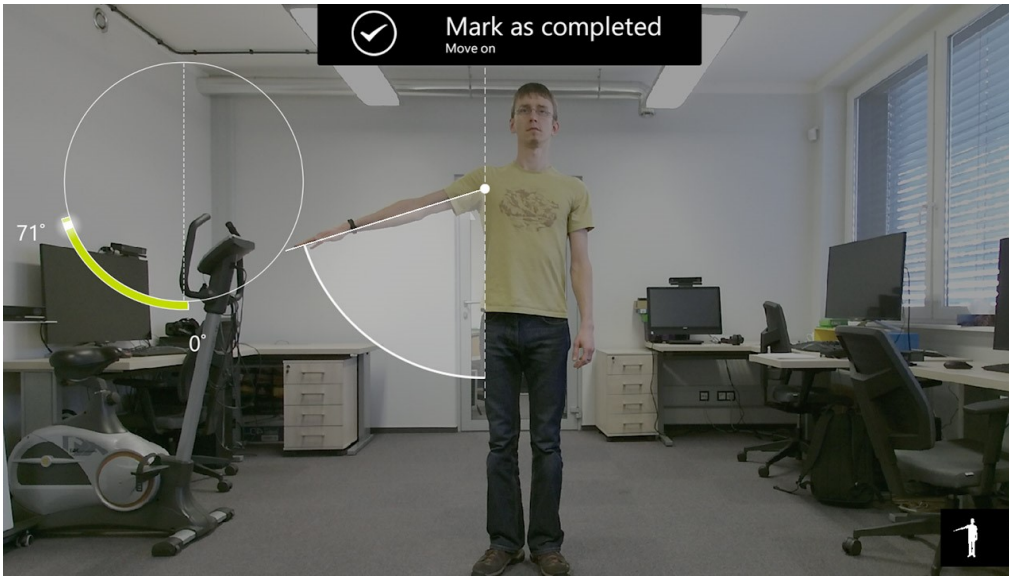
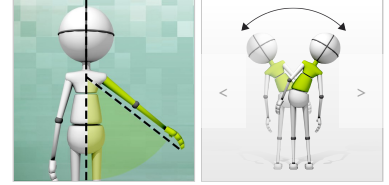
System will measure your range of motion



RANGE OF MOTION

ANGLES EVALUATION

SAMPLE SETTINGS



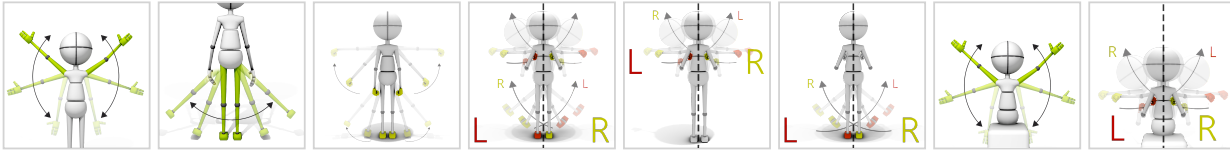


MOVEMENT TIME

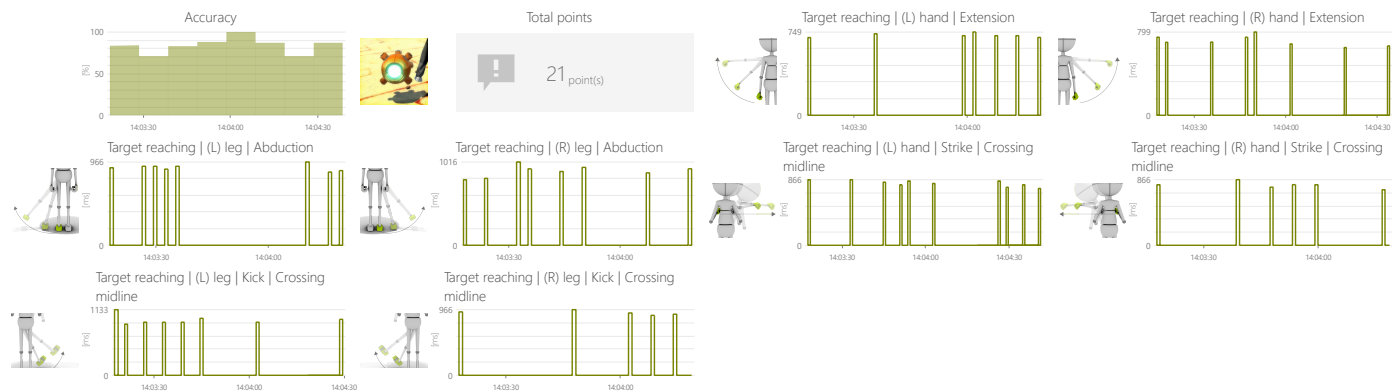
REACT

Measure time taken to carry out a movement of a limb or other part of the body. It is measured from rest to target position.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time to react
- Distance to targets

OBJECTIVES

- Speed of movement
- Bilateral movements in response to bilateral stimuli
- Dynamic responses to emerging moving targets
- Movements times comparison (left and right limbs)

INSTRUCTION FOR PATIENT

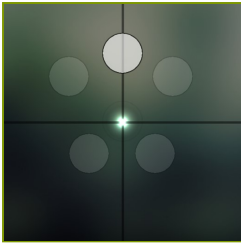
Hit the target as quickly as you can. Then set yourself in rest pose



SAMPLE SETTINGS



◀	Difficulty 1/2	▶
<	Duration 90s	>
<	Time to react 2s	>
<	Distance to targets 75%	>



MOVEMENT TIME

DYNAMIC TEST

Measure time taken to carry out a movement of a limb or other part of the body. It is measured from rest to target position.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Range
- Show path
- Repetitions

OBJECTIVES

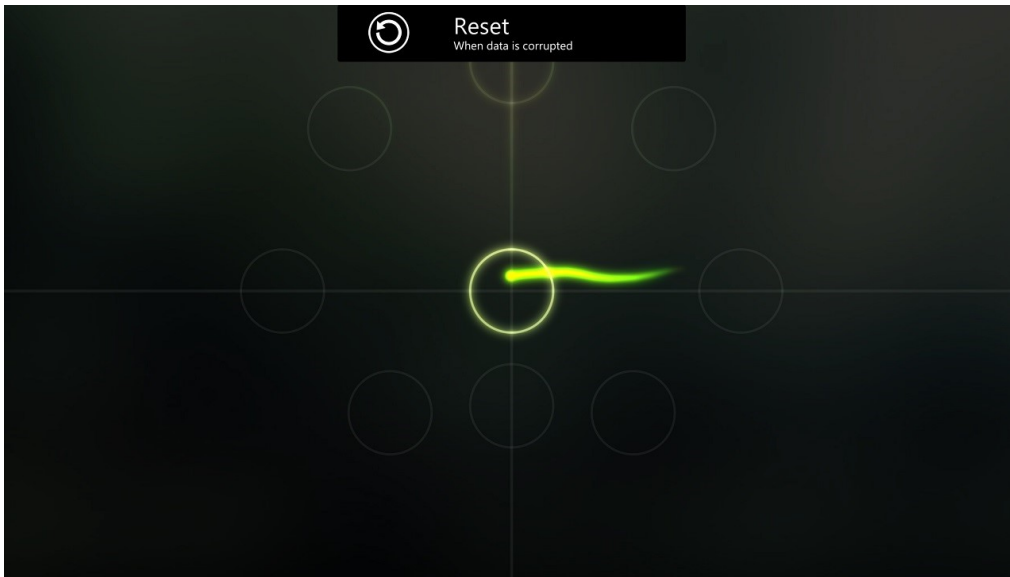
- Test the limits of balance and equilibrium
- Dynamics of planned movements

INSTRUCTION FOR PATIENT

Move the dot to the highlighted target and hold it for a moment. Next target will be highlighted.



SAMPLE SETTINGS



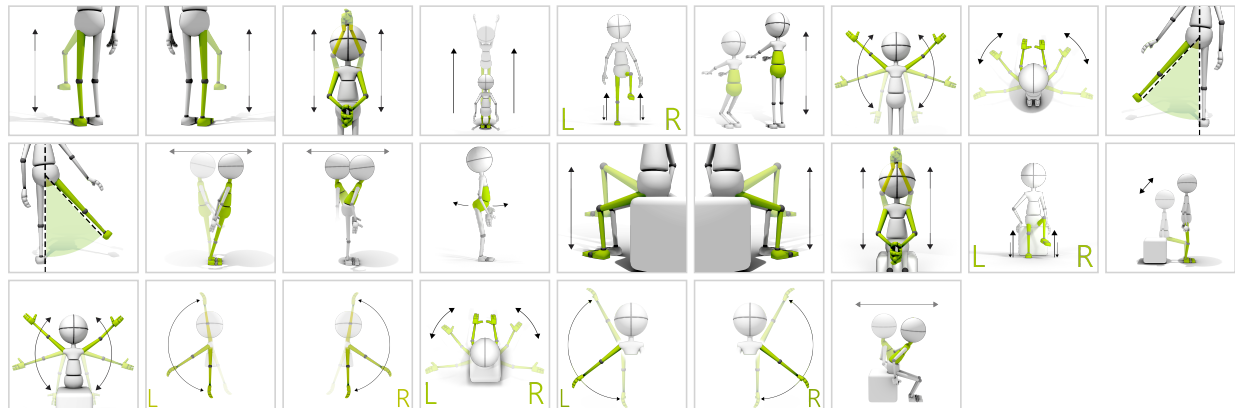
<p>Range</p> <p>0% ↔ 100%</p>	<p>Show path</p> <p>< No ></p>
	<p>Repetitions</p> <p>< 2 ></p>



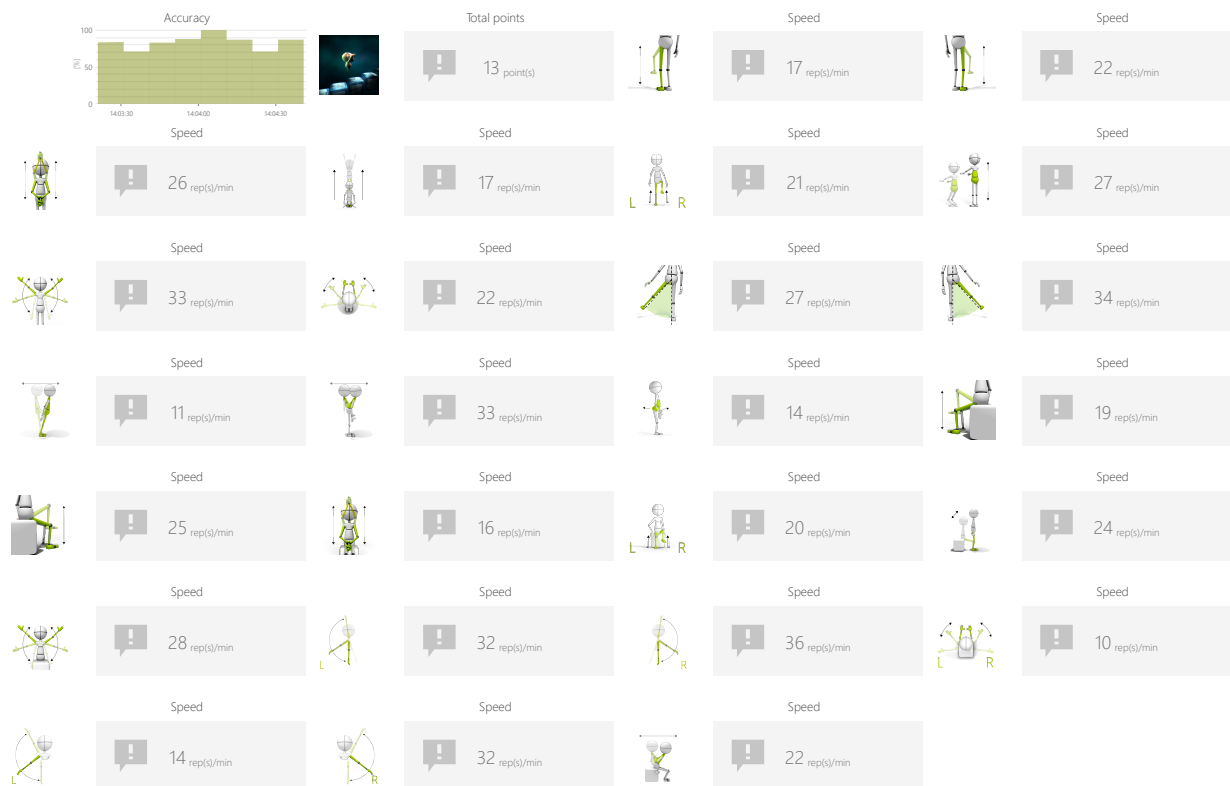
SPEED STAIRS

Measure number of repetitions of specific movement pattern an individual is able to perform within predefined time interval.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Max time per floor
- Number of stairs
- Pause length

OBJECTIVES

- Jumping
- Knees lifting
- Dynamics of planned movements

INSTRUCTION FOR PATIENT

Climb the stairs before they disappear



SAMPLE SETTINGS



Difficulty Custom	
Duration 90s	Range 20% ↑ 80% ↓
Max time per floor 15s	Number of stairs 5
Pause length 3	

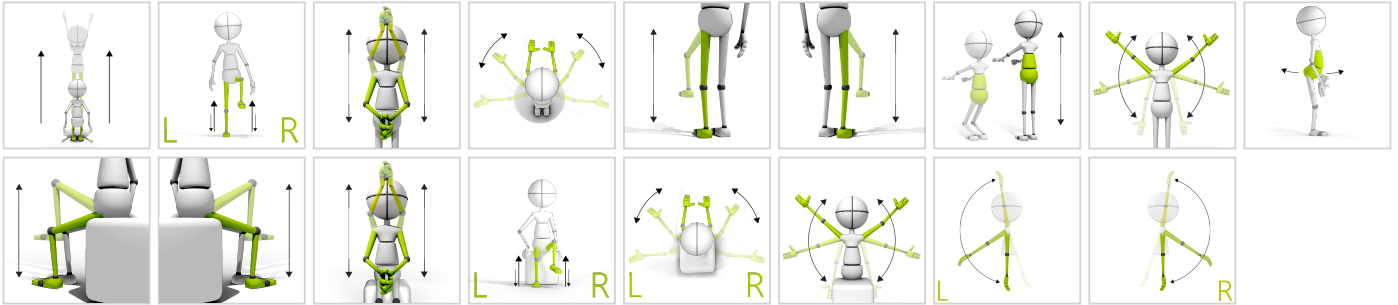


SPEED

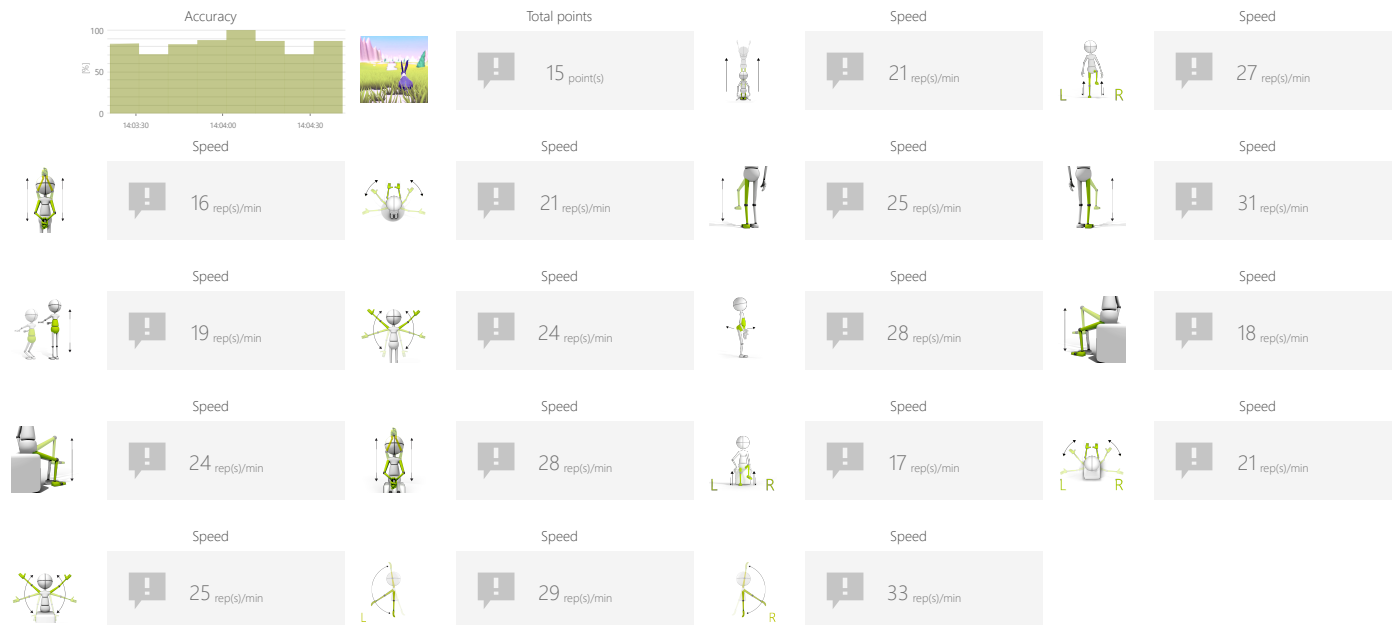
RABBIT

Measure number of repetitions of specific movement pattern an individual is able to perform within predefined time interval.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range

OBJECTIVES

- Speed of movement
- Repetitive movements

INSTRUCTION FOR PATIENT

Go through the entire route as fast as you can



SPEED

RABBIT

SAMPLE SETTINGS



Duration	Range
< 90s >	20% 80%

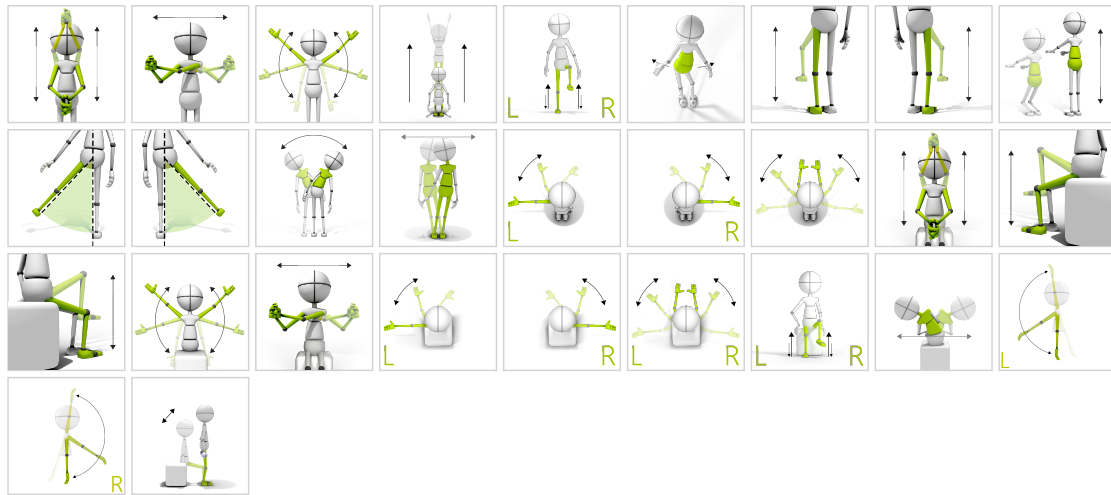


SPEED

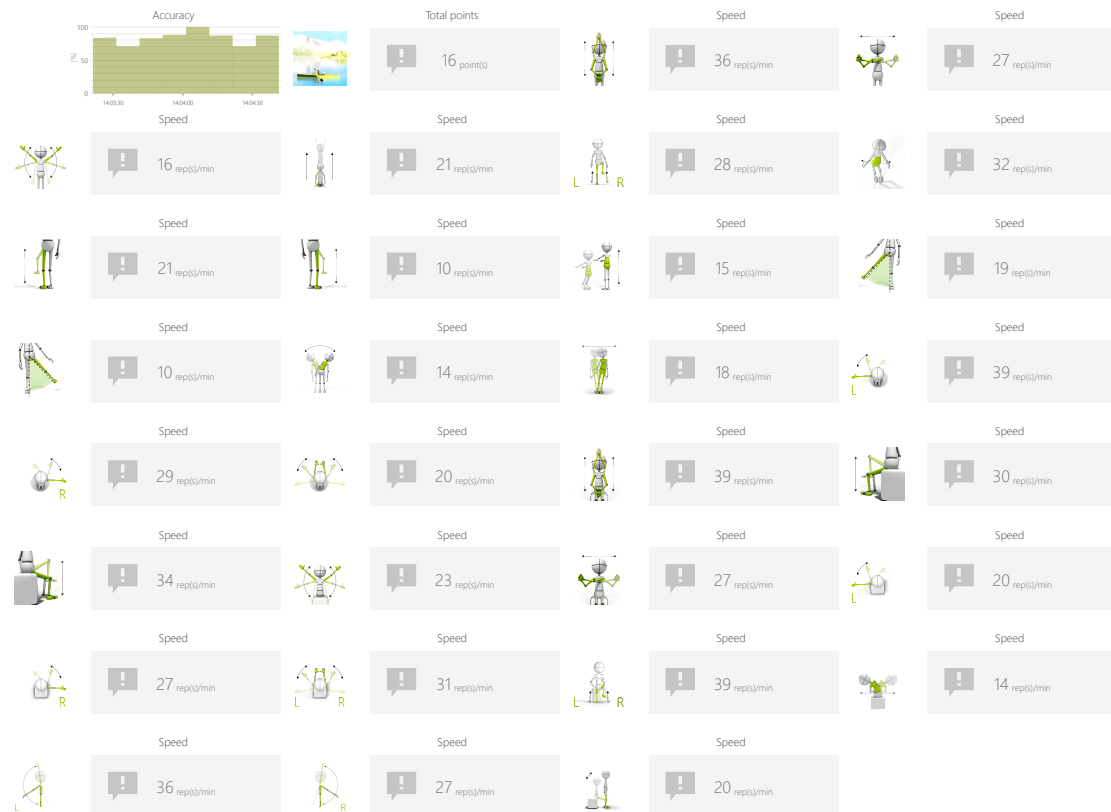
KAYAK

Measure number of repetitions of specific movement pattern an individual is able to perform within predefined time interval.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range

OBJECTIVES

- Speed of movement
- Repetitive movements

INSTRUCTION FOR PATIENT

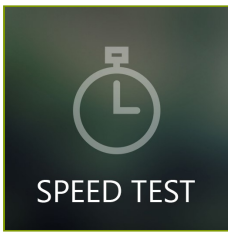
Row as fast as you can



SAMPLE SETTINGS



Duration < 90s >	Range 20% 80%

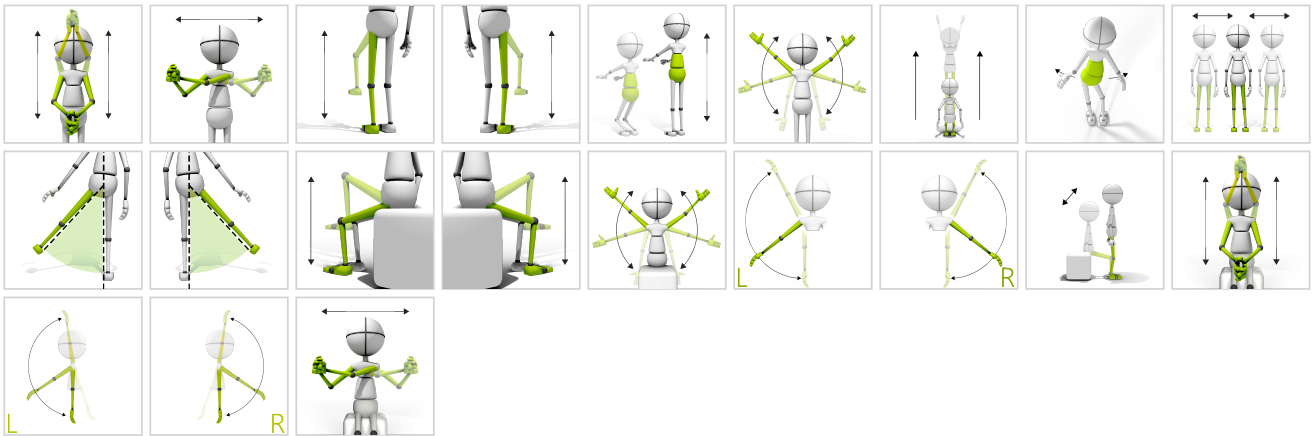


SPEED

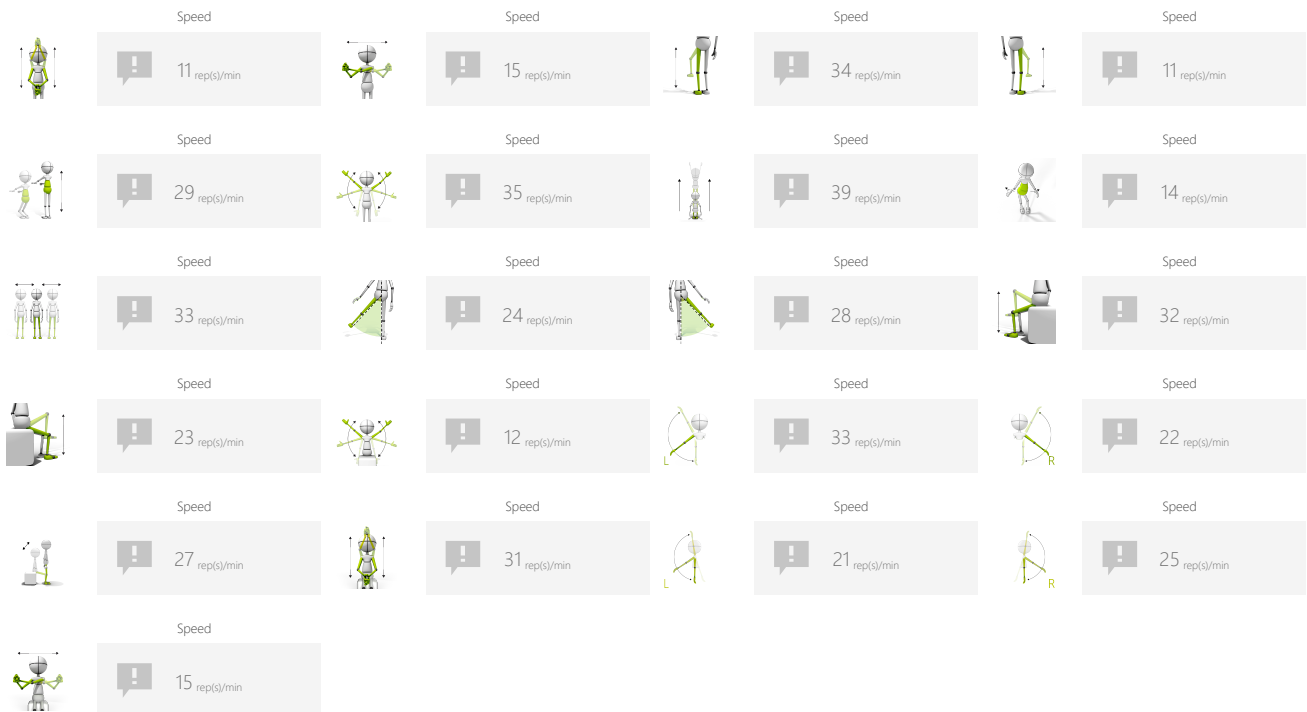
SPEED TEST

Measure number of repetitions of specific movement pattern an individual is able to perform within predefined time interval.

CONTROL MODES



RESULTS



ADJUSTMENTS

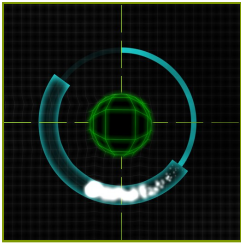
- Time to complete action
- Range

OBJECTIVES

- Speed of movement
- Repetitive movements

INSTRUCTION FOR PATIENT

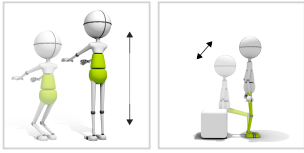
Perform the specified movement pattern as many times as possible



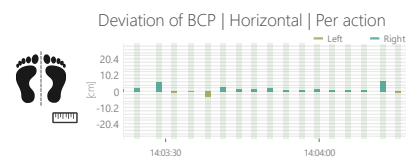
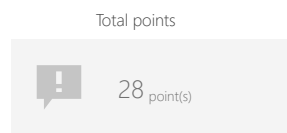
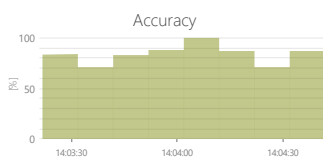
BALANCE GRID

Measure and train individual's skills to perform specific movement patterns while keeping predefined weight distribution.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Period

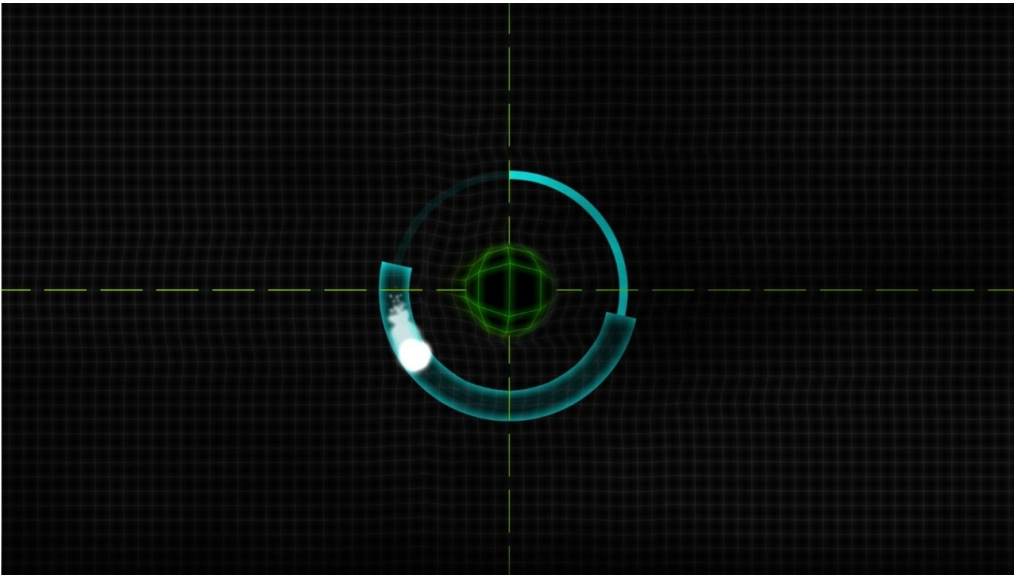
OBJECTIVES

- Balance and equilibrium training
- 3D space movements reproduction
- Activity in a given rhythm

INSTRUCTION FOR PATIENT

Keep the white glowing point inside the blue area and make sure the emerging bump stays in the middle of the reticle

SAMPLE SETTINGS

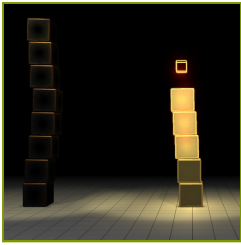


Difficulty **1/3**

Duration **90s**

Range **50%** (5% range, 0% to 100% scale)

Period **6s**

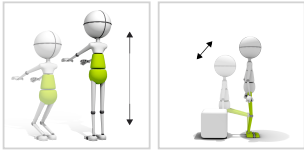


BALANCE

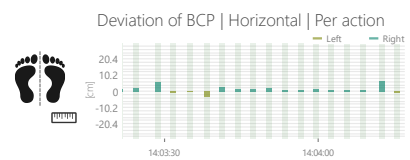
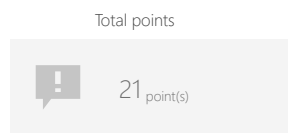
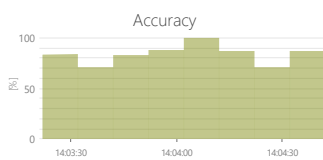
BLOCK BUILDER

Measure and train individual's skills to perform specific movement patterns while keeping predefined weight distribution.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Stack height

OBJECTIVES

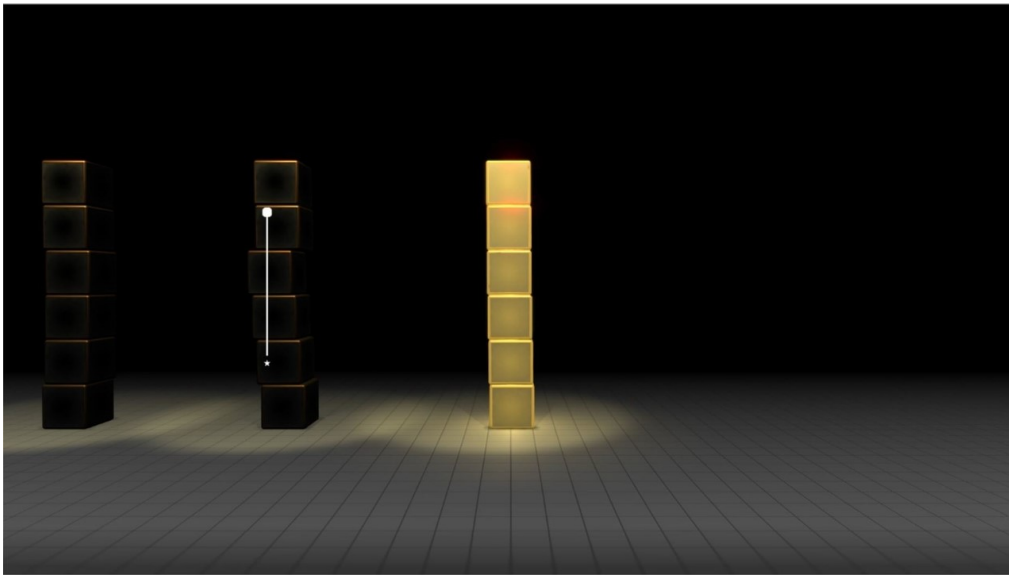
- Movement precision
- Muscle strengthening
- Balance and equilibrium training

INSTRUCTION FOR PATIENT

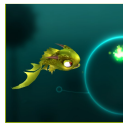
Build as many stacks as you can. Keep your body balanced.



SAMPLE SETTINGS



	Difficulty 1/3	
Duration 90s		Range 5% 50% 0% ↔ 100%
Stack height 6		

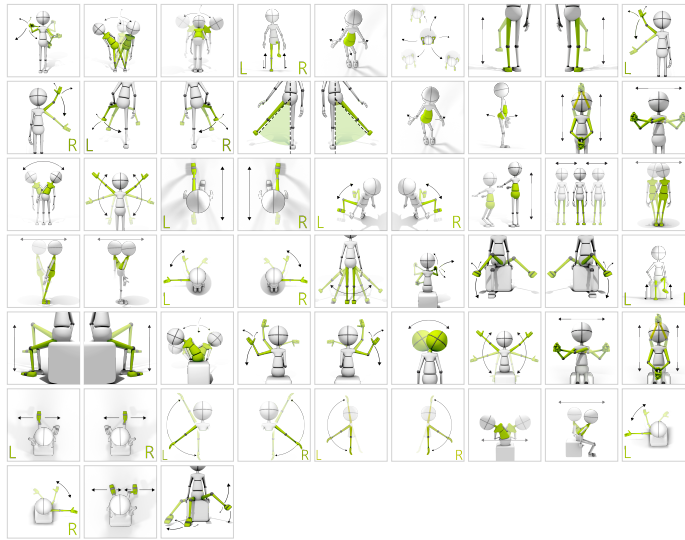


MOVEMENT PRECISION

FISH

Measure and train individual's skills to perform specific movement patterns with predefined speed and range.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Movement mode
- Range
- Route shape
- Speed of objects

OBJECTIVES

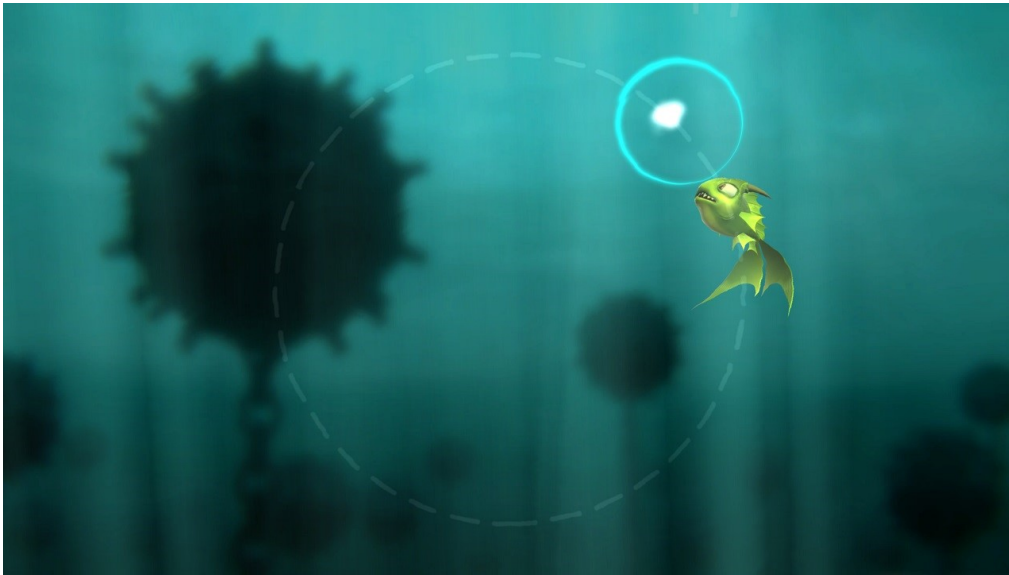
- 3D space movements reproduction
- Planned movements
- Muscle strengthening
- Movement precision
- Visual motor coordination




INSTRUCTION FOR PATIENT

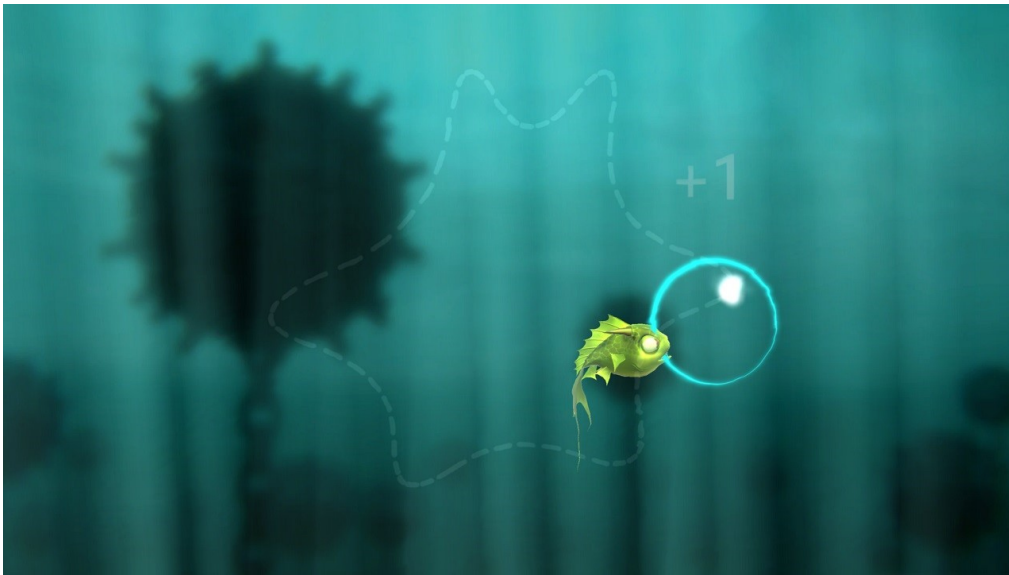
Move the blue circle to protect the sparks source from the fish.
When the sparks source is inside the circle it is safe






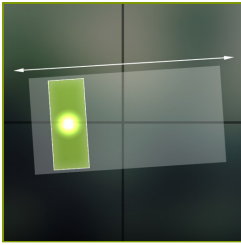
SAMPLE SETTINGS



	
Difficulty	
Custom	
Duration	Movement mode
90s	Left
Range	Route shape
20% ↔ 80%	
Speed of objects	
100%	



	
Difficulty	
1/3	
Duration	Movement mode
90s	Left
Range	Route shape
20% ↔ 80%	
Speed of objects	
100%	

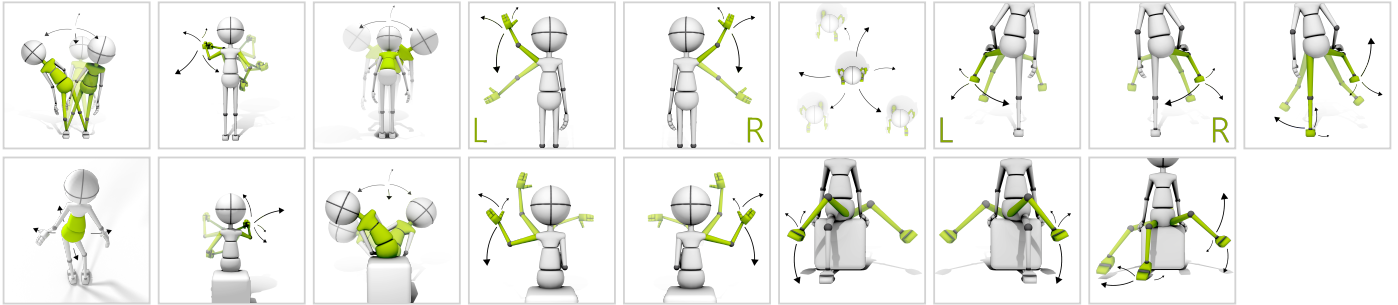


MOVEMENT PRECISION

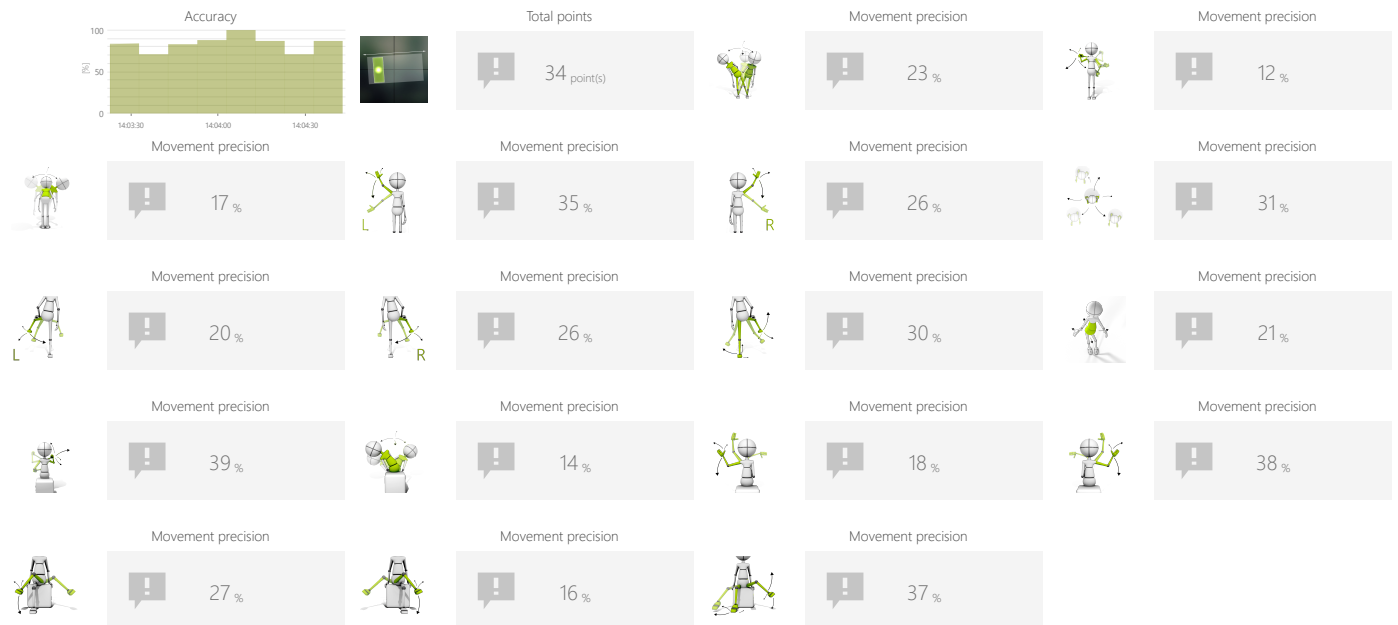
PENDULUM

Measure and train individual's skills to perform specific movement patterns with predefined speed and range.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Show path
- Period
- Rotation
- Pendulum height
- Pendulum width

OBJECTIVES

- 3D space movements reproduction
- Balance and equilibrium training
- Rhythmicity
- Activity in a given rhythm
- Movement precision

INSTRUCTION FOR PATIENT

Try to synchronize yourself with the rectangle movements. Do your best to stay within the rectangle



SAMPLE SETTINGS



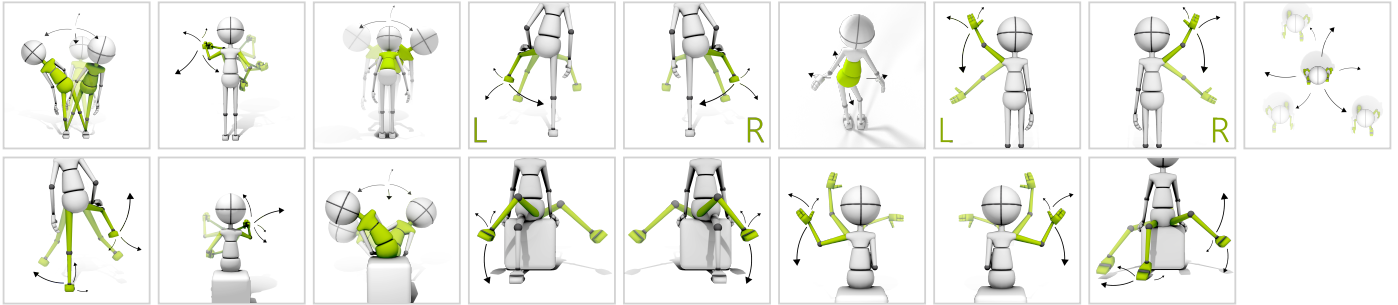
◀	Difficulty 1/2	▶
<	Duration 90s	>
<	Range 80% 20% ↔ 80%	>
<	Show path No	>
<	Period 5s	>
<	Rotation 0	>
<	Pendulum height 50%	>
<	Pendulum width 100%	>



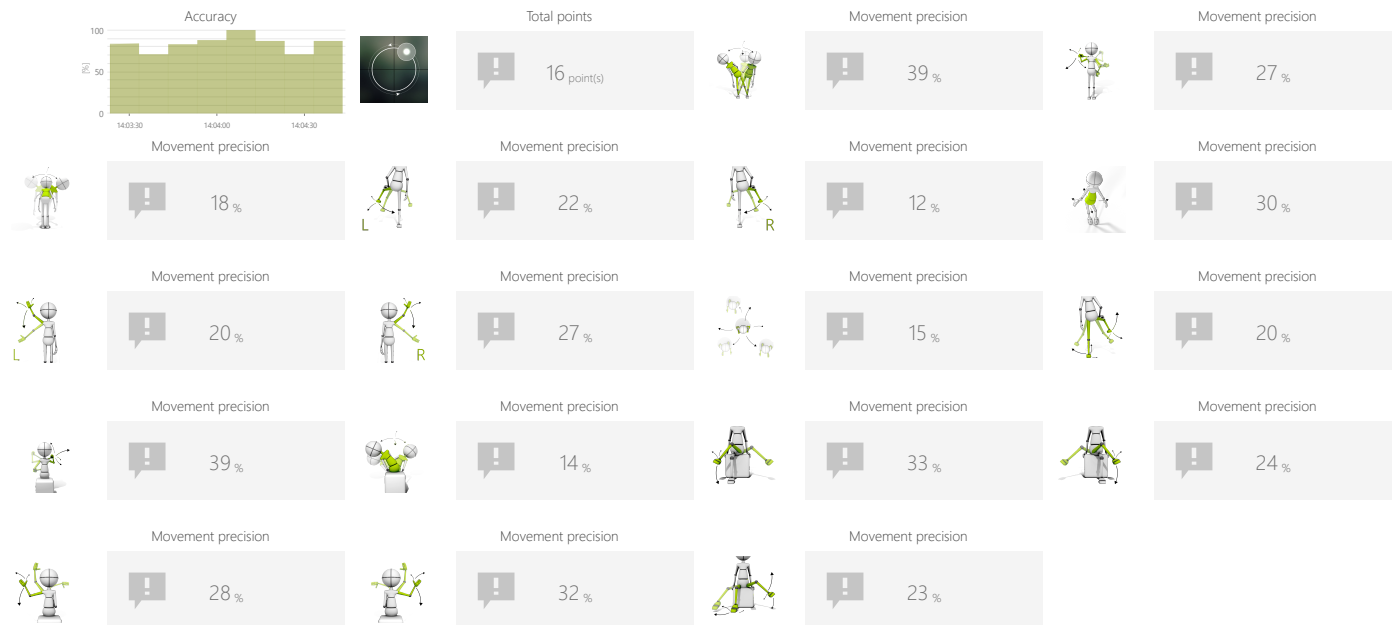
MOVEMENT PRECISION TRACKING

Measure and train individual's skills to perform specific movement patterns with predefined speed and range.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Inverse direction
- Show path
- Period
- Radius
- Target radius

OBJECTIVES

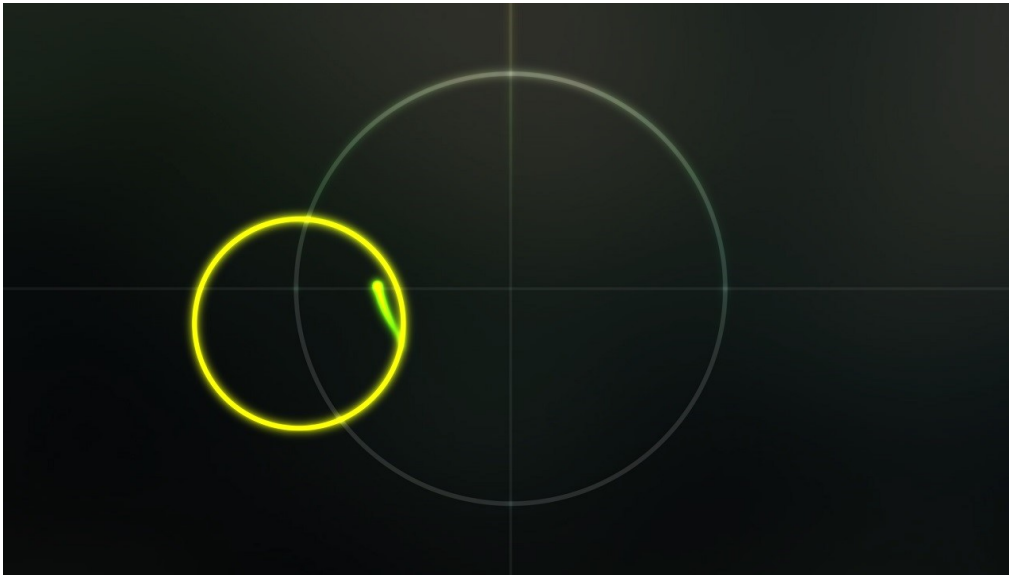
- 3D space movements reproduction
- Balance and equilibrium training
- Test the limits of balance and equilibrium

INSTRUCTION FOR PATIENT

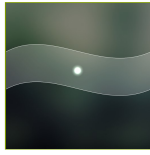
Try to synchronize yourself with the circle movements. Do your best to stay within the circle



SAMPLE SETTINGS



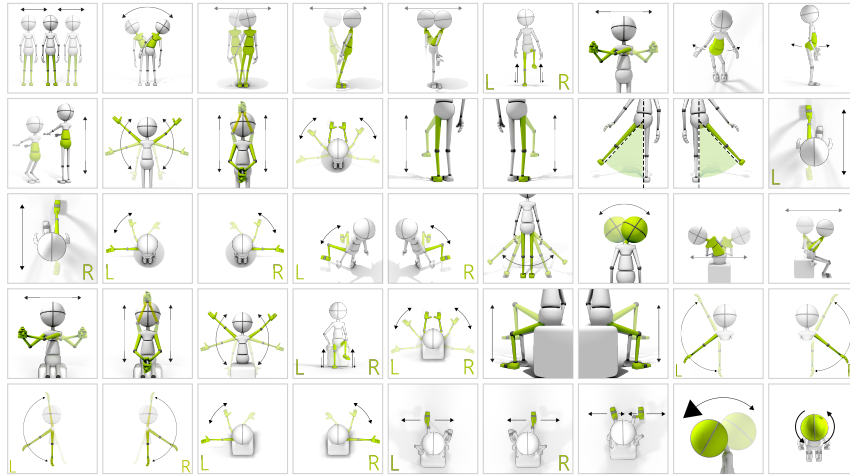
Duration < 90s >	Range 20% ↔ 80% ↕ 80% 20% ↔ 80%
Inverse direction < No >	Show path < No >
Period < 10s >	Radius < 75% >
Target radius < 75% >	



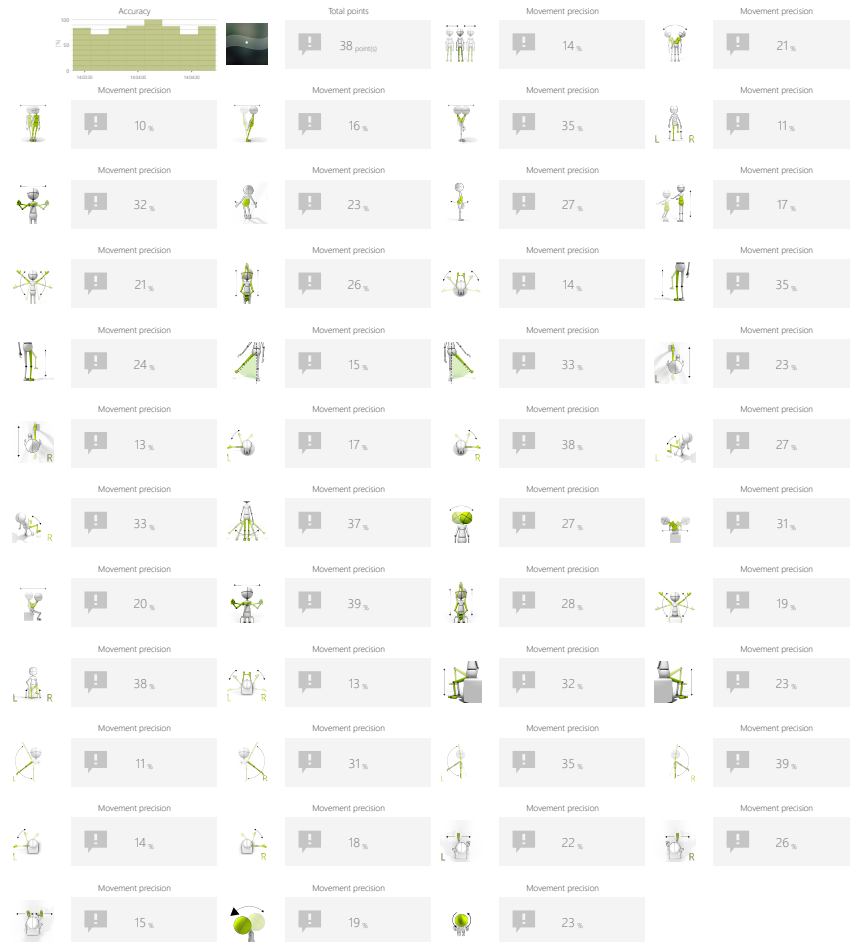
MOVEMENT PRECISION GRAPH

Measure and train individual's skills to perform specific movement patterns with predefined speed and range.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Graph shape (sinus or square, amplitude, border, etc.)
- Task duration
- Range

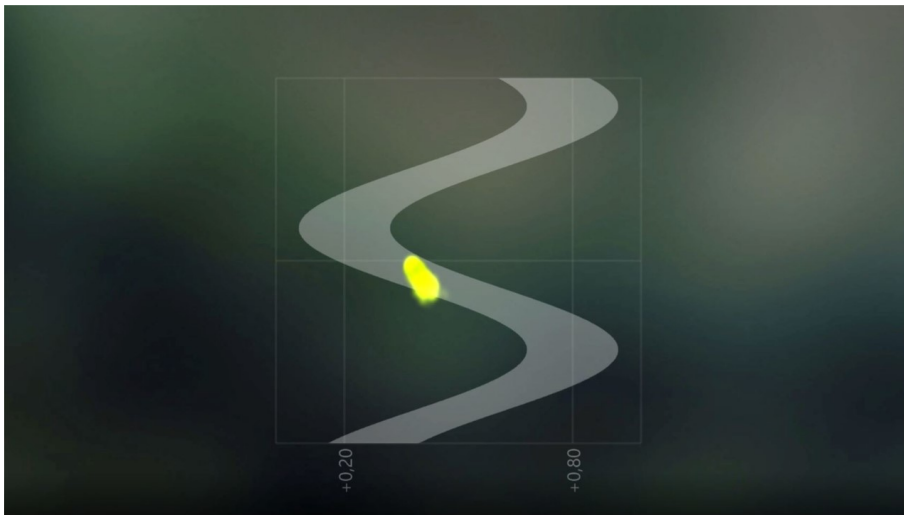
OBJECTIVES

- Movement precision
- Activity in a given rhythm
- Repetitive movements
- Hands raising

INSTRUCTION FOR PATIENT

Try to stay within the borders

SAMPLE SETTINGS

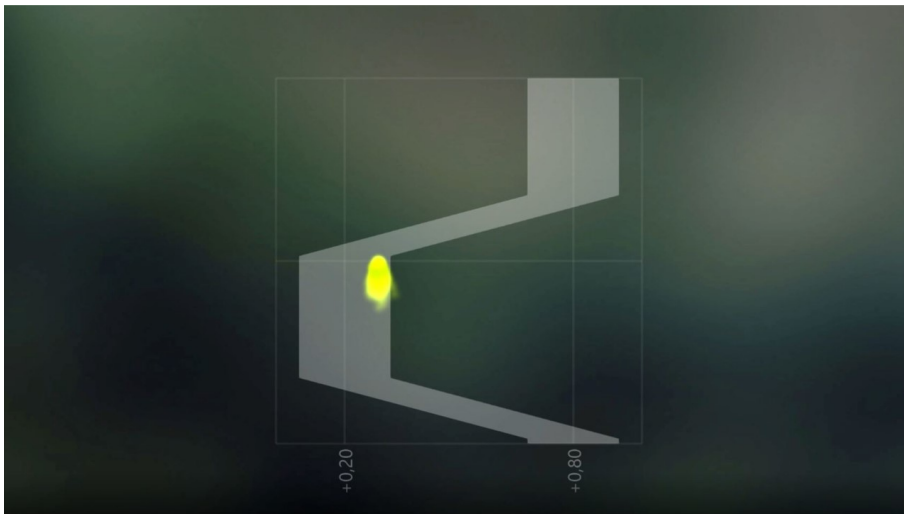


Difficulty: **3/3**

Graph configuration: 4.0s +/-: 20%

Duration: **30s**

Range: 20% ↔ 80%

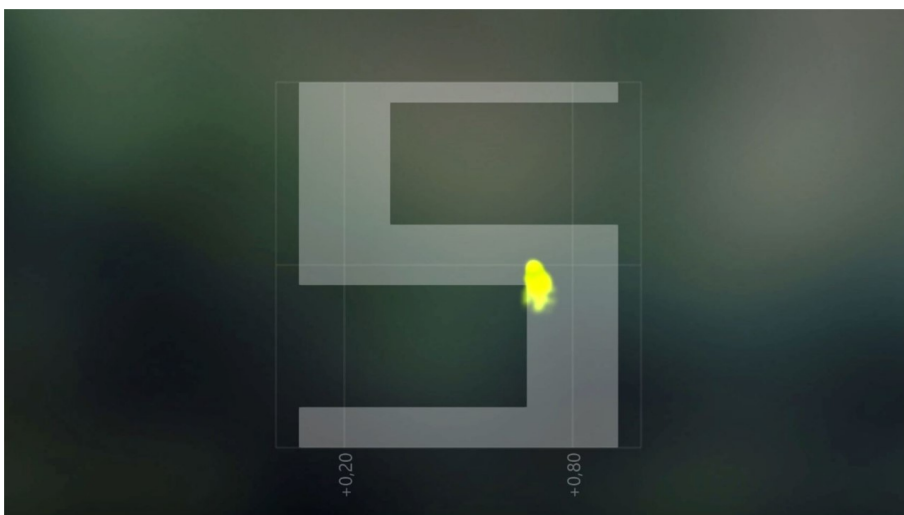


Difficulty: **1/3**

Graph configuration: 4.0s +/-: 40%

Duration: **90s**

Range: 20% ↔ 80%



Difficulty: **Custom**

Graph configuration: +/-: 20% ↑: 2.0s ↓: 2.0s ↗: 1.0s ↘: 1.0s

Duration: **30s**

Range: 20% ↔ 80%

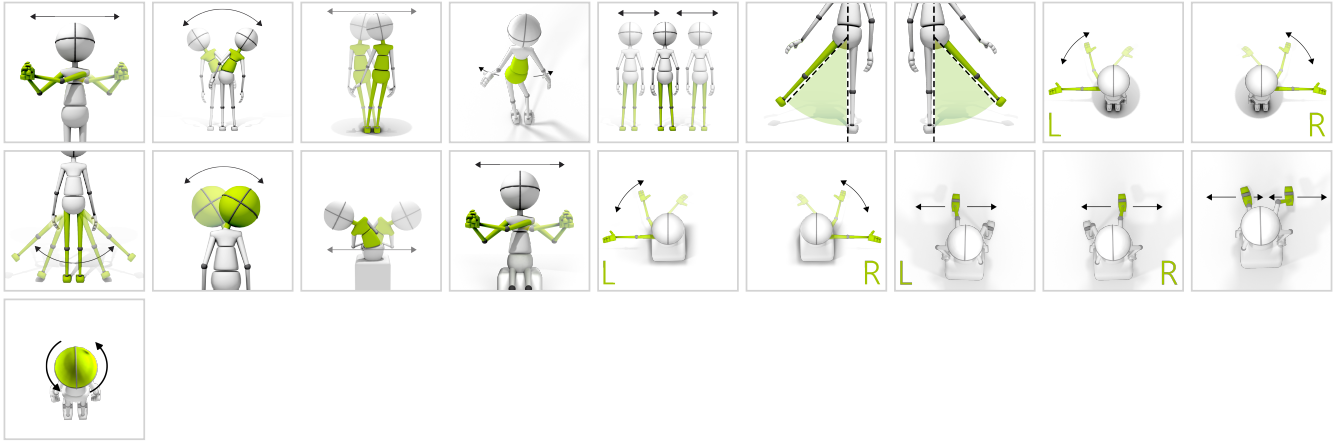


MOVEMENT PRECISION

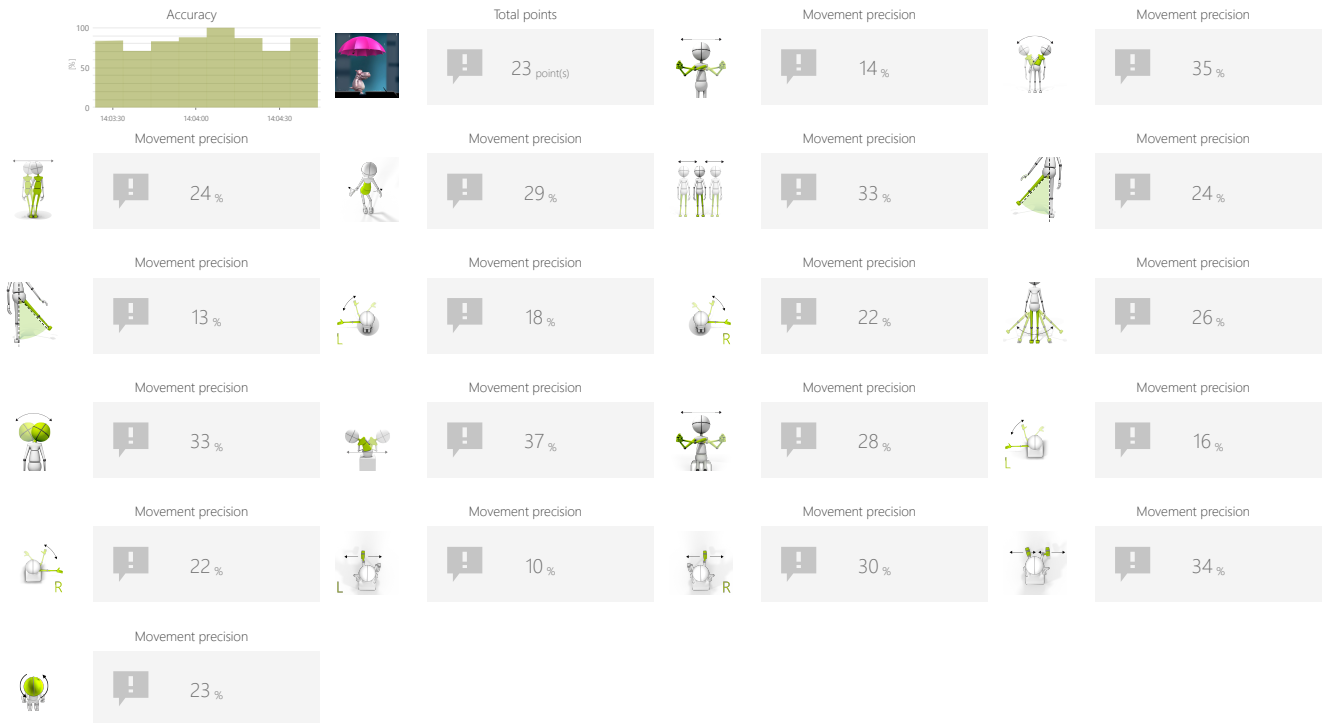
UMBRELLA

Measure and train individual's skills to perform specific movement patterns with predefined speed and range.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Path
- Range
- Umbrella size

OBJECTIVES

- Movement precision
- Visual motor coordination

INSTRUCTION FOR PATIENT

Don't let the hippo get wet - keep the umbrella above him!



MOVEMENT PRECISION

UMBRELLA

SAMPLE SETTINGS



Difficulty	1/3
Duration	60s
Path	8.0s
Range	20% ↔ 80%
Umbrella size	150%

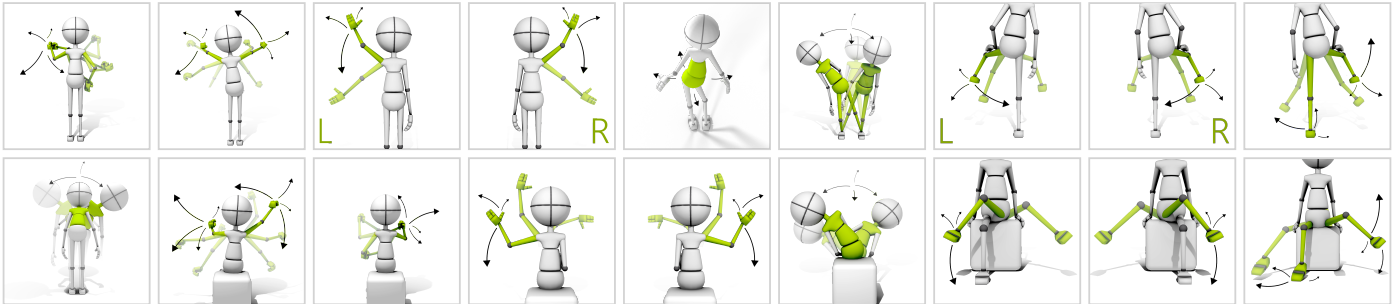


FUNCTIONAL MOVEMENTS

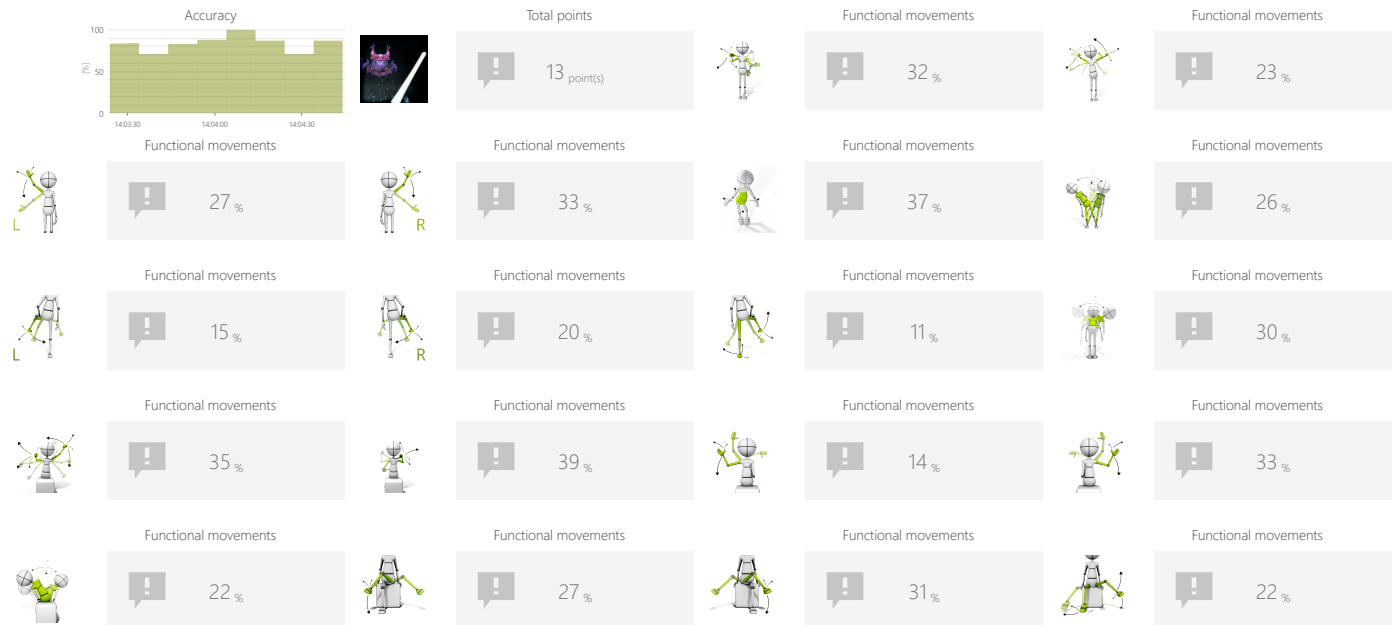
VAMPIRES

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Positions to have targets on
- Task duration
- Time between objects
- Time to react

OBJECTIVES

- Visual motor coordination
- Exercise with or without support from healthy limb
- Spontaneous movements in 3D space
- Speed of movement

INSTRUCTION FOR PATIENT

Use your sword to knock down flying vampires who want to bite you!



SAMPLE SETTINGS



Difficulty 1/3	
Active positions 	Duration 90s
Time between objects 2s	Time to react 2s



Difficulty 1/3	
Active positions 	Duration 90s
Time between objects 2s	Time to react 2s



FUNCTIONAL MOVEMENTS

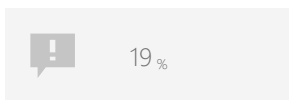
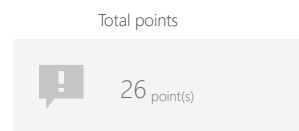
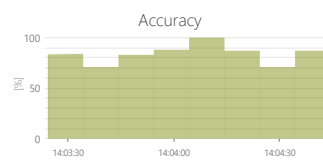
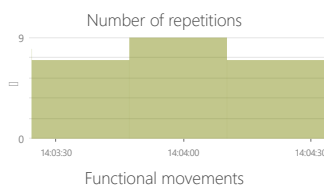
PRODUCTION LINE

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Source line elevation
- Target line elevation

OBJECTIVES

- Planned movements
- Repetitive movements
- Hands raising
- Sideways walking
- Both hands grabbing

INSTRUCTION FOR PATIENT

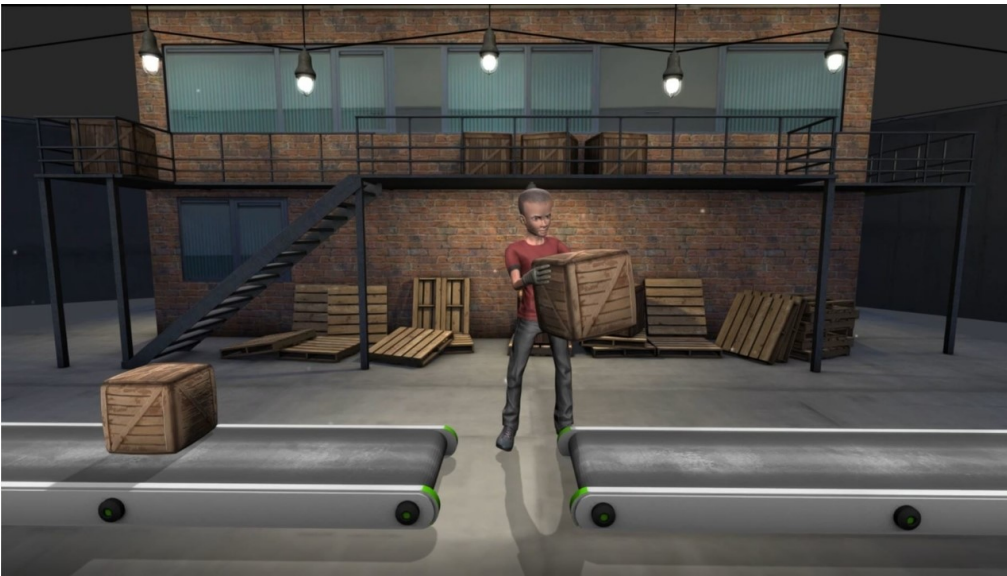
Move boxes from one line to another by precisely gripping and releasing them, lifting them up, lowering them and moving with them.



SAMPLE SETTINGS



Difficulty Custom	
Duration 30s	Source line elevation 0
	Target line elevation 80



Difficulty Custom	
Duration 30s	Source line elevation 0
	Target line elevation 0

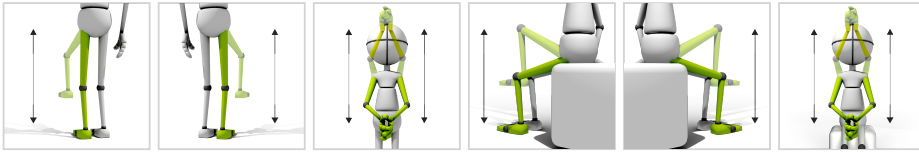


FUNCTIONAL MOVEMENTS

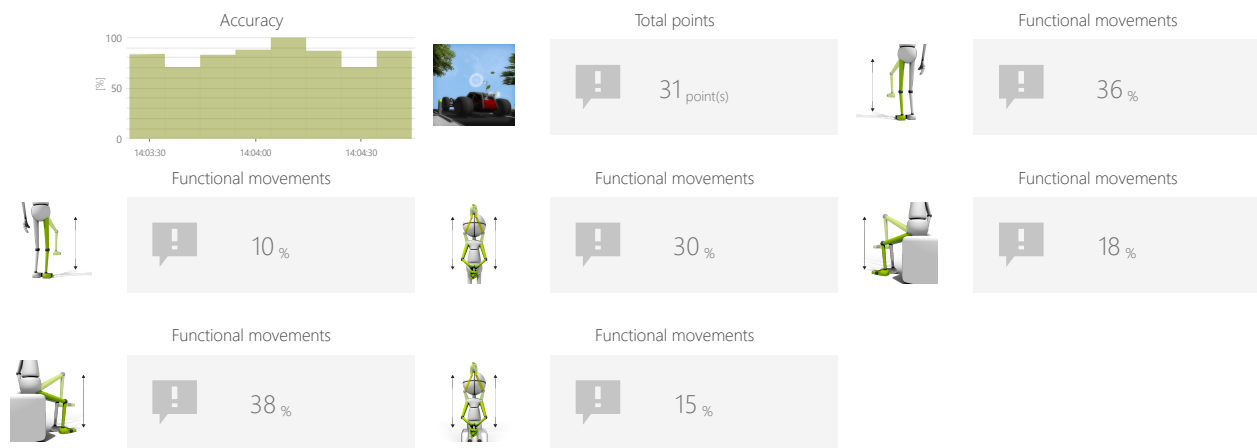
PUMPER

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time to complete action

OBJECTIVES

- Speed of movement
- Knees lifting
- Hands raising
- Dynamics of planned movements

INSTRUCTION FOR PATIENT

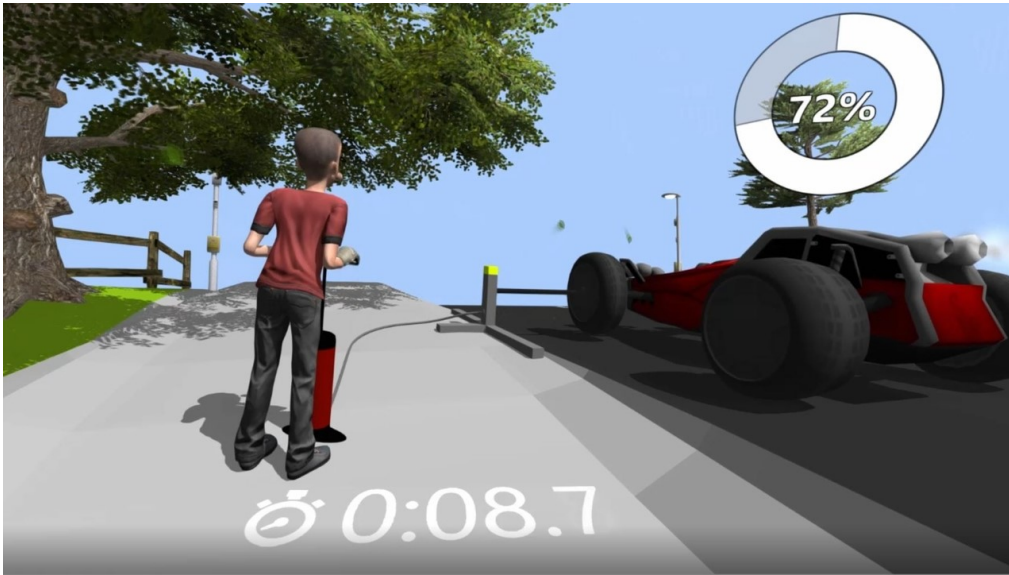
Pump the wheels as quickly as you can



FUNCTIONAL MOVEMENTS

PUMPER

SAMPLE SETTINGS



◀	Difficulty	▶	
	1/2		
Duration		Minitask duration	
<	>	<	>
90s		30s	

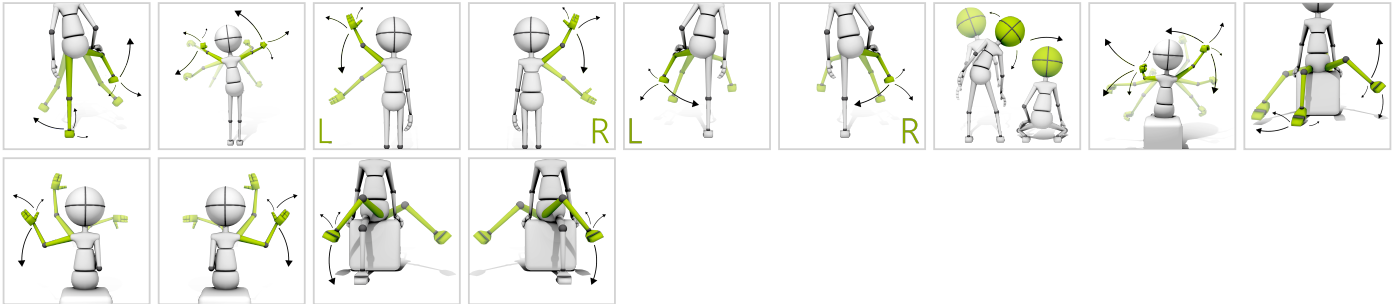


FUNCTIONAL MOVEMENTS

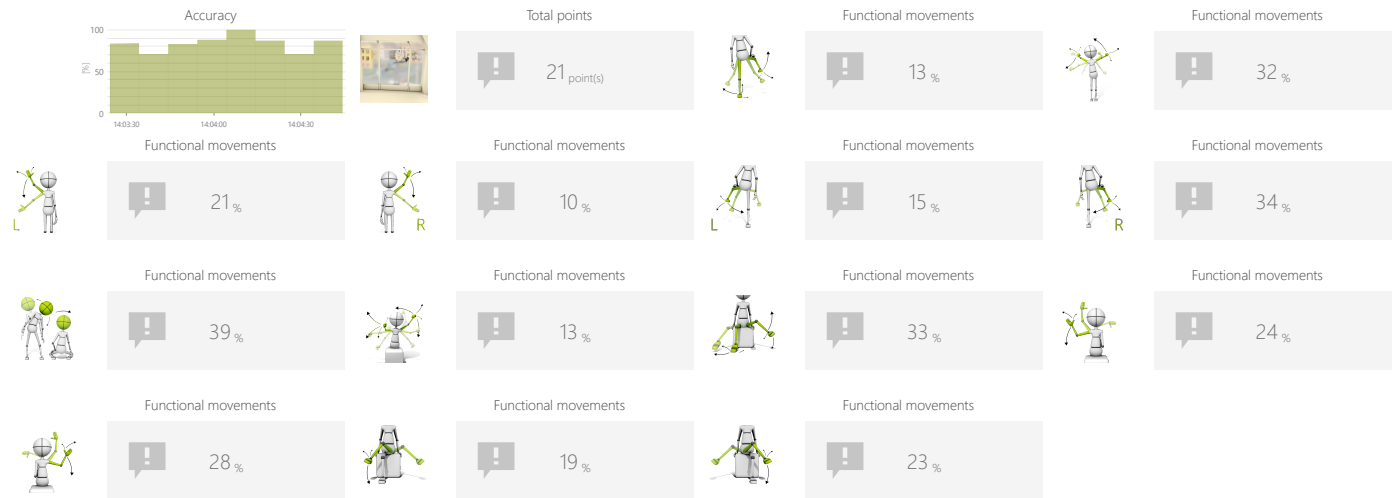
CLEANER

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time to complete action
- Force centered position

OBJECTIVES

- Visual motor coordination
- Exercise with or without support from healthy limb
- Improve range of motion
- Movement awareness
- Mirrored feedback exercises

INSTRUCTION FOR PATIENT

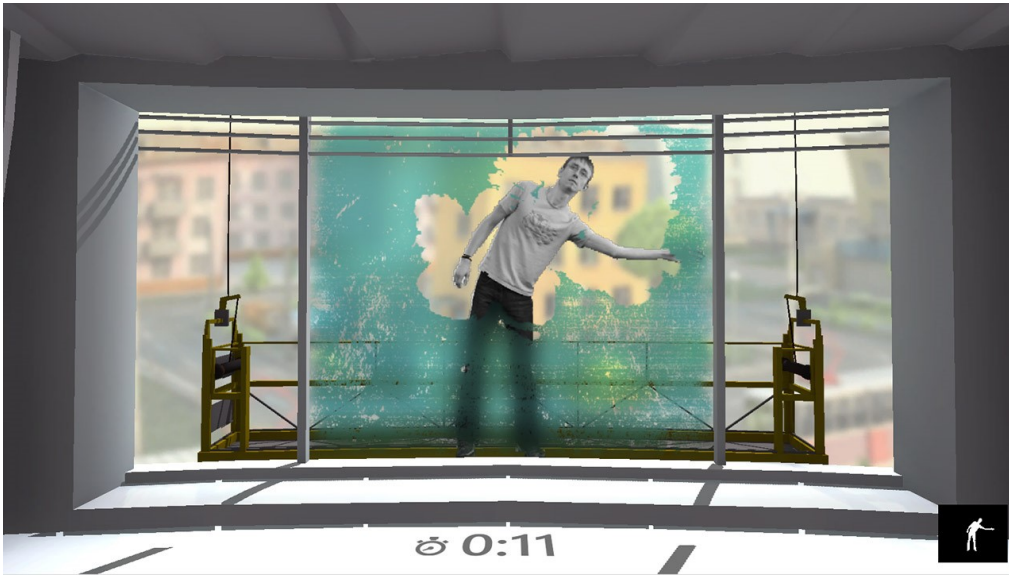
Clean the largest possible window area as quickly as possible.



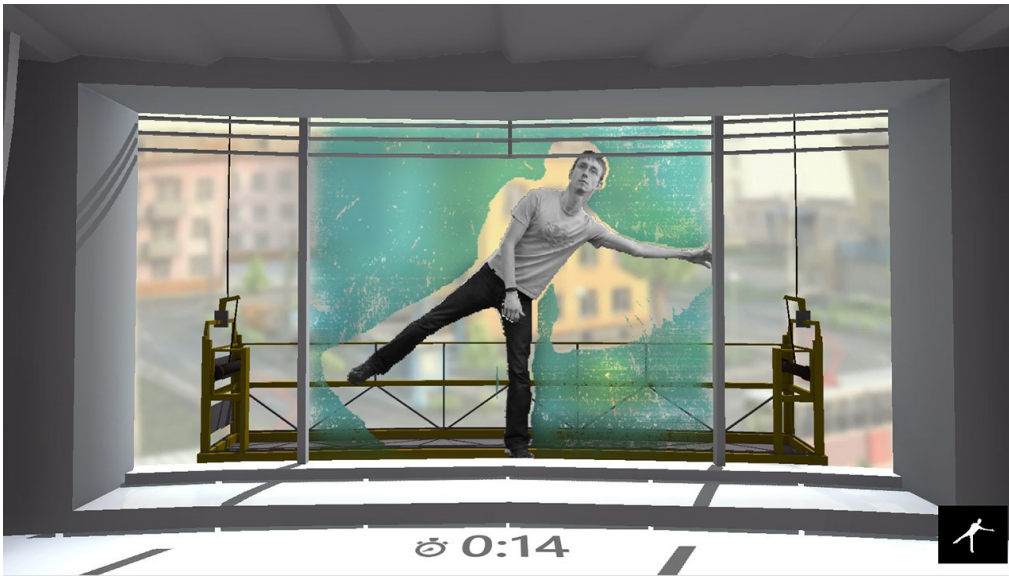
FUNCTIONAL MOVEMENTS

CLEANER

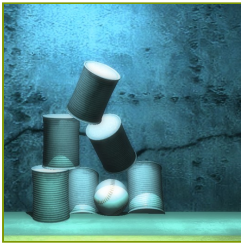
SAMPLE SETTINGS



◀	Difficulty 1/3	▶
<	Duration 90s	>
<	Minitask duration 20s	>
<	Force centered position No	>



◀	Difficulty 1/3	▶
<	Duration 90s	>
<	Minitask duration 20s	>
<	Force centered position No	>

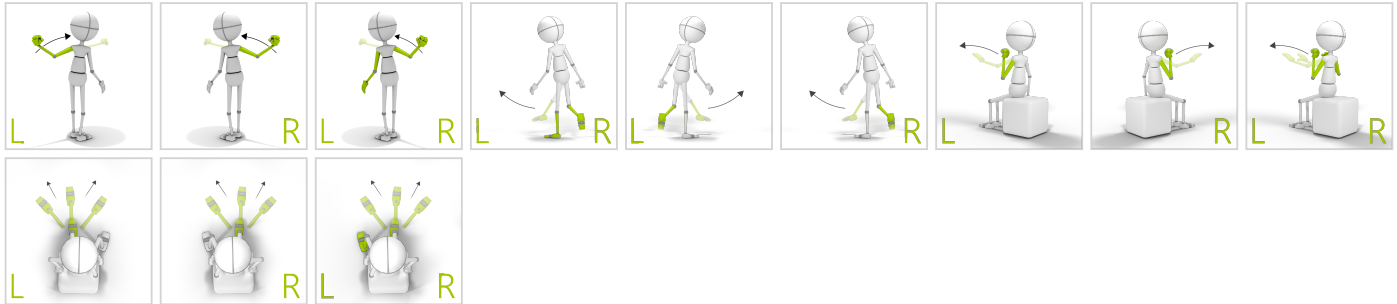


FUNCTIONAL MOVEMENTS

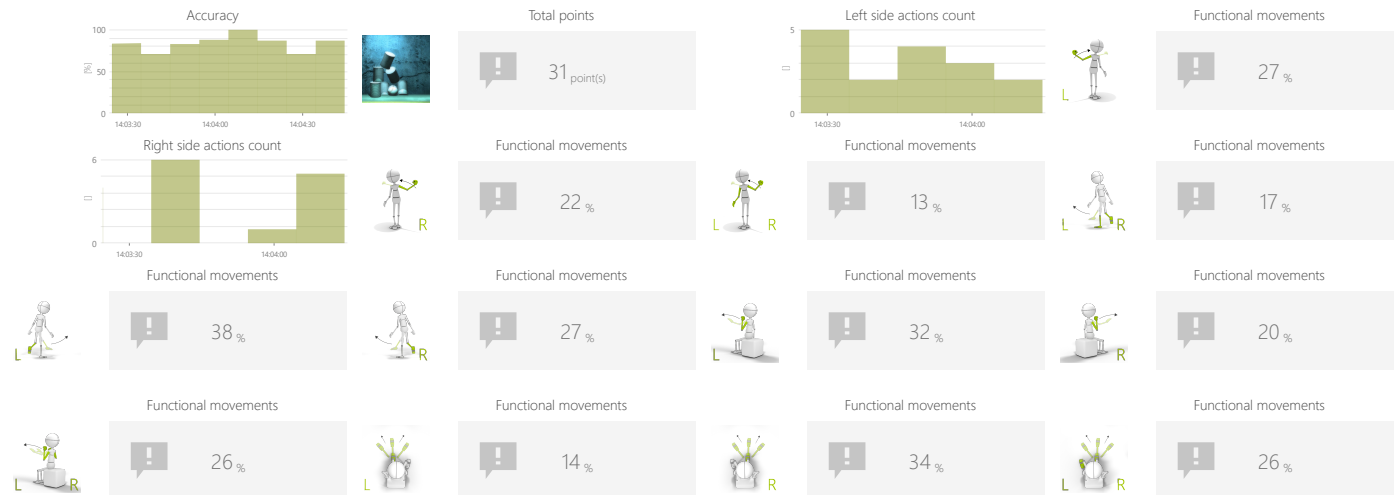
CANS

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Speed of objects

OBJECTIVES

- Movement precision
- Predicting the trajectory of objects in 3D space
- Dynamics of planned movements
- Dynamic responses to emerging moving targets
- The ability of spatial visualization

INSTRUCTION FOR PATIENT



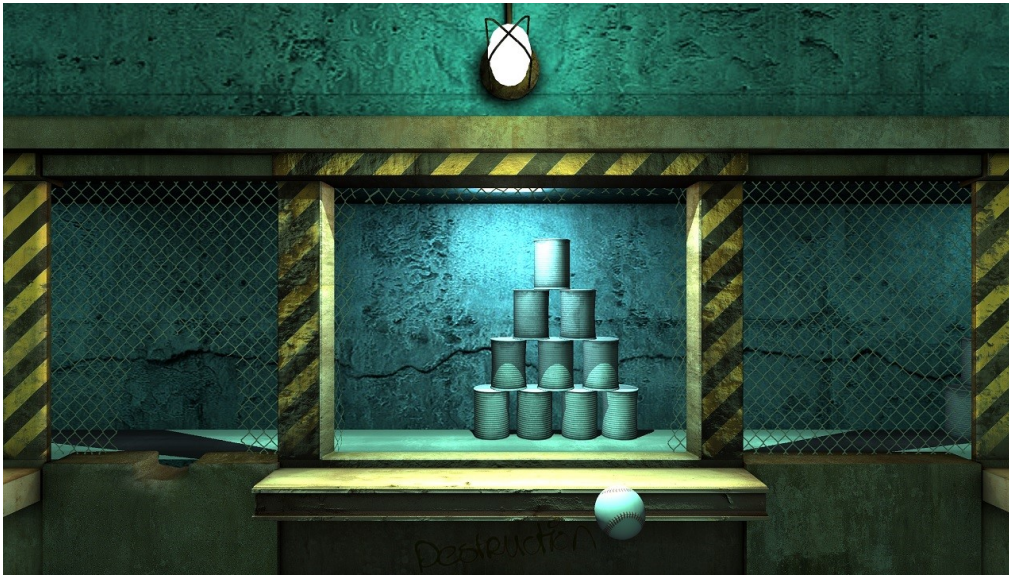
Throw the balls to strike as many cans as you can



FUNCTIONAL MOVEMENTS

CANS

SAMPLE SETTINGS

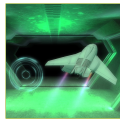


Duration

Speed of objects

90s

75%

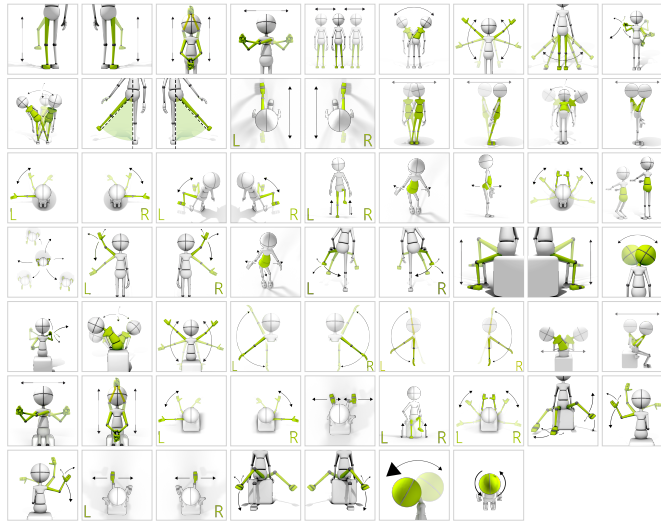


FUNCTIONAL MOVEMENTS

AIRPLANE

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Player speed

OBJECTIVES

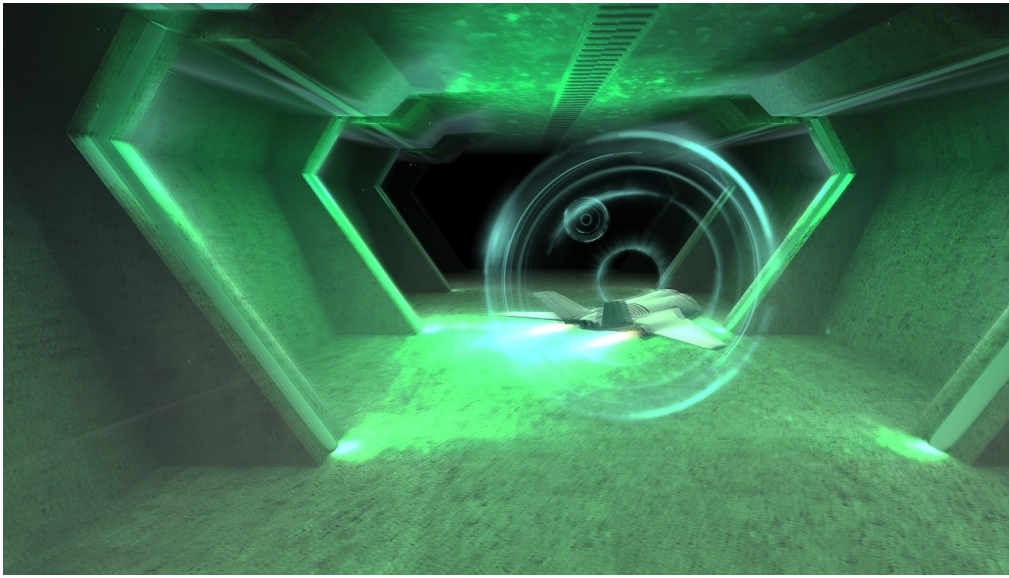
- Focusing
- Perceptivity
- Movement precision
- Predicting the trajectory of objects in 3D space
- Balance and equilibrium training

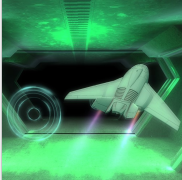

INSTRUCTION FOR PATIENT

Make the airplane fly through the circles. The closer to the center it flies the more points you get



SAMPLE SETTINGS



		
◀	Difficulty 2/4	▶
<	Duration 90s	>
<	Range 20% ↔ 80%	>
<	Player speed 100%	>

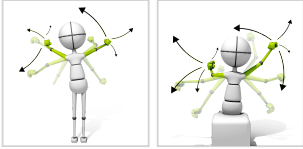


FUNCTIONAL MOVEMENTS

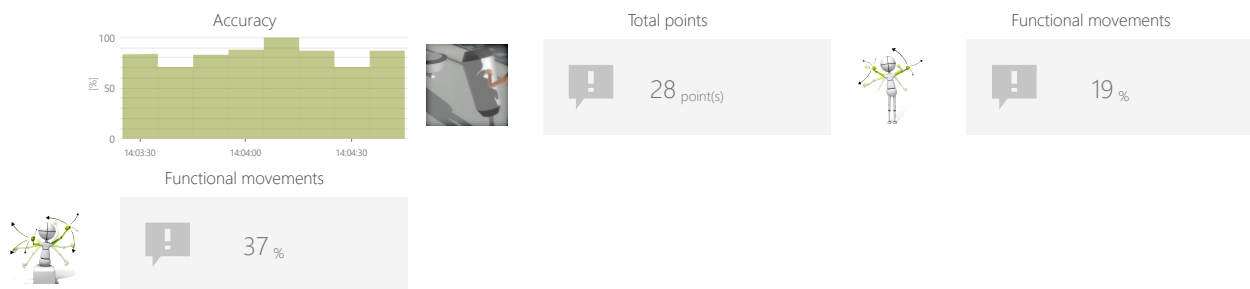
PUNCHER

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time to complete action

OBJECTIVES

- Speed of movement
- Spontaneous movements

INSTRUCTION FOR PATIENT

Punch or kick the bag as many times as you can



SAMPLE SETTINGS



◀	Difficulty 1/2	▶
<	Duration 30s	>
<	Minitask duration 30s	>



◀	Difficulty 1/2	▶
<	Duration 30s	>
<	Minitask duration 30s	>

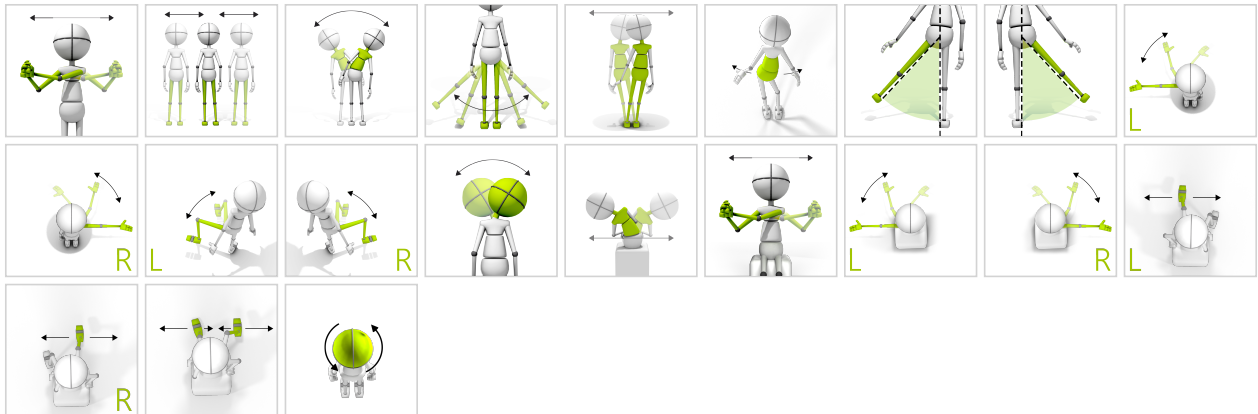


FUNCTIONAL MOVEMENTS

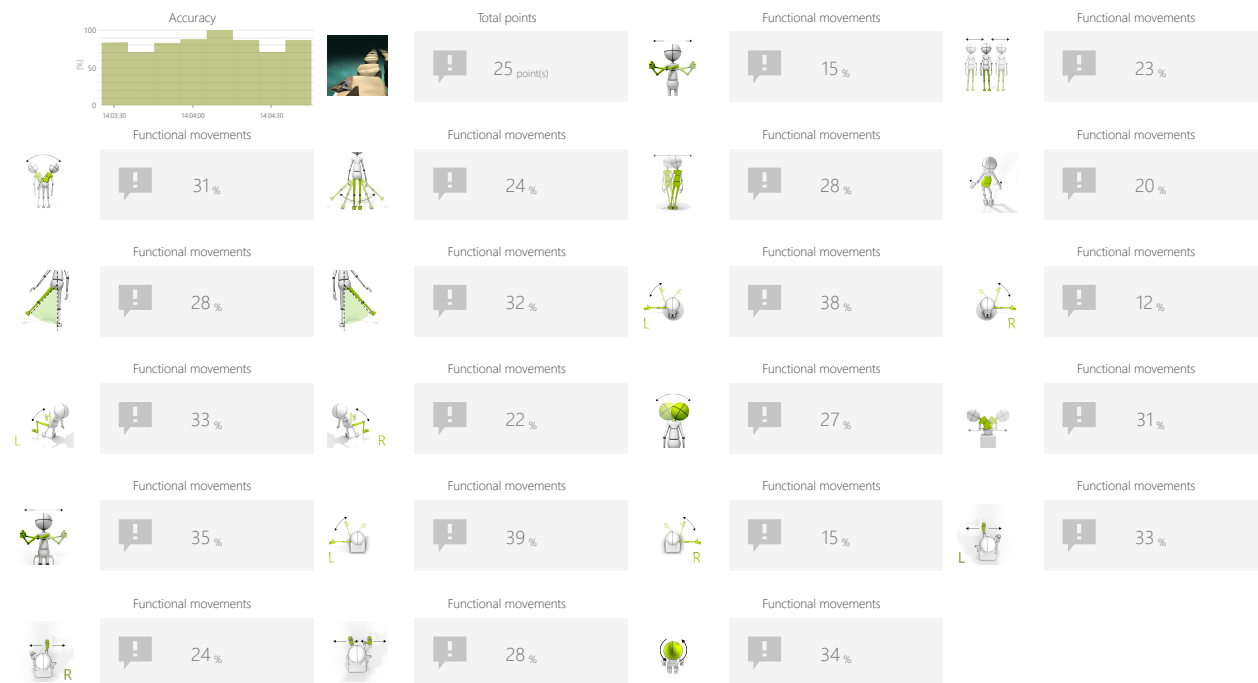
STONES

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Player speed

OBJECTIVES

- Perceptivity
- Dynamics of planned movements
- Reaction to the positive visual stimuli
- Response to negative visual stimuli

INSTRUCTION FOR PATIENT

Make the the spaceship collect the colorful creatures and avoid the rocks



SAMPLE SETTINGS



Difficulty	1/3
Duration	90s
Range	20% ↔ 80%
Player speed	100%

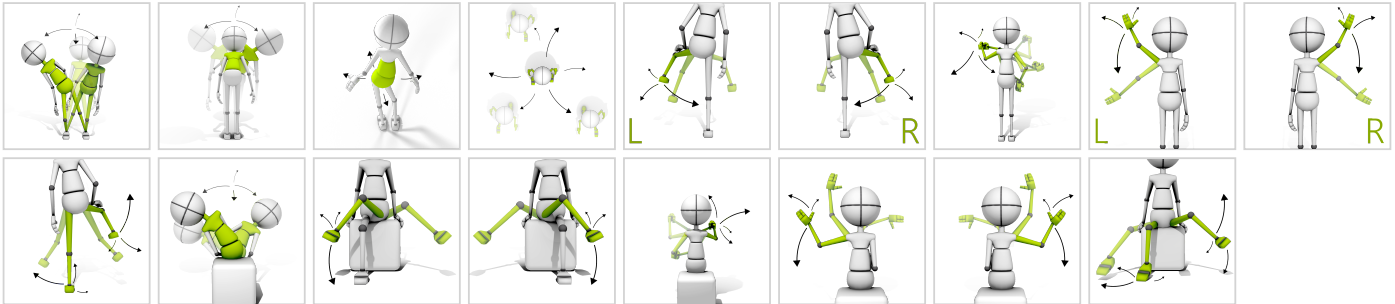


FUNCTIONAL MOVEMENTS

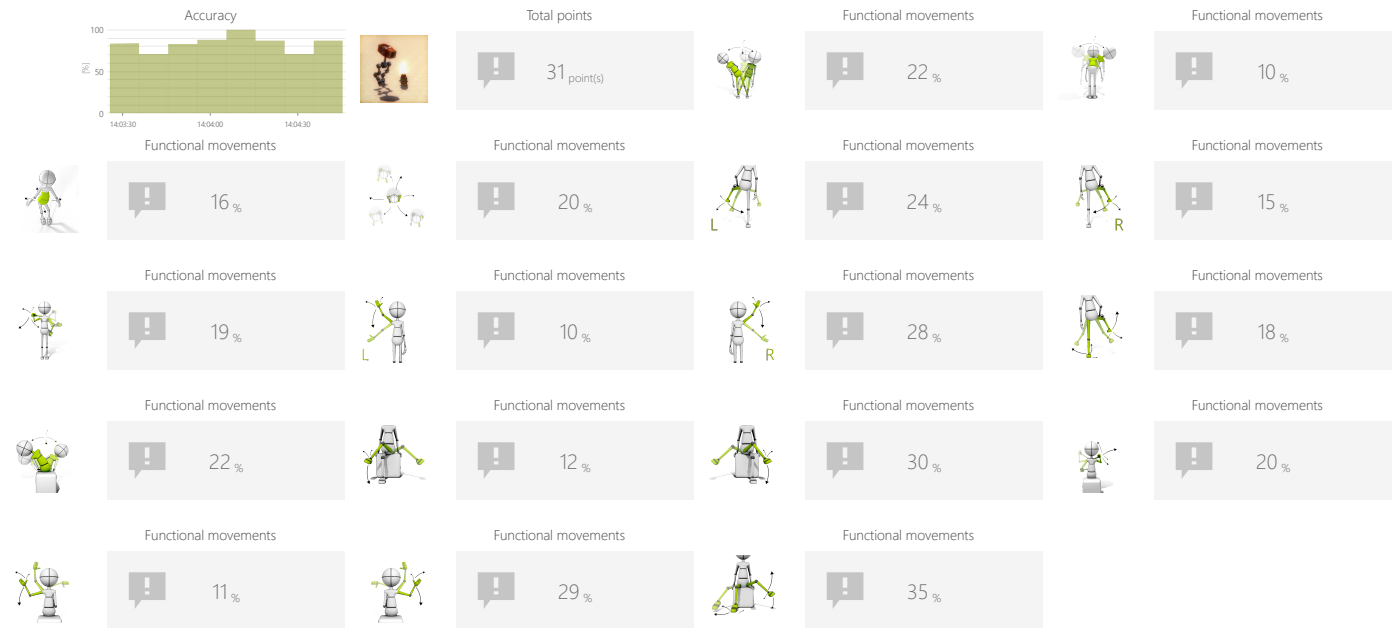
HAMMER

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Positions to have targets on
- Task duration
- Range
- Time to react
- Reticle size

OBJECTIVES

- Planning and Strategy
- Sideways walking
- Balance and equilibrium training
- Speed of decision making

INSTRUCTION FOR PATIENT

Hit the burning barrels as quickly as you can. Then return to the center



SAMPLE SETTINGS



◀	Difficulty 1/3	▶
Active positions 		Duration < 90s >
Range 20% ↔ 80%		Time to react < 10s >
		Reticle size < 125% >

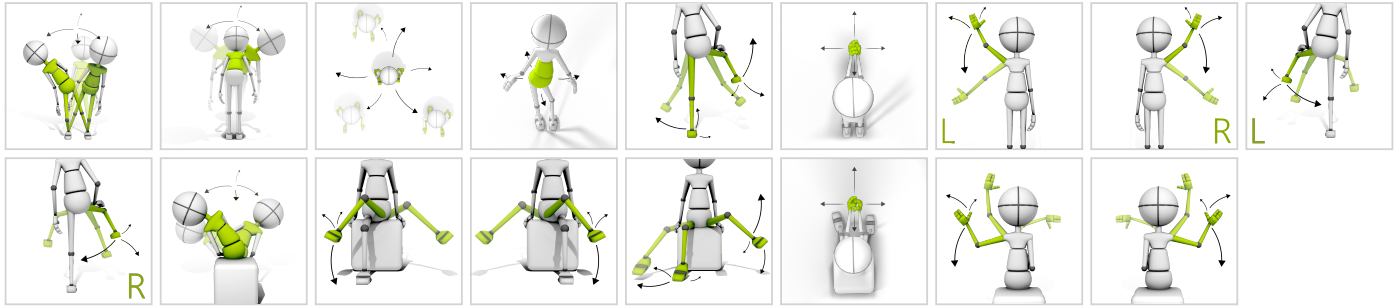


FUNCTIONAL MOVEMENTS

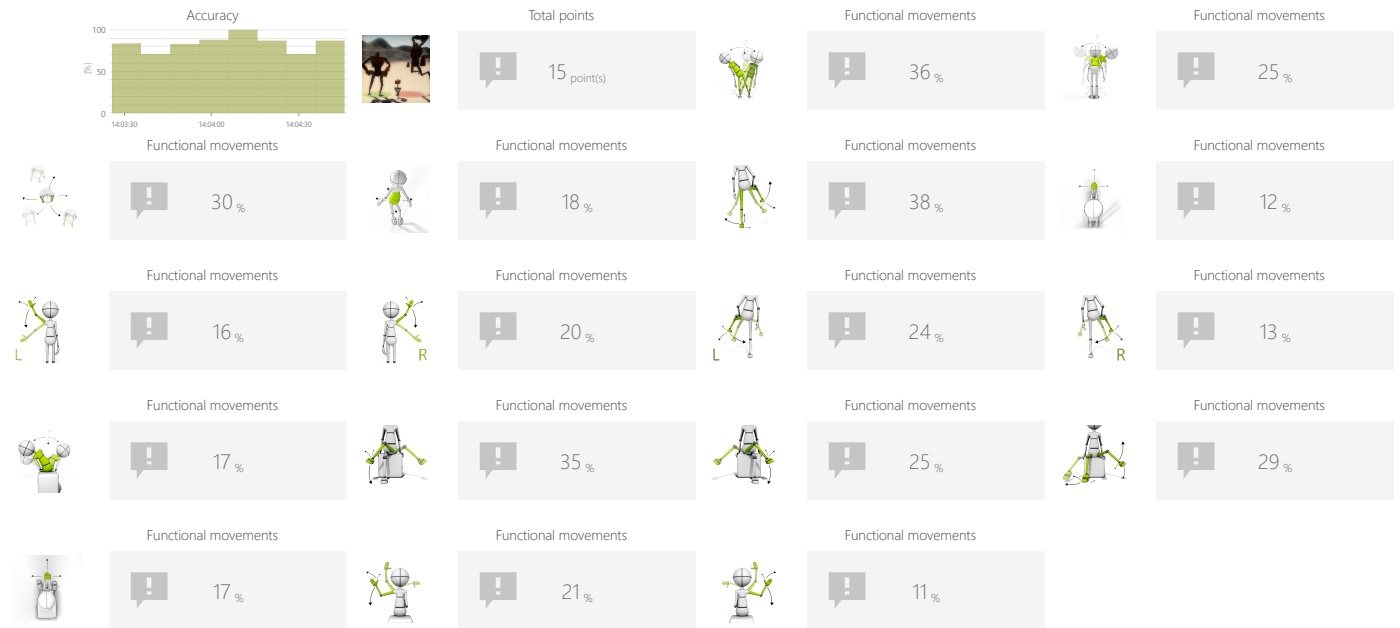
RUNAWAY

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Number of enemies
- Enemies speed

OBJECTIVES

- Predicting the trajectory of objects in 3D space
- Response to negative visual stimuli
- Focusing
- Perceptivity
- Balance and equilibrium training

INSTRUCTION FOR PATIENT

Keep away from the big robots



FUNCTIONAL MOVEMENTS

RUNAWAY

SAMPLE SETTINGS



Difficulty	1/3
Duration	90s
Range	0% → 100%
Number of enemies	2
Enemies speed	100%



Difficulty	Custom
Duration	90s
Range	20% → 80%
Number of enemies	4
Enemies speed	100%

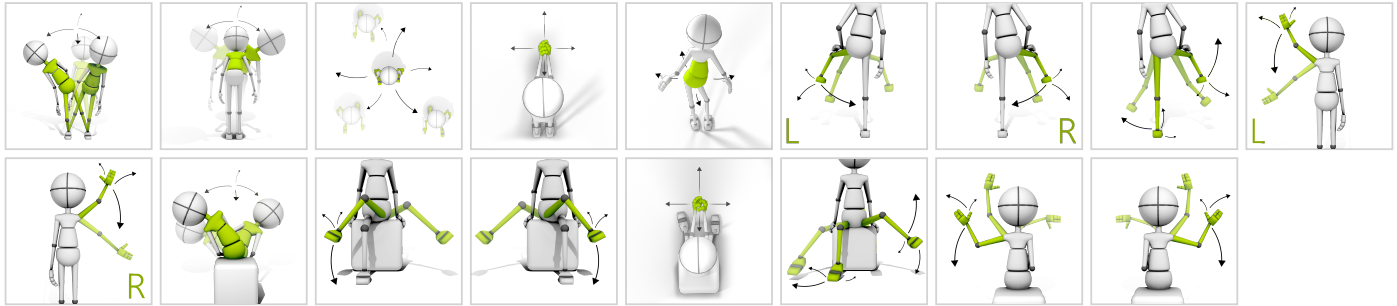


FUNCTIONAL MOVEMENTS

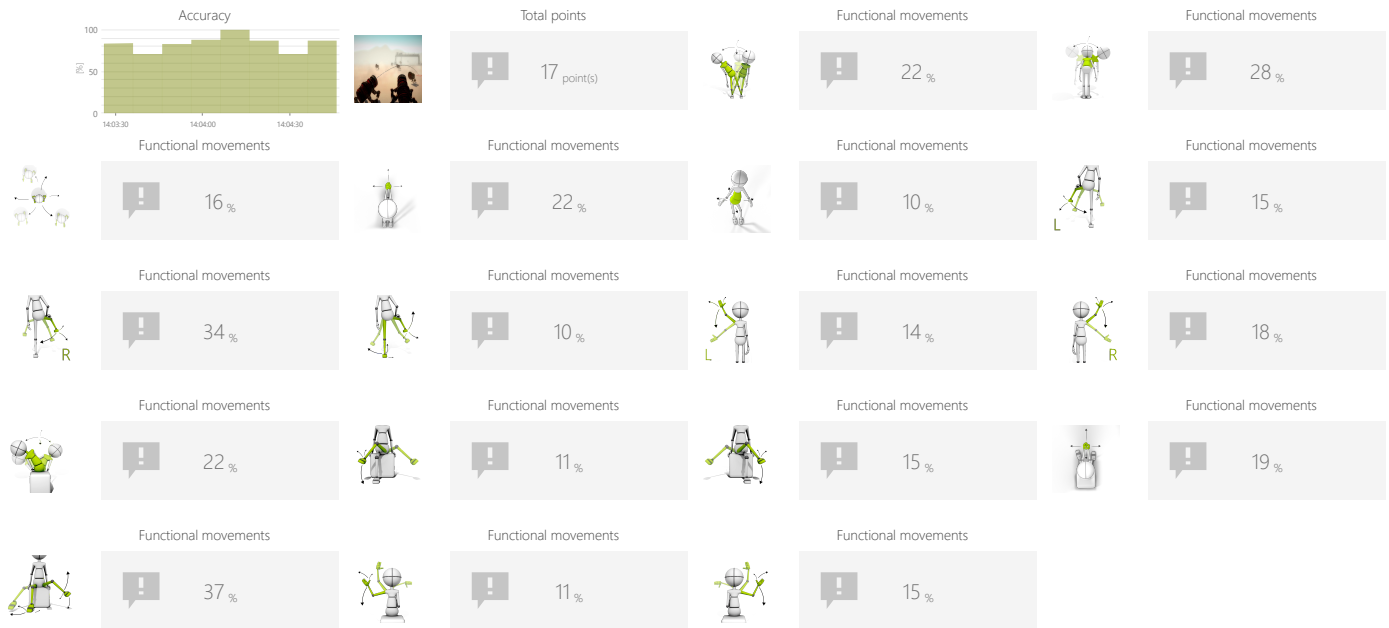
CANNON

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Time between cannonballs
- Time between enemies
- Enemies speed

OBJECTIVES

- Planning and Strategy
- Movement precision
- Predicting the trajectory of objects

INSTRUCTION FOR PATIENT

Use the cannon(s) to shoot into the robots coming in your direction



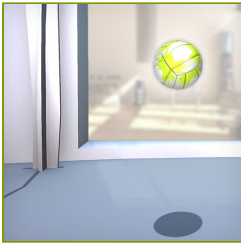
SAMPLE SETTINGS



Difficulty 1/3	
Duration 90s	Range 0% ↔ 100%
Time between cannonballs 2s	Time between enemies 4s
Enemies speed 50%	



Difficulty Custom	
Duration 90s	Range 0% ↔ 100%
Time between cannonballs 2s	Time between enemies 4s
Enemies speed 100%	



FUNCTIONAL MOVEMENTS

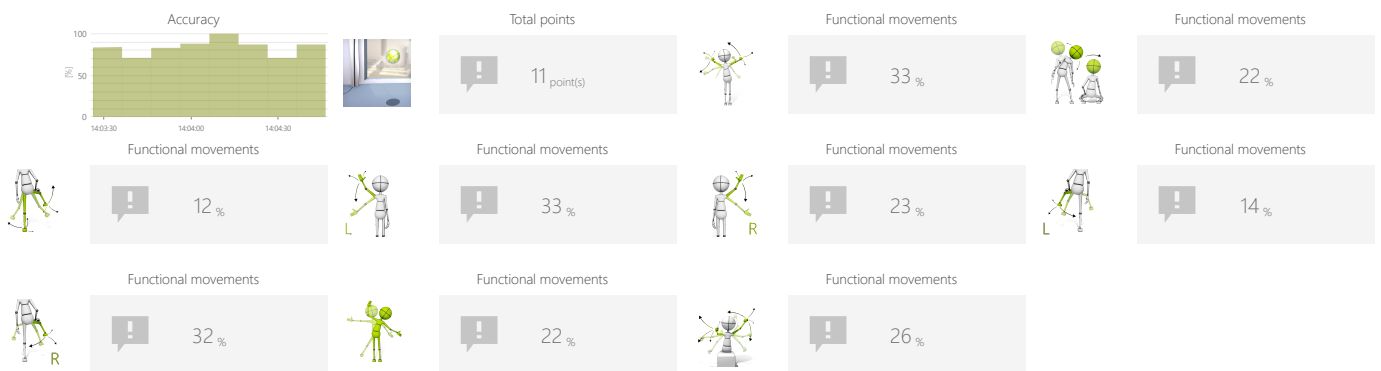
BALL

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Positions to have targets on
- Task duration
- Enable marker
- Time between objects
- Speed of objects

OBJECTIVES

- Improve range of motion
- Visual motor coordination
- Predicting the trajectory of objects in 3D space
- Activity in a given rhythm
- Mirrored feedback exercises

INSTRUCTION FOR PATIENT

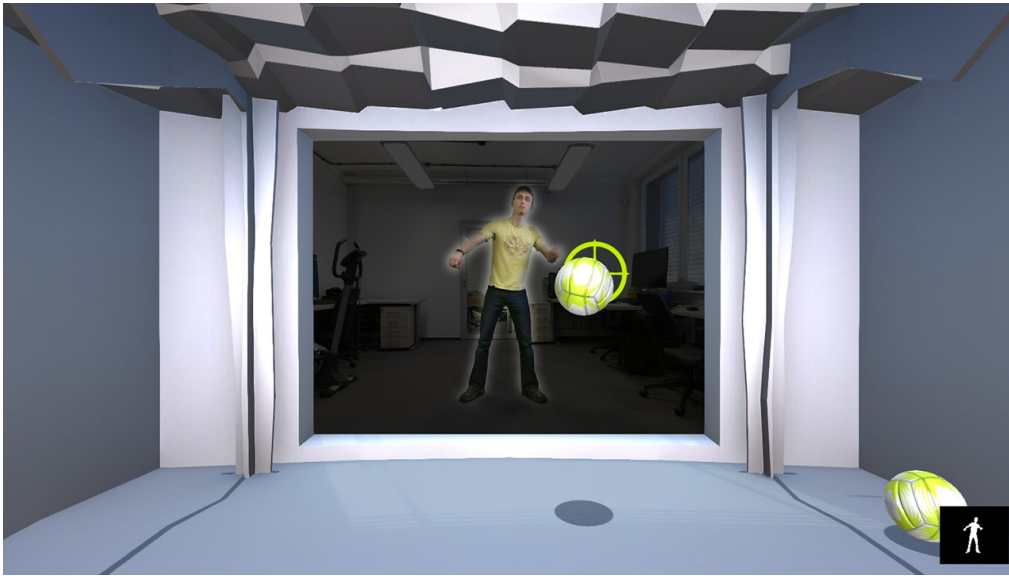
Use your body to hit the balls



FUNCTIONAL MOVEMENTS

BALL

SAMPLE SETTINGS



◀	Difficulty 1/3	▶
Active positions 		Duration 90s
Enable marker Yes		Time between objects 5s
Speed of objects 75%		

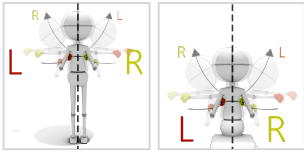


FUNCTIONAL MOVEMENTS

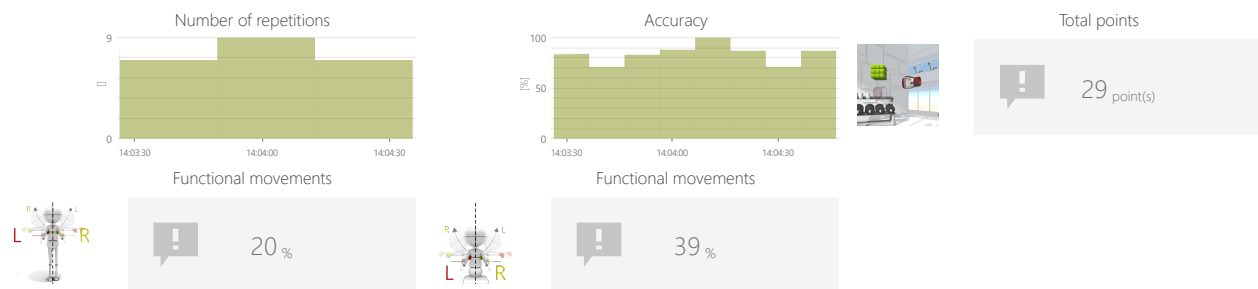
CROSS PUNCHER

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time to react
- Distance to targets

OBJECTIVES

- Crossing the midline
- Speed of movement
- Rhythmicity
- Repetitive movements

INSTRUCTION FOR PATIENT

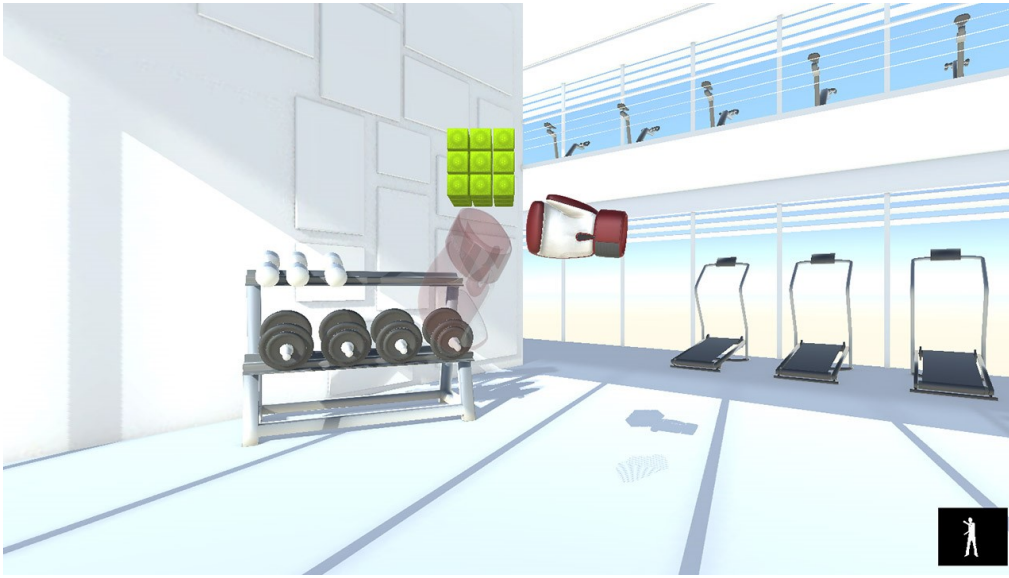
Hit green cubes as fast as you can and remember to always cross your punches and kicks



FUNCTIONAL MOVEMENTS

CROSS PUNCHER

SAMPLE SETTINGS



◀	Difficulty 1/3	▶
Duration 30s		Time to react 3s
< >		Distance to targets 75%

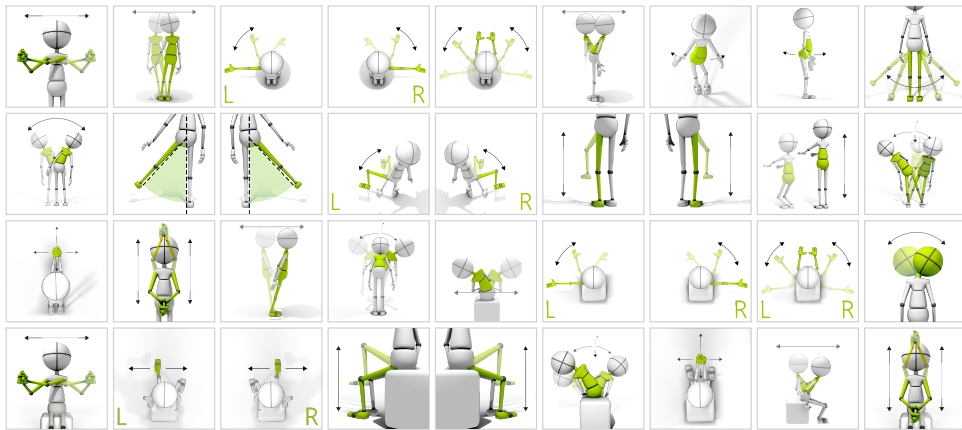


FUNCTIONAL MOVEMENTS

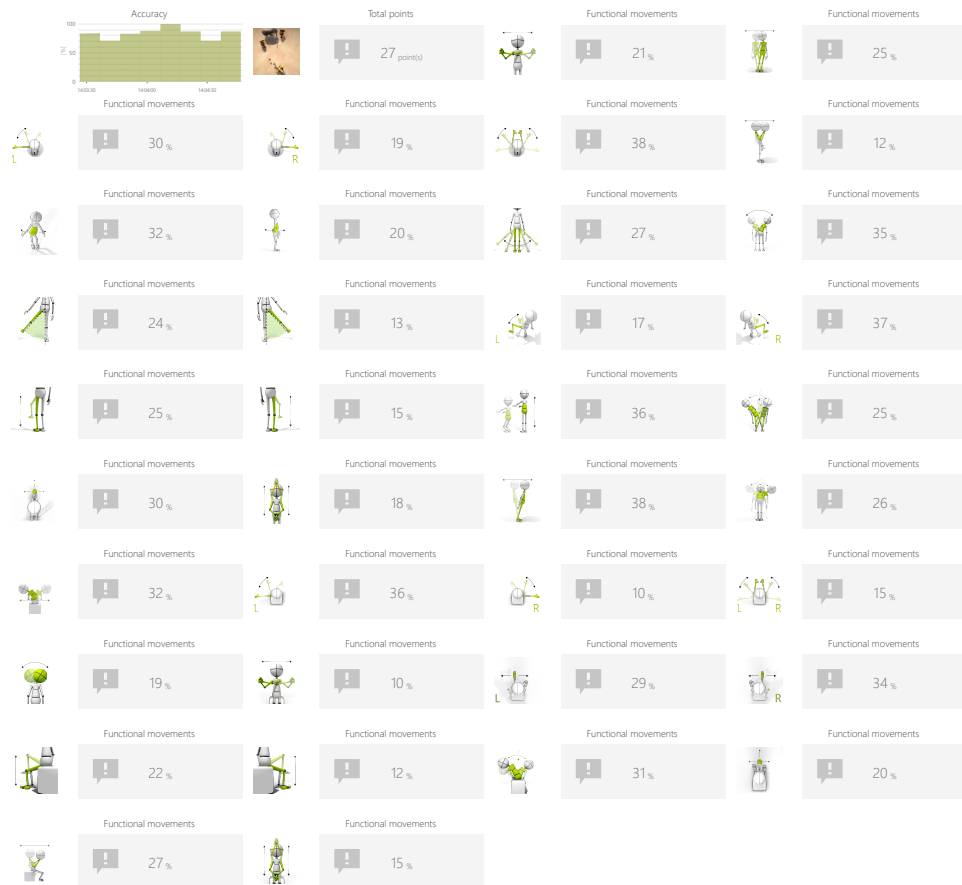
AUTOMATIC CANNON

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Enable distractors
- Time between cannonballs
- Time between enemies
- Enemies speed

OBJECTIVES

- Divided attention
- Spontaneous movements
- Arms swings
- Muscle strengthening

INSTRUCTION FOR PATIENT

Control cannon(s) to destroy robots, but avoid hitting the elephant!



FUNCTIONAL MOVEMENTS

AUTOMATIC CANNON

SAMPLE SETTINGS



Difficulty	1/3
Duration	90s
Range	0% ↔ 100%
Enable distractors	No
Time between cannonballs	1s
Time between enemies	3s
Enemies speed	50%



Difficulty	Custom
Duration	90s
Range	0% ↔ 100%
Enable distractors	No
Time between cannonballs	1s
Time between enemies	3s
Enemies speed	100%

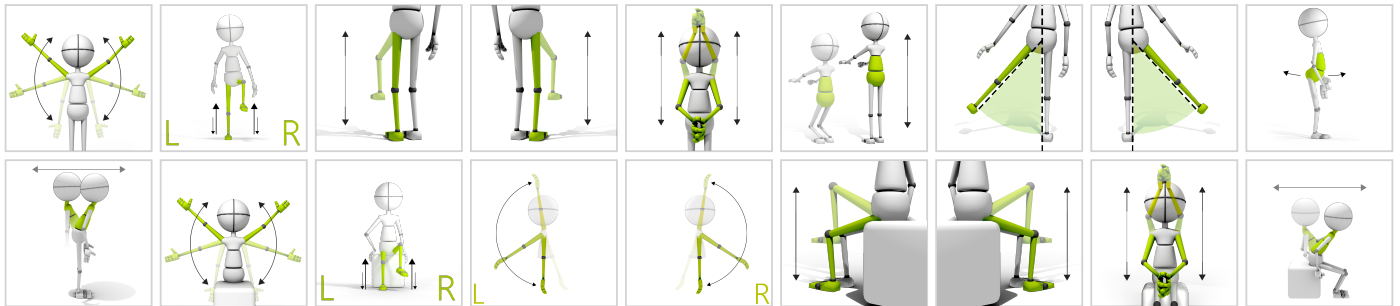


FUNCTIONAL MOVEMENTS

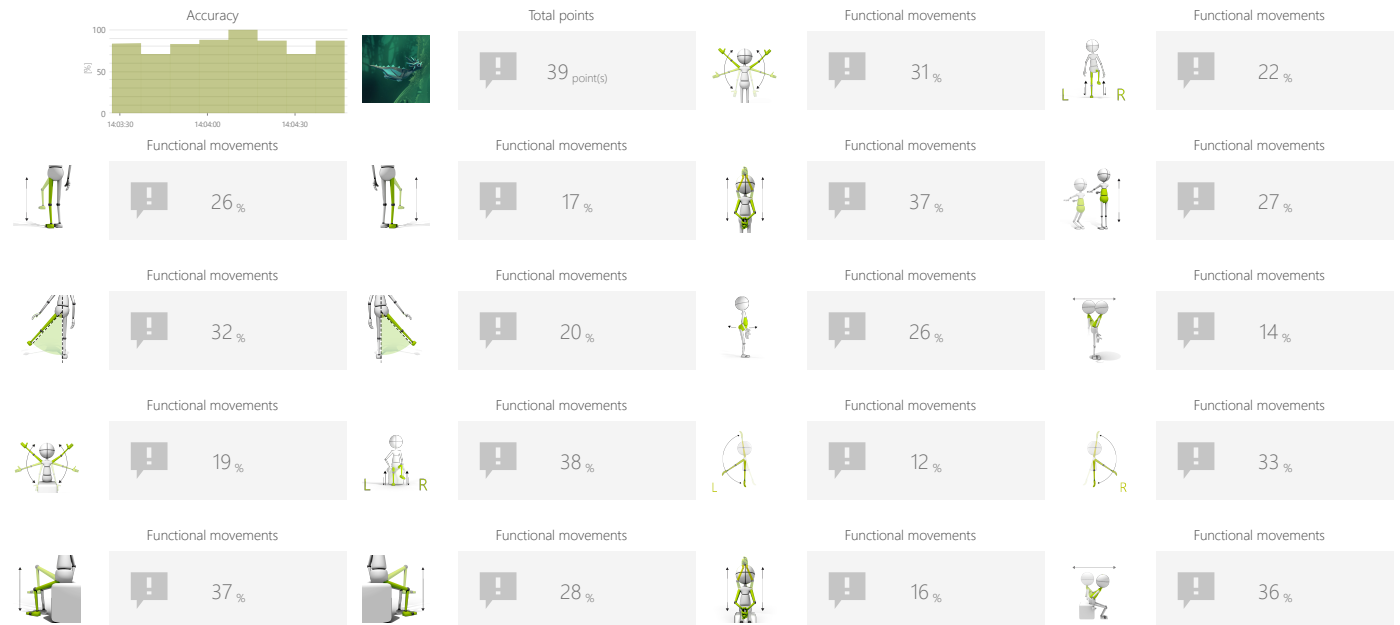
DRAGON

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Coins group size
- Distance between coins
- Gravity force

OBJECTIVES

- Predicting the trajectory of objects
- Improve range of motion
- Visual motor coordination
- Muscle strengthening
- Planning and Strategy

INSTRUCTION FOR PATIENT

Fly and collect the coins



FUNCTIONAL MOVEMENTS

DRAGON

SAMPLE SETTINGS



Difficulty	
Custom	
Duration	Range
90s	80% 20%
Coins group size	Distance between coins
3	250%
Gravity force	
100%	



Difficulty	
1/3	
Duration	Range
90s	80% 20%
Coins group size	Distance between coins
5	250%
Gravity force	
100%	

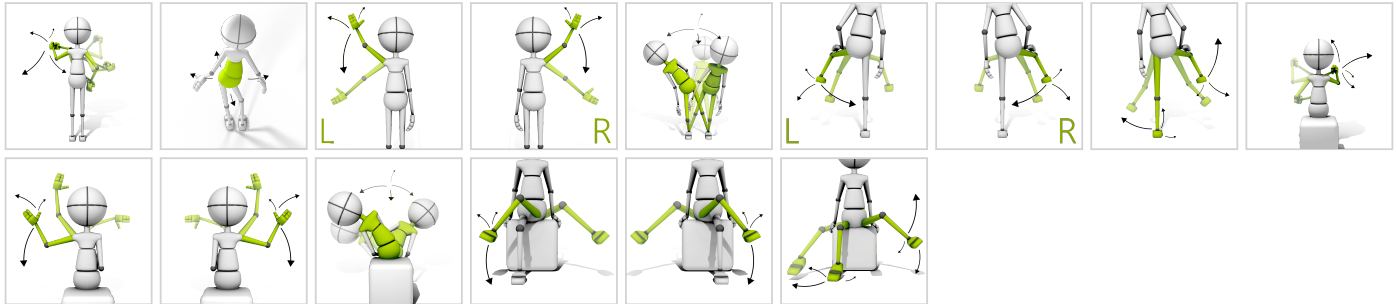


FUNCTIONAL MOVEMENTS

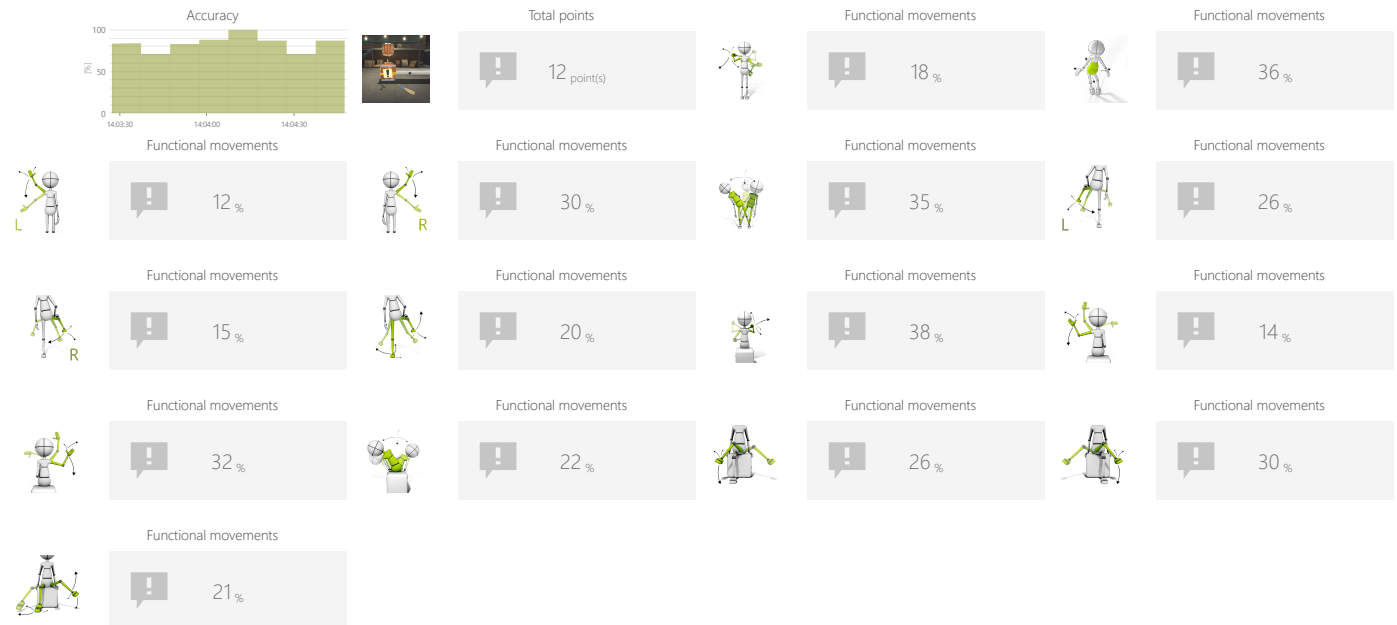
BOX CRUSHER

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Positions to have targets on
- Task duration
- Required force

OBJECTIVES

- 3D space movements reproduction
- Movement awareness
- Muscle strengthening
- Repetitive movements

INSTRUCTION FOR PATIENT

Smash boxes with the club



FUNCTIONAL MOVEMENTS

BOX CRUSHER

SAMPLE SETTINGS



Difficulty	1/3
Active positions	Duration
	90s
Required force	50%

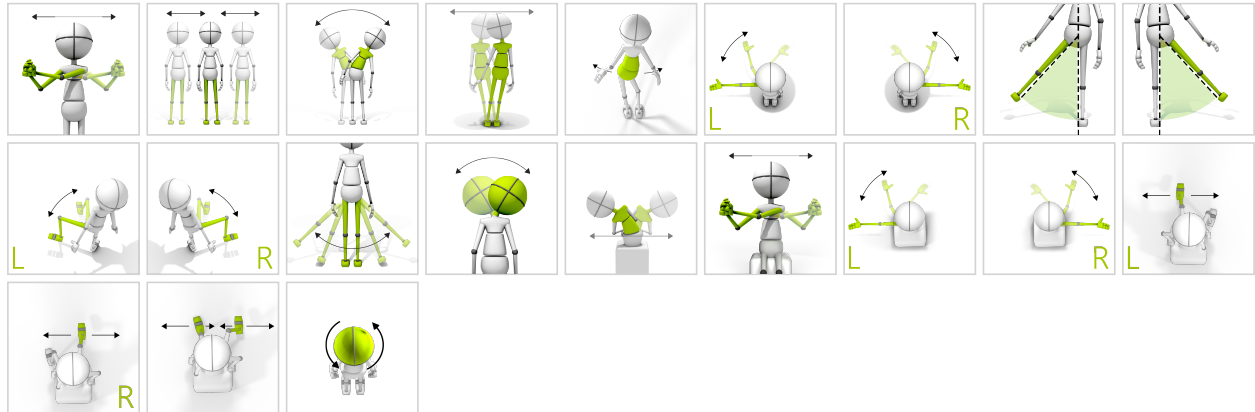


FUNCTIONAL MOVEMENTS

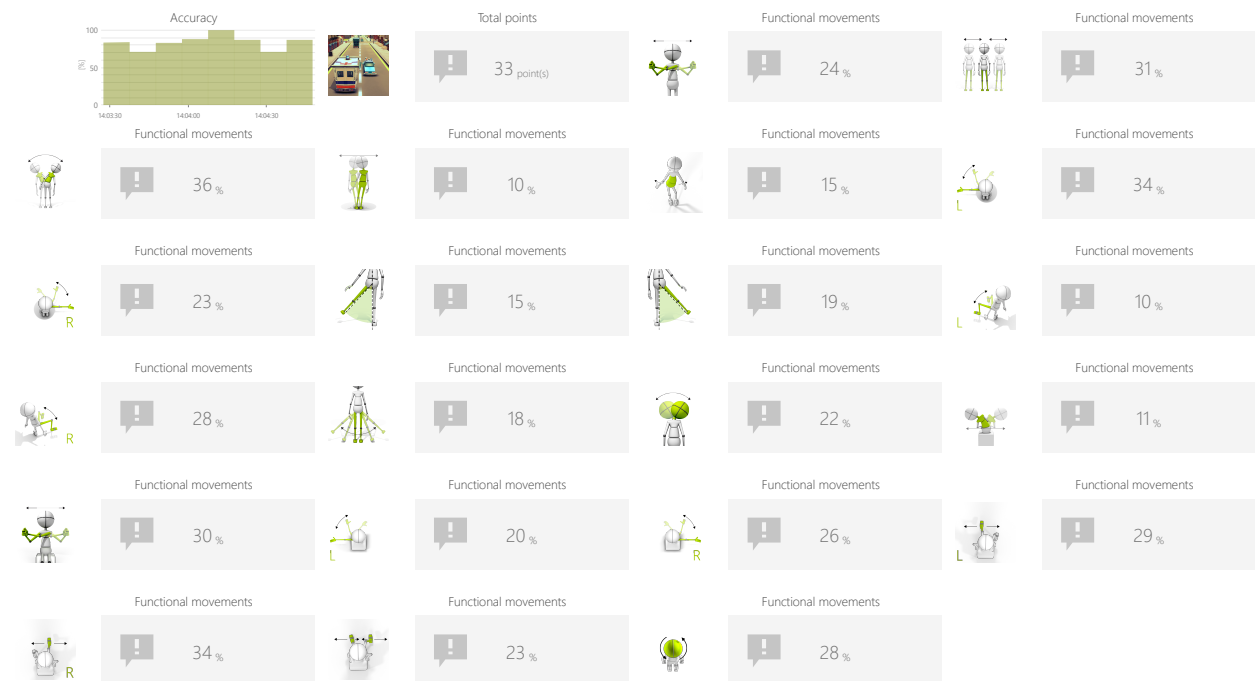
AMBULANCE

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Distance between cars
- Player speed

OBJECTIVES

- Balance and equilibrium training
- Dynamics of planned movements
- Focusing
- Speed of decision making
- Visual motor coordination

INSTRUCTION FOR PATIENT

Go as fast as you can and avoid hitting other cars



FUNCTIONAL MOVEMENTS

AMBULANCE

SAMPLE SETTINGS



Difficulty	2/3
Duration	30s
Range	20% ↔ 80%
Distance between cars	50%
Player speed	50%



Difficulty	Custom
Duration	30s
Range	20% ↔ 80%
Distance between cars	200%
Player speed	50%

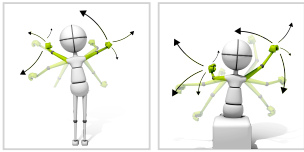


FUNCTIONAL MOVEMENTS

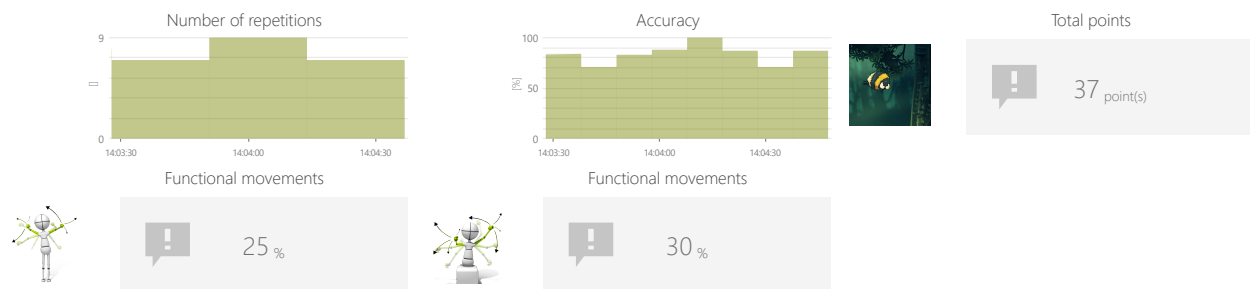
INSECTS

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time between objects
- Time to react

OBJECTIVES

- Dynamic responses to emerging moving targets
- Focusing
- Mirrored feedback exercises
- Visual motor coordination

INSTRUCTION FOR PATIENT

Hit all the insects that sit on your body



SAMPLE SETTINGS



◀	Difficulty 1/3	▶
Duration 90s		Time between objects < 4s
		Time to react < 4s

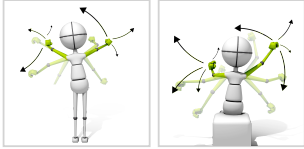


FUNCTIONAL MOVEMENTS

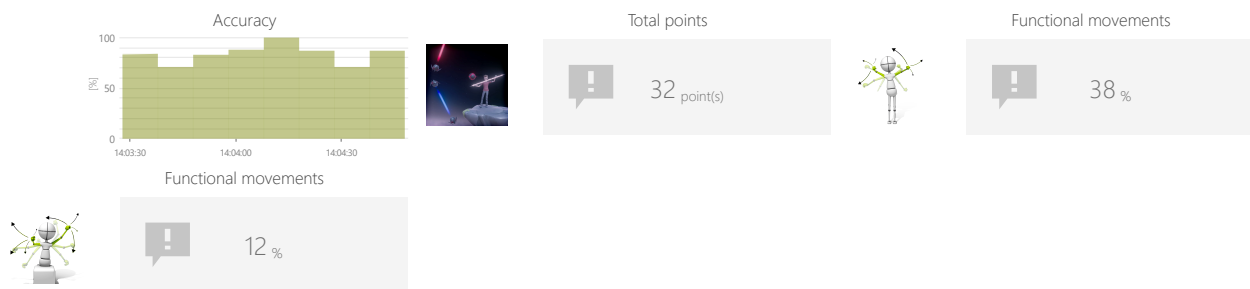
SORTER: LEGACY

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Number of gates
- Gravity force

OBJECTIVES

- 3D space movements reproduction
- Dynamic responses to emerging moving targets
- Planning and Strategy

INSTRUCTION FOR PATIENT

Make the ball fly through the gate in corresponding color



FUNCTIONAL MOVEMENTS

SORTER: LEGACY

SAMPLE SETTINGS

Difficulty **1/3**

Duration **90s**

Number of gates **2**

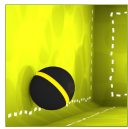
Gravity force **100%**

Difficulty **3/3**

Duration **90s**

Number of gates **4**

Gravity force **100%**

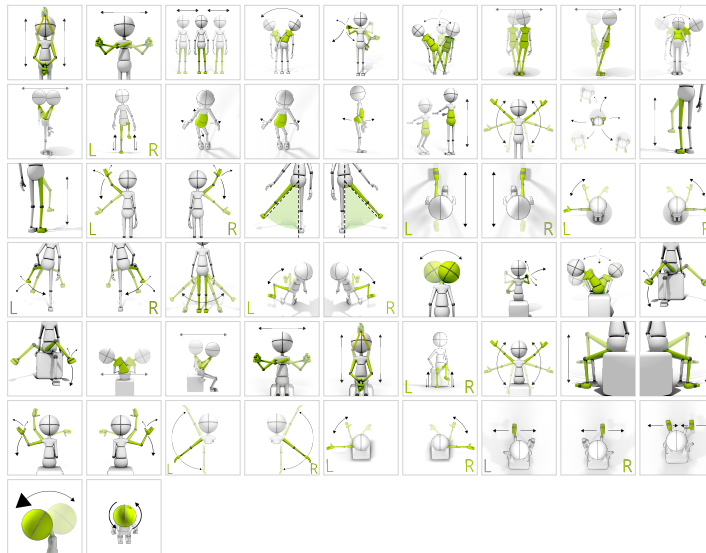


FUNCTIONAL MOVEMENTS

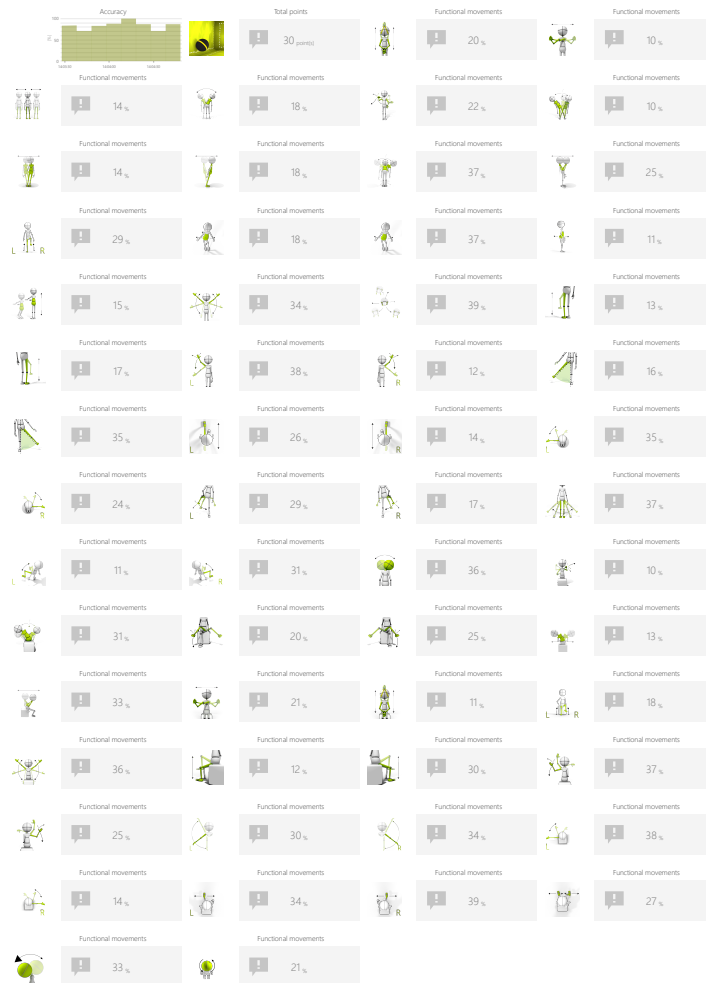
ARCANOID

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Reticle size
- Speed of objects

OBJECTIVES

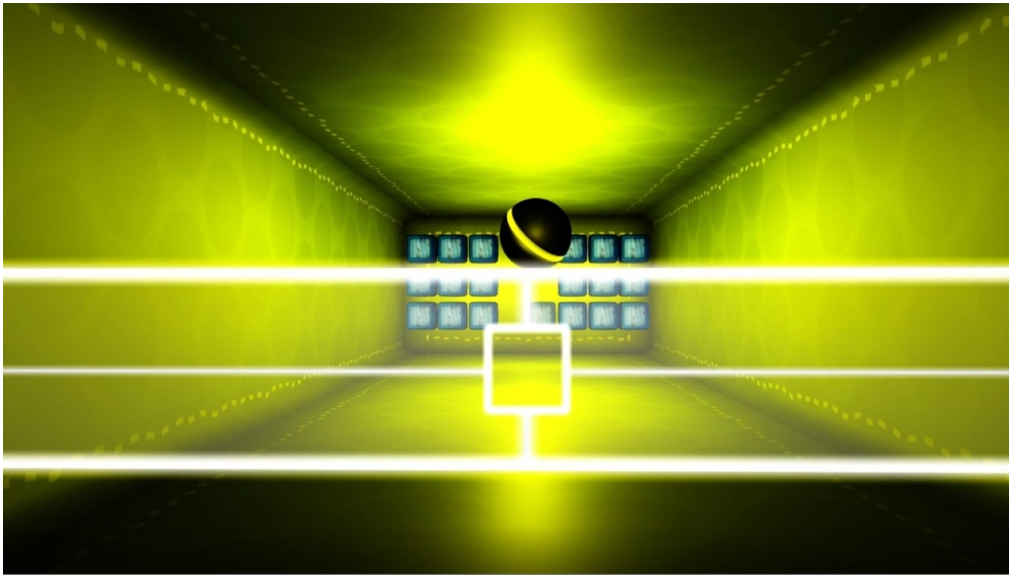
- Dynamics of planned movements
- Predicting the trajectory of objects in 3D space
- Visual motor coordination

INSTRUCTION FOR PATIENT

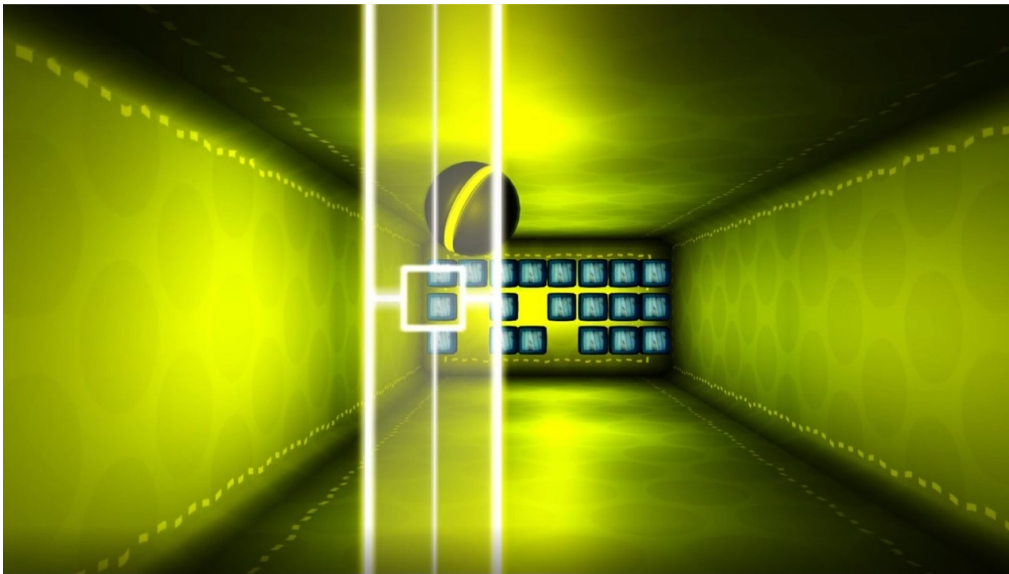
Destroy as many boxes as you can



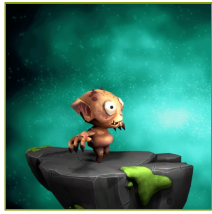
SAMPLE SETTINGS



Difficulty Custom	
Duration 90s	Range 20% ↑ 80%
Reticle size 100%	Speed of objects 70%



Difficulty Custom	
Duration 90s	Range 20% ← 80%
Reticle size 75%	Speed of objects 70%

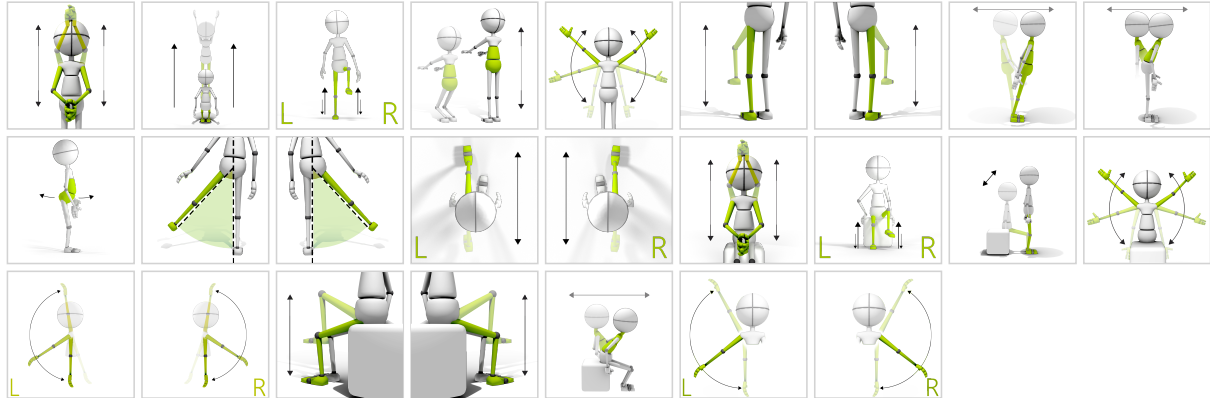


FUNCTIONAL MOVEMENTS

ROCKET JUMPING

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Time between objects
- Bomb format
- Speed of objects

OBJECTIVES

- Spontaneous movements
- Dynamic responses to emerging moving targets
- Predicting the trajectory of objects

INSTRUCTION FOR PATIENT

Help the creature jump over incoming rockets and avoid being hit.



FUNCTIONAL MOVEMENTS

ROCKET JUMPING

SAMPLE SETTINGS



Difficulty 1/3	
Duration 90s	Range 80%
Time between objects 5s	Bomb format 1
Speed of objects 100%	



Difficulty Custom	
Duration 90s	Range 80%
Time between objects 5s	Bomb format 2
Speed of objects 100%	

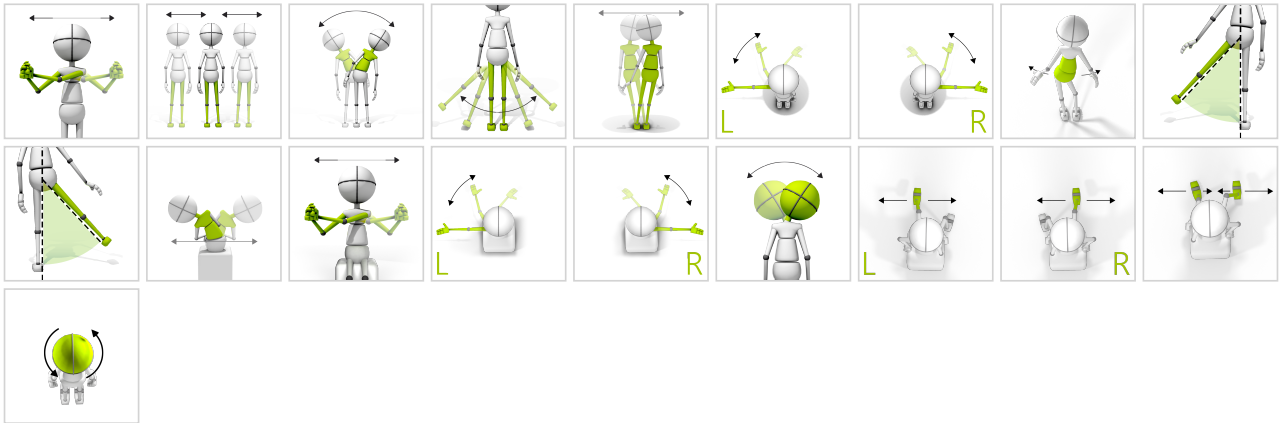


FUNCTIONAL MOVEMENTS

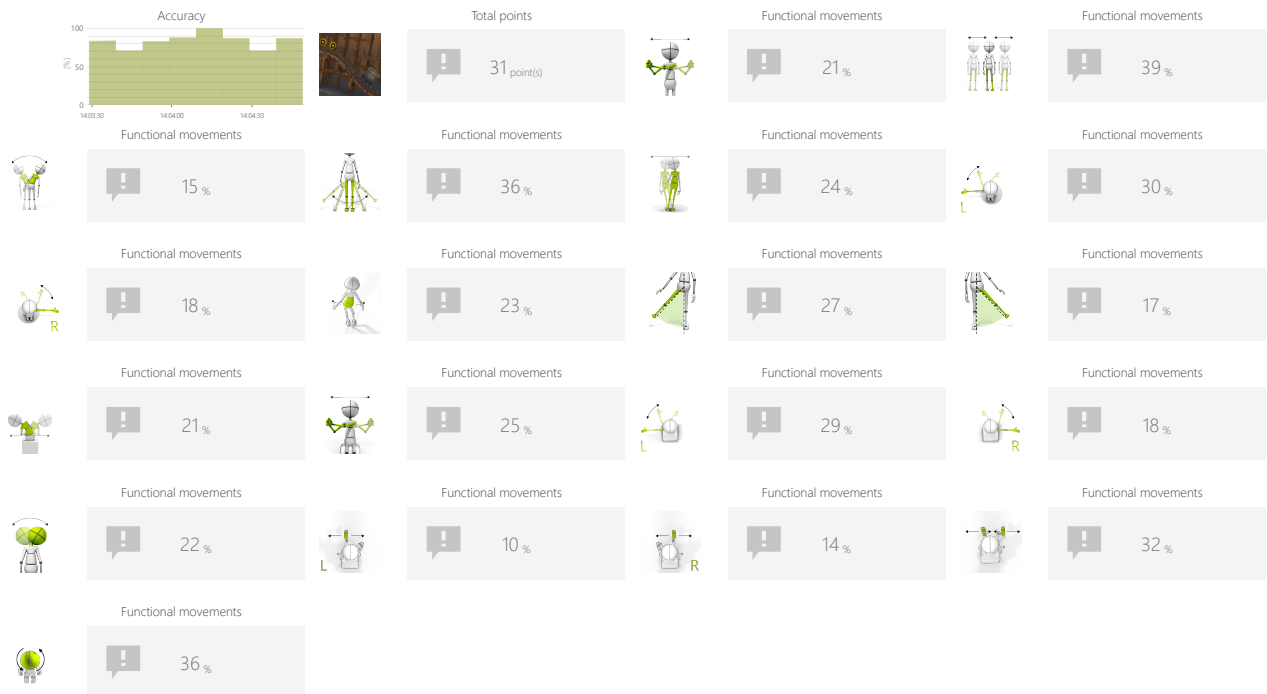
RAILS

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Route shape
- Enable derailling
- Enable obstacles
- Time between objects
- Player speed

OBJECTIVES

- Dynamic responses to emerging moving targets
- Predicting the trajectory of objects
- Visual motor coordination

INSTRUCTION FOR PATIENT

Tilt the world to let the trolley collect the coins



FUNCTIONAL MOVEMENTS

RAILS

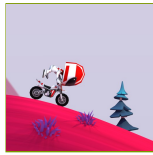
SAMPLE SETTINGS



Difficulty 1/3	
Duration 90s	Range 20% ↔ 80%
Route shape 	Enable derailing No
	Enable obstacles No
Time between objects 5s	Player speed 100%



Difficulty 3/3	
Duration 90s	Range 20% ↔ 80%
Route shape 	Enable derailing Yes
	Enable obstacles No
Time between objects 5s	Player speed 200%

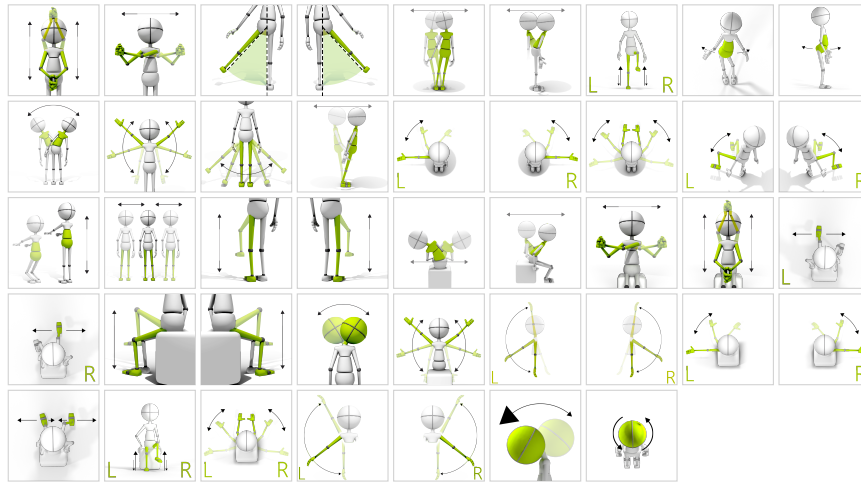


FUNCTIONAL MOVEMENTS

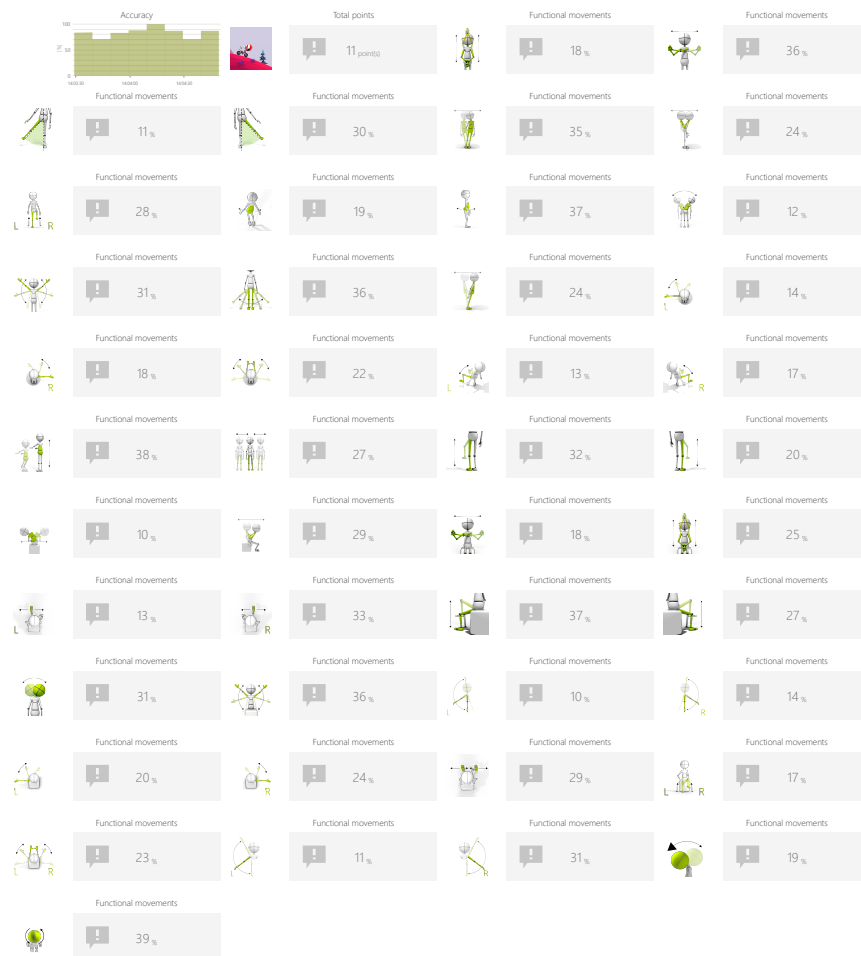
MOTOCROSS

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Route shape

OBJECTIVES

- Dynamics of planned movements
- Planning and Strategy

INSTRUCTION FOR PATIENT

accelerate and brake to cover the entire route as quickly as possible without tipping.



SAMPLE SETTINGS



◀	Difficulty	▶
	2/3	
Duration		Range
<	90s	20% 80%
Route shape		
Medium >		

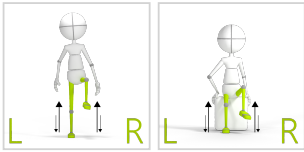


FUNCTIONAL MOVEMENTS

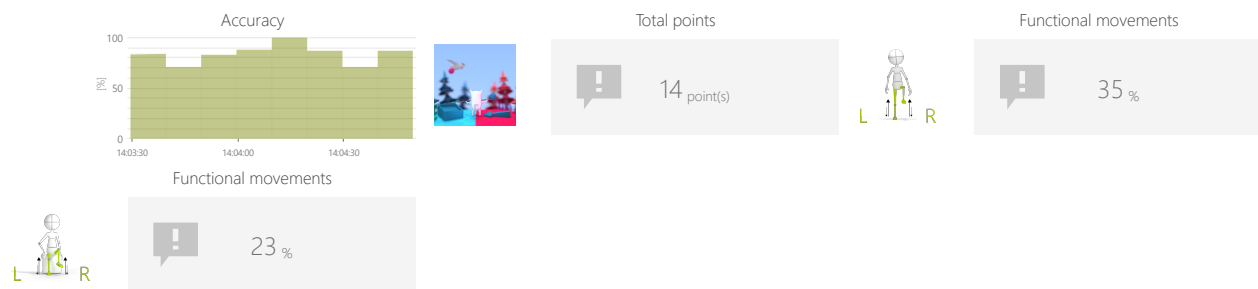
WALKER

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range

OBJECTIVES

- Planned movements
- Knees lifting
- Balance and equilibrium training
- Repetitive movements

INSTRUCTION FOR PATIENT

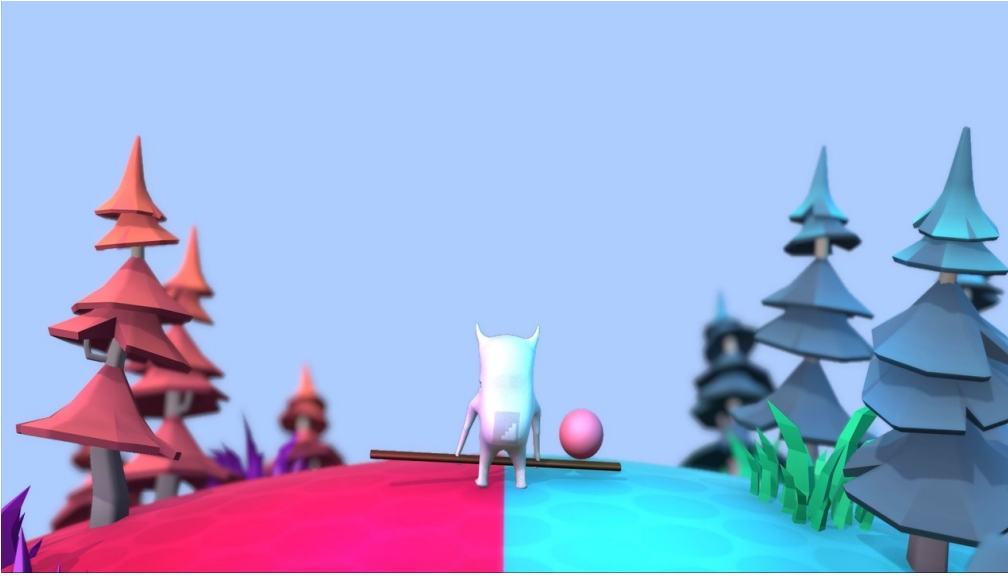
Keep walking. Put blue balls into blue boxes and pink balls into pink boxes



FUNCTIONAL MOVEMENTS

WALKER

SAMPLE SETTINGS



Duration 90s	Range 20% ↑ 40% ↓

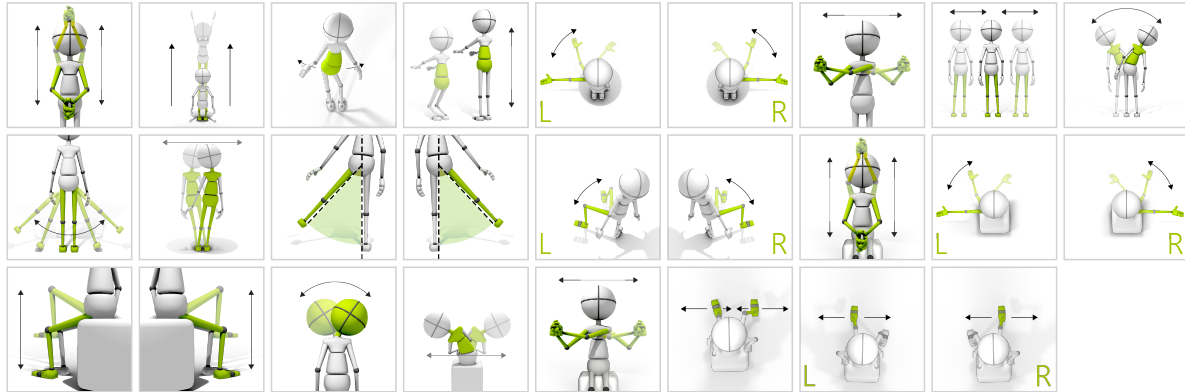


FUNCTIONAL MOVEMENTS

FOREST RUNNER

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Turning

OBJECTIVES

- Dynamics of planned movements
- Focusing
- Planned movements
- Speed of movement

INSTRUCTION FOR PATIENT

Keep the hare on the run, avoid obstacles and collect as many carrots as you can.



SAMPLE SETTINGS

Duration

90s

Range

80%

20%

Turning

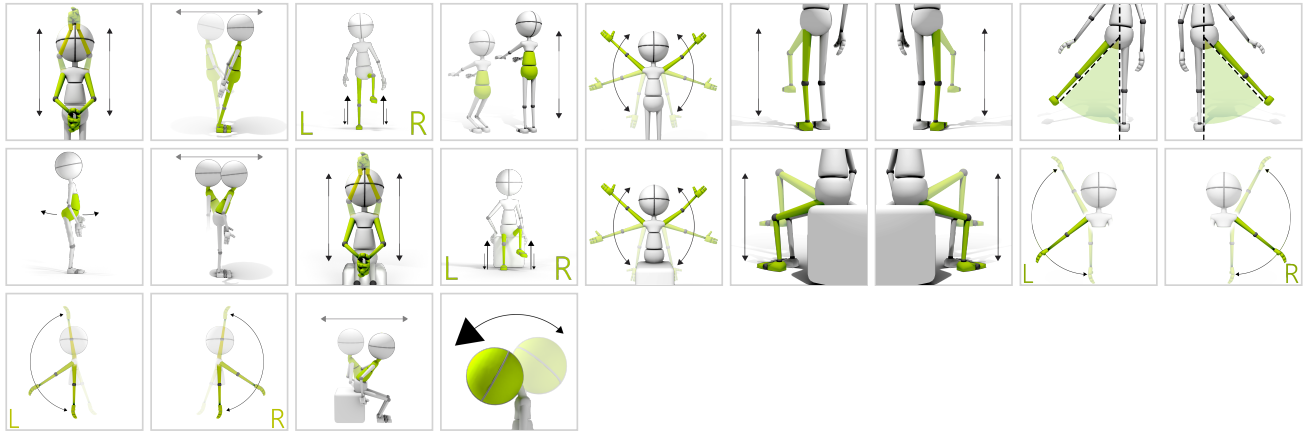


FUNCTIONAL MOVEMENTS

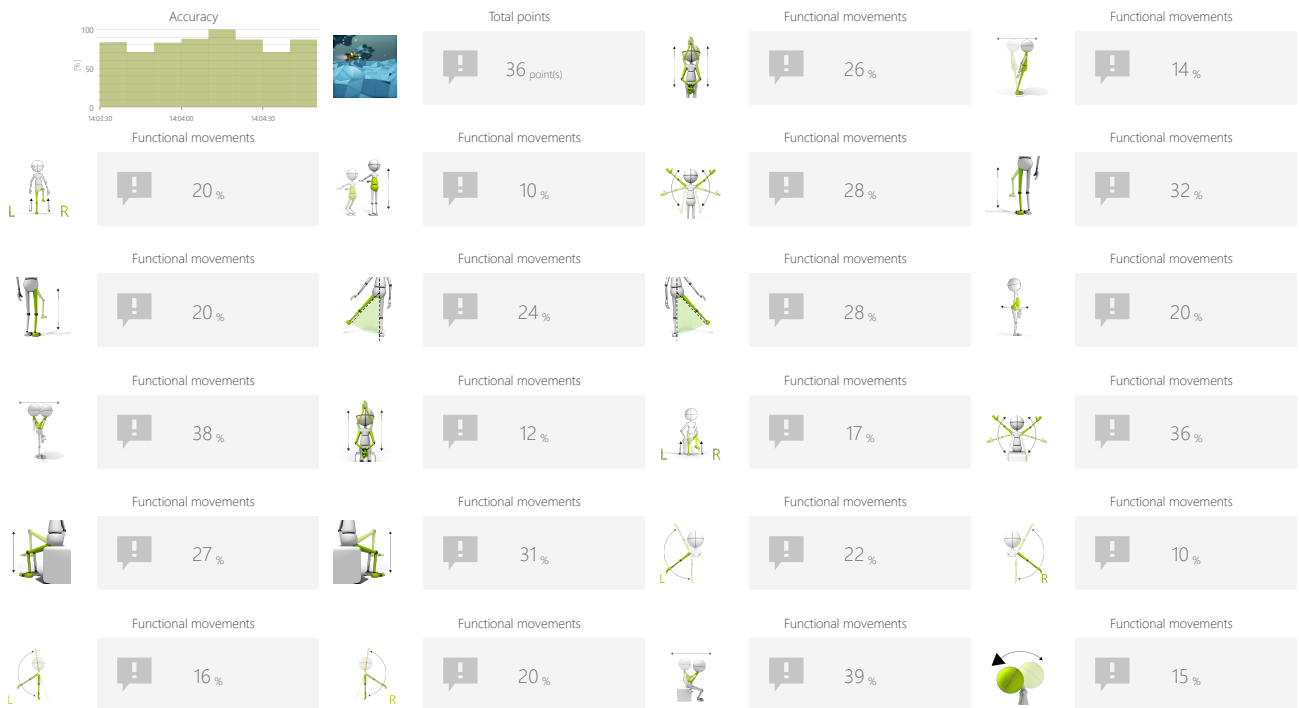
GEOMETRY FLIER

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Player speed

OBJECTIVES

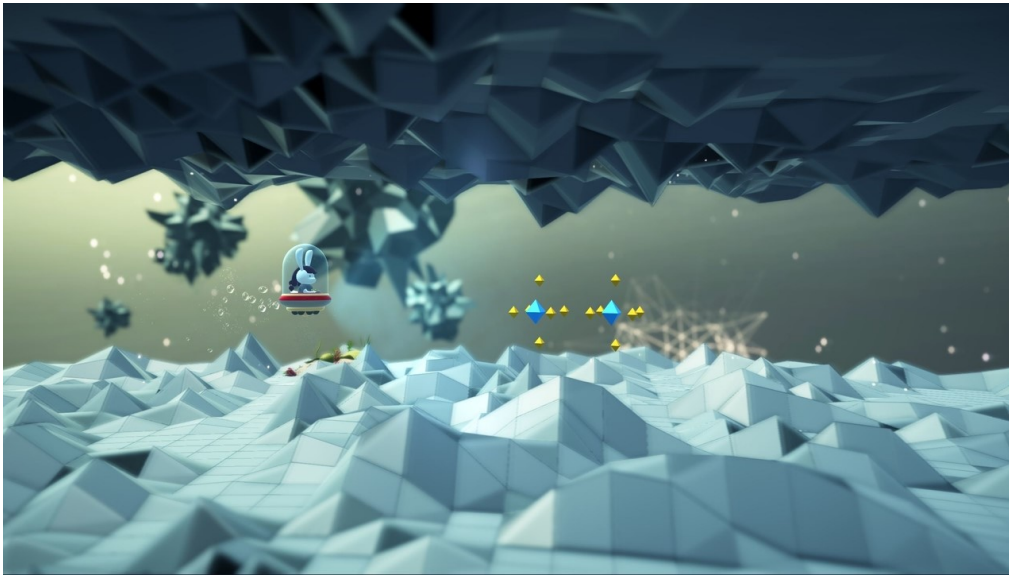
- Dynamics of planned movements
- Activity in a given rhythm
- Visual motor coordination

INSTRUCTION FOR PATIENT

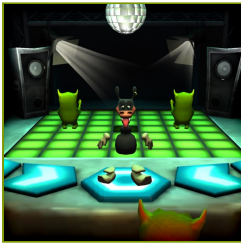
Control the vehicle to avoid the obstacles



SAMPLE SETTINGS



	Difficulty 1/3
	Duration 30s
	Range 20% 80%
	Player speed 100%



FUNCTIONAL MOVEMENTS

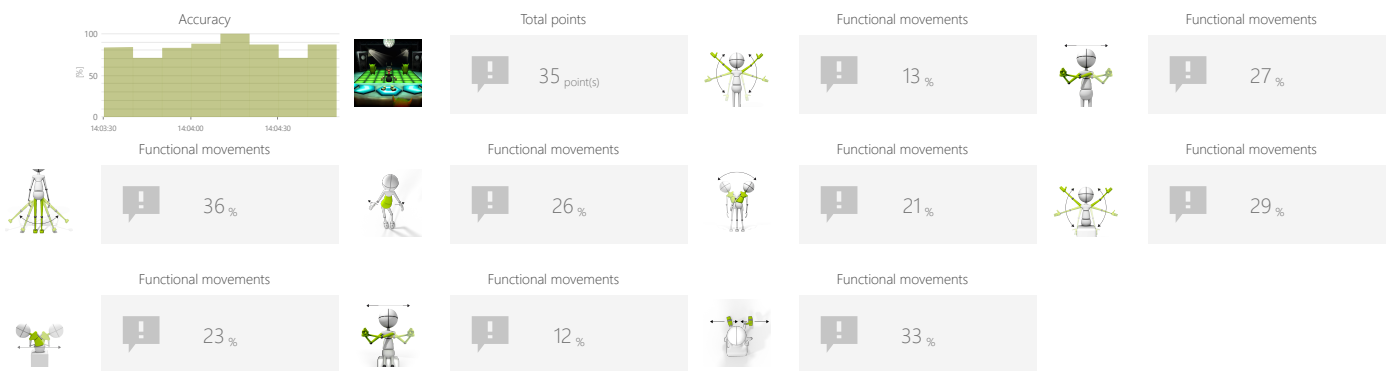
DANCEMAN

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Advanced scoring
- Song index
- Spawn rate level

OBJECTIVES

- Activity in a given rhythm
- Spontaneous movements
- Visual motor coordination

INSTRUCTION FOR PATIENT

Hit the green characters when they come close



FUNCTIONAL MOVEMENTS

DANCEMAN

SAMPLE SETTINGS



	Difficulty 1/6
Duration 90s	Range 20% ↔ 80%
Advanced scoring No	Song index 0
Spawn rate level Easy	



FUNCTIONAL MOVEMENTS

CANS MULTIPLAYER

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES

RESULTS

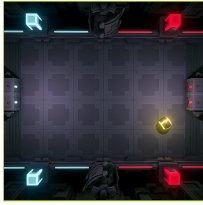


OBJECTIVES

- Movement precision
- Predicting the trajectory of objects in 3D space
- Dynamics of planned movements
- Dynamic responses to emerging moving targets
- The ability of spatial visualization

INSTRUCTION FOR PATIENT

Throw the balls to strike as many cans as you can. Each player throws balls in unique color.

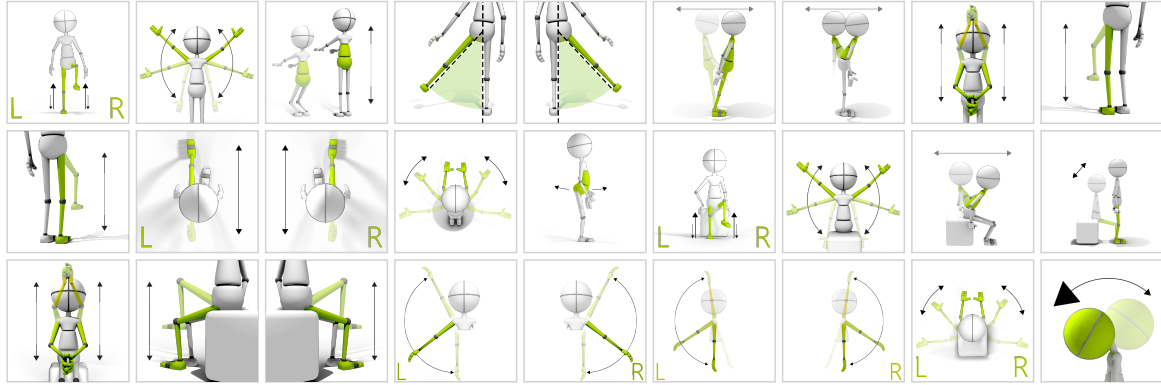


FUNCTIONAL MOVEMENTS

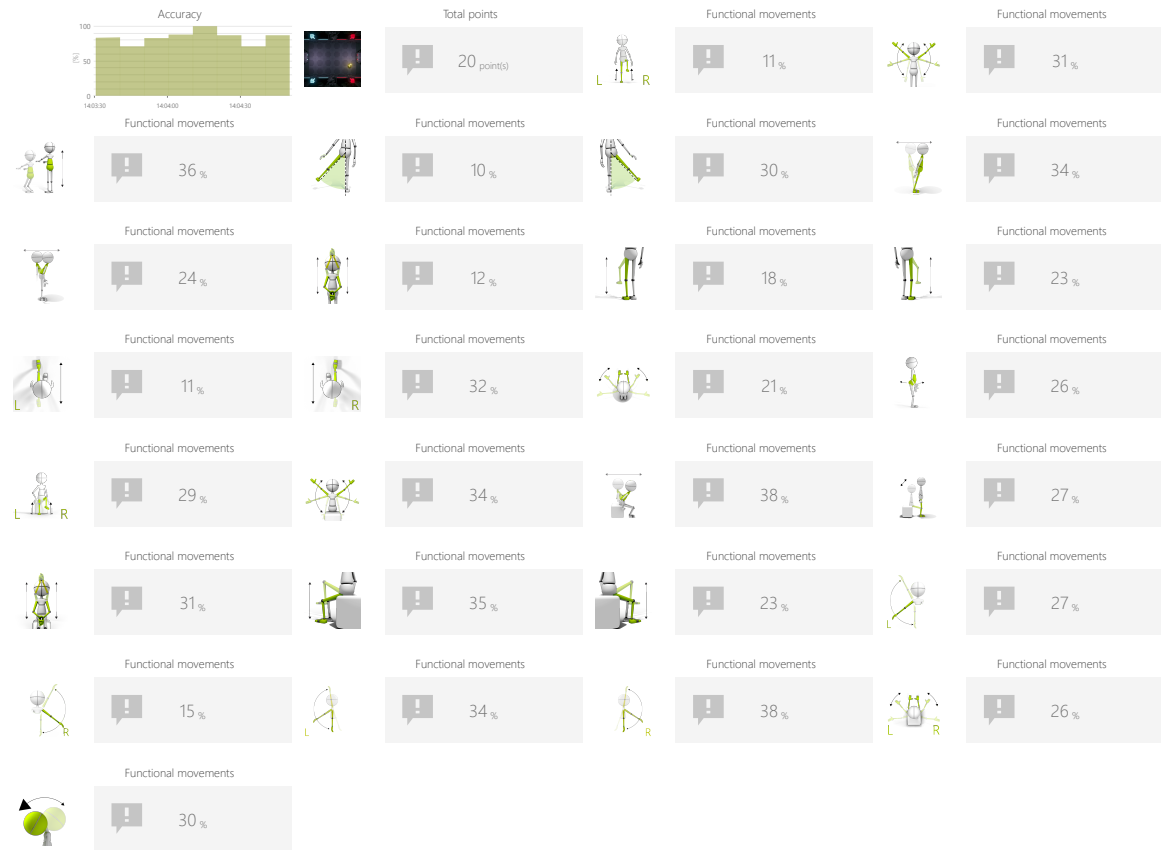
PONG

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Speed of objects

OBJECTIVES

- Planned movements
- Focusing
- Predicting the trajectory of objects

INSTRUCTION FOR PATIENT

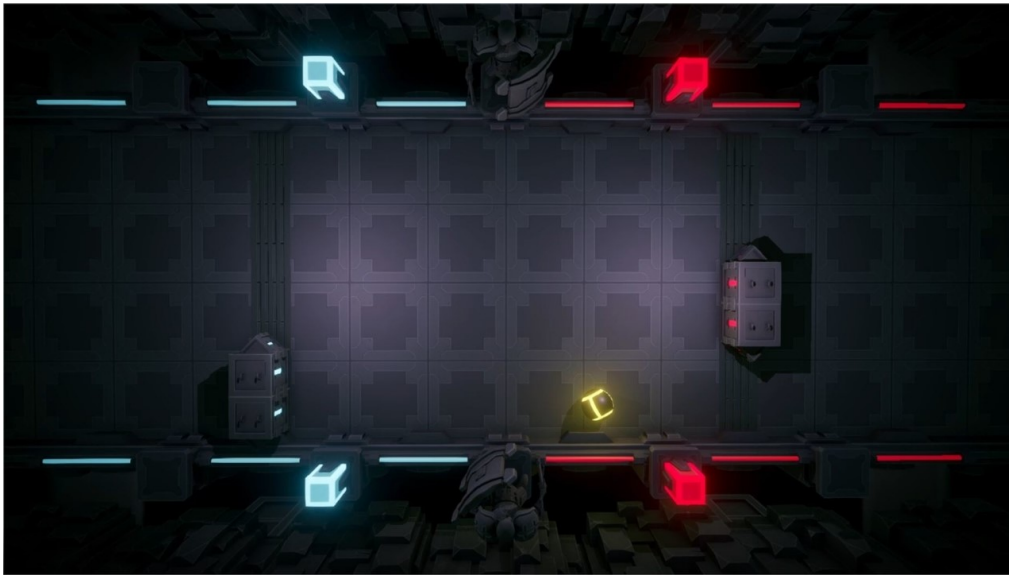
Use the paddles to hit a ball back and forth



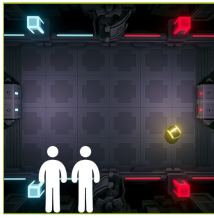
FUNCTIONAL MOVEMENTS

PONG

SAMPLE SETTINGS



Difficulty	1/3
Duration	90s
Range	20% - 80%
Speed of objects	100%

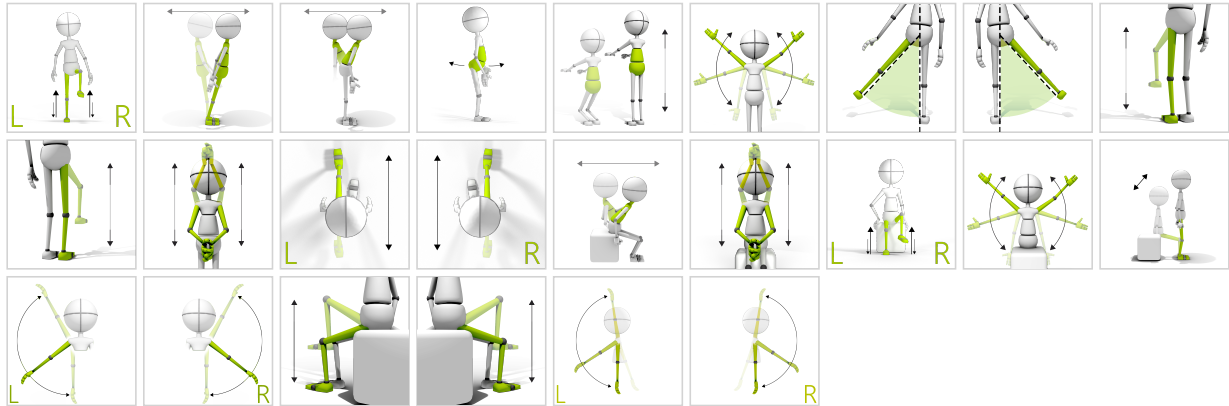


FUNCTIONAL MOVEMENTS

PONG

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Speed of objects

OBJECTIVES

- Planned movements
- Focusing
- Predicting the trajectory of objects

INSTRUCTION FOR PATIENT

Use the paddles to hit a ball back and forth

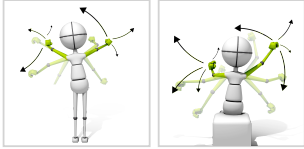


FUNCTIONAL MOVEMENTS

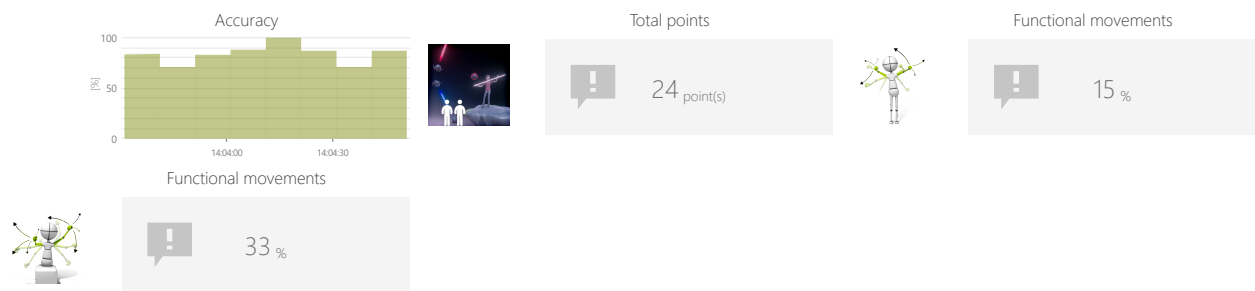
SORTER: LEGACY MULTIPLAYER

Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS



ADJUSTMENTS

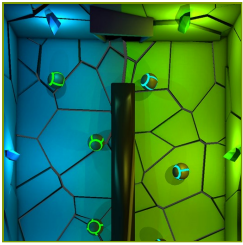
- Task duration
- Number of gates
- Gravity force
- Mode

OBJECTIVES

- 3D space movements reproduction
- Dynamic responses to emerging moving targets
- Planning and Strategy

INSTRUCTION FOR PATIENT

Make the ball fly through the gate in corresponding color

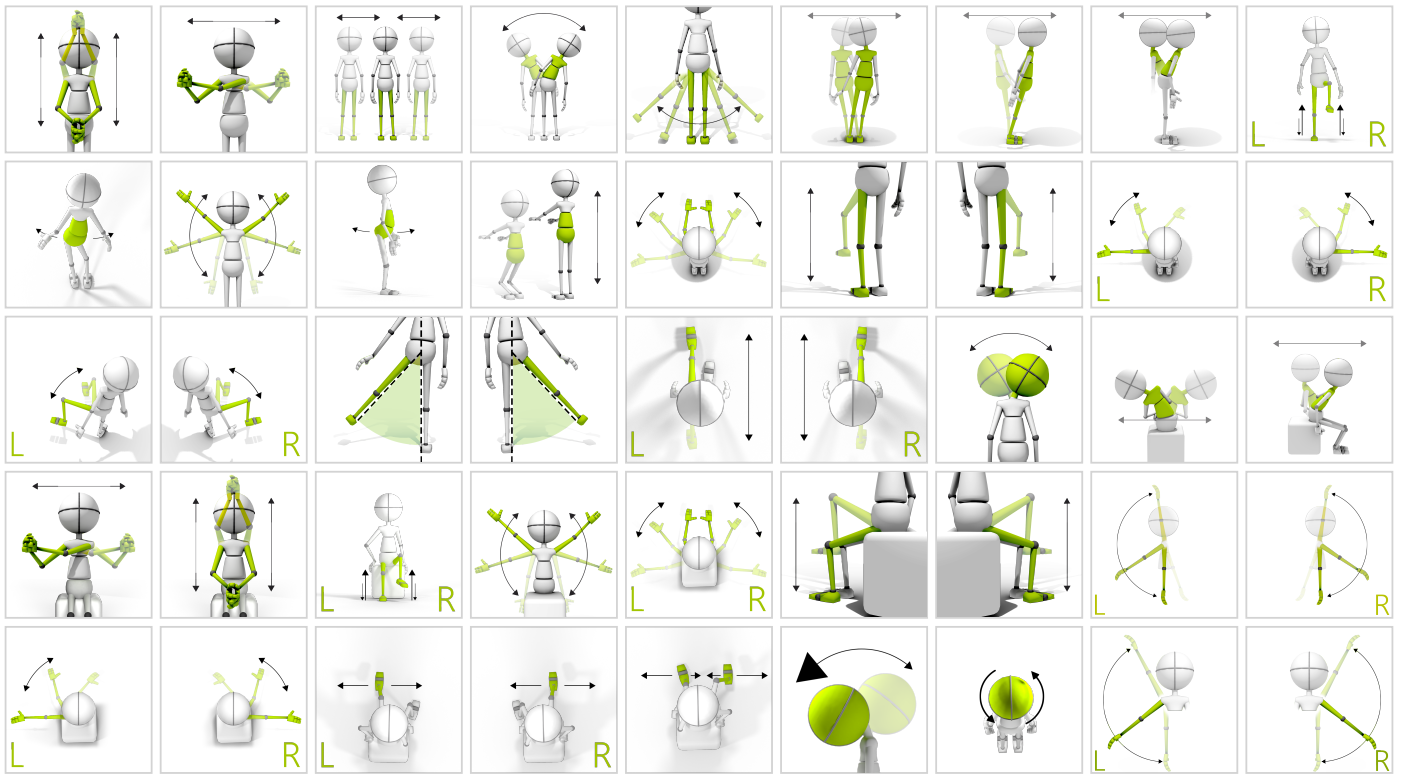


DIVIDED ATTENTION

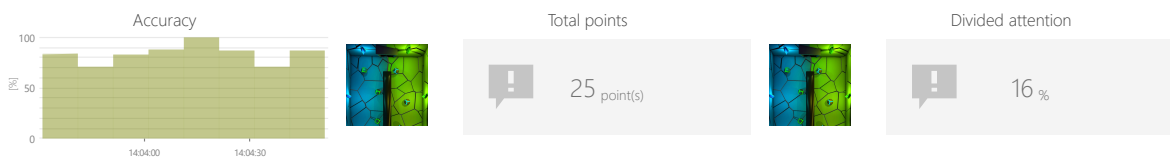
SORTER

Measure and train individual's skills to successfully execute more than one action at a time, while paying attention to two or more channels of information.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Number of objects
- Gap size
- Speed of objects

OBJECTIVES

- Predicting the trajectory of objects
- Focusing
- Perceptivity
- Movement precision
- Exercise with or without support from healthy limb

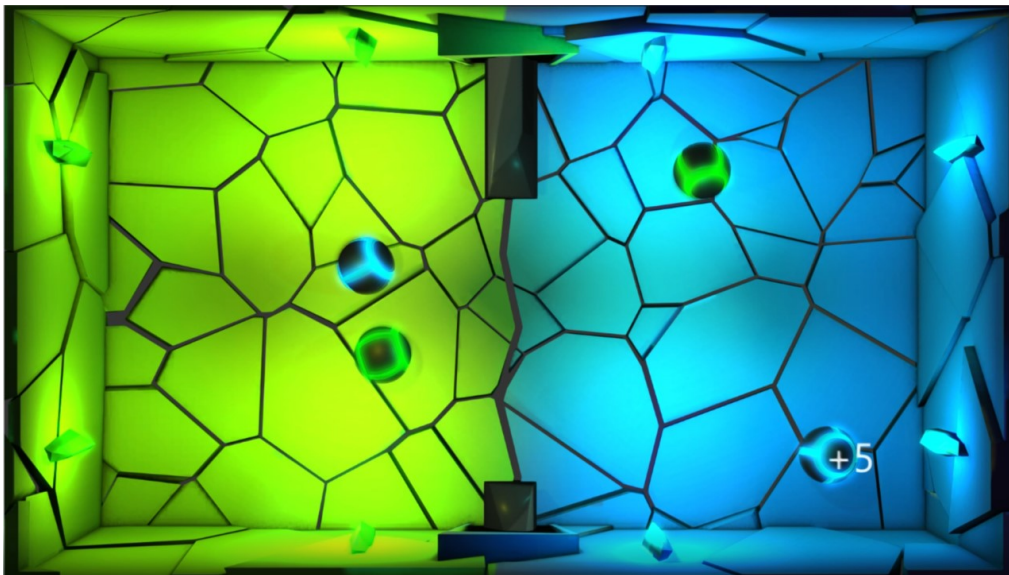
INSTRUCTION FOR PATIENT

Pass or block the balls so that the blue balls are on the blue side and the green balls are on the green side of the screen.

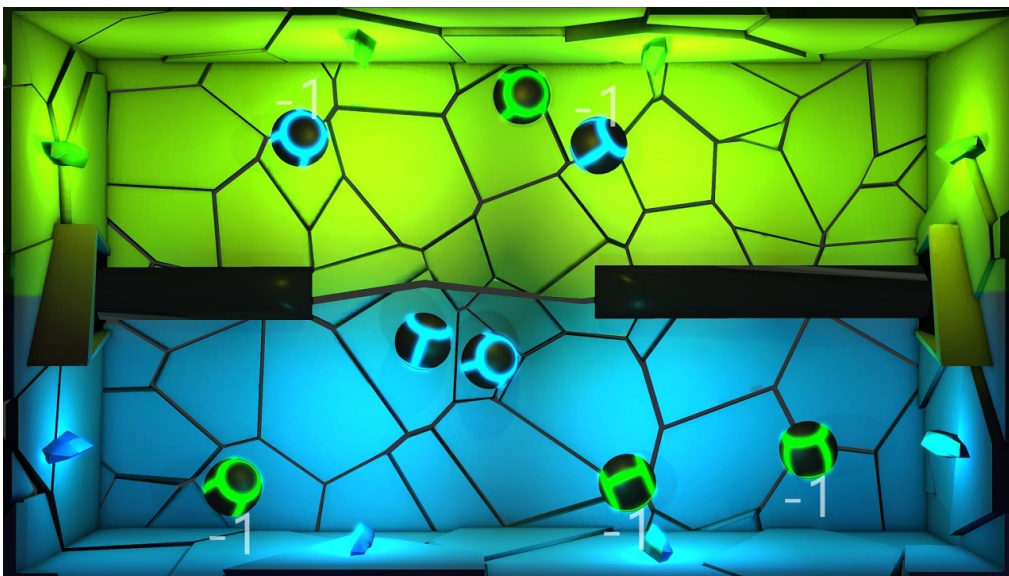


DIVIDED ATTENTION SORTER

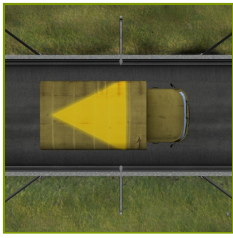
SAMPLE SETTINGS



Difficulty 1/3	
Duration 30s	Range 20% - 80%
Number of objects 4	Gap size 150%
Speed of objects 100%	



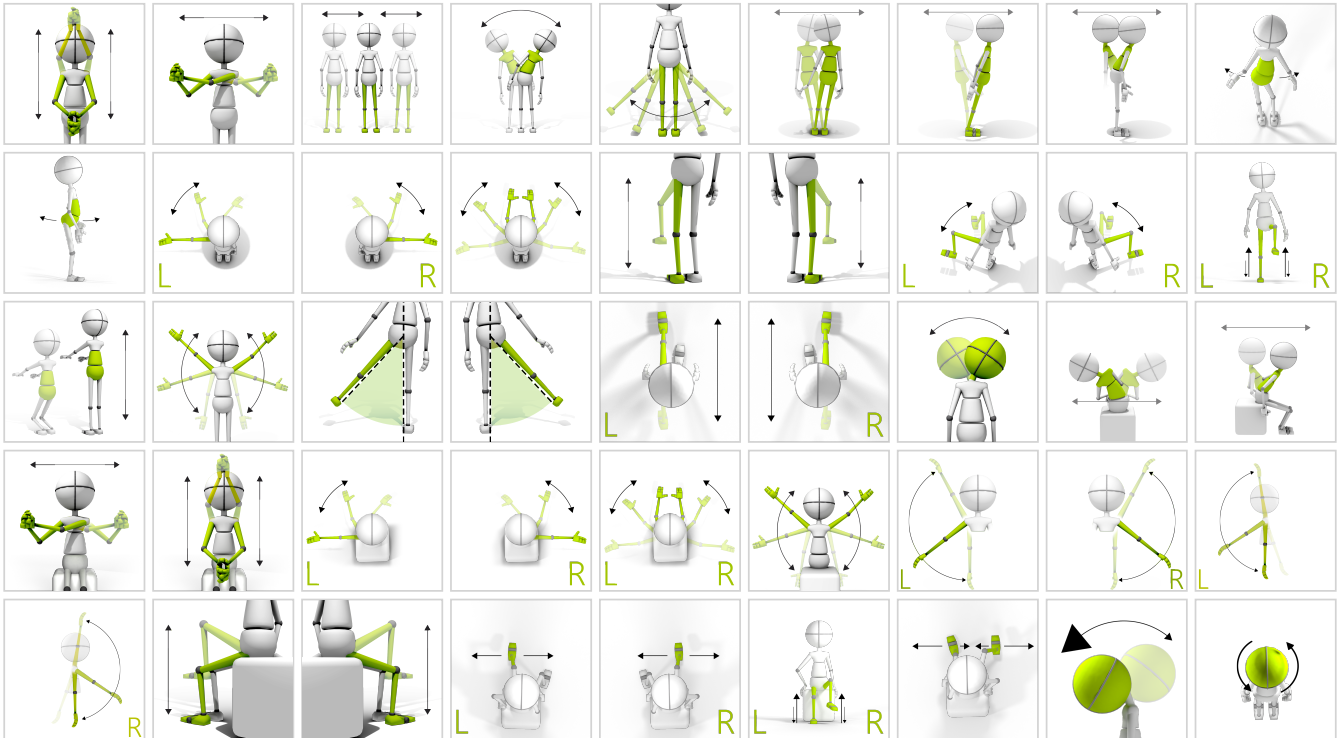
Difficulty 1/3	
Duration 30s	Range 20% - 80%
Number of objects 4	Gap size 150%
Speed of objects 100%	



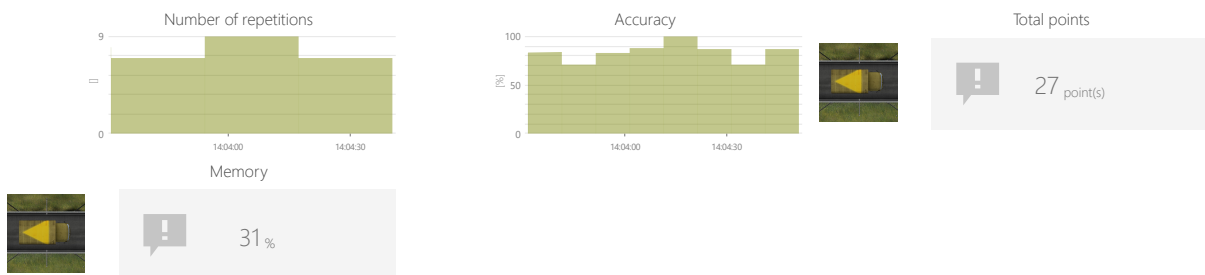
MEMORY TRUCKS

Measure and train individual's skills to memorize information.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Variations

OBJECTIVES

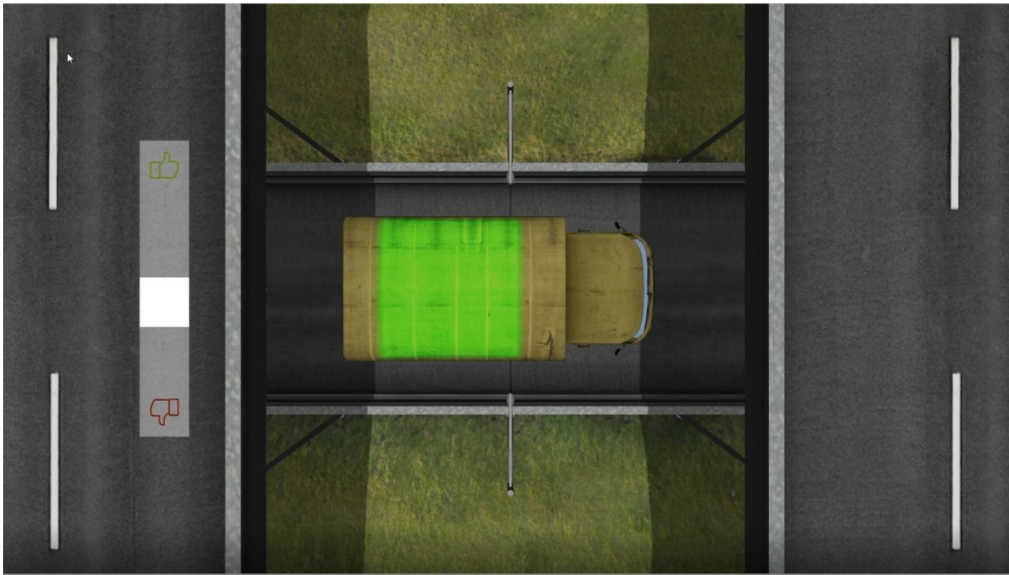
- Logical tasks
- Focusing
- Perceptivity

INSTRUCTION FOR PATIENT

Remember the shape and/or its color on the roof of the car you see. Decide with thumbs up or down whether the next car has the same shape and/or color on the roof as the previous one.



SAMPLE SETTINGS

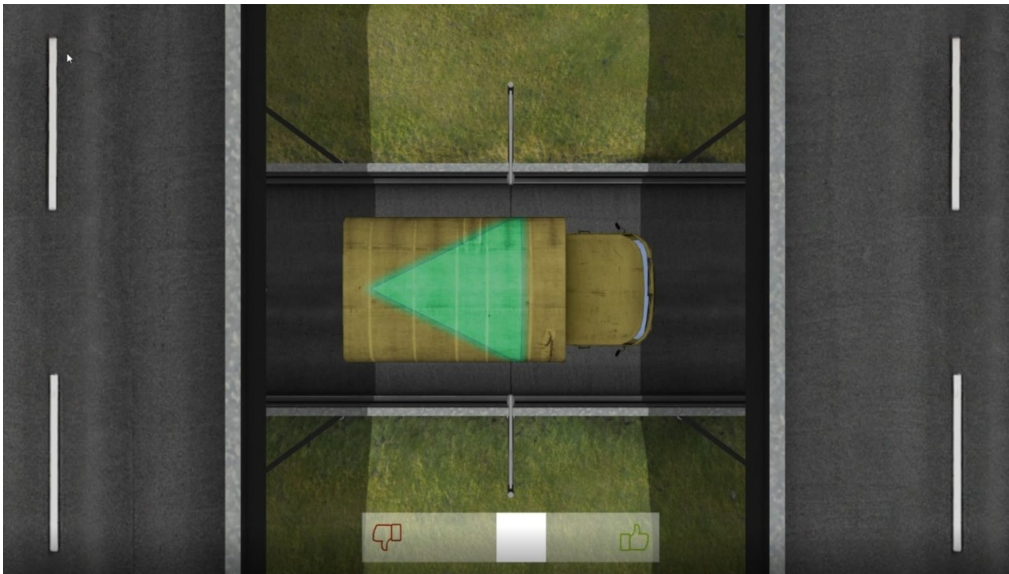


Difficulty **1/3**

Duration **30s**

Range **20% 80%**

Variations **colors**



Difficulty **2/3**

Duration **30s**

Range **20% 80%**

Variations **shapes**

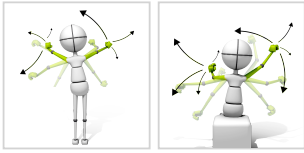


MEMORY

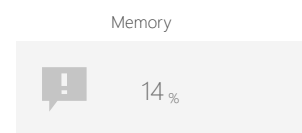
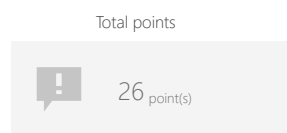
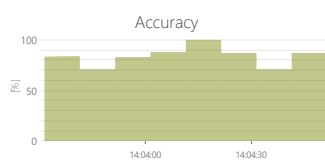
POSE REPEATER

Measure and train individual's skills to memorize information.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time to remember poses
- Time to repeat pose
- Number of poses to remember

OBJECTIVES

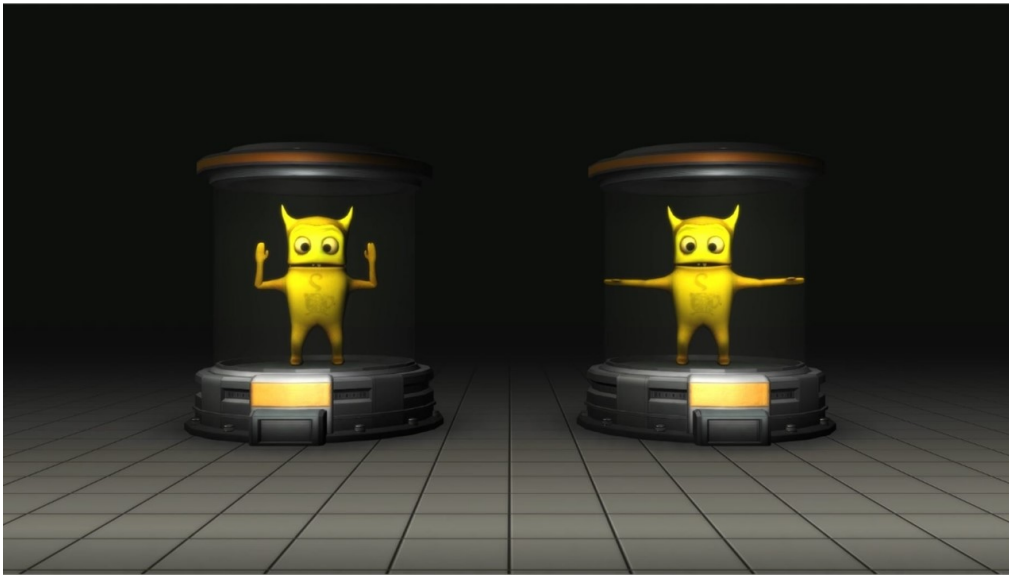
- Memory training
- 3D space movements reproduction
- Focusing
- Speed of decision making

INSTRUCTION FOR PATIENT

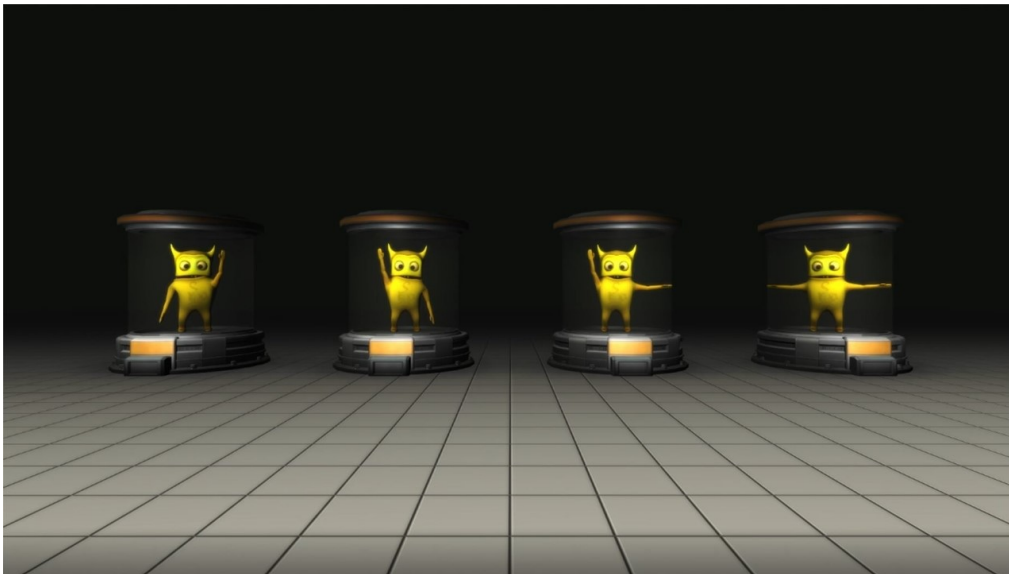
Remember poses presented by yellow creatures and then try to repeat selected pose based on what you managed to remember



SAMPLE SETTINGS



Difficulty	1/3
Duration	90s
Time to remember poses	4s
Time to repeat pose	5s
Number of poses to remember	2



Difficulty	Custom
Duration	30s
Time to remember poses	4s
Time to repeat pose	5s
Number of poses to remember	4

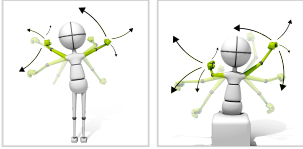


PROBLEM SOLVING

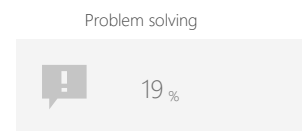
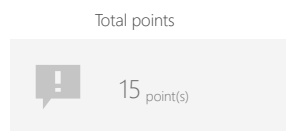
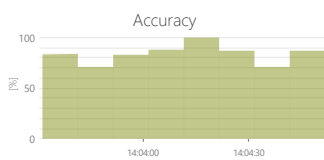
MATH

Measure and train individual's skills to reach a solution of specific problems. Problem solving may include mathematical or systematic operations and can be a gauge of an individual's critical thinking skills.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Target number range
- Allow negative numbers

OBJECTIVES

- Logical tasks
- Arms swings

INSTRUCTION FOR PATIENT

Hit the punching bag to change its state (orange ring means it is active). Make the sum of the numbers above active punching bags to be equal to the number in top left corner



SAMPLE SETTINGS



Difficulty	1/5
Duration	30s
Target number range	min 5 max 10
Allow negative numbers	No



Difficulty	5/5
Duration	30s
Target number range	min 10 max 20
Allow negative numbers	Yes

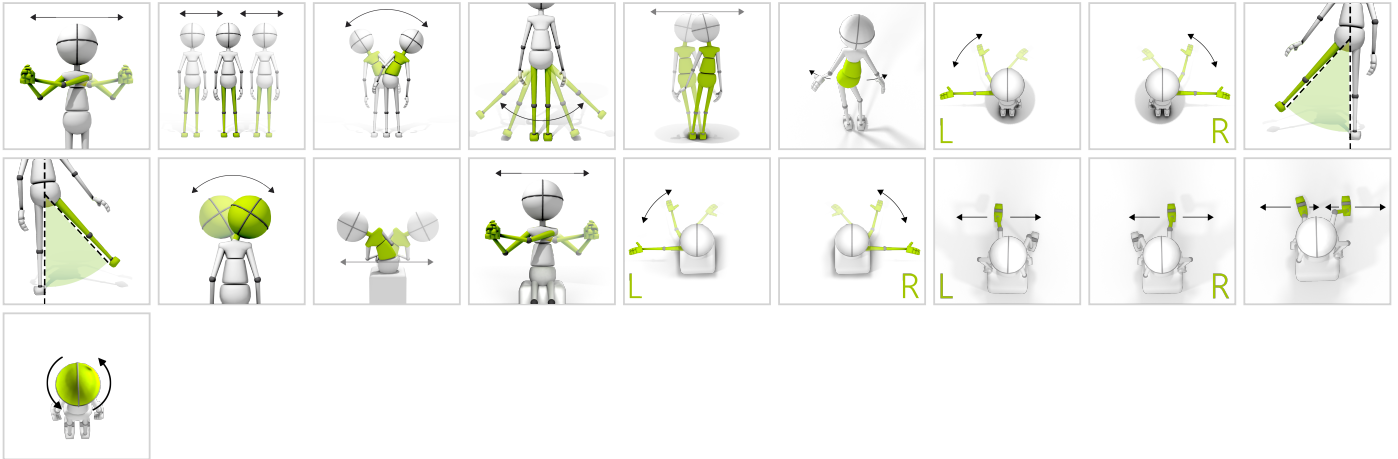


PROBLEM SOLVING

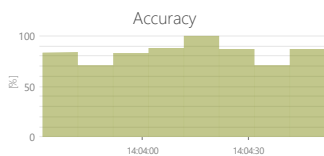
CLONES

Measure and train individual's skills to reach a solution of specific problems. Problem solving may include mathematical or systematic operations and can be a gauge of an individual's critical thinking skills.

CONTROL MODES



RESULTS



Total points

34 point(s)



Problem solving

25 %

ADJUSTMENTS

- Task duration
- Time to complete action
- Range
- Number of pairs

OBJECTIVES

- Perceptivity
- Visual motor coordination
- Logical tasks

INSTRUCTION FOR PATIENT

Select the item which has a pair on the screen



SAMPLE SETTINGS



◀	Difficulty 1/3	▶
<	Duration 90s	>
<	Minitask duration 30s	>
<	Range 20% ↔ 80%	>
	Number of pairs 4	

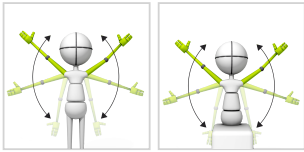


PROBLEM SOLVING

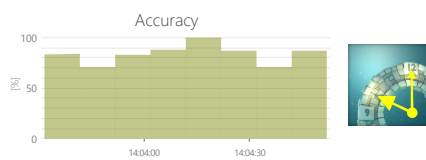
CLOCK

Measure and train individual's skills to reach a solution of specific problems. Problem solving may include mathematical or systematic operations and can be a gauge of an individual's critical thinking skills.

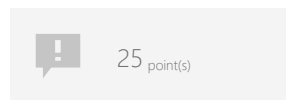
CONTROL MODES



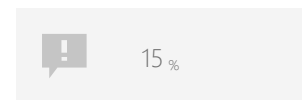
RESULTS



Total points



Problem solving



ADJUSTMENTS

- Task duration
- Time to complete action
-

OBJECTIVES

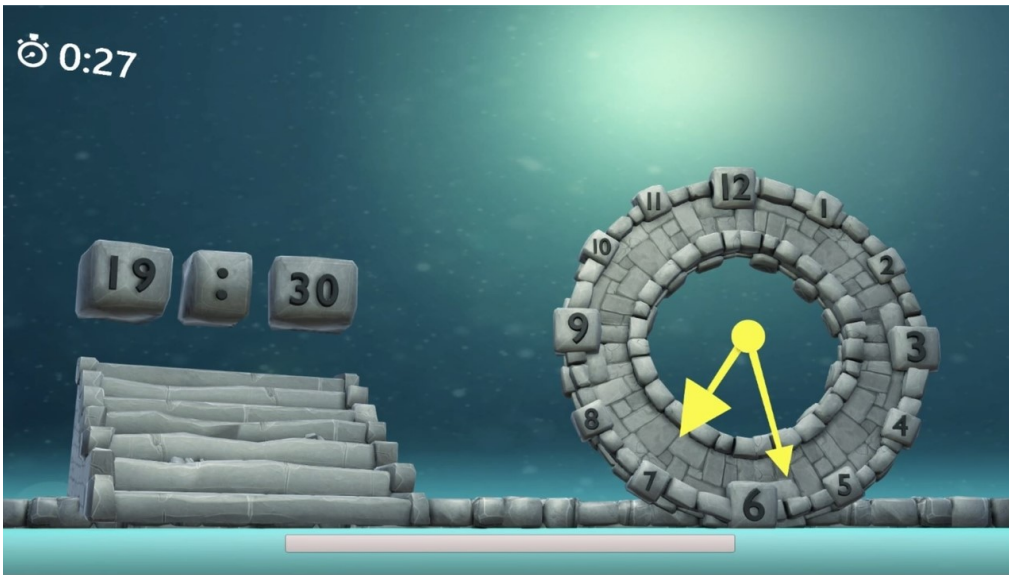
- Speed of decision making
- Visual motor coordination
- Logical tasks

INSTRUCTION FOR PATIENT

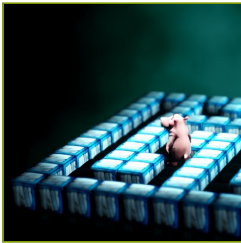
Control the arrows to set the time visible on the left clock



SAMPLE SETTINGS



Duration	Minitask duration
< 90s >	< 30s >
Angle 180°	Angle 180°

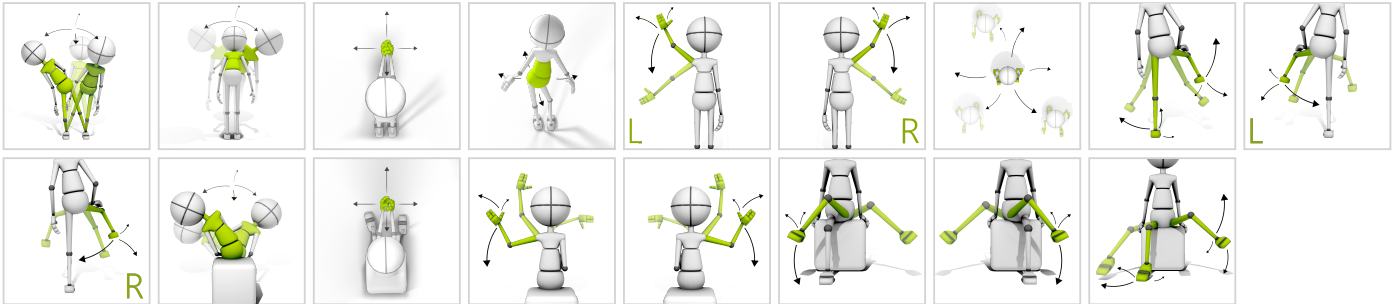


PROBLEM SOLVING

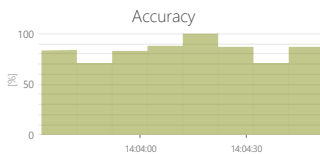
MAZE

Measure and train individual's skills to reach a solution of specific problems. Problem solving may include mathematical or systematic operations and can be a gauge of an individual's critical thinking skills.

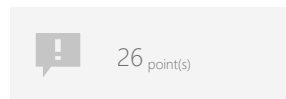
CONTROL MODES



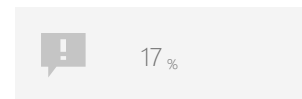
RESULTS



Total points



Problem solving



ADJUSTMENTS

- Task duration
- Range
- Show path
- Maze size

OBJECTIVES

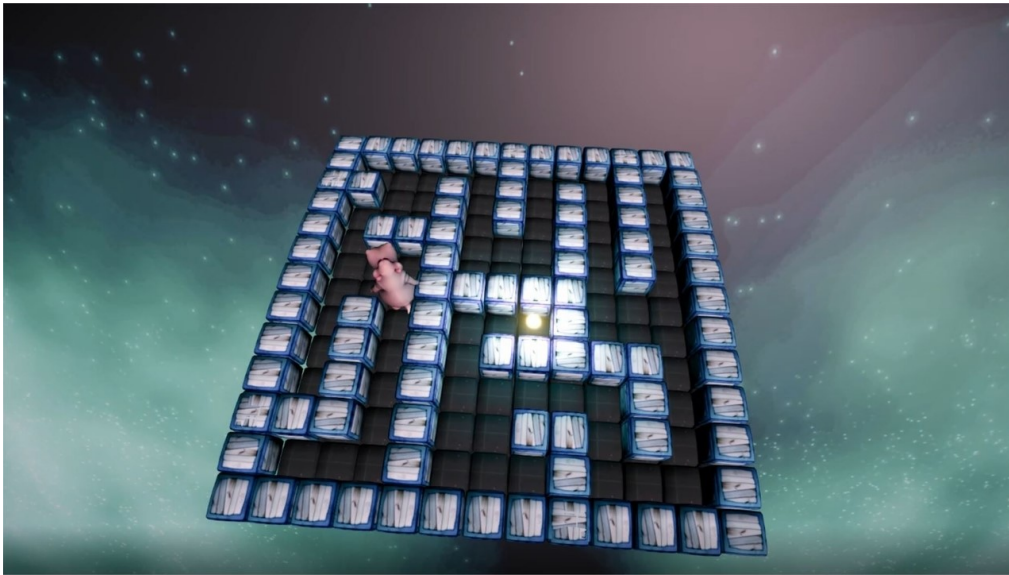
- Logical tasks
- Planned movements
- Planning and Strategy


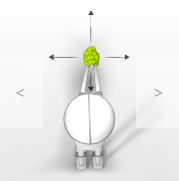
INSTRUCTION FOR PATIENT

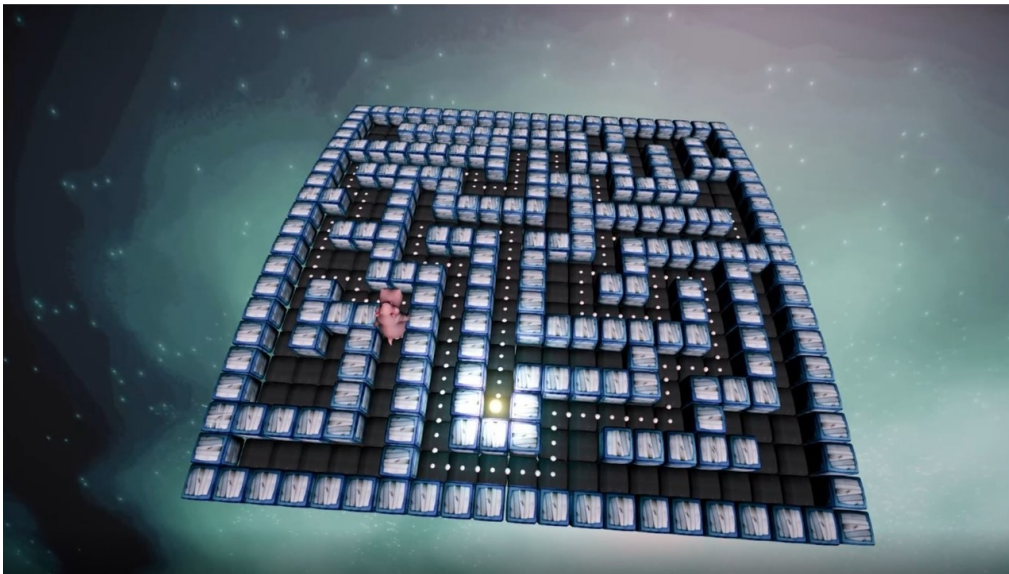
Lead the hippo through the maze to the glowing target.





SAMPLE SETTINGS



	
Difficulty	2/4
Duration	90s
Range	0% ↔ 100%
Show path	No
Maze size	6



	
Difficulty	Custom
Duration	90s
Range	20% ↔ 80%
Show path	Yes
Maze size	10



SPECIALIZED

BLOOD PRESSURE

Specialized tasks and evaluations that collect data from multiple categories or do have a unique objectives.

CONTROL MODES



OBJECTIVES

- Monitor external parameters

INSTRUCTION FOR PATIENT

Measure yourself your blood pressure and type it in the result



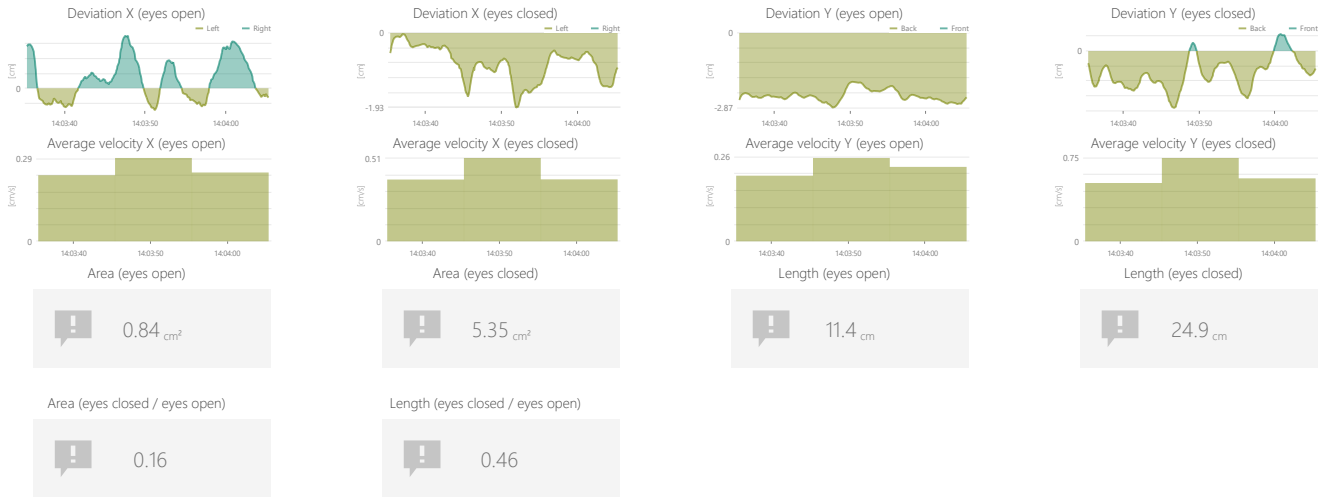
SPECIALIZED ROMBERG TEST

Specialized tasks and evaluations that collect data from multiple categories or do have a unique objectives.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Time to complete action
- Show feedback

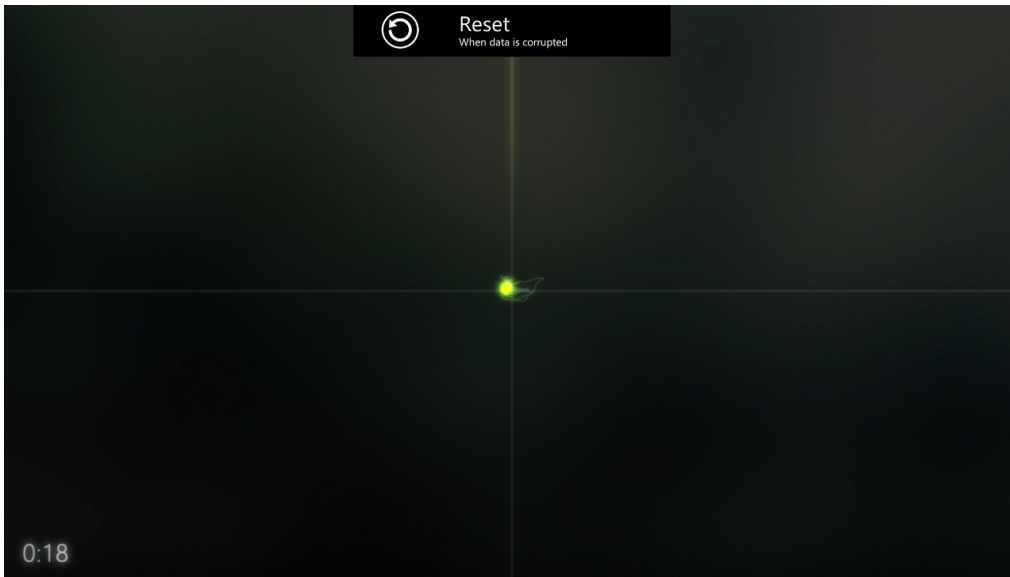
OBJECTIVES

- Assesses static standing balance

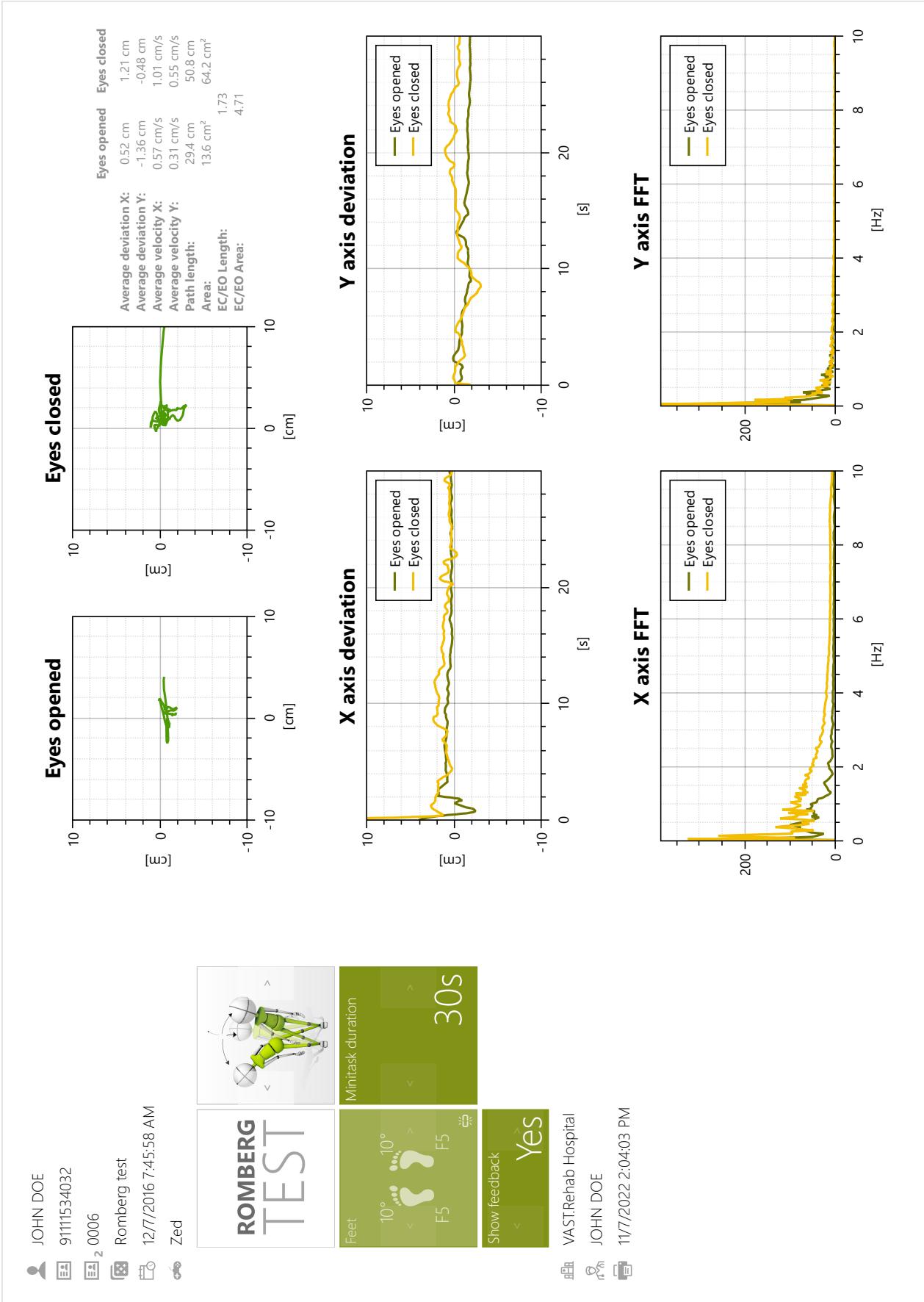
INSTRUCTION FOR PATIENT

Romberg test. Try to stand as steadily as you can. First with eyes open, then with eyes closed

SAMPLE SETTINGS



SAMPLE REPORTS





SPECIALIZED STABILITY TEST

Specialized tasks and evaluations that collect data from multiple categories or do have a unique objectives.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Time to complete action
- Show feedback
- Radius

OBJECTIVES

- Relaxation
- Postural stability

INSTRUCTION FOR PATIENT

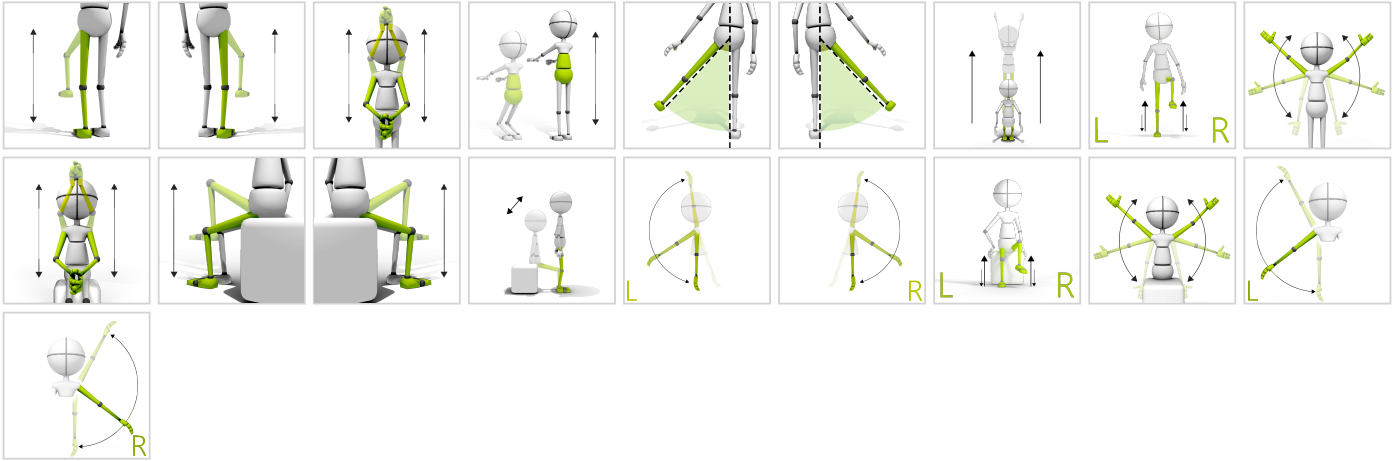
Keep your body balanced



SPECIALIZED GONOGO TEST

Specialized tasks and evaluations that collect data from multiple categories or do have a unique objectives.

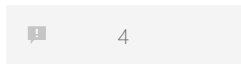
CONTROL MODES



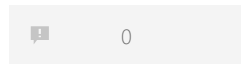
RESULTS



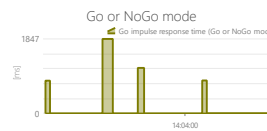
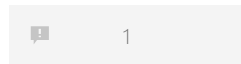
Number of NoGo impulses noticed (Go or NoGo mode)



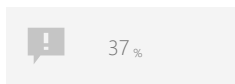
Number of Go impulses missed (always Go mode)



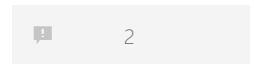
Number of impulses missed (Go or NoGo mode)



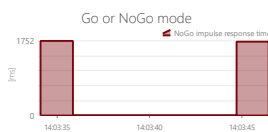
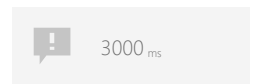
Time delay caused by distraction



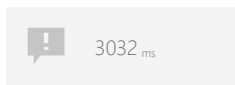
Number of NoGo impulses hit (Go or NoGo mode)



Always Go mode



Go or NoGo mode



ADJUSTMENTS

- Range
- Required proper repetitions
- Hit if

OBJECTIVES

- Spontaneous movements
- Speed of movement
- Response to negative visual stimuli
- Reaction to the positive visual stimuli

INSTRUCTION FOR PATIENT

Hit the button when positive trigger appears

FUKUDA TEST

SPECIALIZED

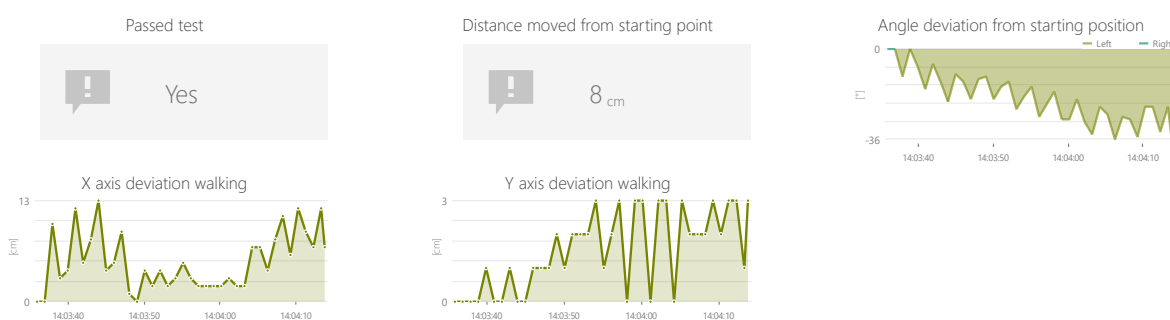
FUKUDA TEST

Specialized tasks and evaluations that collect data from multiple categories or do have a unique objectives.

CONTROL MODES



RESULTS

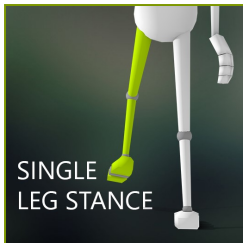


OBJECTIVES

- Vestibular disorders diagnosis

INSTRUCTION FOR PATIENT

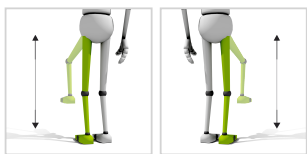
Take 50 steps in place with the eyes closed with arms outstretched at 90°



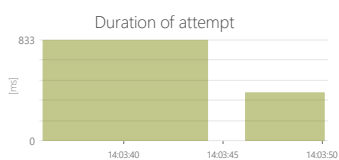
SPECIALIZED SINGLE LEG STANCE TEST

Specialized tasks and evaluations that collect data from multiple categories or do have a unique objectives.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Time to complete action

OBJECTIVES

- Test the limits of balance and equilibrium
- Knees lifting
- Postural stability

INSTRUCTION FOR PATIENT

Try to keep your body balanced while performing single leg stance