

TREADMILL + CAMERA PREMIUM PACK

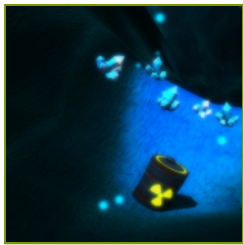
2025.1

Hardware requirements	3
What is needed?	3
Therapeutic tasks database	5
Range of motion	5
Movement time	8
Speed	12
Balance	19
Movement precision	23
Functional movements	30
Divided attention	83
Memory	85
Problem solving	88
Specialized	95

WHAT IS NEEDED?

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:

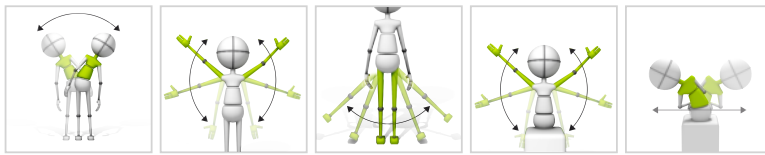
- h/p/cosmos treadmill



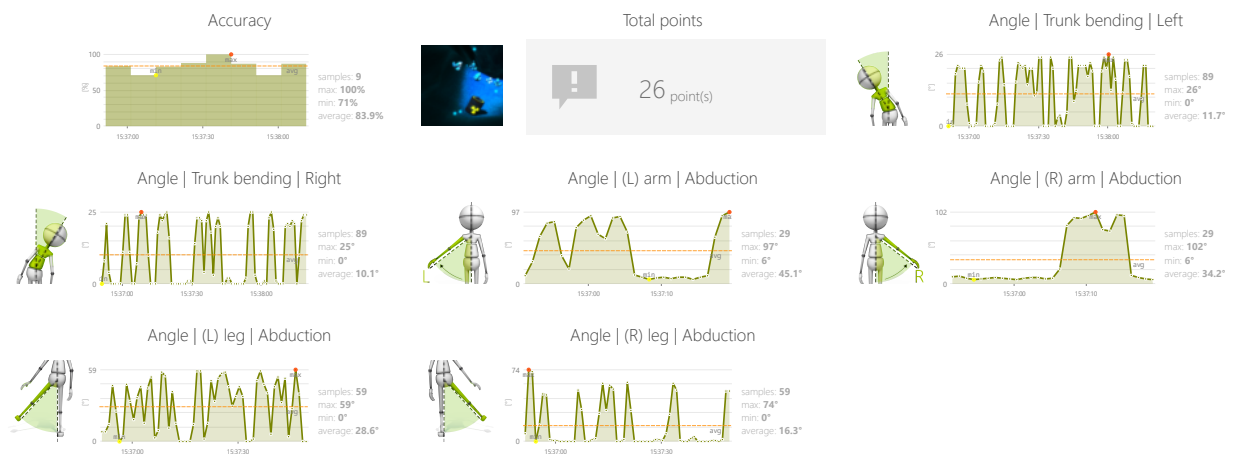
RANGE OF MOTION CRYSTALS

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Speed
- Task duration
- Angle

OBJECTIVES

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

INSTRUCTION FOR PATIENT

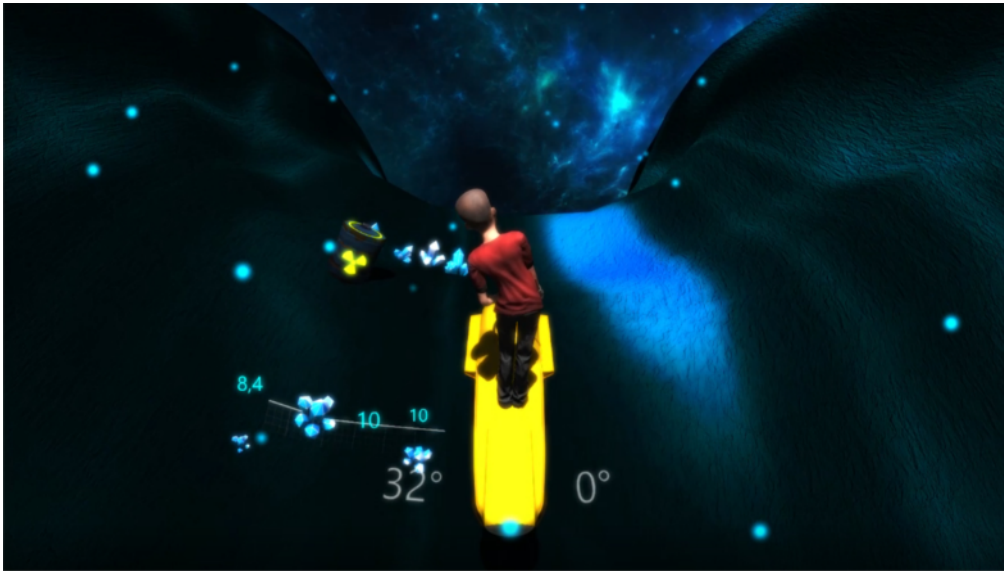
Collect the crystals and avoid the radioactive barrels.



RANGE OF MOTION

CRYSTALS

SAMPLE SETTINGS



Difficulty
1/4

Treadmill speed
< Any >

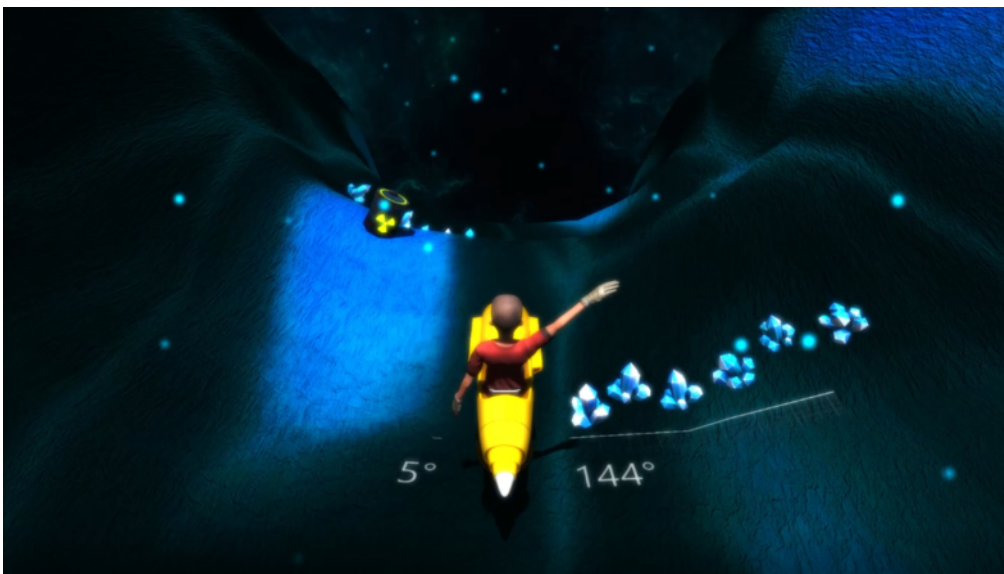
Treadmill elevation
< Any >

Player speed
100%
relatively to treadmill speed

Duration
< 90s >

Angle
 40°

Angle
 40°



Difficulty
1/4

Treadmill speed
< Any >

Treadmill elevation
< Any >

Player speed
100%
relatively to treadmill speed

Duration
< 90s >

Angle
 40°

Angle
 40°



RANGE OF MOTION

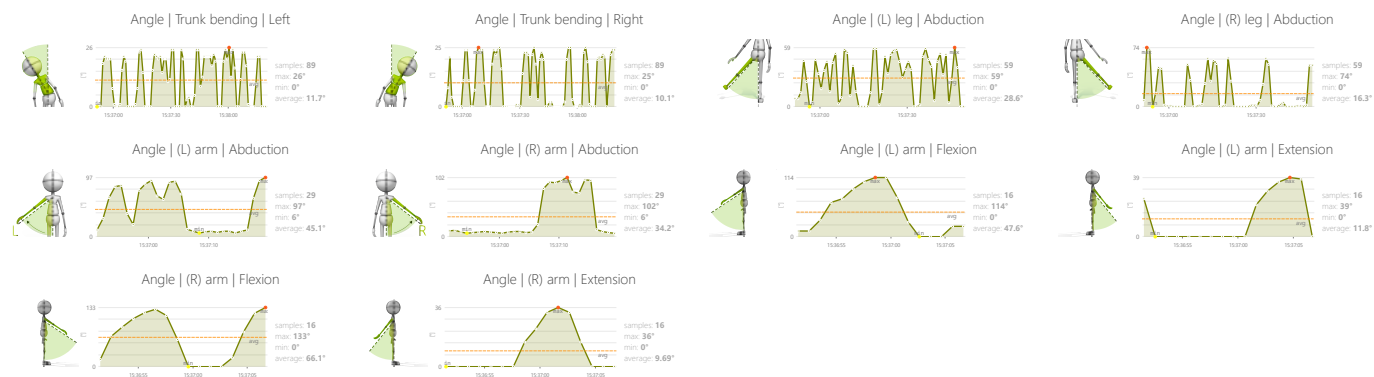
ANGLES EVALUATION

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.

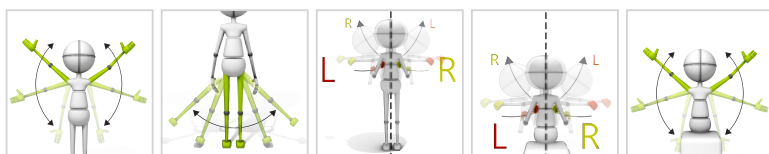


MOVEMENT TIME

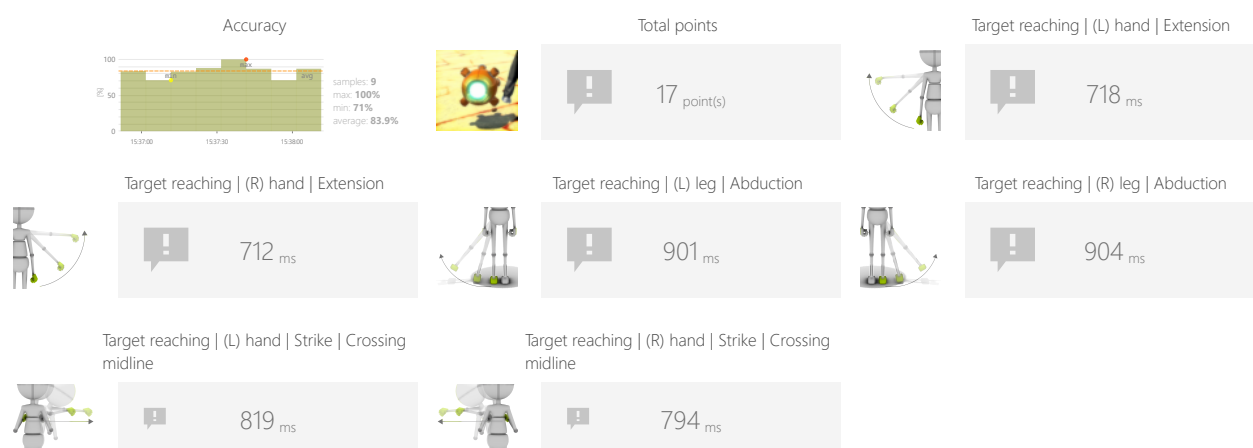
REACT

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
- Range
- 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.



MOVEMENT TIME

REACT

SAMPLE SETTINGS



Difficulty 1/2	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range 20% 80%
Time to react < 2s >	Distance to targets < 75% >



MOVEMENT TIME

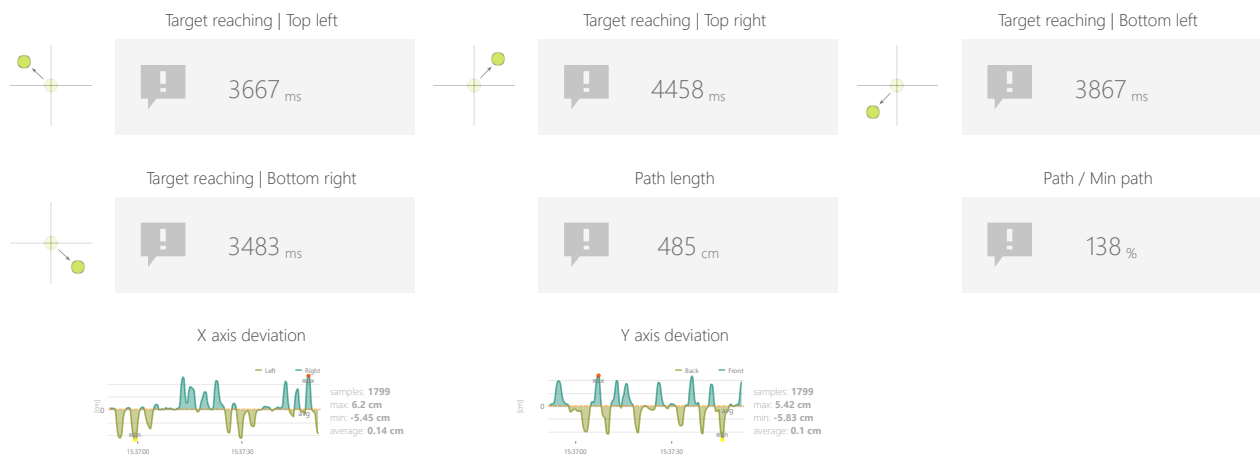
DYNAMIC TEST

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
- Positioning

OBJECTIVES

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

INSTRUCTION FOR PATIENT

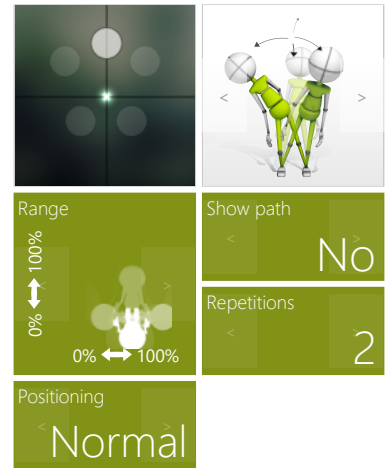
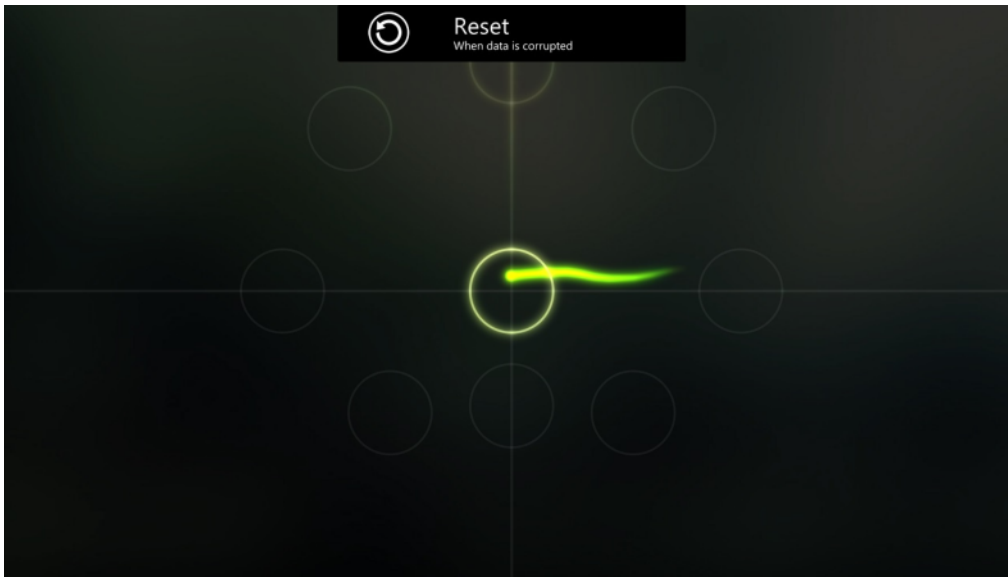
Move the dot to the highlighted target and hold it for a moment. Next target will be highlighted.

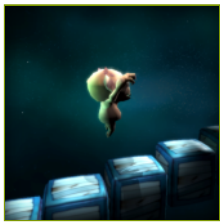


MOVEMENT TIME

DYNAMIC TEST

SAMPLE SETTINGS

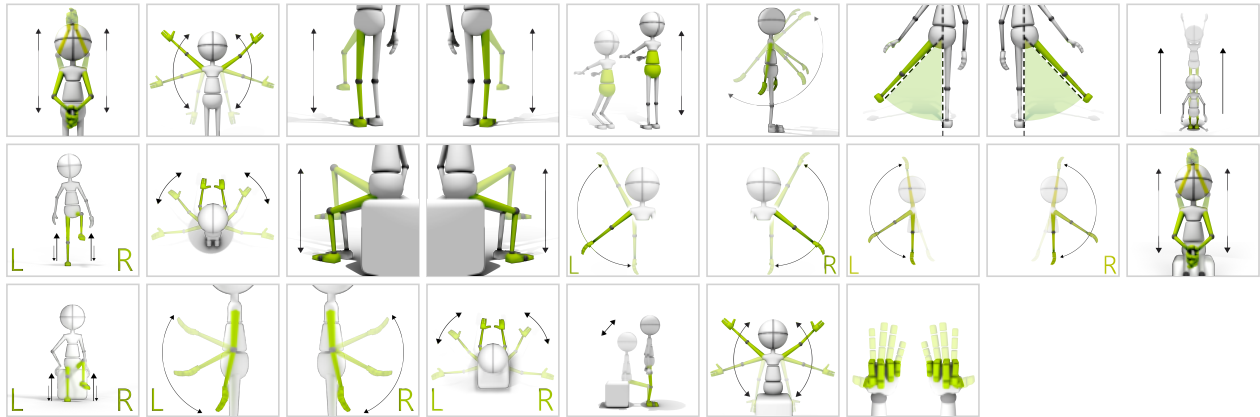




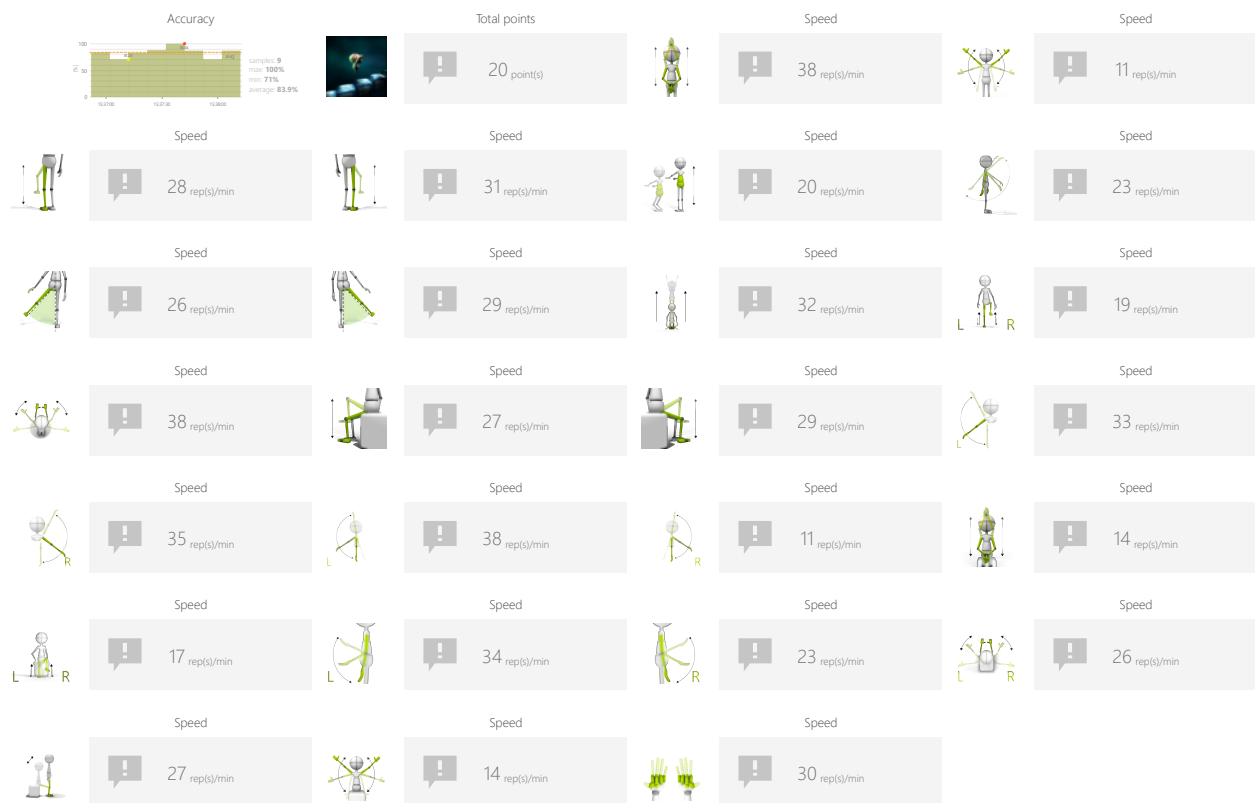
SPEED STAIRS

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

- Dynamics of planned movements

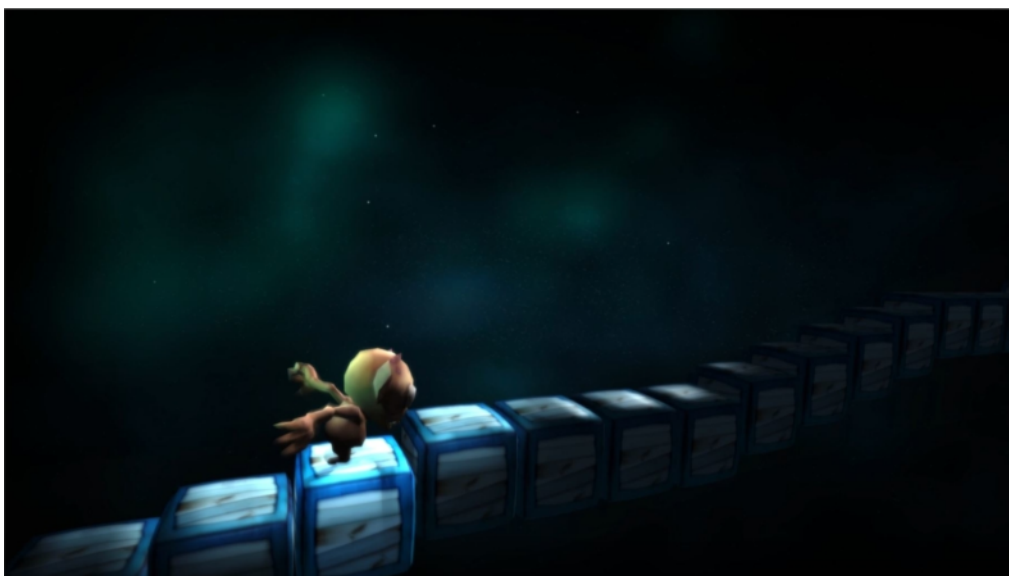
INSTRUCTION FOR PATIENT

Climb the stairs before they disappear.



SPEED STAIRS

SAMPLE SETTINGS



	Difficulty custom
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range 20% 80%
Max time per floor < 15s >	Number of stairs < 5 >
Pause length < 3 >	

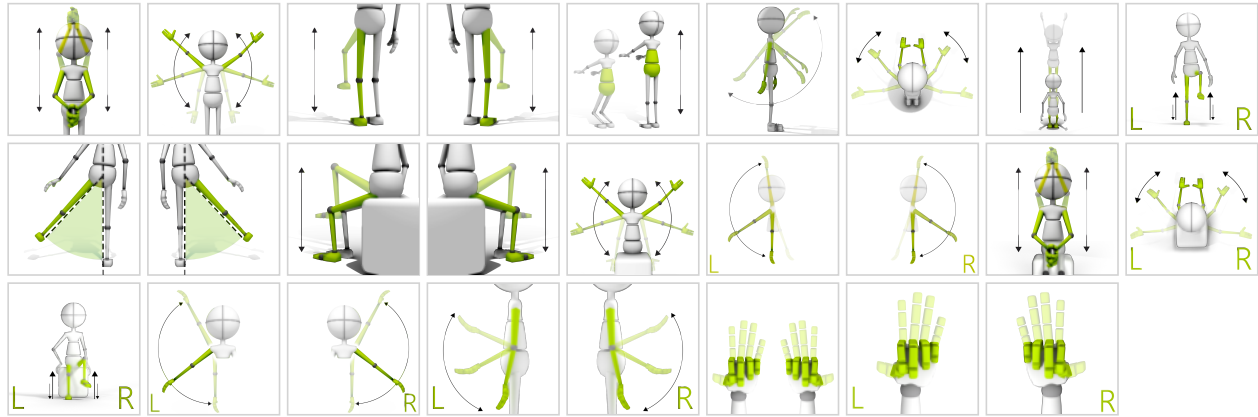


SPEED

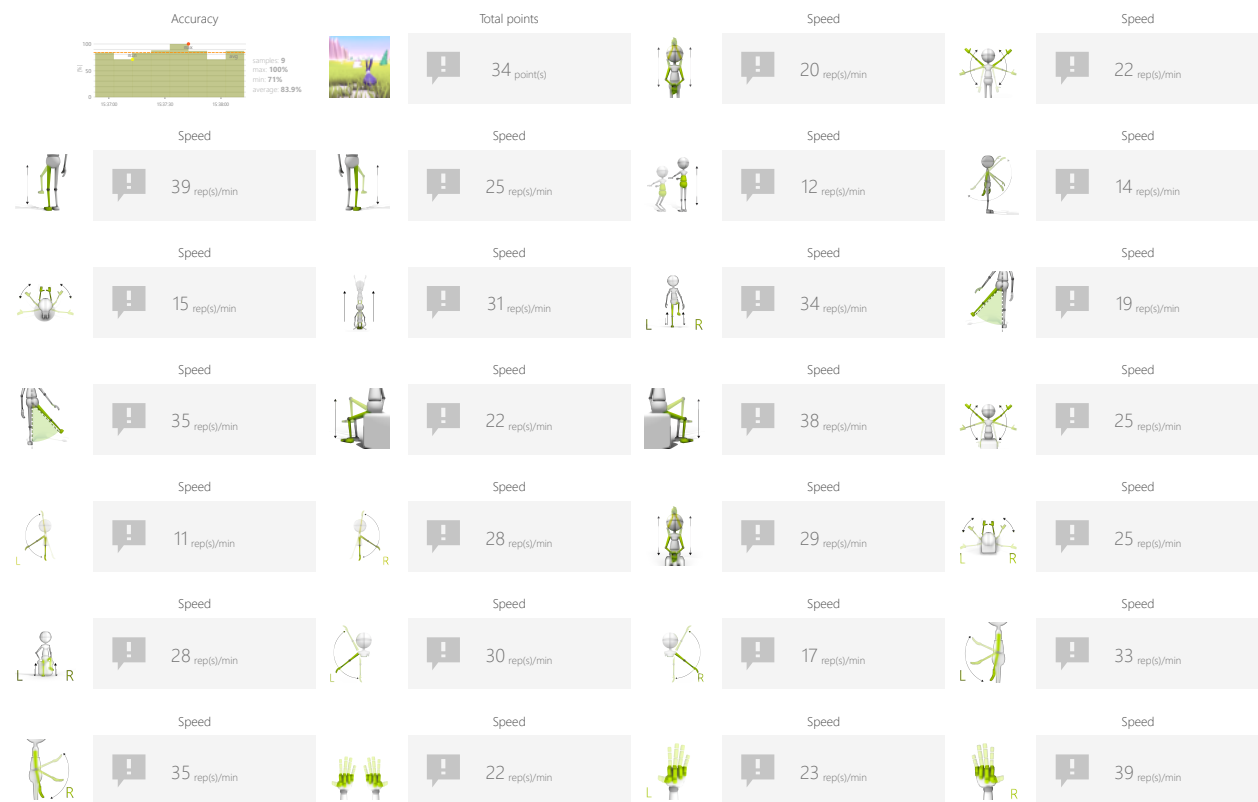
RABBIT

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



Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range 20% 80%

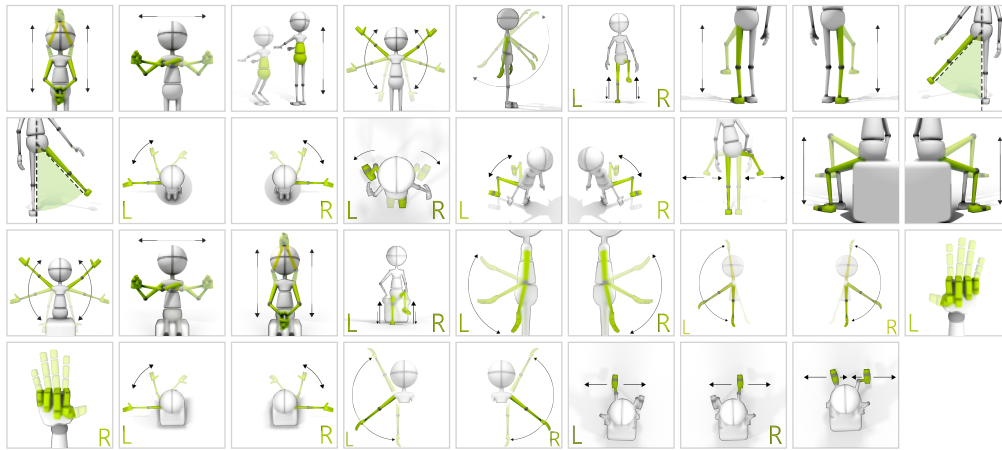


SPEED

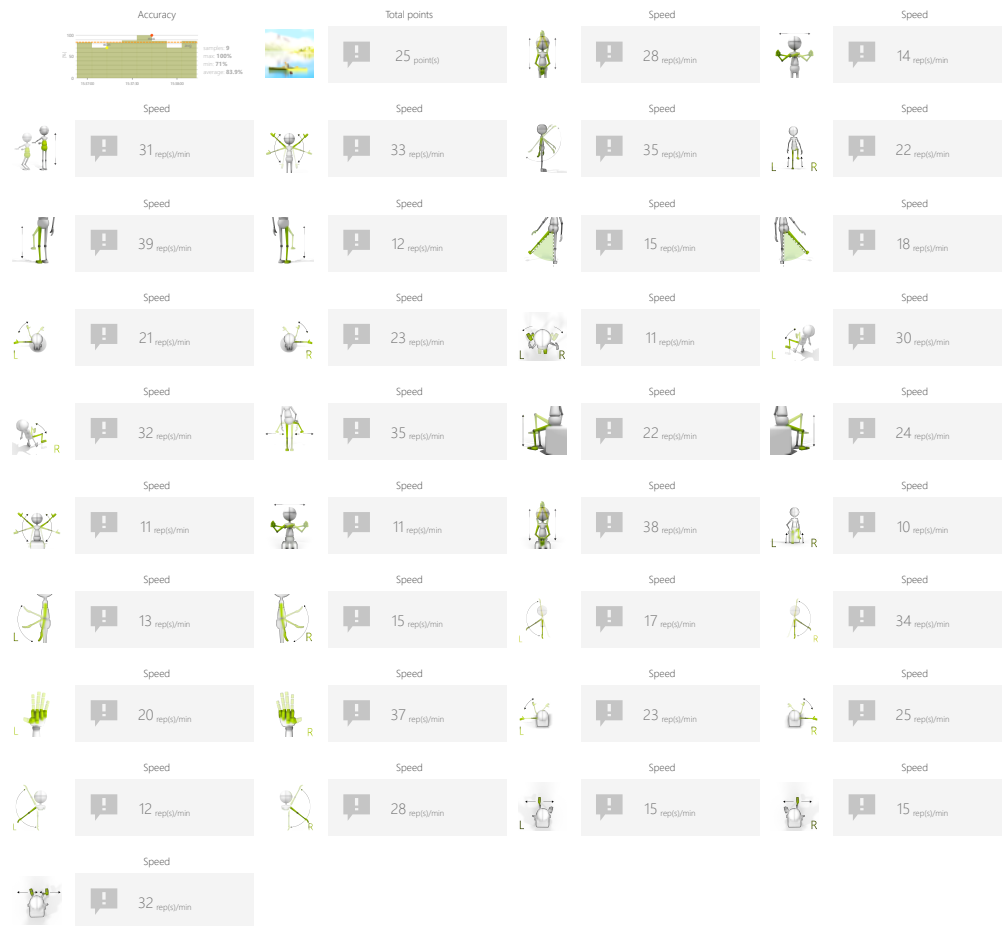
KAYAK

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

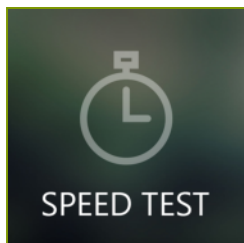
Row as fast as you can.



SAMPLE SETTINGS



Treadmill speed	Treadmill elevation
< Any >	< Any >
Duration	Range
< 90s >	20% 80%

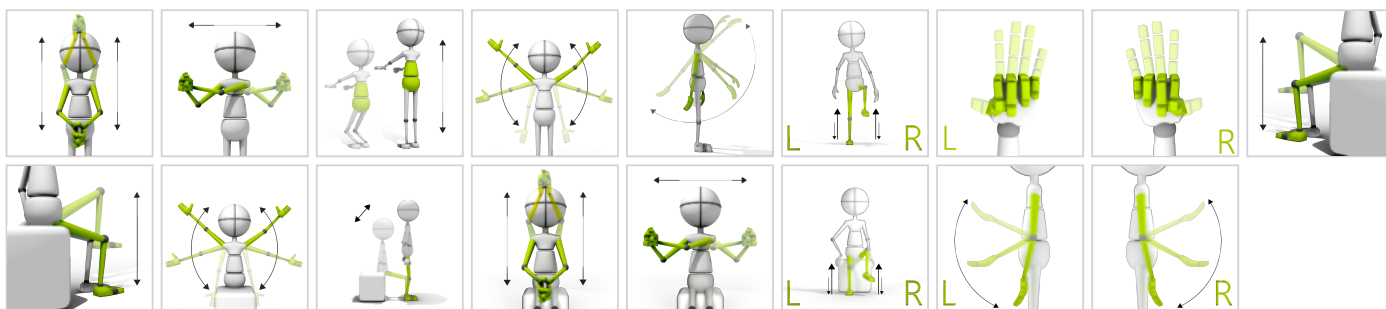


SPEED

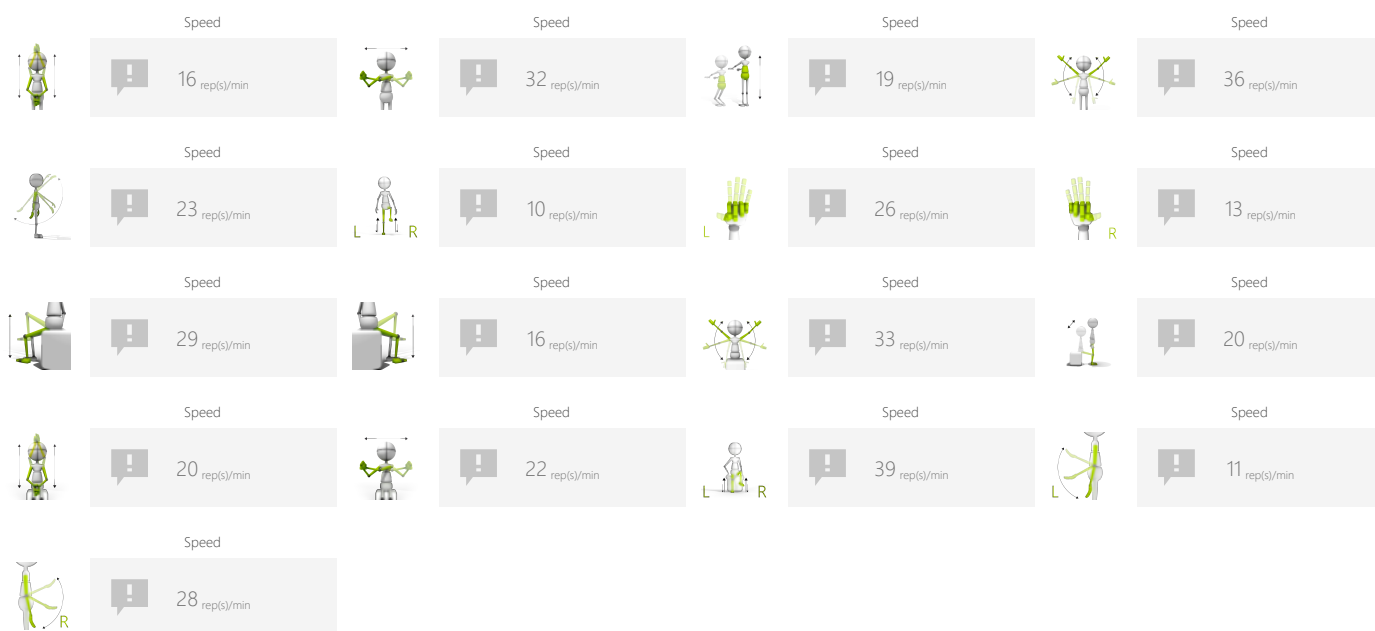
SPEED TEST

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

CONTROL MODES



RESULTS



ADJUSTMENTS

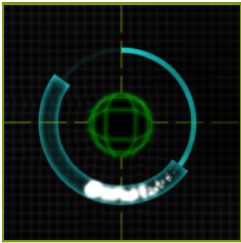
- Time to complete action
- Range

OBJECTIVES

- Speed of movement
- Repetitive movements

INSTRUCTION FOR PATIENT

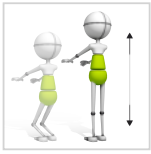
Perform the specified movement pattern as many times as possible.



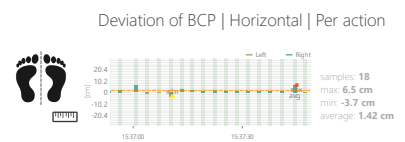
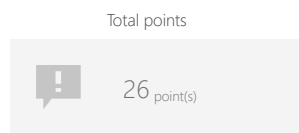
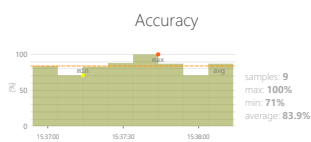
BALANCE GRID

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Period
- Positioning

OBJECTIVES

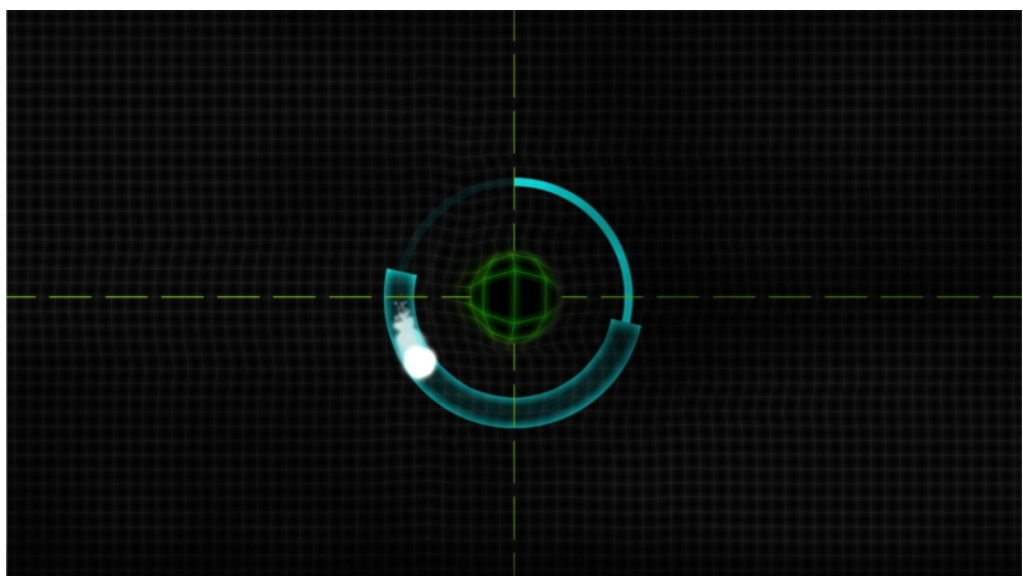
- Balance and equilibrium training
- 3D space movements reproduction
- Activity in a given rhythm

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



Duration: 90s

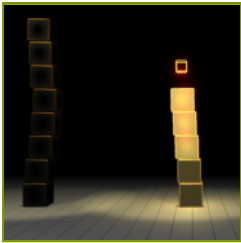
Period: 6s

Positioning: Any

Difficulty: 1/3

Range: 50% (0% to 100%)

5%

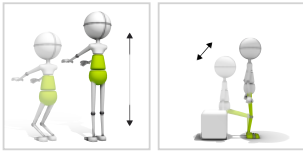


BALANCE

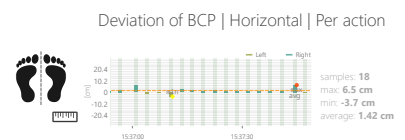
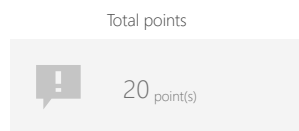
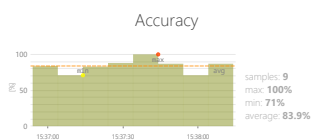
BLOCK BUILDER

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
- Positioning

OBJECTIVES

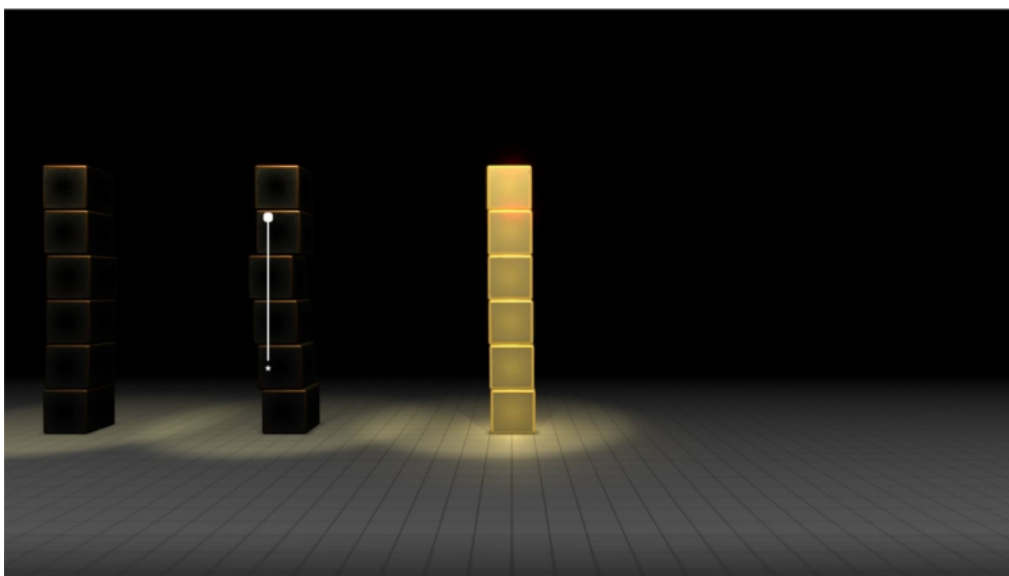
- Movement precision
- Muscle strengthening

INSTRUCTION FOR PATIENT

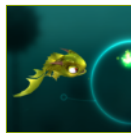
Build as many stacks as you can. Keep your body balanced.



SAMPLE SETTINGS



◀	Difficulty 1/3	▶
Duration < 90s >		Range 5% 50% 0% 100%
Stack height < 6 >		Positioning < Any >

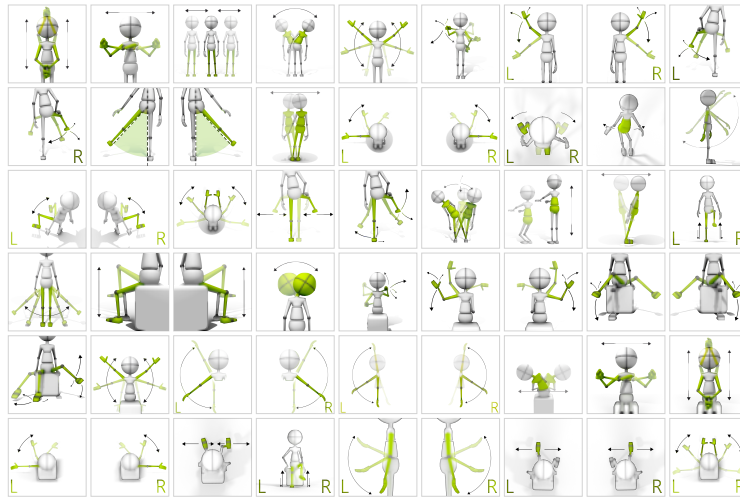


MOVEMENT PRECISION

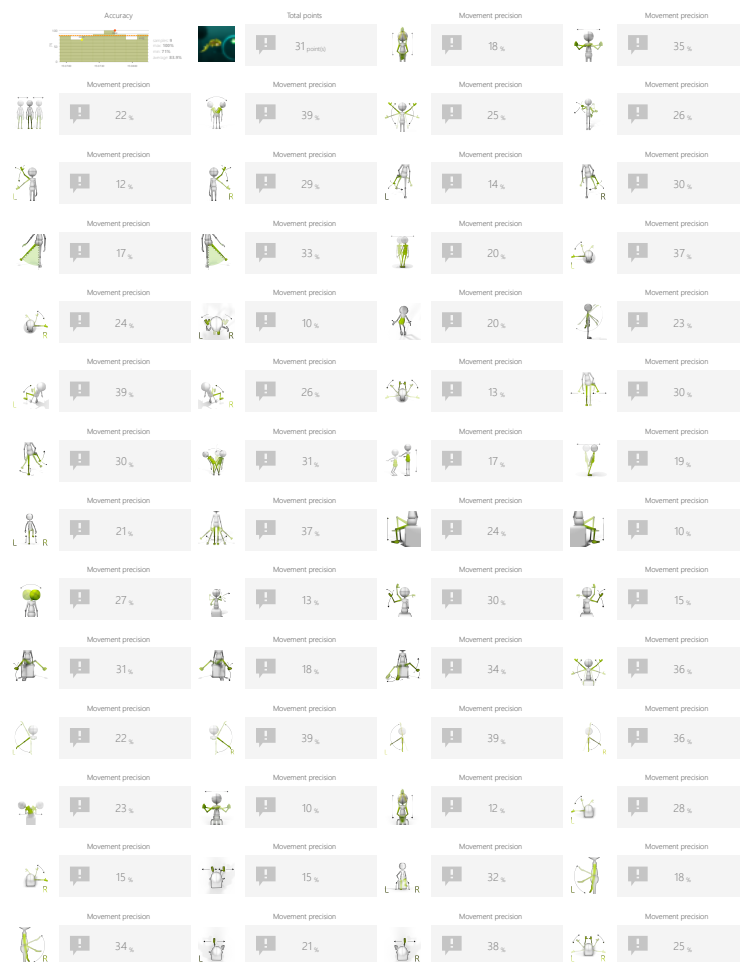
FISH

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

CONTROL MODES



RESULTS



ADJUSTMENTS

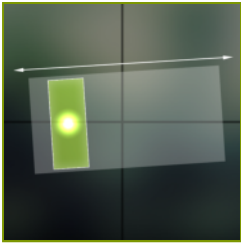
- Task duration
- Range
- Speed of objects

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.

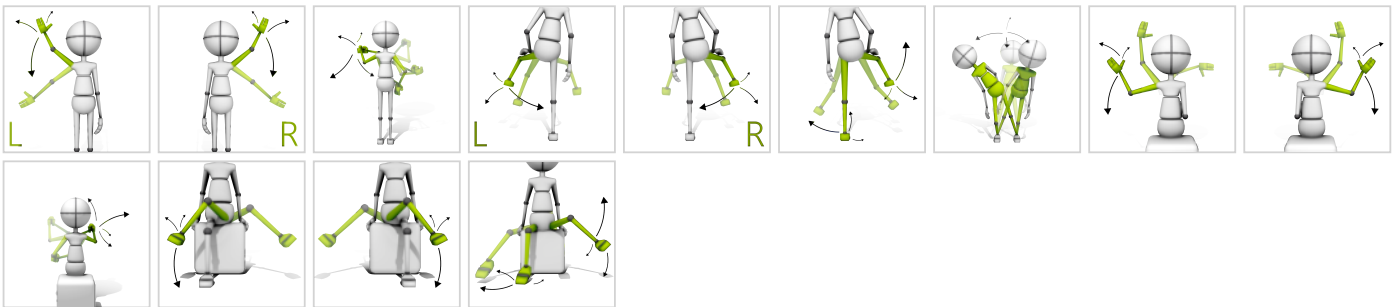


MOVEMENT PRECISION

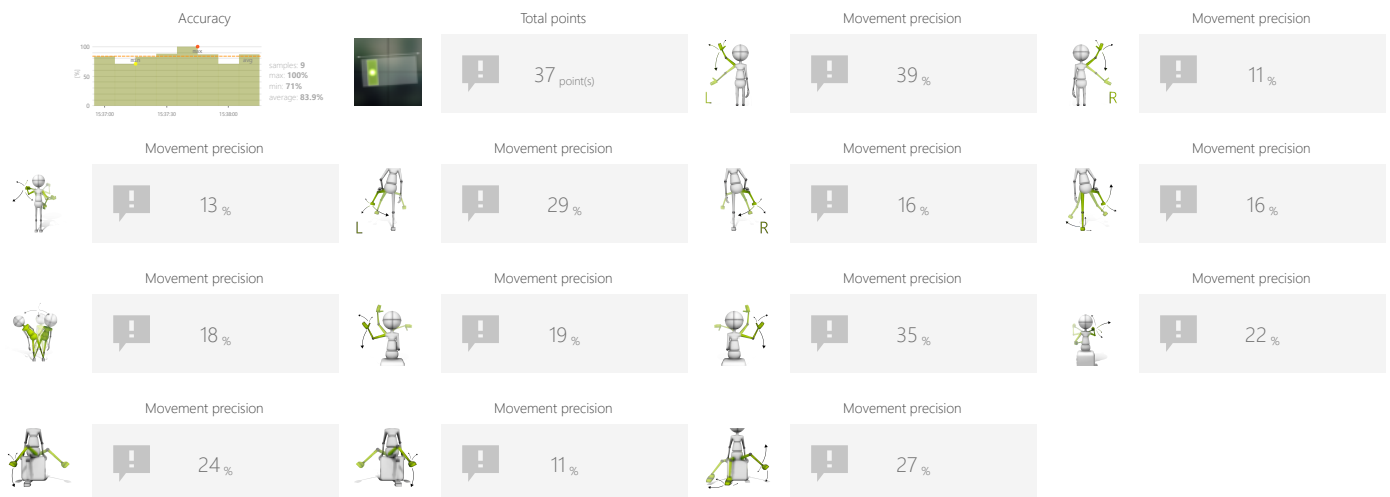
PENDULUM

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
- Rhythmicity
- Activity in a given rhythm
- Movement precision

INSTRUCTION FOR PATIENT

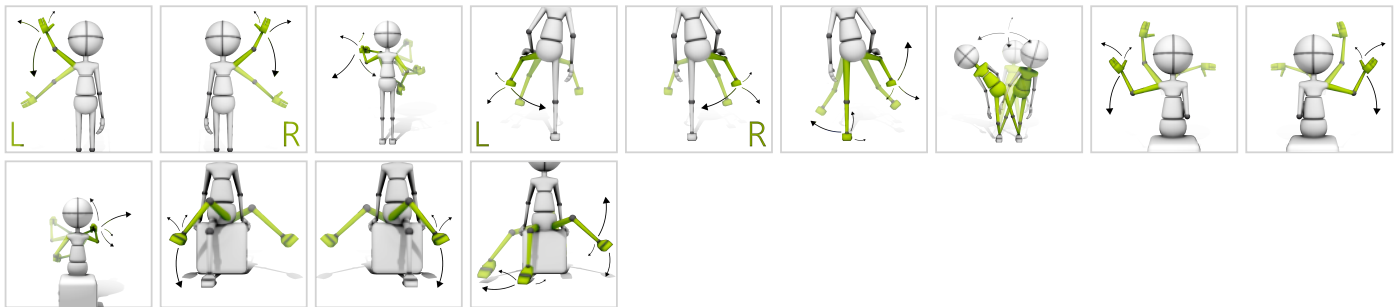
Try to synchronize yourself with the rectangle movements. Do your best to stay within the rectangle.



MOVEMENT PRECISION TRACKING

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

CONTROL MODES



RESULTS



ADJUSTMENTS

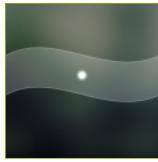
- Task duration
- Range
- Inverse direction
- Show path
- Period
- Radius
- Target radius

OBJECTIVES

- 3D space movements reproduction
- 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.

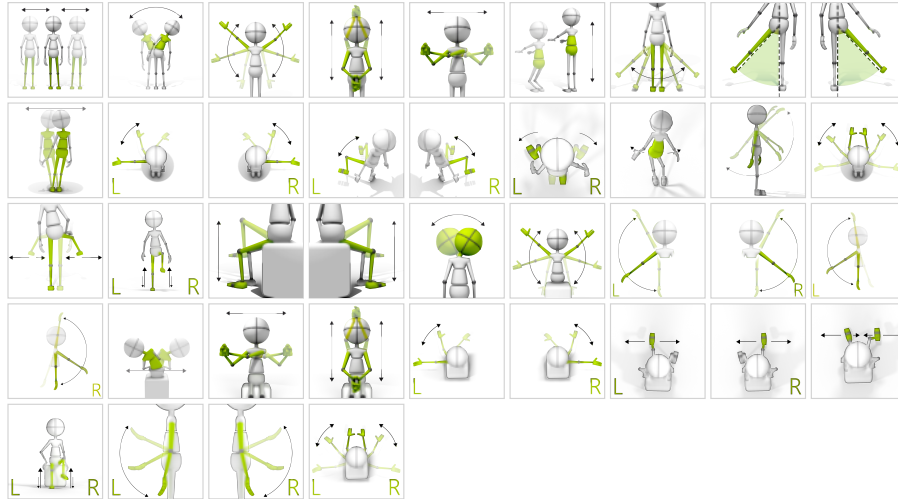


MOVEMENT PRECISION

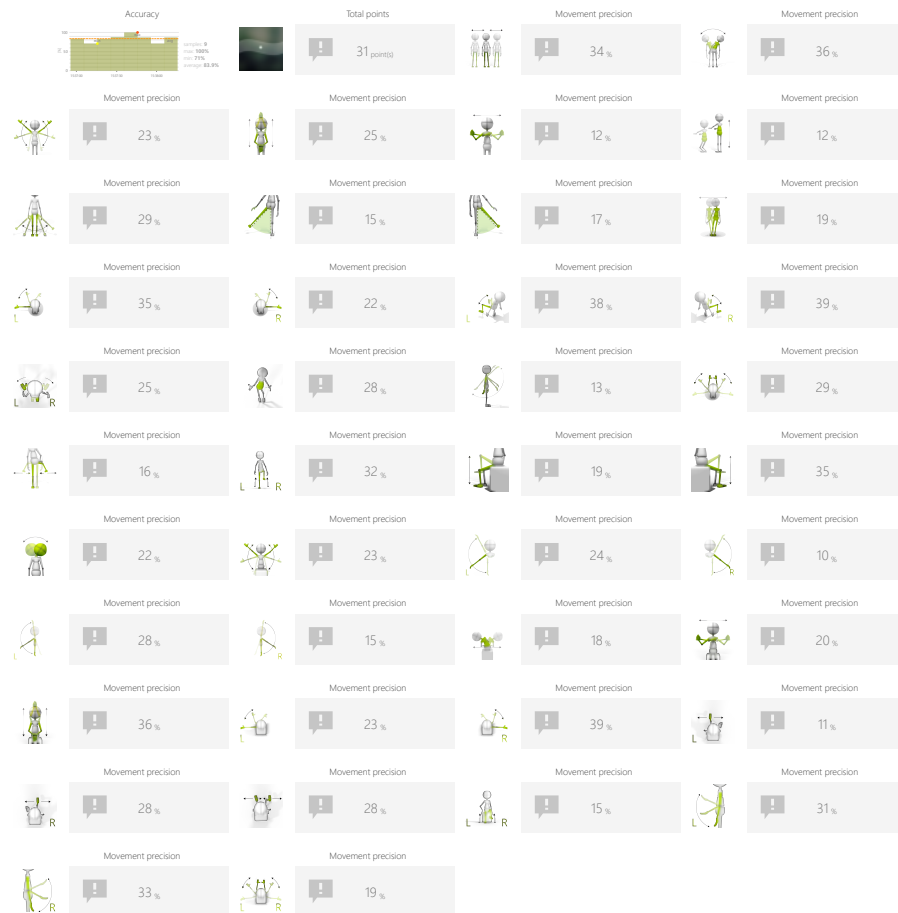
GRAPH

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
- Positioning

OBJECTIVES

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

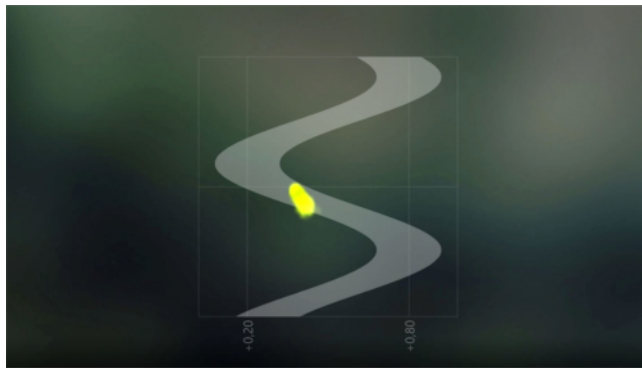
INSTRUCTION FOR PATIENT

Try to stay within the borders.



MOVEMENT PRECISION GRAPH

SAMPLE SETTINGS



Difficulty: 3/3

Treadmill speed: Any

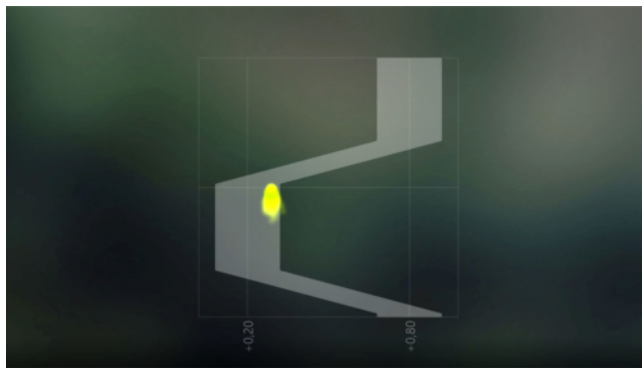
Treadmill elevation: Any

Graph configuration: 4.0s +/- 20%

Player speed: 100% relatively to treadmill speed

Duration: 30s

Range: 20% ↔ 80%



Difficulty: 1/3

Treadmill speed: Any

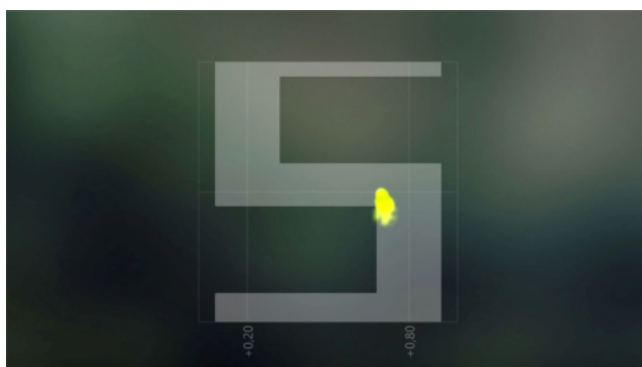
Treadmill elevation: Any

Graph configuration: 4.0s +/- 40%

Player speed: 100% relatively to treadmill speed

Duration: 90s

Range: 20% ↔ 80%



Difficulty: custom

Treadmill speed: Any

Treadmill elevation: Any

Graph configuration: +/- 20% ↑ : 2.0s ↓ : 2.0s ^ : 1.0s v : 1.0s

Player speed: 100% relatively to treadmill speed

Duration: 30s

Range: 45% ↔ 55%

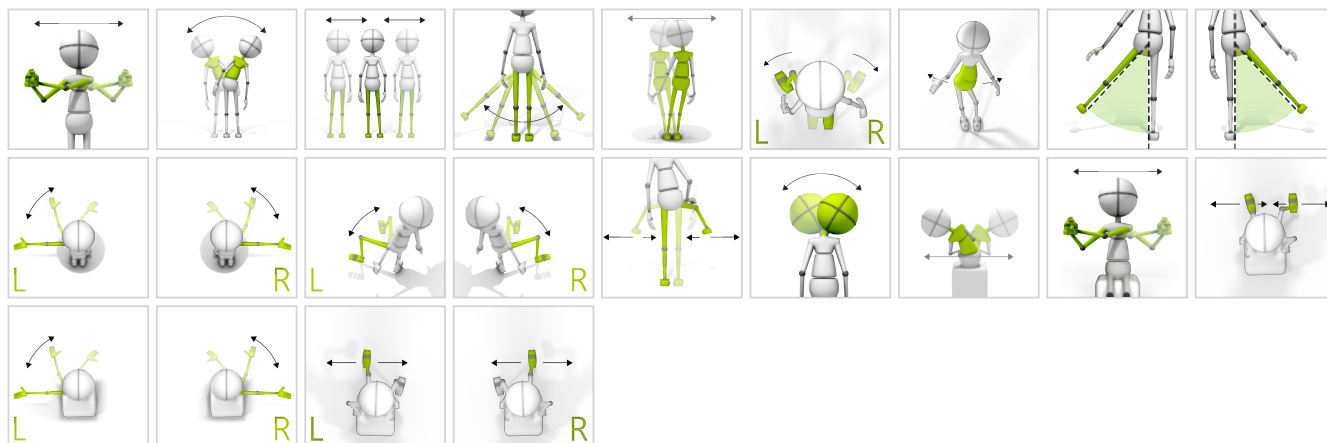


MOVEMENT PRECISION

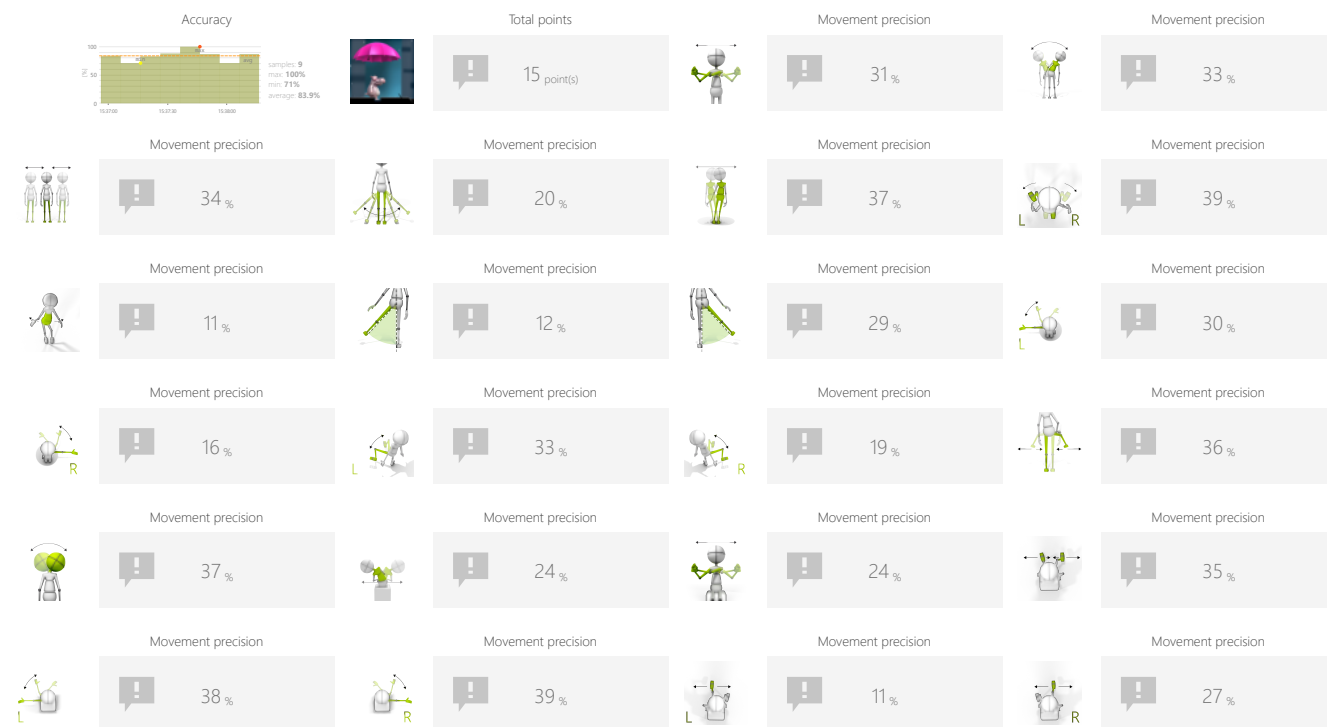
UMBRELLA

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		
Treadmill speed < Any >	Treadmill elevation < Any >	
Duration < 60s >	Path ⌚: 8.0s	
Range < 20% ↔ 80% >	Umbrella size < 150% >	

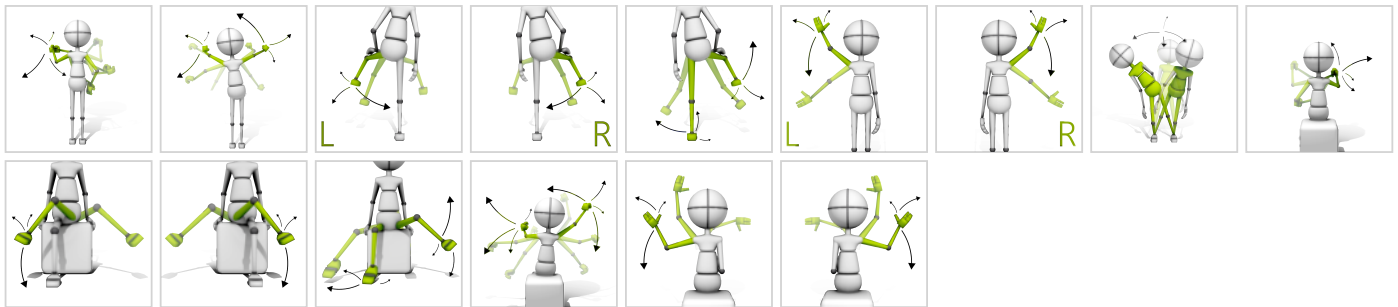


FUNCTIONAL MOVEMENTS

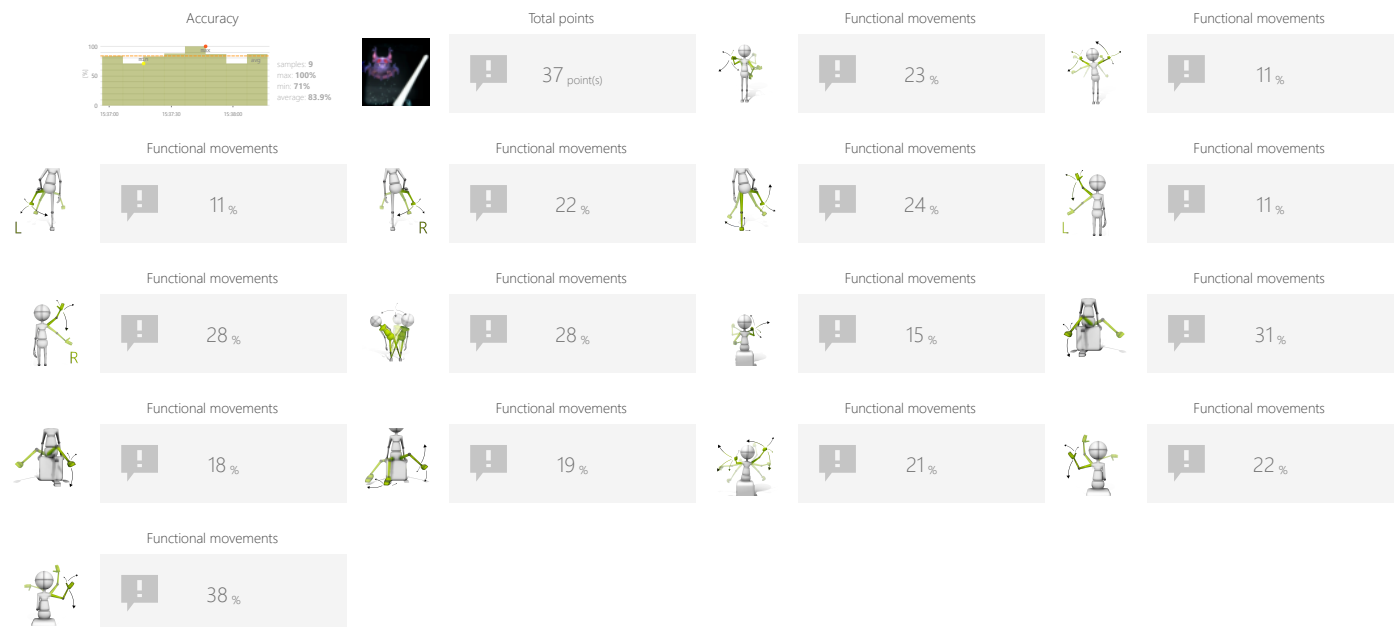
VAMPIRES

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	
Treadmill speed < Any >	Treadmill elevation < Any >
Active positions 	Duration < 90s >
Time between objects < 2s >	Time to react < 2s >



Difficulty 1/3	
Treadmill speed < Any >	Treadmill elevation < Any >
Active positions 	Duration < 90s >
Time between objects < 2s >	Time to react < 2s >

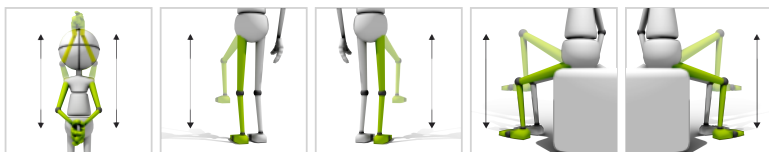


FUNCTIONAL MOVEMENTS

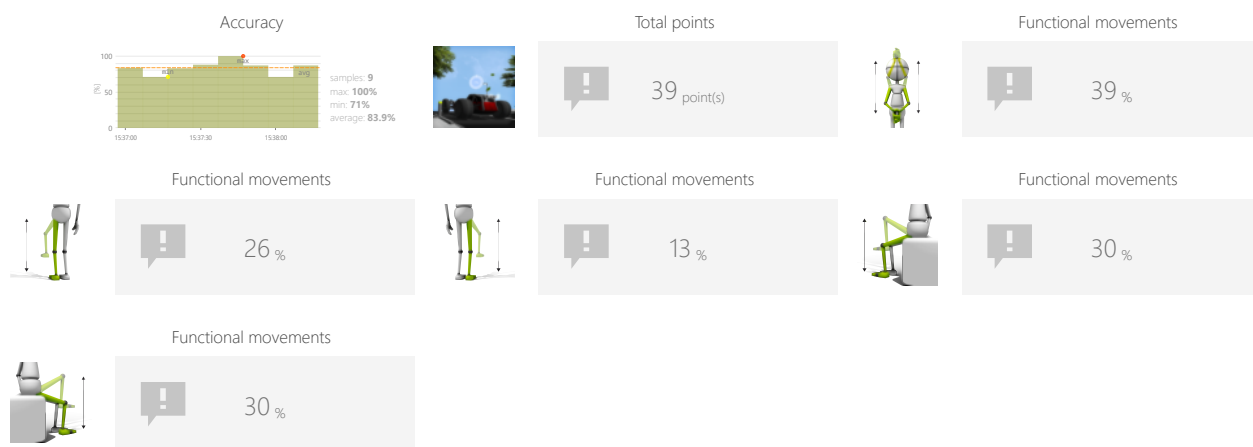
PUMPER

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
- Range

OBJECTIVES

- Speed of movement
- Dynamics of planned movements

INSTRUCTION FOR PATIENT

Pump the wheels as quickly as you can.



FUNCTIONAL MOVEMENTS

PUMPER

SAMPLE SETTINGS



◀	Difficulty 1/2	▶
Treadmill speed < Any >		Treadmill elevation < Any >
Duration < 90s >		Minitask duration < 30s >
Range 20% 80% 		

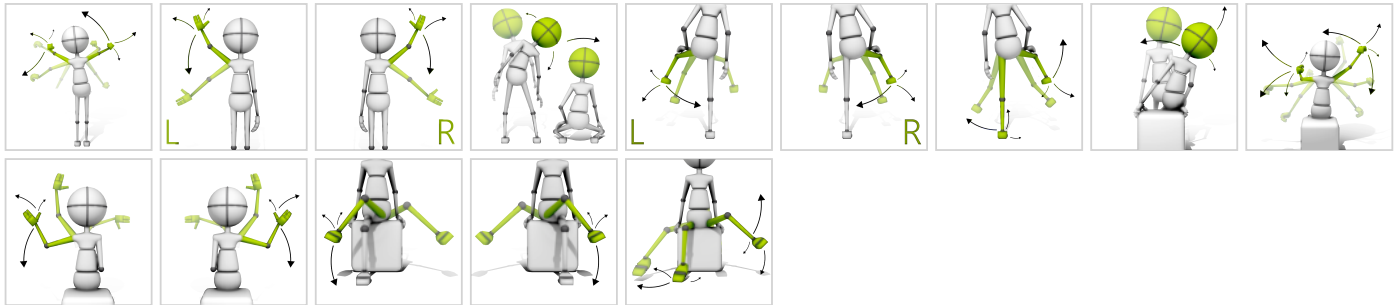


FUNCTIONAL MOVEMENTS

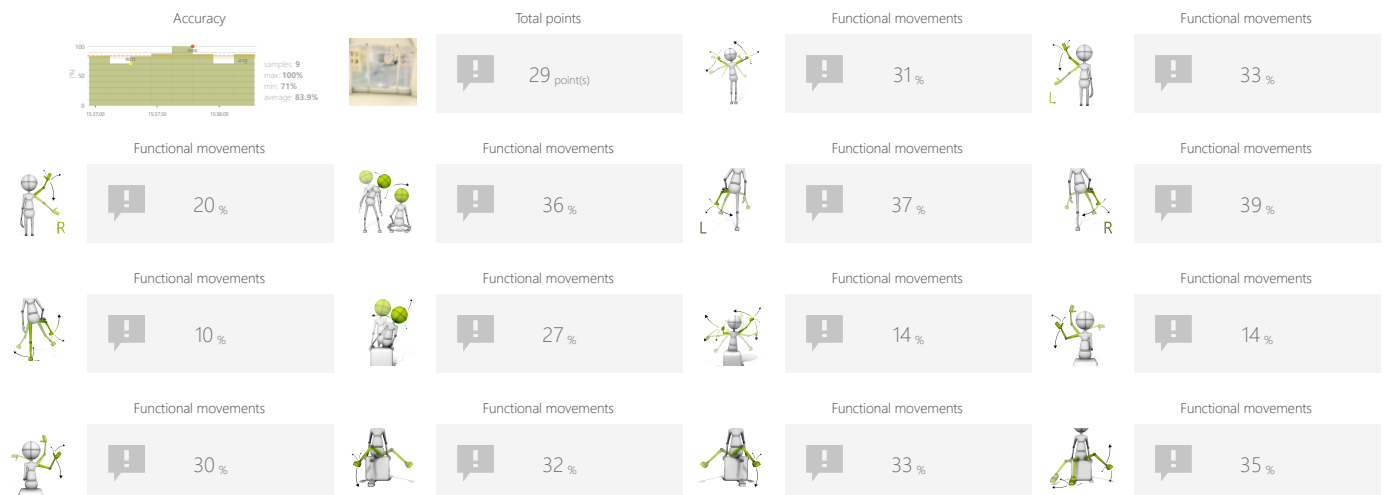
CLEANER

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
- Positioning

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

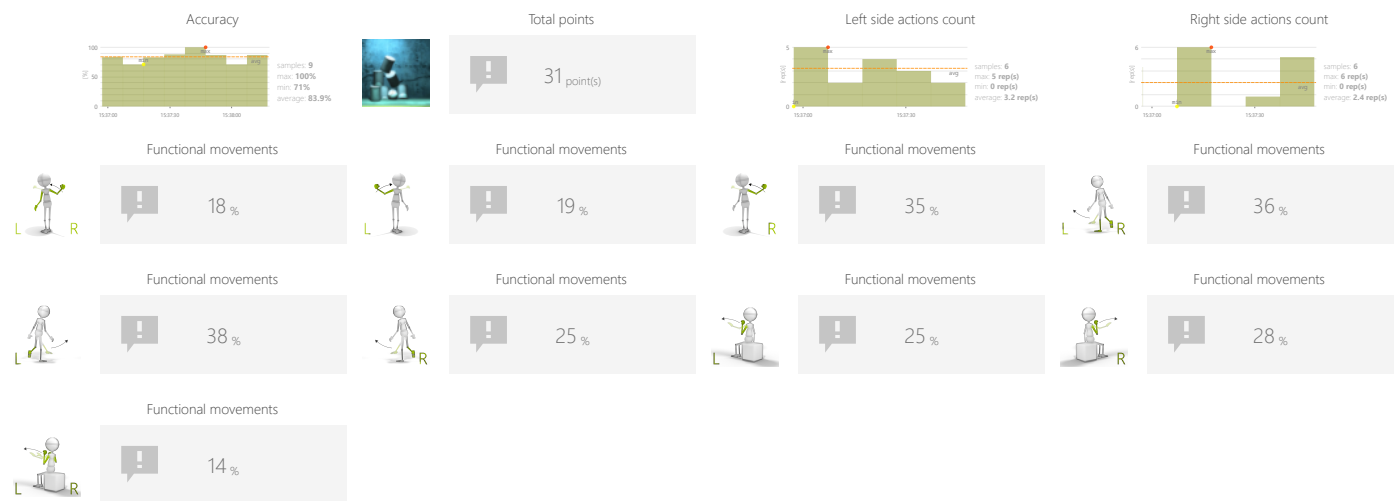
CANS

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.



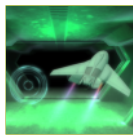
FUNCTIONAL MOVEMENTS

CANS

SAMPLE SETTINGS



	Difficulty 1/4
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Speed of objects < 75% >
	Weight of targets < 100% >

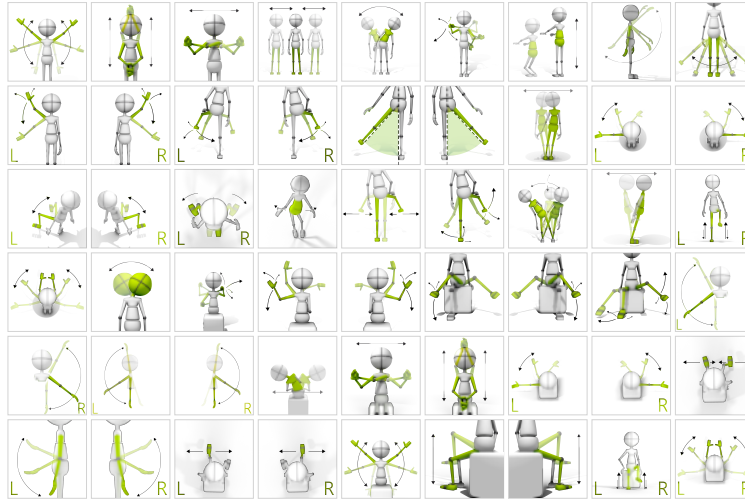


FUNCTIONAL MOVEMENTS

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

- Speed
- Task duration
- Range

OBJECTIVES

- Focusing
- Perceptivity
- Movement precision
- Predicting the trajectory of objects in 3D space

INSTRUCTION FOR PATIENT

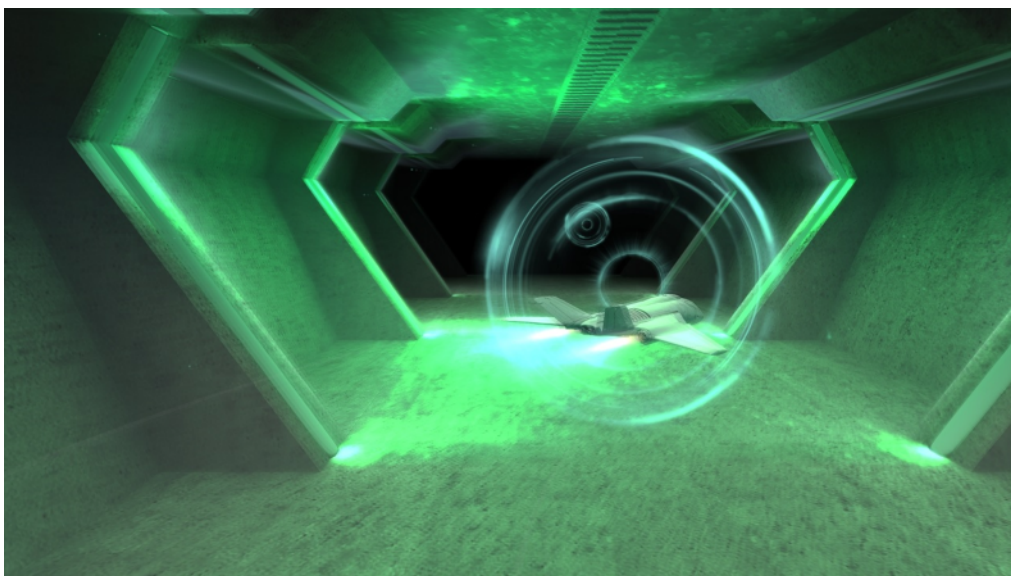
Make the airplane fly through the circles. The closer to the center it flies the more points you get.



FUNCTIONAL MOVEMENTS

AIRPLANE

SAMPLE SETTINGS



Difficulty	2/4
Treadmill speed	Any
Treadmill elevation	Any
Player speed	100%
relatively to treadmill speed	
Duration	90s
Range	20% ↔ 80%

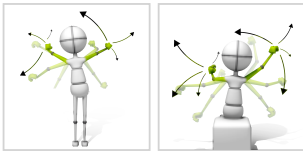


FUNCTIONAL MOVEMENTS

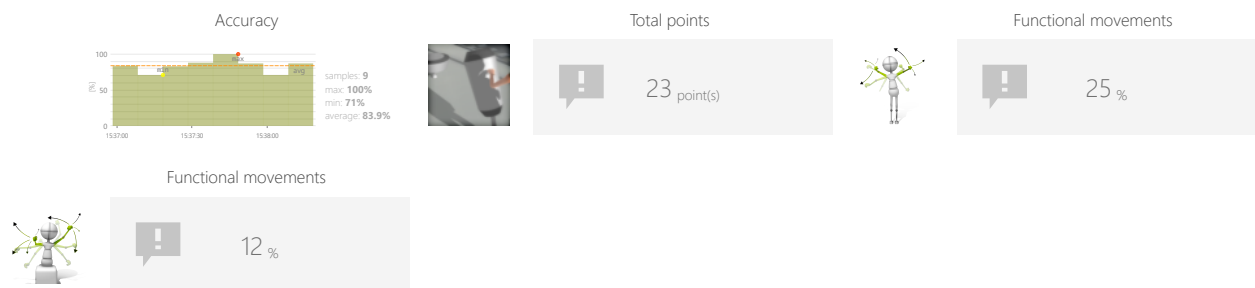
PUNCHER

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.

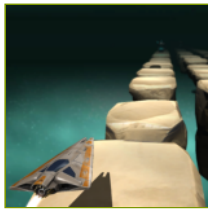


SAMPLE SETTINGS



	Difficulty 1/2
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 30s >	Minitask duration < 30s >

	Difficulty 1/2
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 30s >	Minitask duration < 30s >

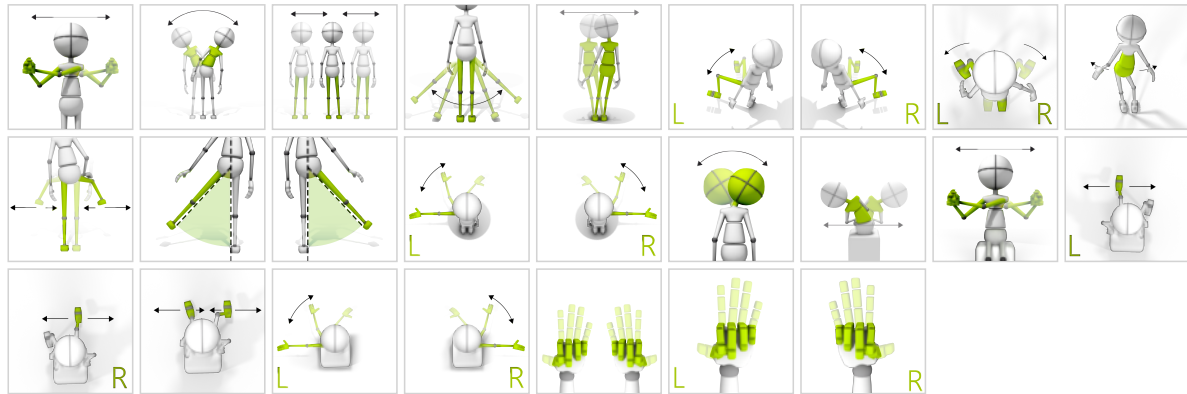


FUNCTIONAL MOVEMENTS

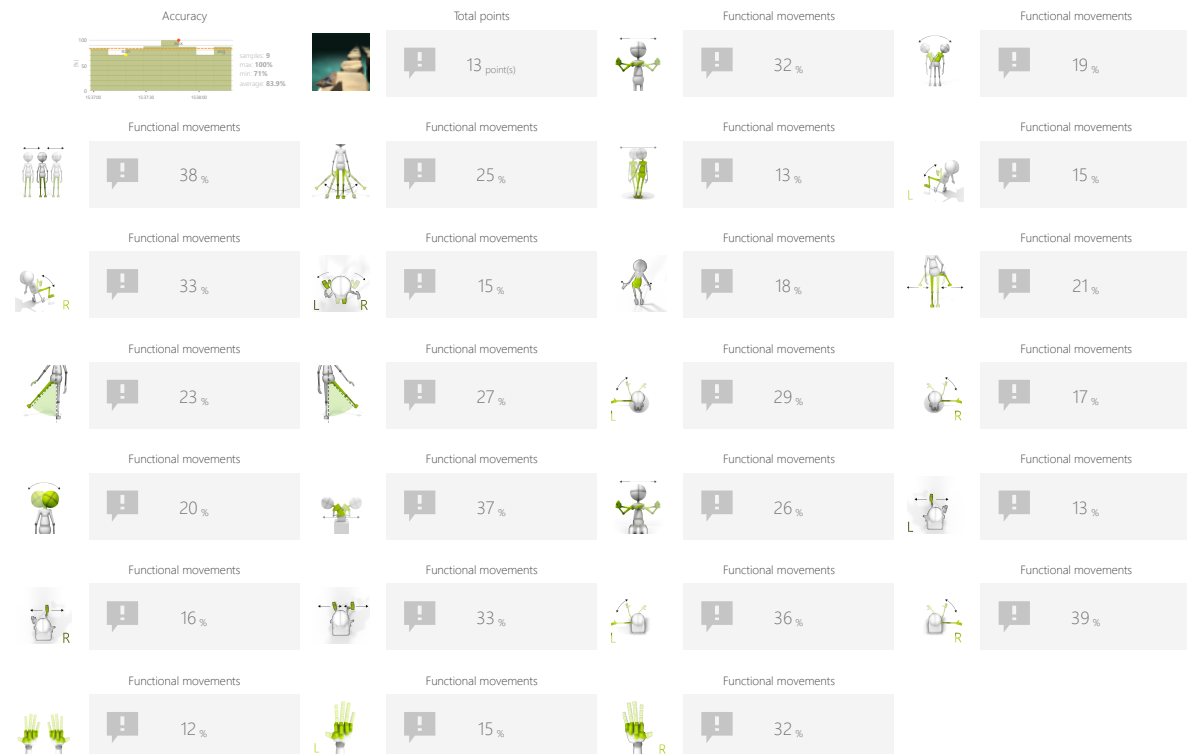
STONES

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

- Speed
- Task duration
- Range

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	
Treadmill speed < Any >		Treadmill elevation < Any >
Player speed 100% relatively to treadmill speed		
Duration 90s		Range 20% ↔ 80%



FUNCTIONAL MOVEMENTS

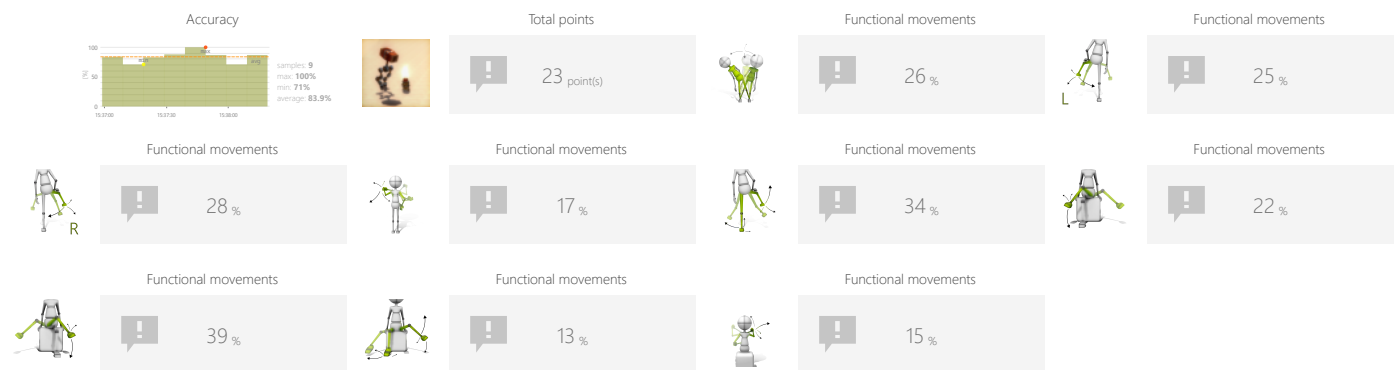
HAMMER

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
- Positioning

OBJECTIVES

- Planning and Strategy
- Speed of decision making

INSTRUCTION FOR PATIENT

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

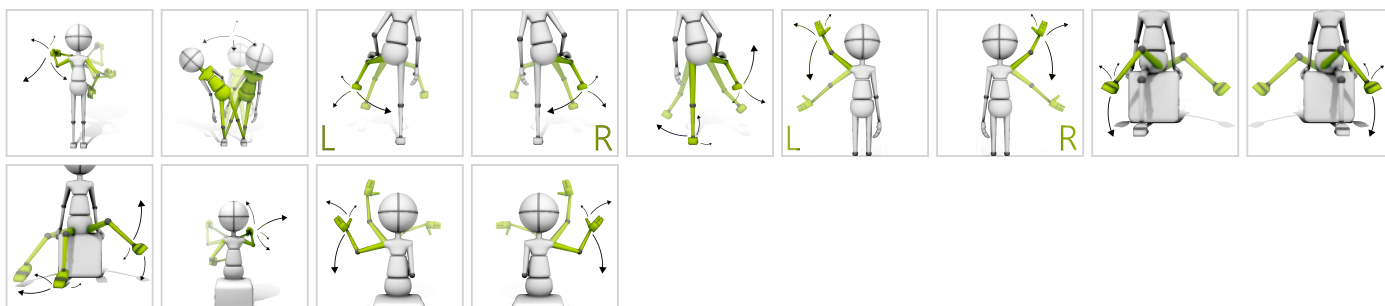


FUNCTIONAL MOVEMENTS

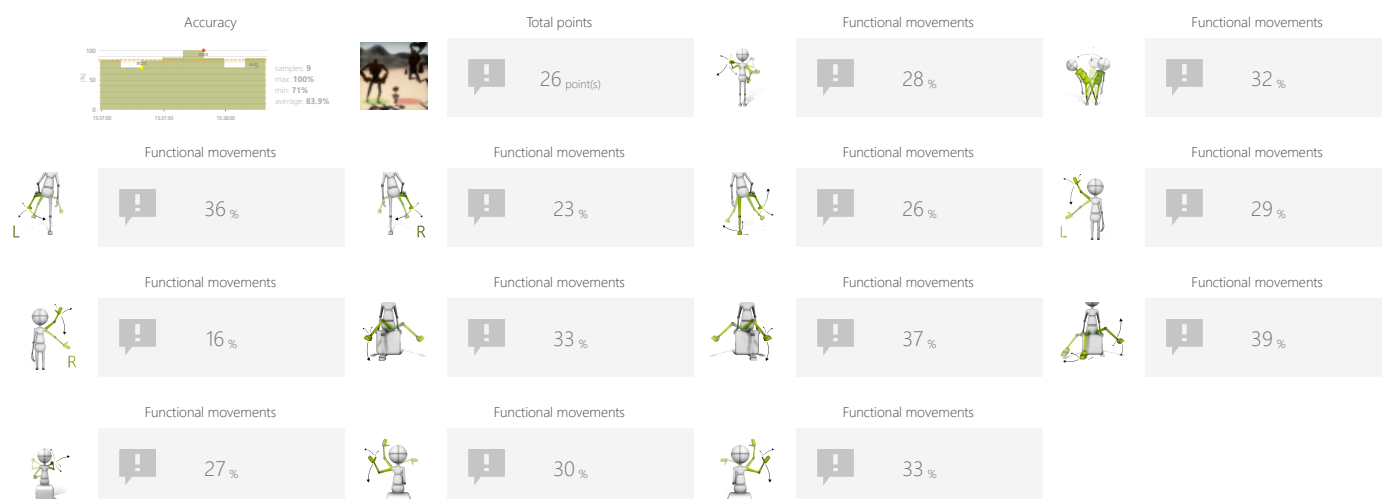
RUNAWAY

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
- Positioning

OBJECTIVES

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

INSTRUCTION FOR PATIENT

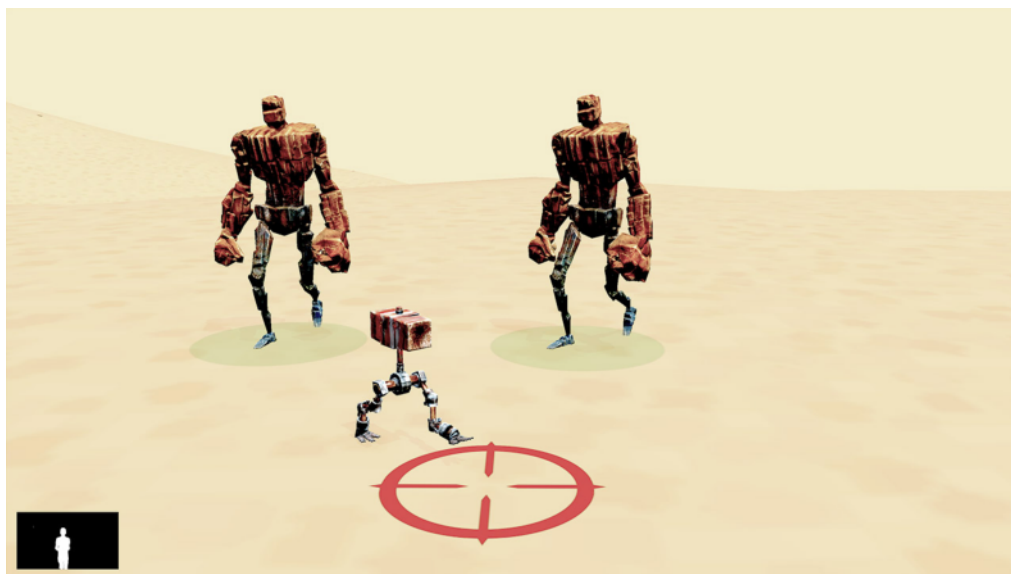
Keep away from the big robots.



FUNCTIONAL MOVEMENTS

RUNAWAY

SAMPLE SETTINGS



Difficulty 1/3	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range 80% 20% ↔ 80%
Number of enemies < 2 >	Enemies speed < 100% >



Difficulty custom	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range 80% 20% ↔ 80%
Number of enemies < 4 >	Enemies speed < 100% >



FUNCTIONAL MOVEMENTS

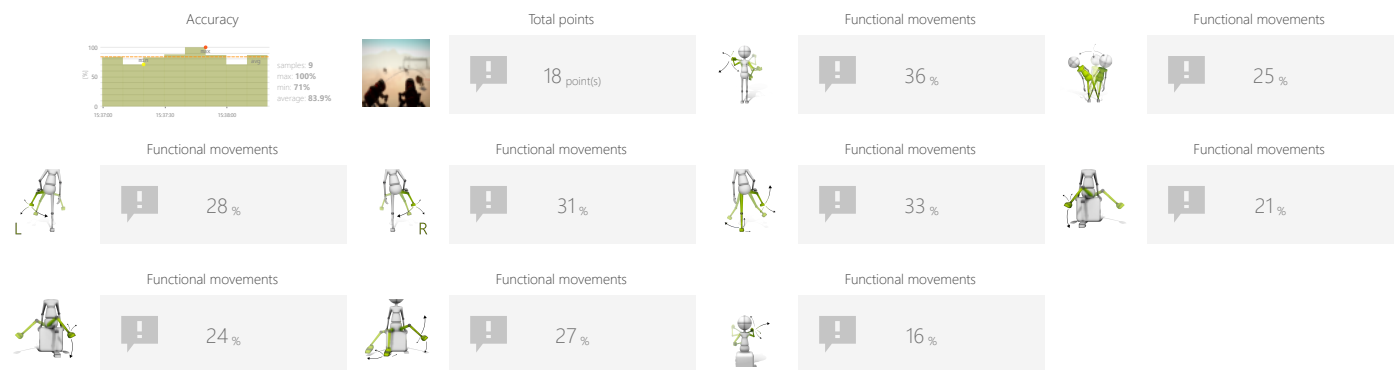
CANNON

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
- Positioning

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.



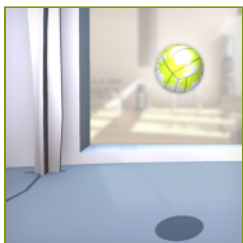
SAMPLE SETTINGS



◀	Difficulty 1/3	▶
Treadmill speed < Any >	Treadmill elevation < Any >	
Duration < 90s >	Range 80% 20% ↔ 80% 	
Time between cannonballs < 2s >	Time between enemies < 4s >	
Enemies speed < 50% >		



◀	Difficulty custom	▶
Treadmill speed < Any >	Treadmill elevation < Any >	
Duration < 90s >	Range 80% 20% ↔ 80% 	
Time between cannonballs < 2s >	Time between enemies < 4s >	
Enemies speed < 100% >		

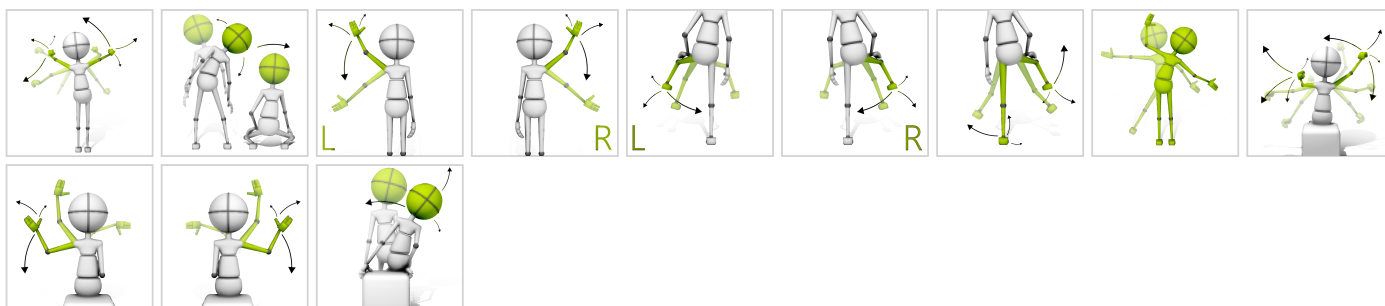


FUNCTIONAL MOVEMENTS

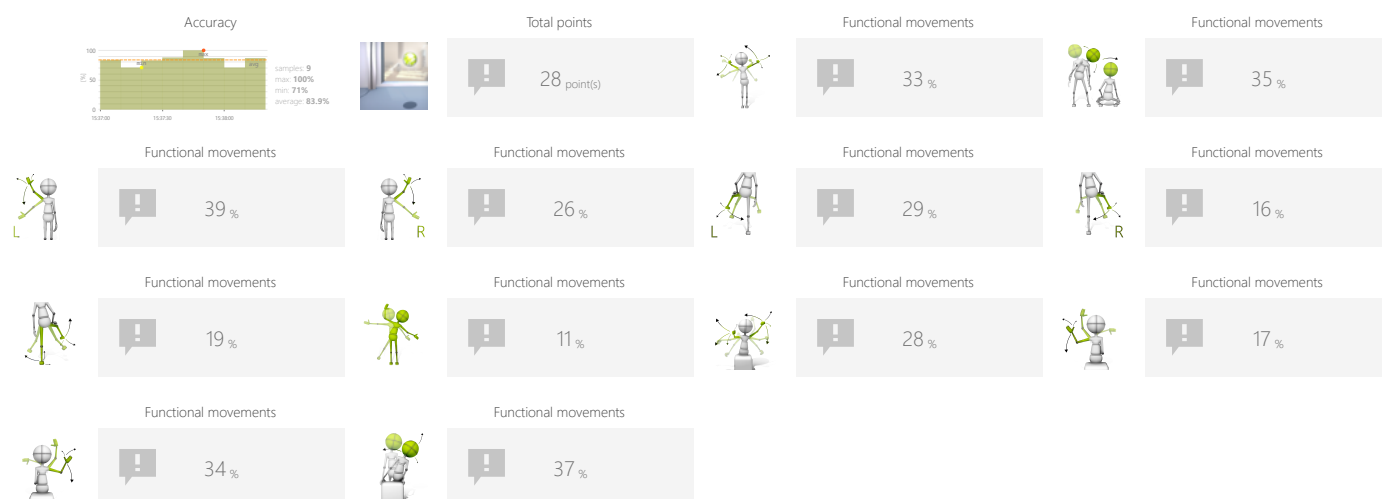
BALL

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
- Positioning

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.

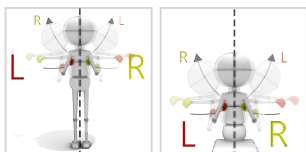


FUNCTIONAL MOVEMENTS

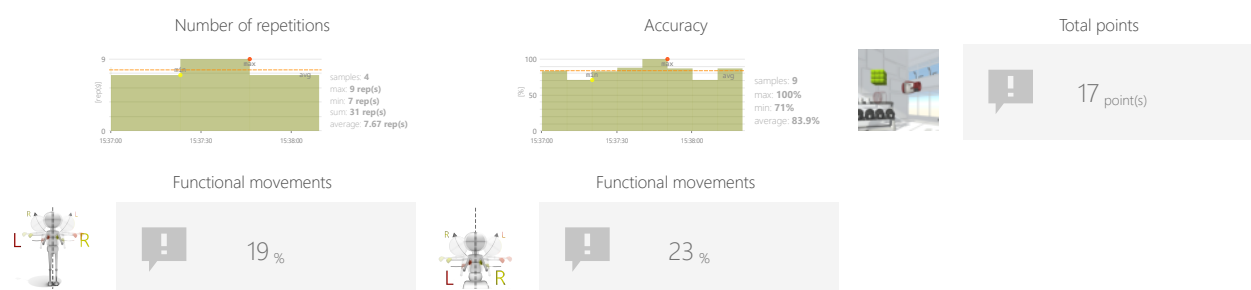
CROSS PUNCHER

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

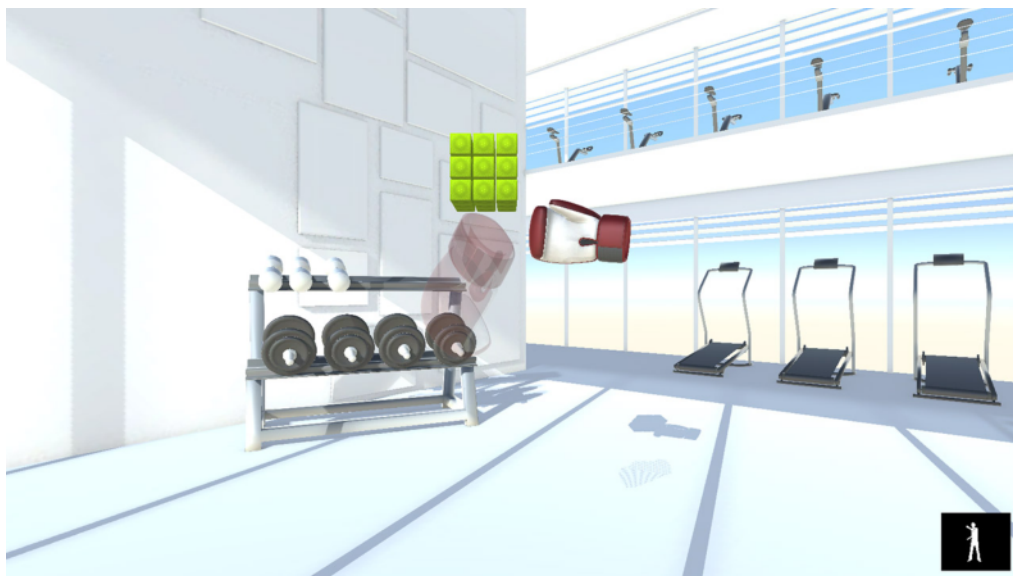
Hit green cubes as fast as you can and remember to always cross your punches and kicks.



FUNCTIONAL MOVEMENTS

CROSS PUNCHER

SAMPLE SETTINGS



	Difficulty 1/3	
Treadmill speed < Any >		Treadmill elevation < Any >
Duration < 30s >		Time to react < 3s >
		Distance to targets < 75% >

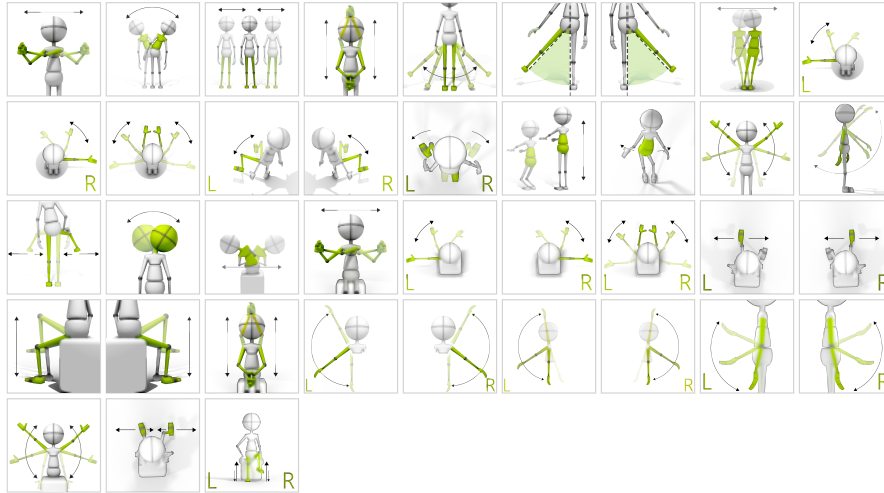


FUNCTIONAL MOVEMENTS

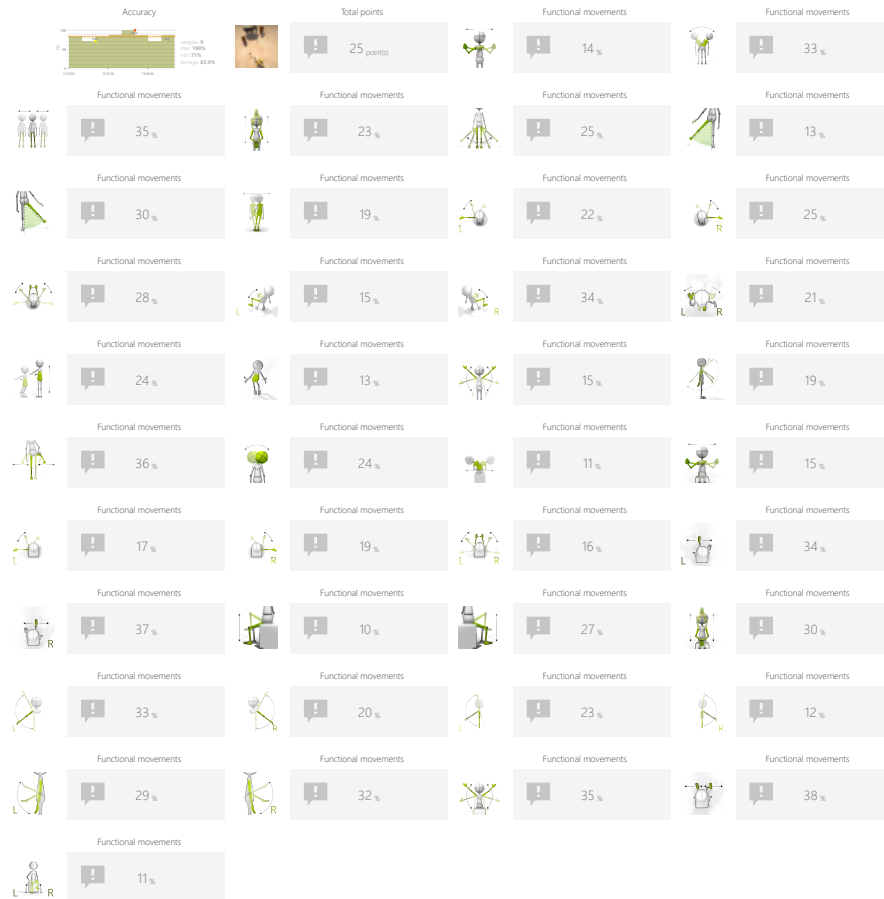
AUTOMATIC CANNON

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
- Predicting the trajectory of objects

INSTRUCTION FOR PATIENT

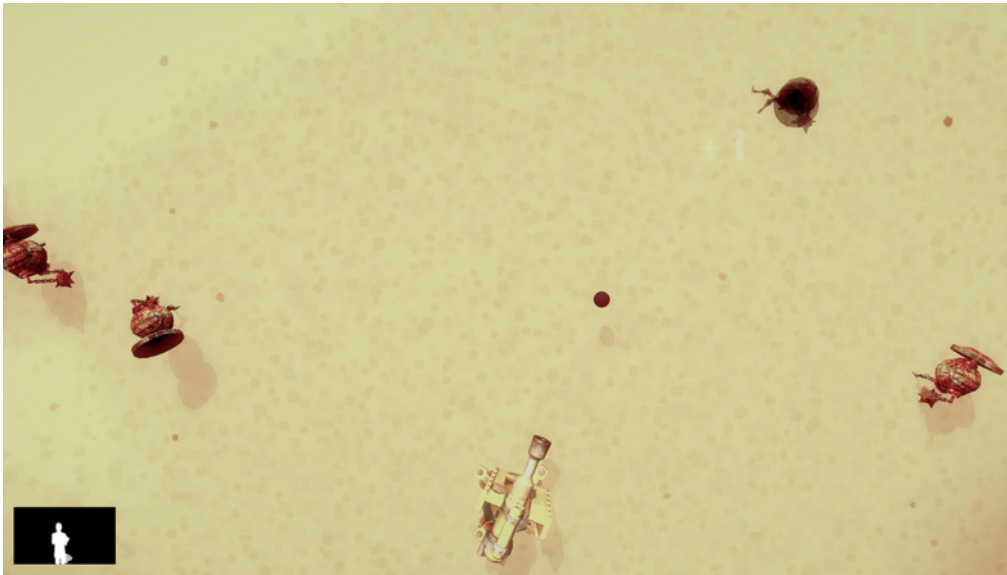
Control cannon(s) to destroy robots, but avoid hitting the elephant!





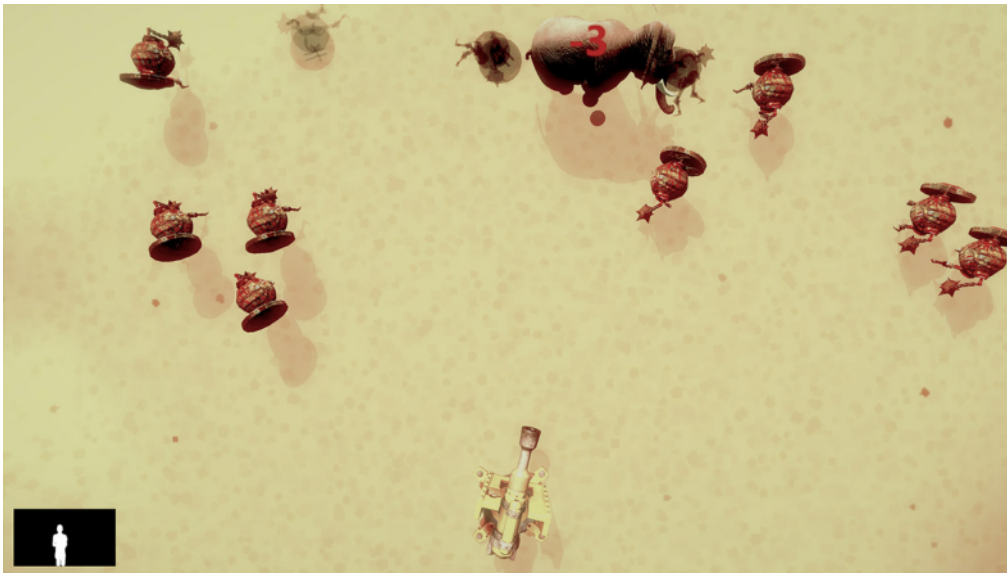
FUNCTIONAL MOVEMENTS



AUTOMATIC CANNON

SAMPLE SETTINGS



			
Difficulty		1/3	
Treadmill speed	< Any >	Treadmill elevation	< Any >
Duration	< 90s >	Range	< 20% ↔ 80% >
Enable distractors	< No >	Time between cannonballs	< 1s >
Time between enemies	< 3s >	Enemies speed	< 50% >



			
Difficulty		custom	
Treadmill speed	< Any >	Treadmill elevation	< Any >
Duration	< 90s >	Range	< 20% ↔ 80% >
Enable distractors	< Yes >	Time between cannonballs	< 1s >
Time between enemies	< 3s >	Enemies speed	< 50% >

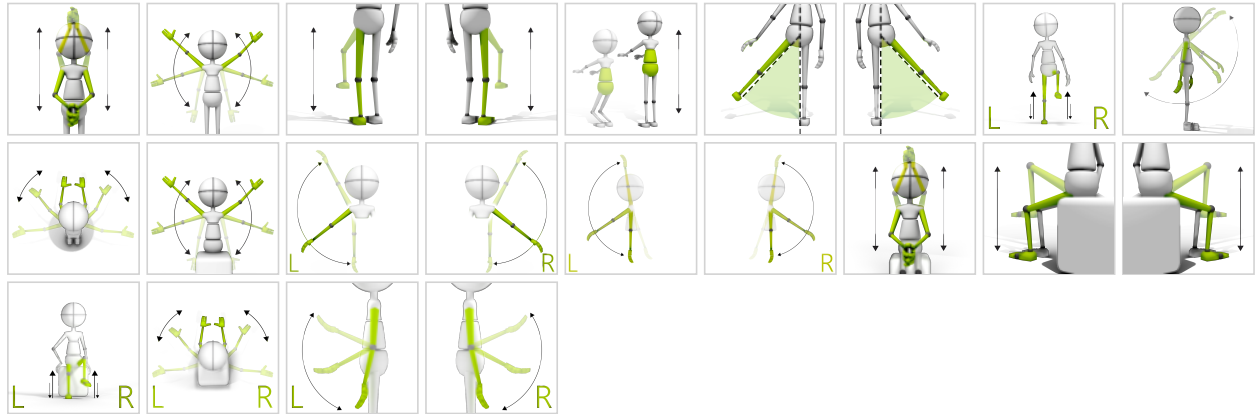


FUNCTIONAL MOVEMENTS

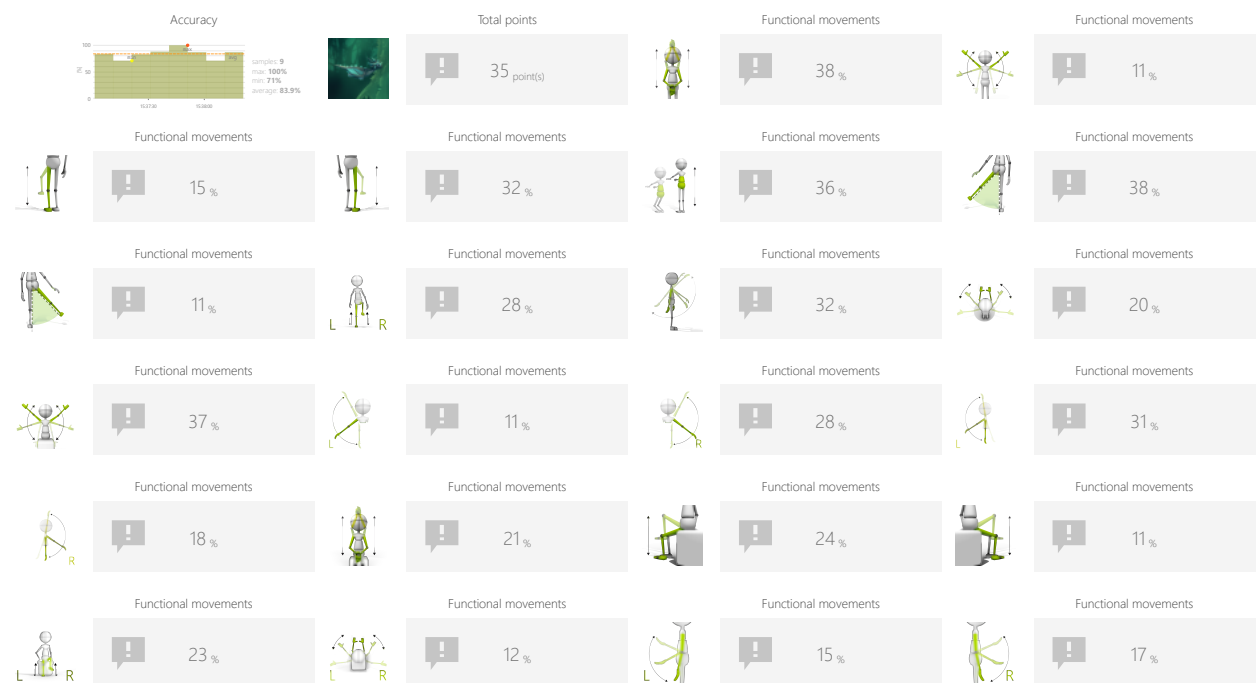
DRAGON

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		
Treadmill speed	Treadmill elevation	
< Any >	< Any >	
Duration	Range	
< 90s >	20% 80%	
Coins group size	Distance between coins	
< 3 >	< 250% >	
Gravity force		
< 100% >		



◀	Difficulty	▶
1/3		
Treadmill speed	Treadmill elevation	
< Any >	< Any >	
Duration	Range	
< 90s >	20% 80%	
Coins group size	Distance between coins	
< 5 >	< 250% >	
Gravity force		
< 100% >		

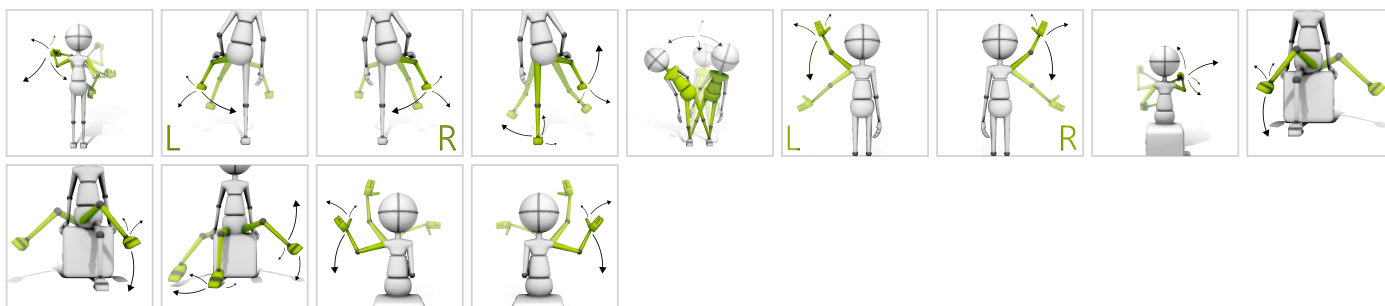


FUNCTIONAL MOVEMENTS

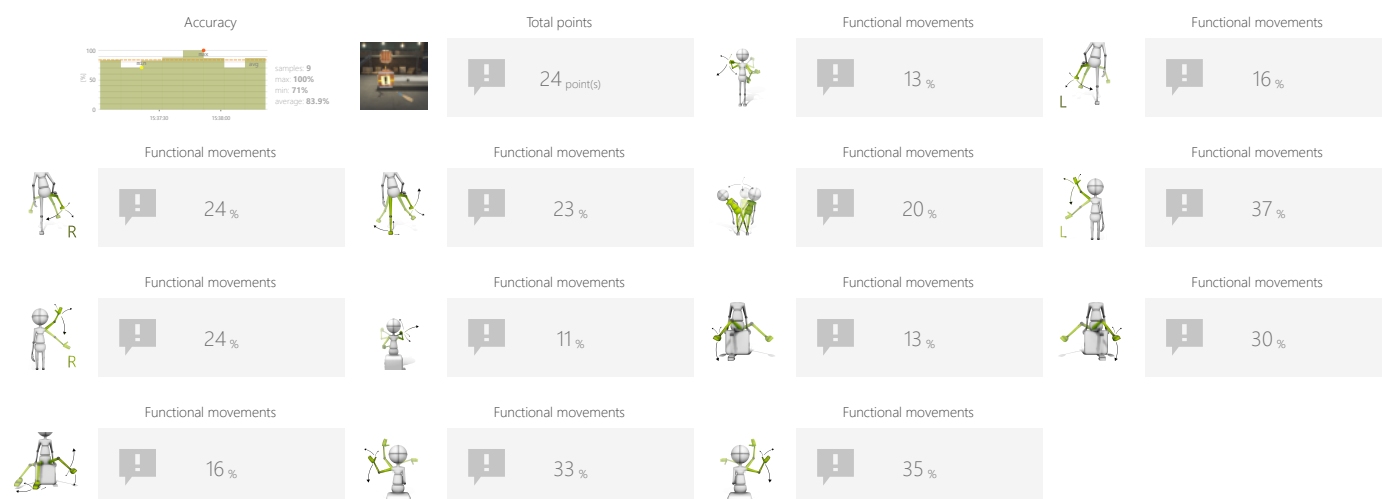
BOX CRUSHER

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	
Treadmill speed < Any >	Treadmill elevation < Any >
Active positions 	Duration < 90s >
Range 20% 80% 	Required force < 50% >

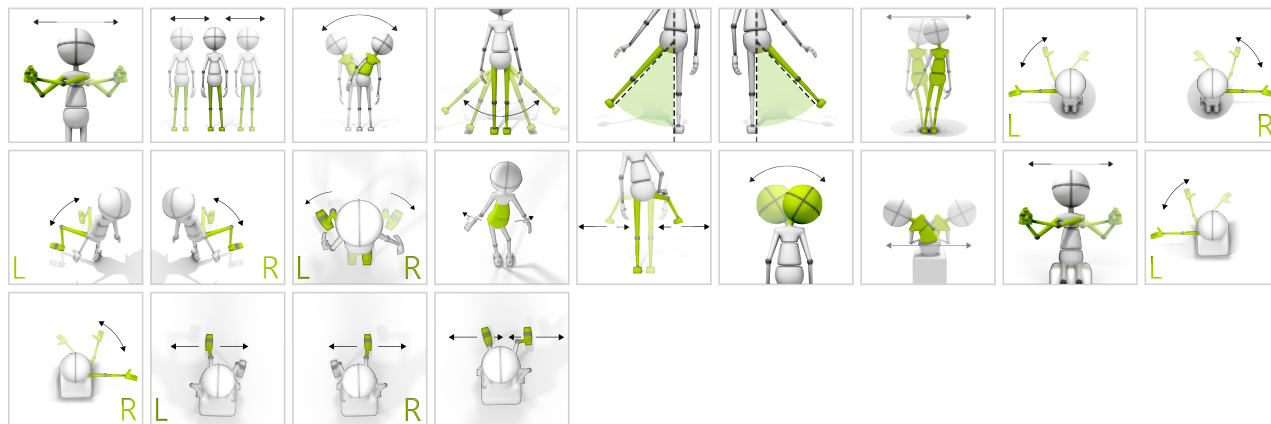


FUNCTIONAL MOVEMENTS

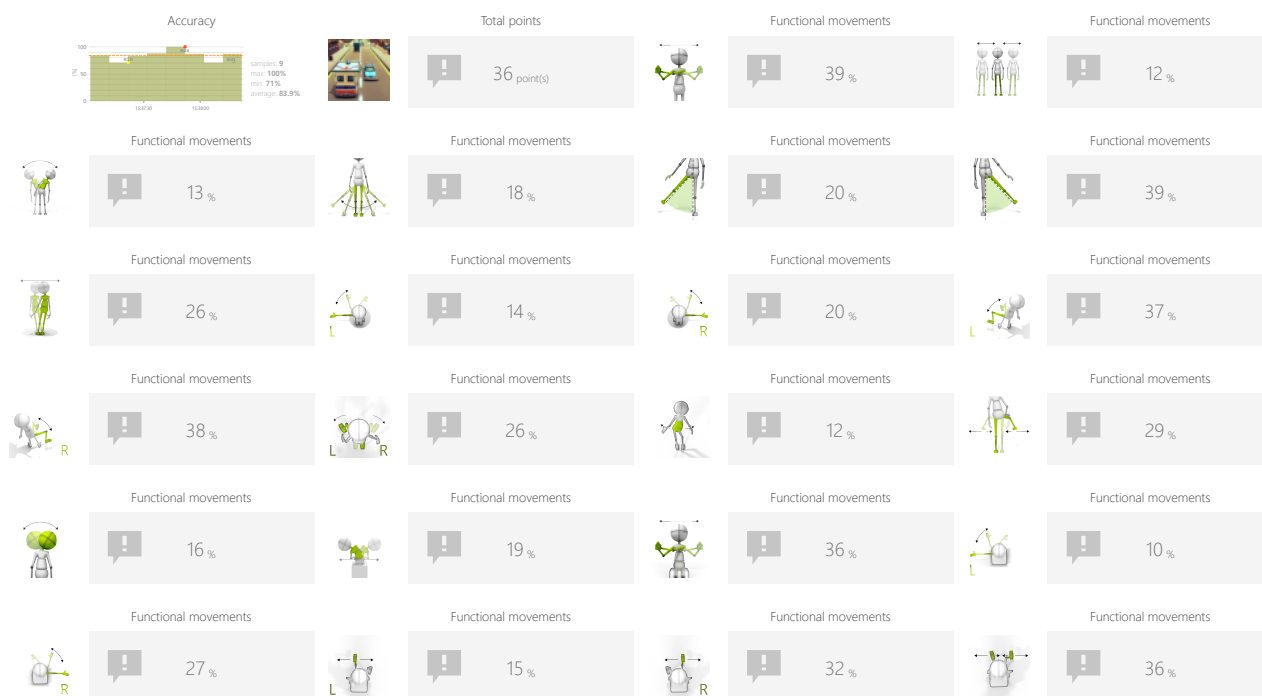
AMBULANCE

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

- Speed
- Task duration
- Range
- Distance between cars

OBJECTIVES

- 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

▶

Treadmill speed
< Any >

Treadmill elevation
< Any >



Player speed
< 50% >
relatively to treadmill speed

Duration
< 90s >

Range
< 20% ↔ 80% >

Distance between cars
< 50% >





◀

Difficulty
custom

▶

Treadmill speed
< Any >

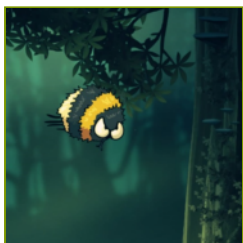
Treadmill elevation
< Any >

Player speed
< 50% >
relatively to treadmill speed

Duration
< 90s >

Range
< 20% ↔ 80% >

Distance between cars
< 200% >

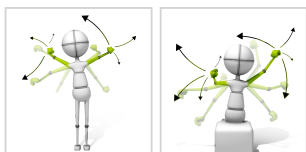


FUNCTIONAL MOVEMENTS

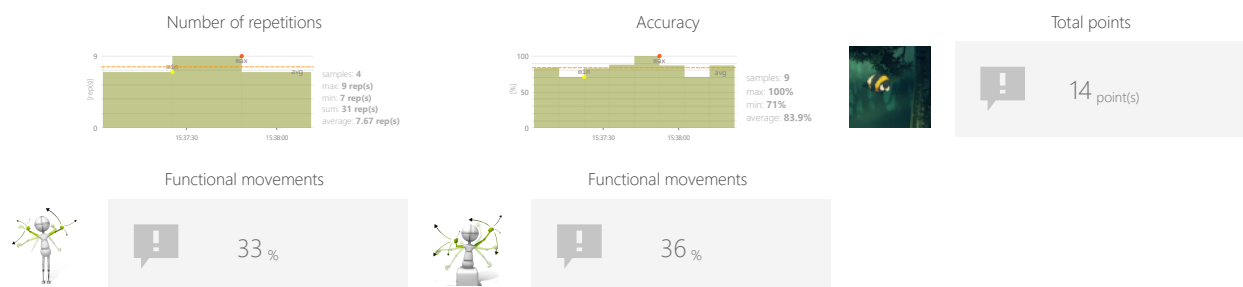
INSECTS

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.

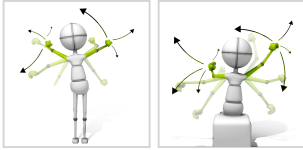


FUNCTIONAL MOVEMENTS

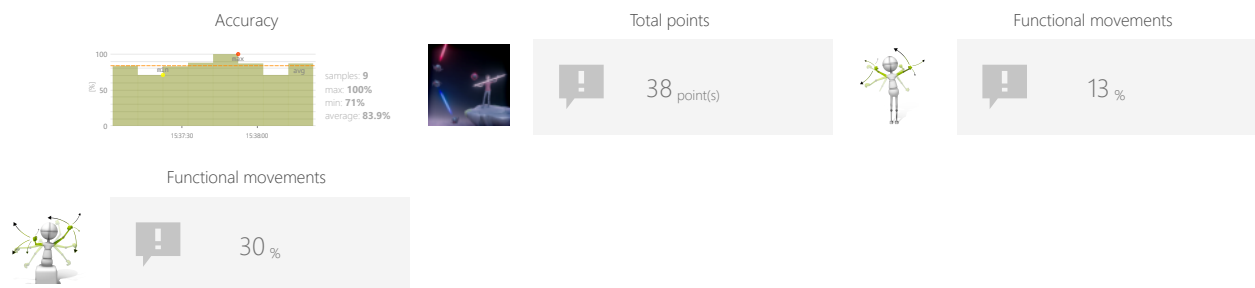
SORTER: LEGACY

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

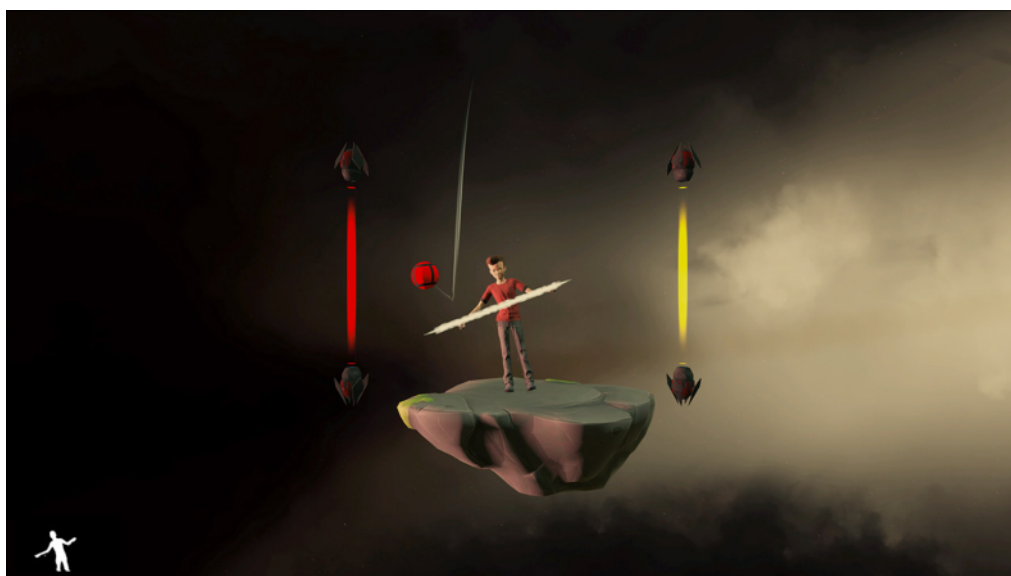
Make the ball fly through the gate in corresponding color.



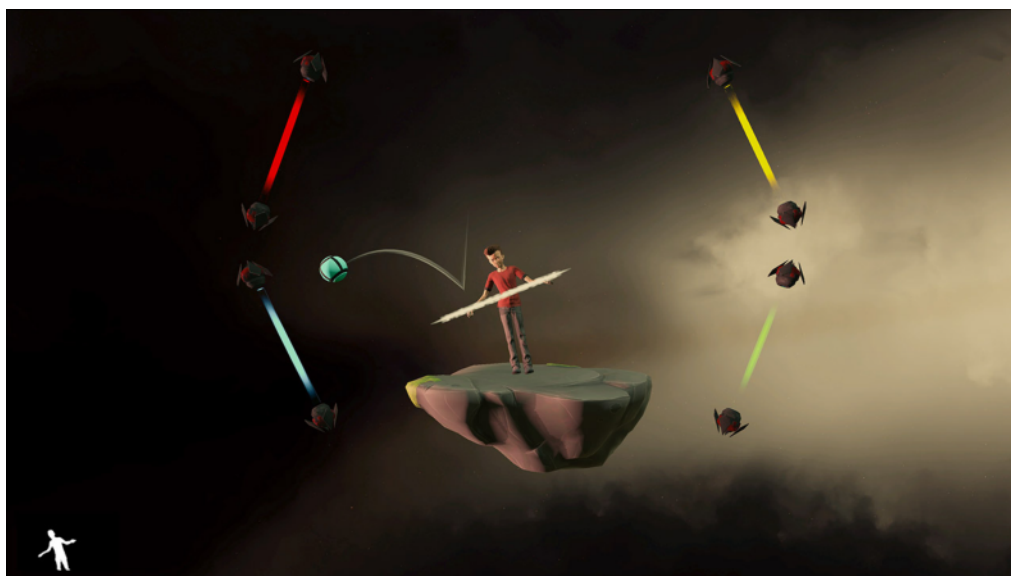
FUNCTIONAL MOVEMENTS

SORTER: LEGACY

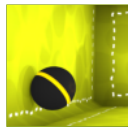
SAMPLE SETTINGS



Difficulty 1/3	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Number of gates < 2 >
	Gravity force < 100% >



Difficulty 3/3	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Number of gates < 4 >
	Gravity force < 100% >

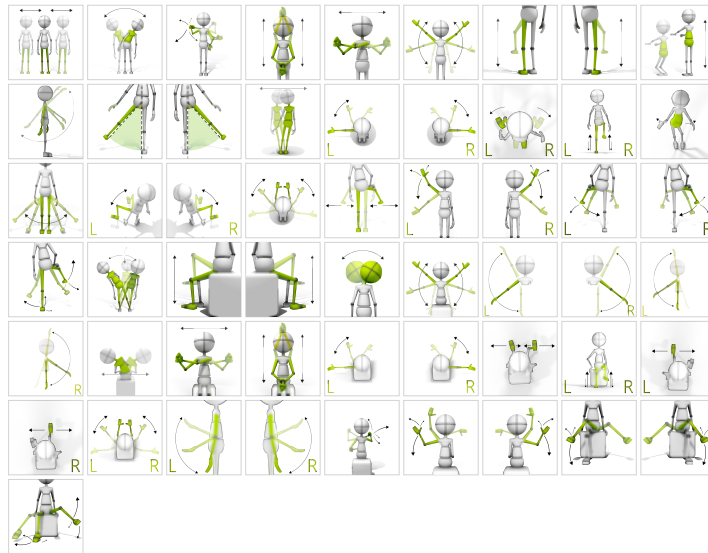


FUNCTIONAL MOVEMENTS

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

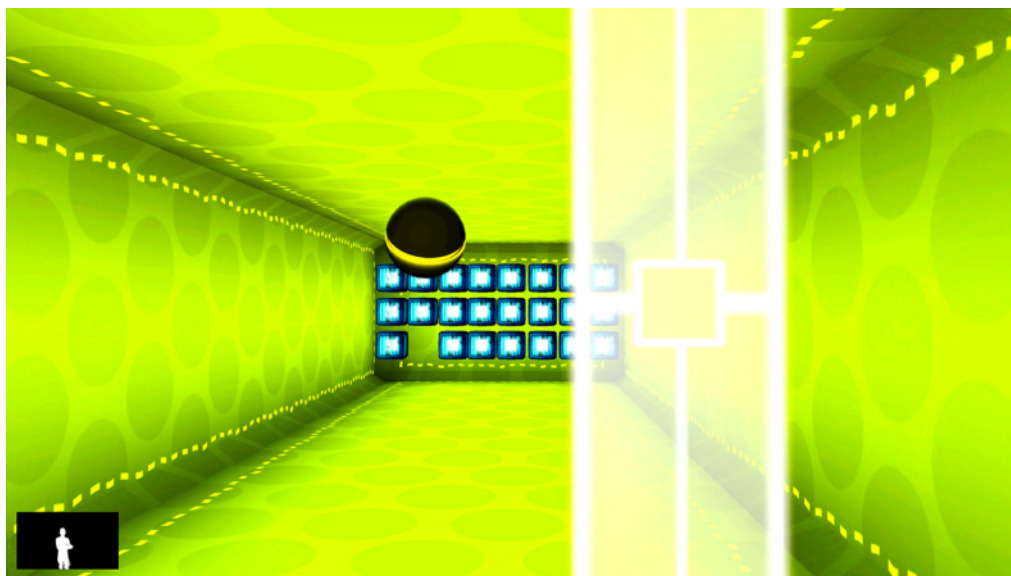
- Dynamics of planned movements
- Predicting the trajectory of objects in 3D space
- Visual motor coordination

INSTRUCTION FOR PATIENT

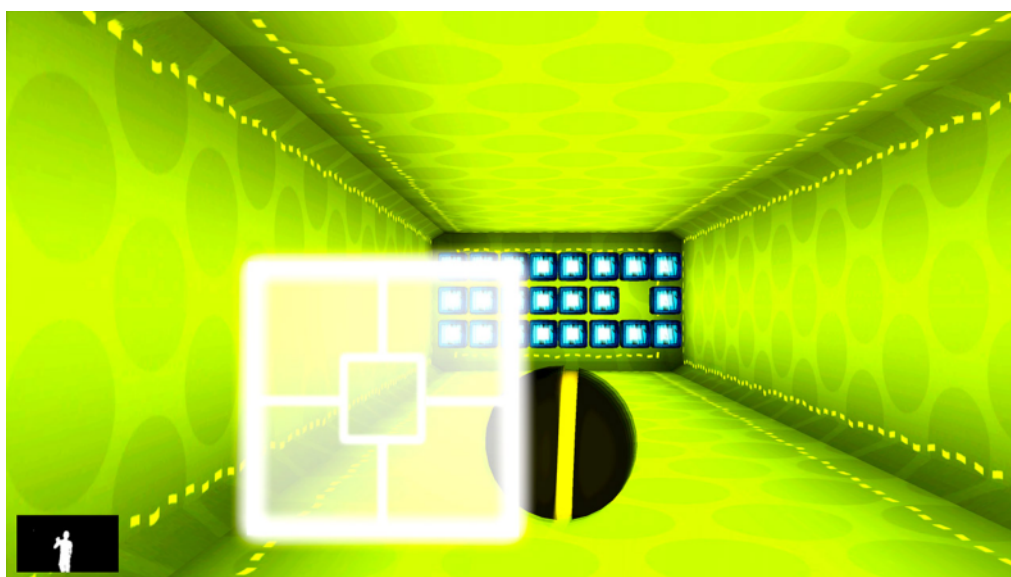
Destroy as many boxes as you can.



SAMPLE SETTINGS



Difficulty custom	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range < 20% ↔ 80% >
Reticle size < 100% >	Speed of objects < 70% >



Difficulty custom	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range < 45% ↔ 55% >
Reticle size < 75% >	Speed of objects < 70% >



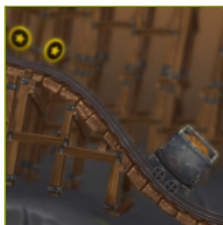
FUNCTIONAL MOVEMENTS

ROCKET JUMPING

SAMPLE SETTINGS



Difficulty 1/3	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range 20% 80%
Time between objects < 5s >	Bomb format < 1 >
Speed of objects < 100% >	

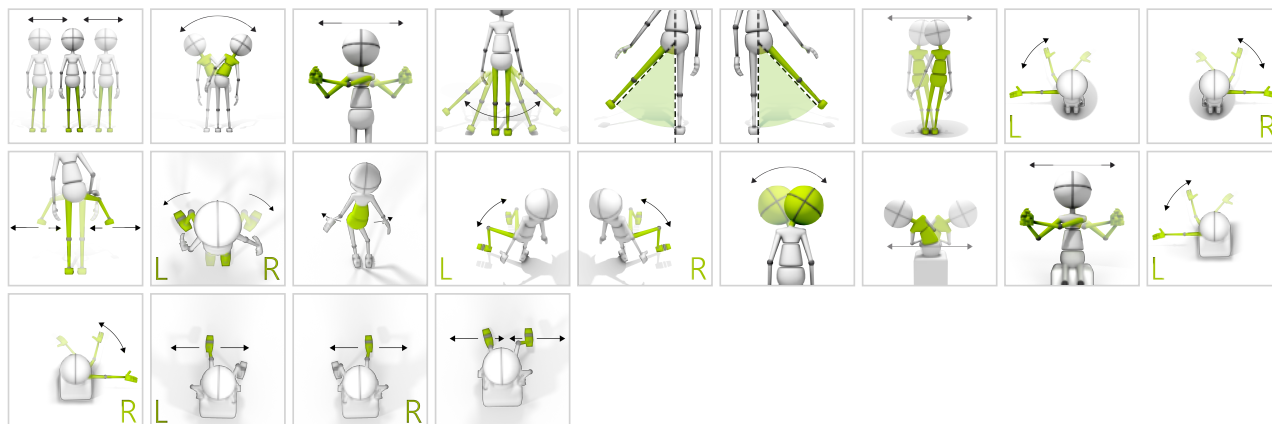


FUNCTIONAL MOVEMENTS

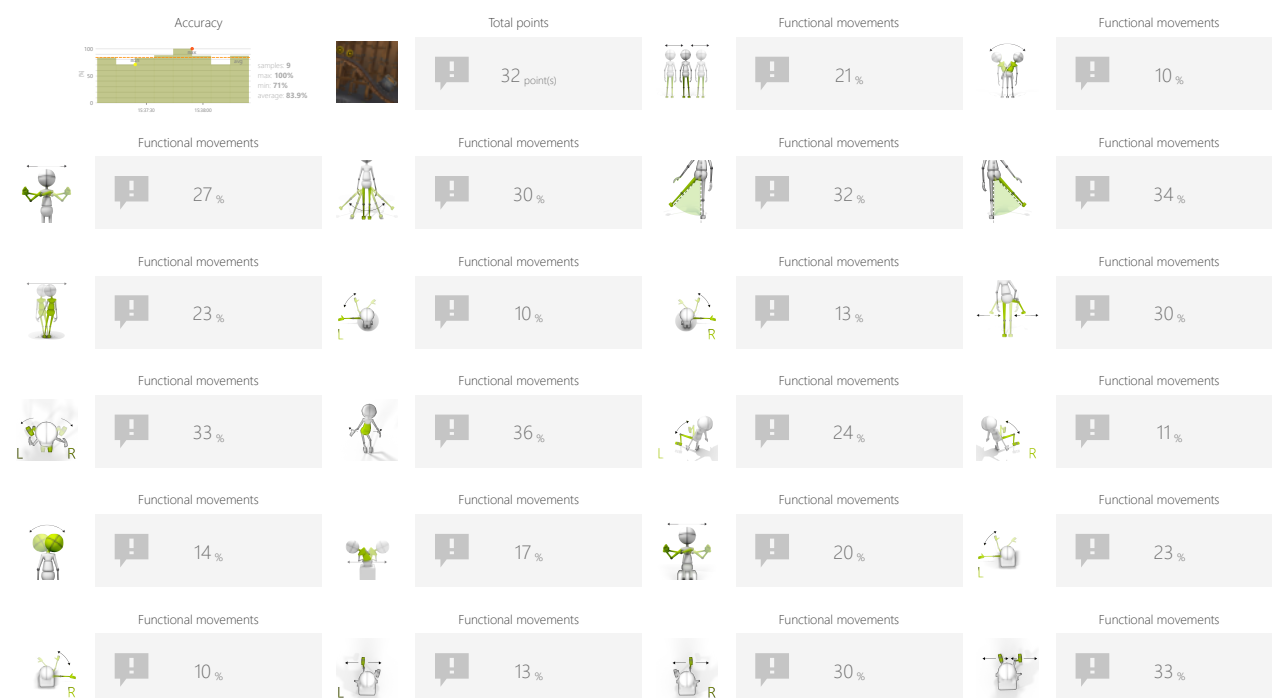
RAILS

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

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

OBJECTIVES

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

INSTRUCTION FOR PATIENT

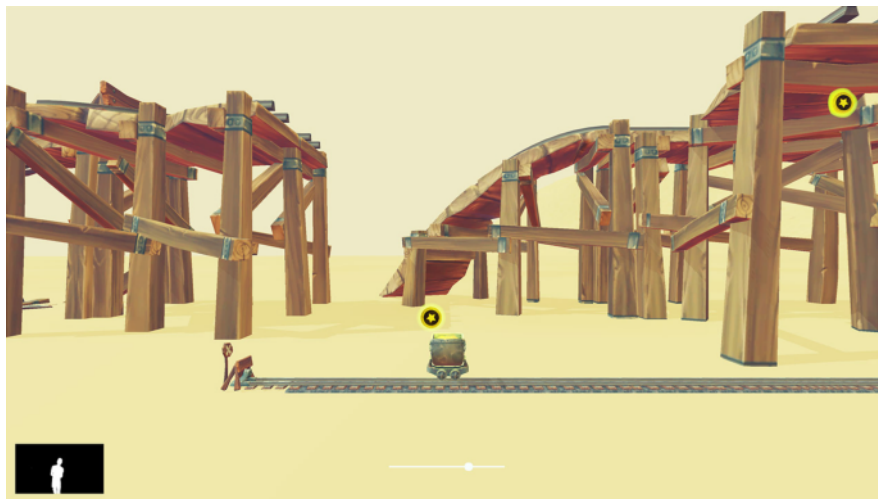
Control the trolley to collect the coins.



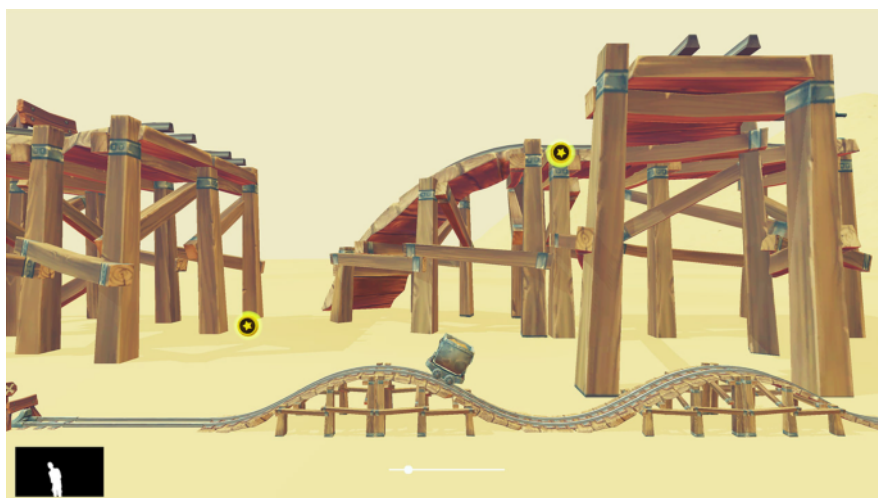
FUNCTIONAL MOVEMENTS

RAILS

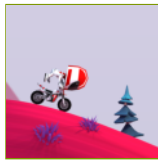
SAMPLE SETTINGS



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



Difficulty		custom			
Treadmill speed	Any		Treadmill elevation	Any	
Player speed					
100%					
relatively to treadmill speed					
Duration	90s		Range	45% ↔ 55%	
Route shape			Enable derailing	No	
		Enable obstacles	No		
Time between objects					
5s					

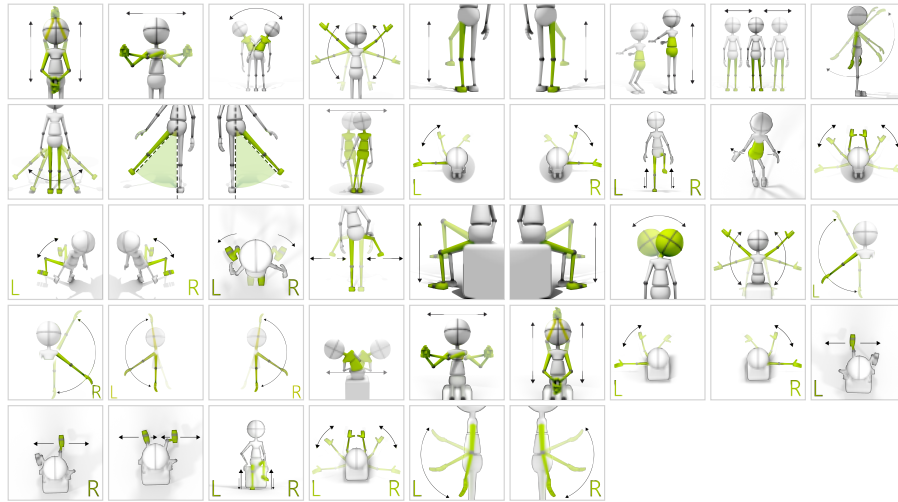


FUNCTIONAL MOVEMENTS

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.



FUNCTIONAL MOVEMENTS

MOTOCROSS

SAMPLE SETTINGS



	Difficulty 1/3	
Treadmill speed < Any >		Treadmill elevation < Any >
Duration < 90s >		Range 20% 80%
Route shape < Easy >		

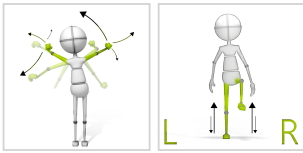


FUNCTIONAL MOVEMENTS

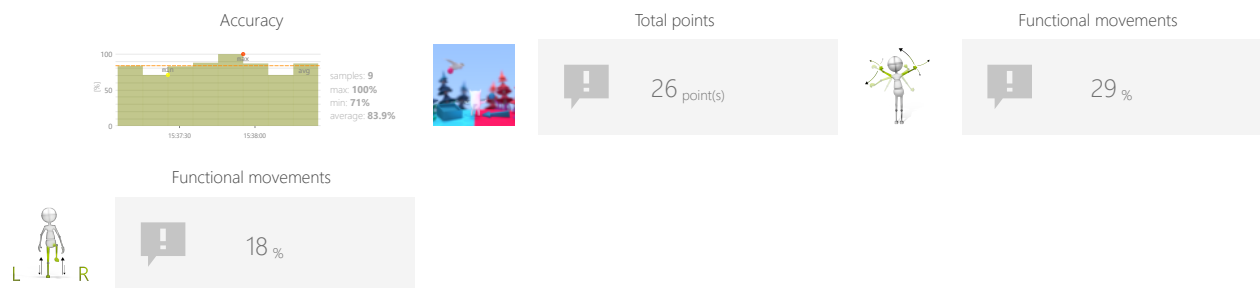
WALKER

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

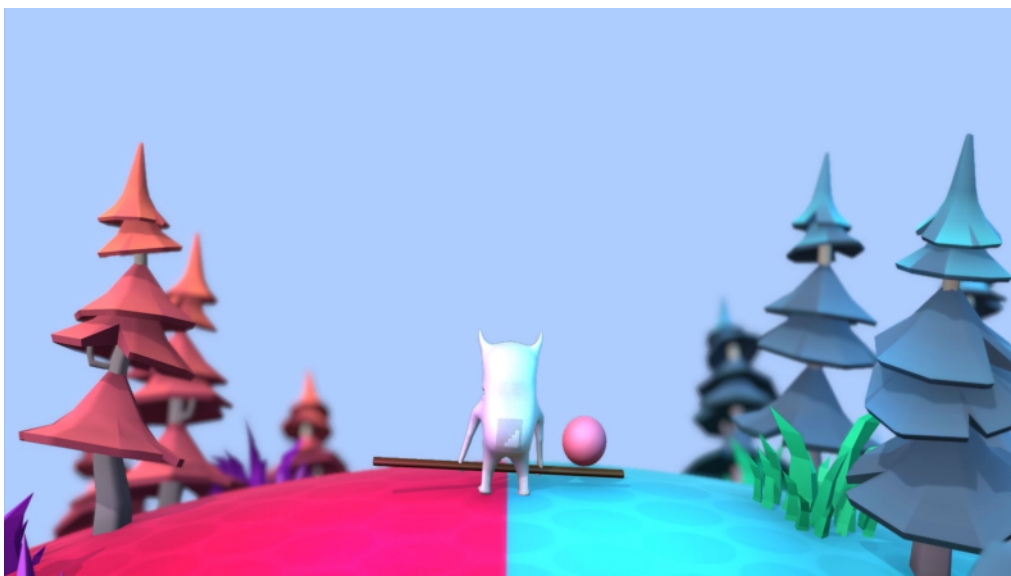
- Planned movements
- Balance and equilibrium training
- Repetitive movements



INSTRUCTION FOR PATIENT

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



SAMPLE SETTINGS





Treadmill speed

< Any >

Treadmill elevation

< Any >

Player speed

< 100% >

relatively to treadmill speed

Duration

< 90s >

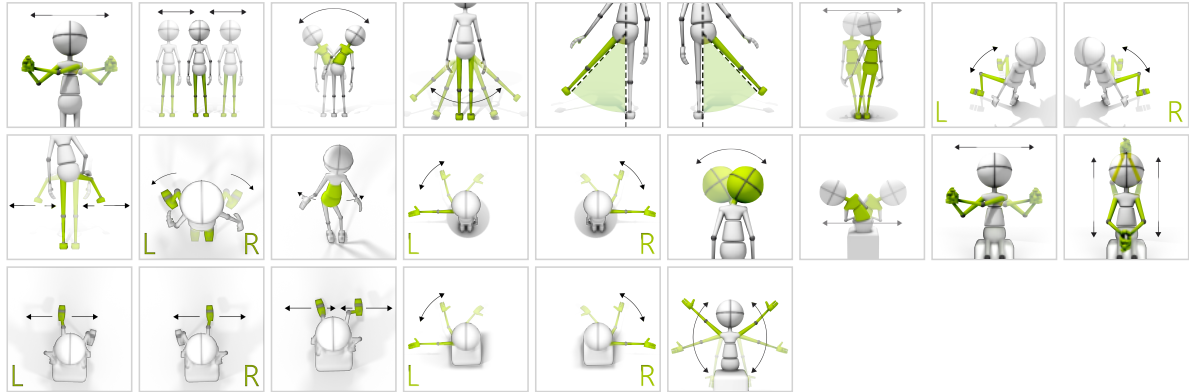


FUNCTIONAL MOVEMENTS

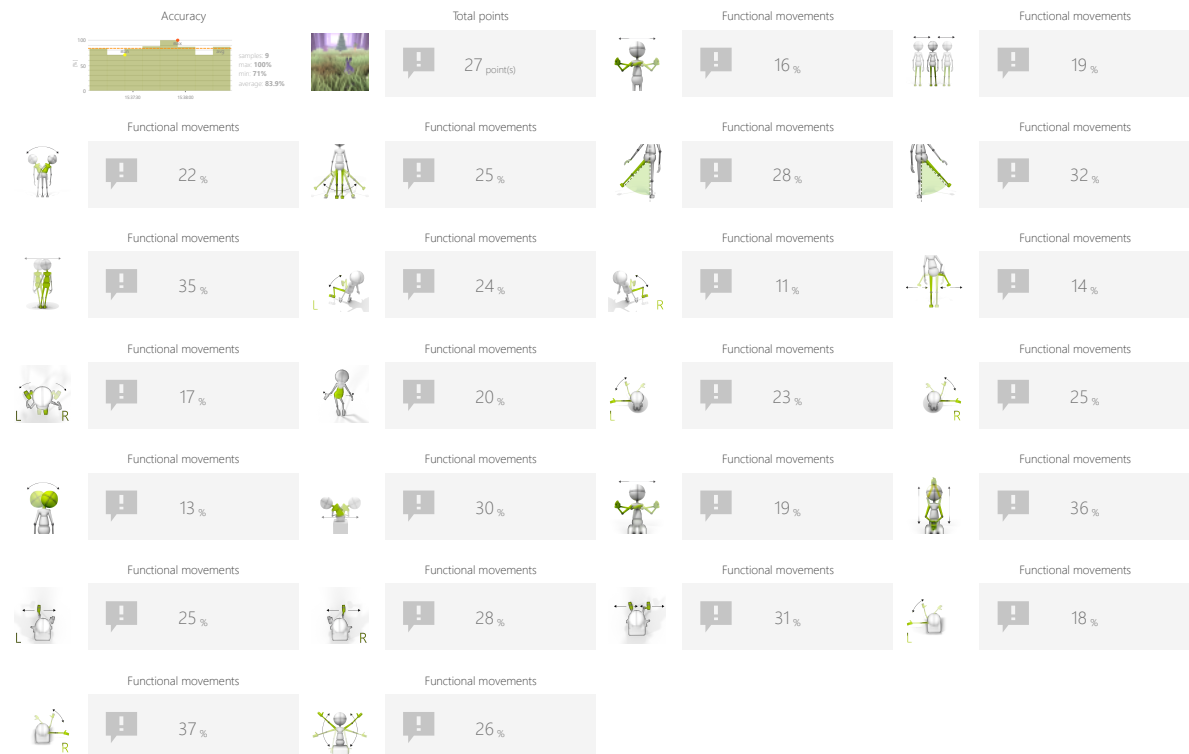
FOREST RUNNER

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

- Speed
- Task duration
- Range

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.



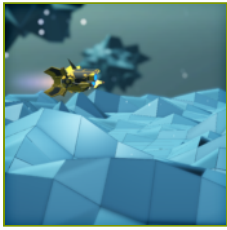
FUNCTIONAL MOVEMENTS

FOREST RUNNER

SAMPLE SETTINGS



	Difficulty 1/2	
Treadmill speed < Any >	Treadmill elevation < Any >	
Player speed < 150% > relatively to treadmill speed		
Duration < 90s >	Range < 20% ↔ 80% > 	

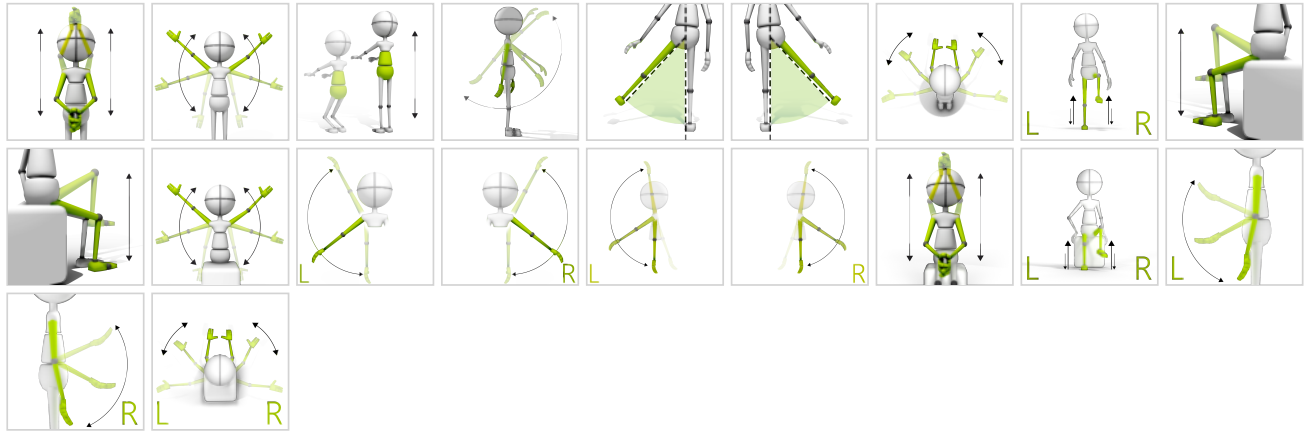


FUNCTIONAL MOVEMENTS

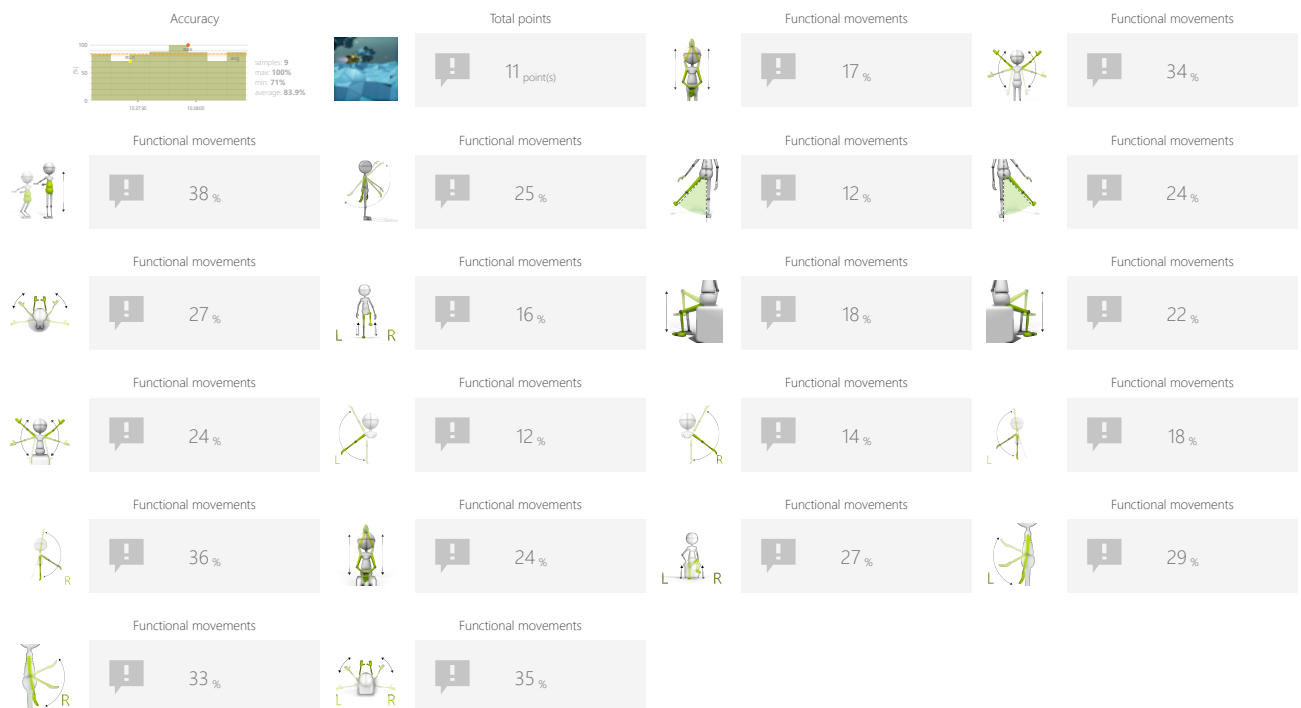
GEOMETRY FLIER

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

- Speed
- Task duration
- Range

OBJECTIVES

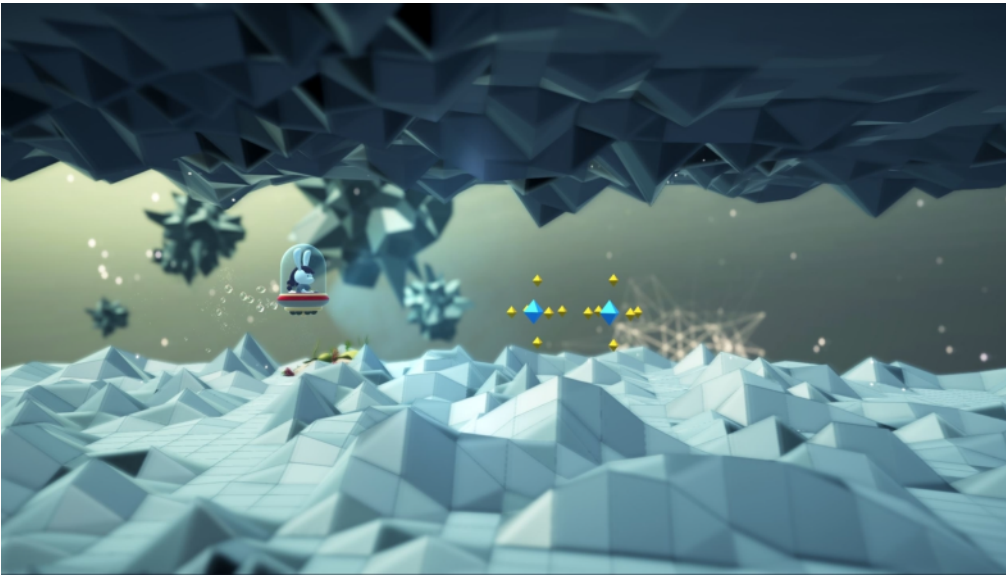
- Dynamics of planned movements
- Activity in a given rhythm
- Visual motor coordination

INSTRUCTION FOR PATIENT

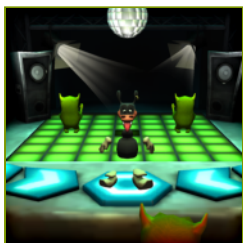
Control the vehicle to avoid the obstacles.



SAMPLE SETTINGS



	Difficulty 1/3
Treadmill speed < Any >	Treadmill elevation < Any >
Player speed < 100% > relatively to treadmill speed	
Duration < 90s >	Range 20% 80%

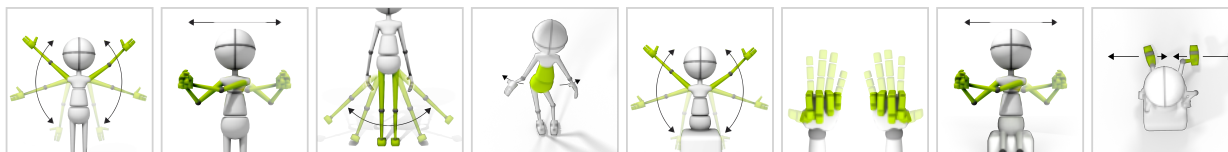


FUNCTIONAL MOVEMENTS

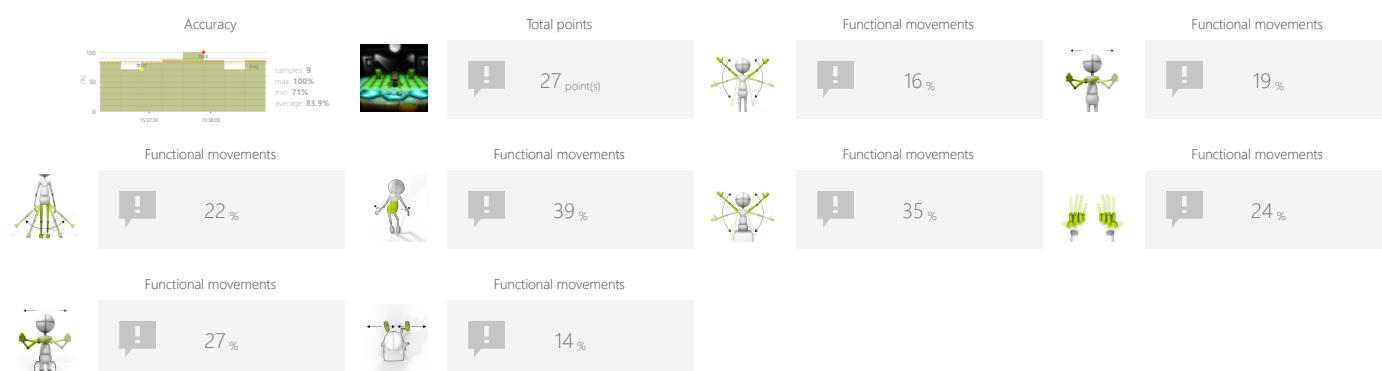
DANCEMAN

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.



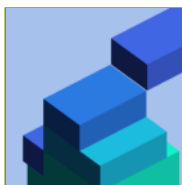
FUNCTIONAL MOVEMENTS

DANCEMAN

SAMPLE SETTINGS



Difficulty 1/6	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range 20% 80%
Advanced scoring < No >	Song index < 0 >
Spawn rate level < Easy >	

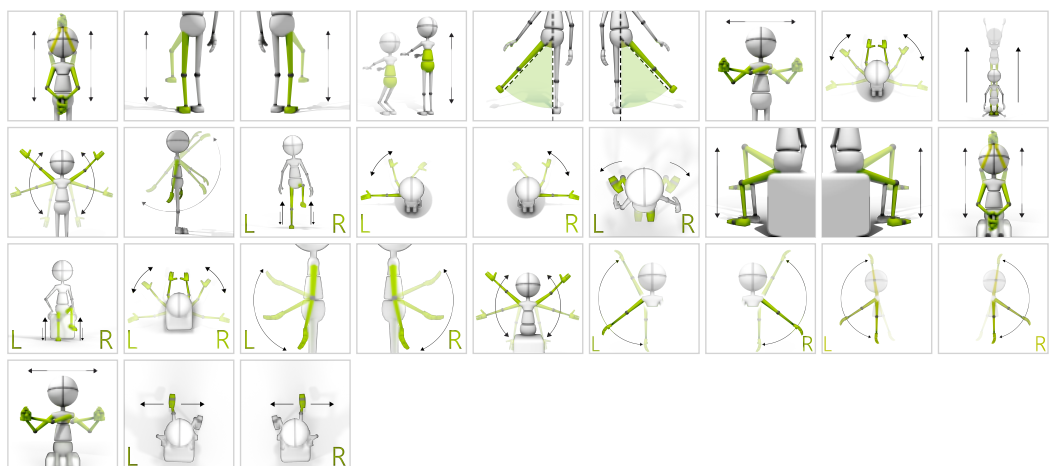


FUNCTIONAL MOVEMENTS

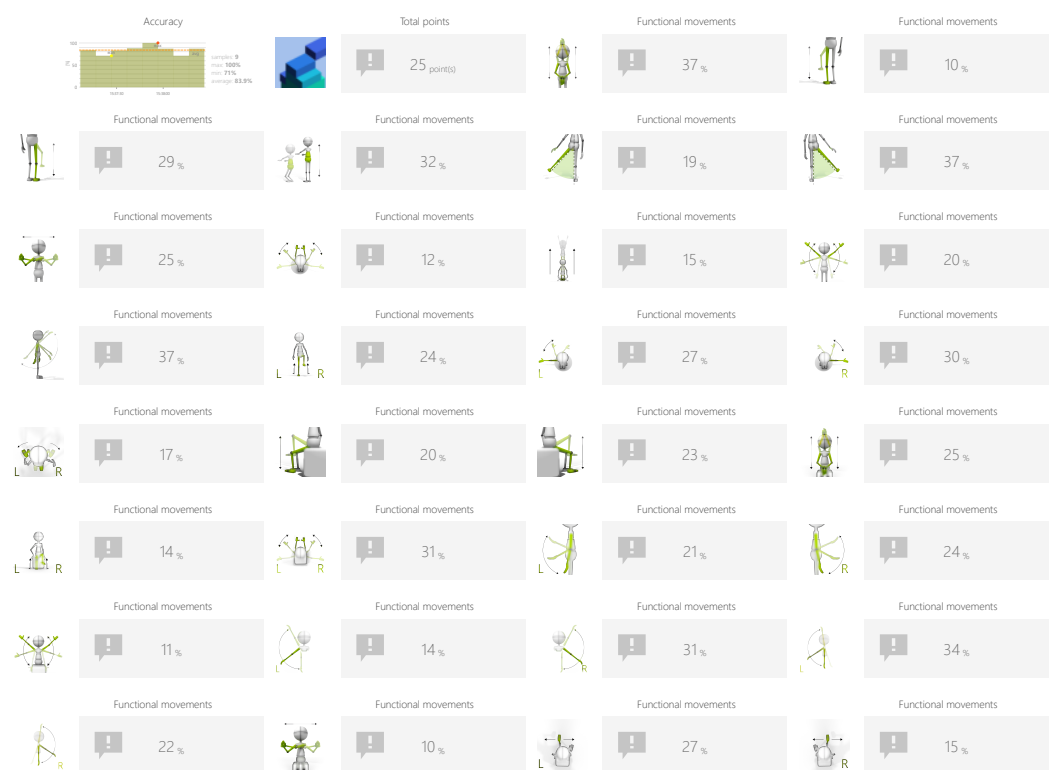
STACK BUILDER

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

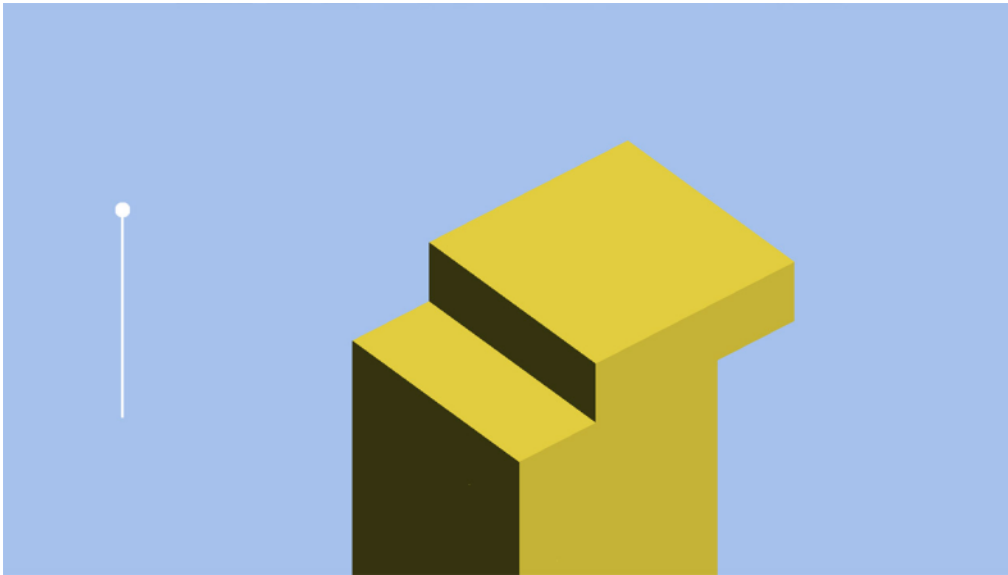
- Repetitive movements
- Rhythmicity
- Planned movements
- Focusing

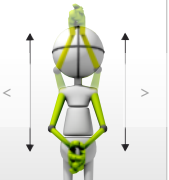

INSTRUCTION FOR PATIENT

Build the highest stack possible by perfectly aligning blocks.
Time your actions to perform the specified movement pattern when blocks are accurately positioned.



SAMPLE SETTINGS





◀


Difficulty
1/3

▶

Treadmill speed
< Any >

Treadmill elevation
< Any >

Duration
< 90s >

Range
20% 80%


Speed of objects
< 50% >

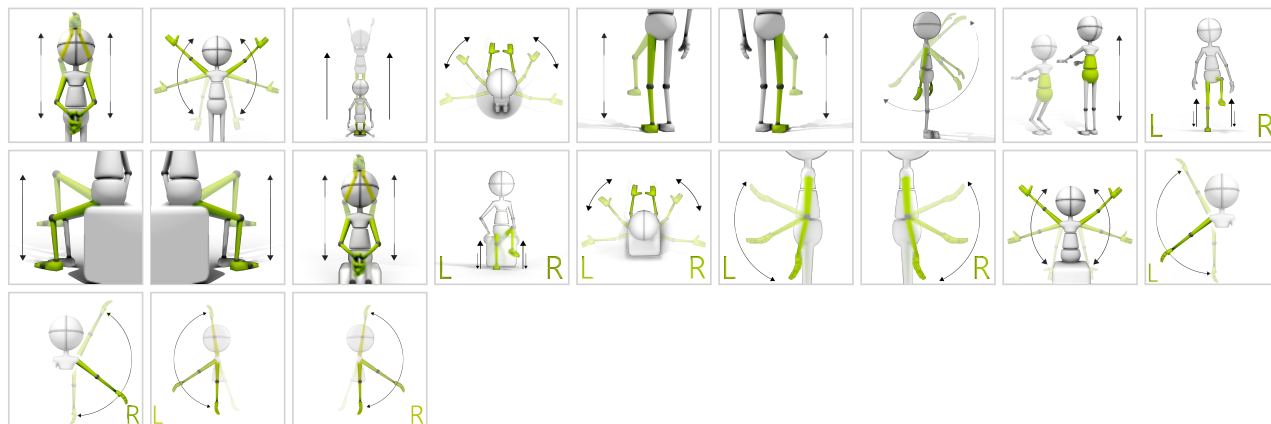


FUNCTIONAL MOVEMENTS

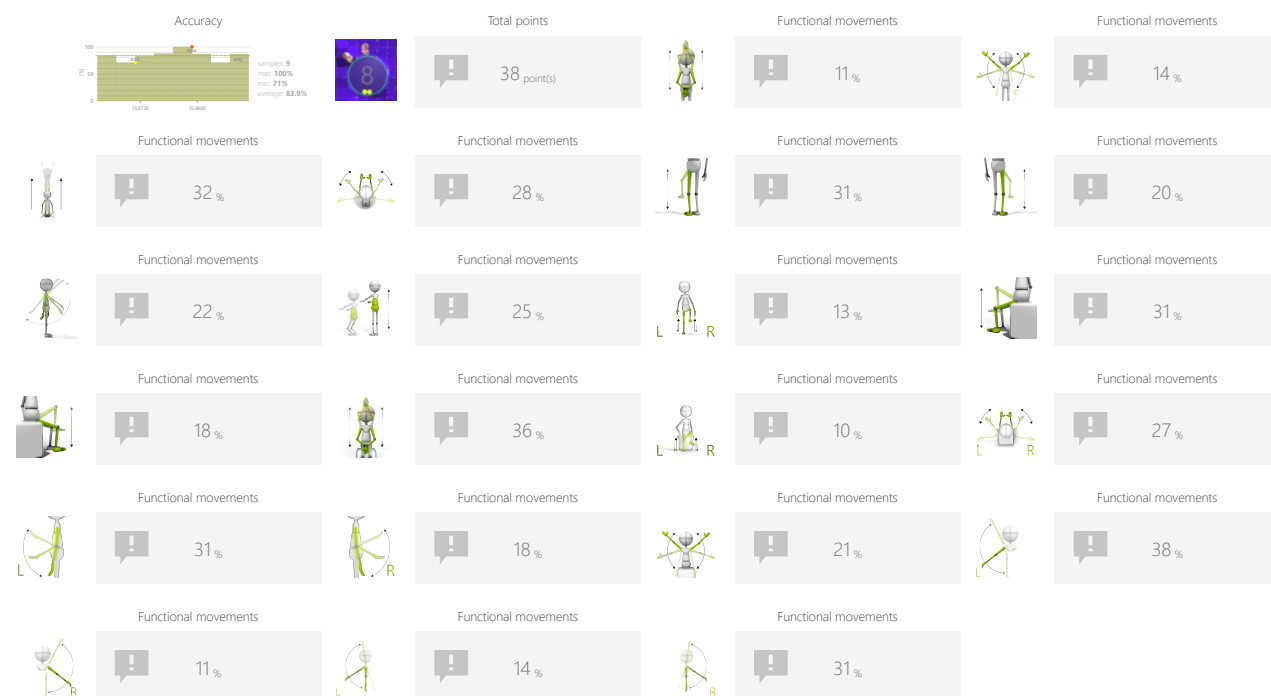
IMP DODGE

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 ofimps
- Number of targets
- Speed of objects

OBJECTIVES

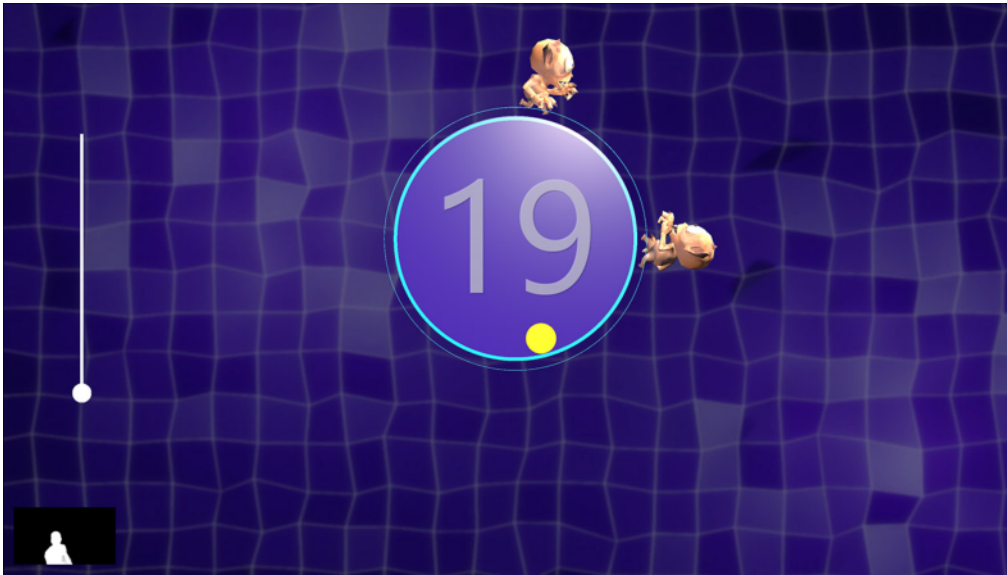
- Dynamics of planned movements
- Predicting the trajectory of objects
- Visual motor coordination
- Focusing

INSTRUCTION FOR PATIENT

Shoot green balls into the circle while avoiding hittingimps.



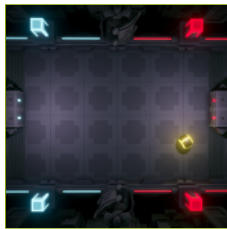
SAMPLE SETTINGS



Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range 20% 80%
Number ofimps < 2 >	Number of targets < 20 >
Speed of objects < 100% >	



Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range 20% 80%
Number ofimps < 6 >	Number of targets < 20 >
Speed of objects < 100% >	

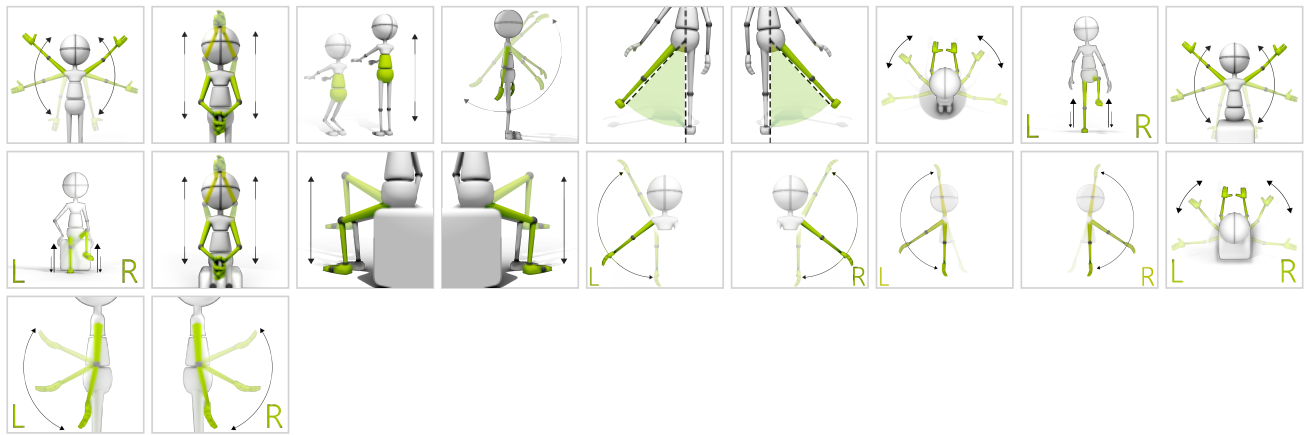


FUNCTIONAL MOVEMENTS

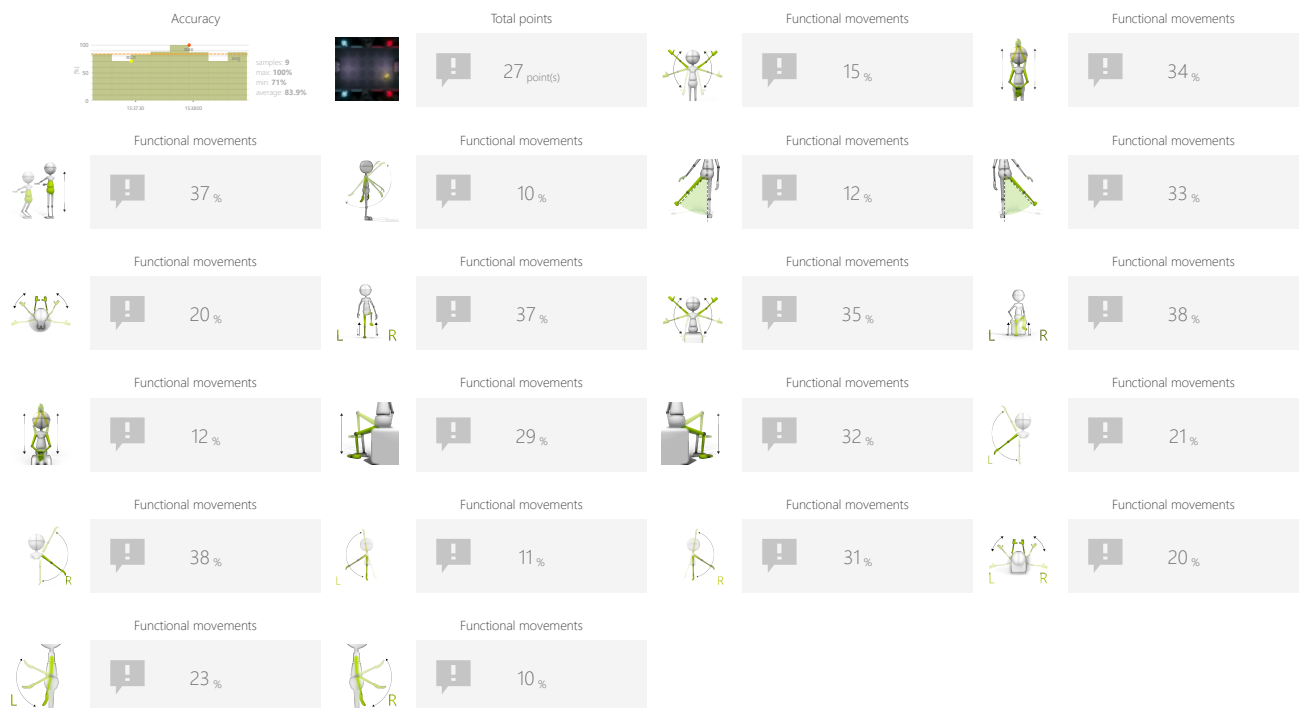
PONG

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

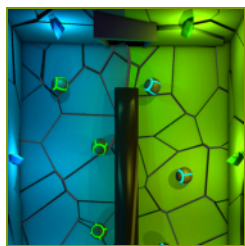
- Task duration
- Range
- Speed of objects

OBJECTIVES

- Planned movements
- Focusing
- Predicting the trajectory of objects

INSTRUCTION FOR PATIENT

Use the paddles to hit a ball back and forth.

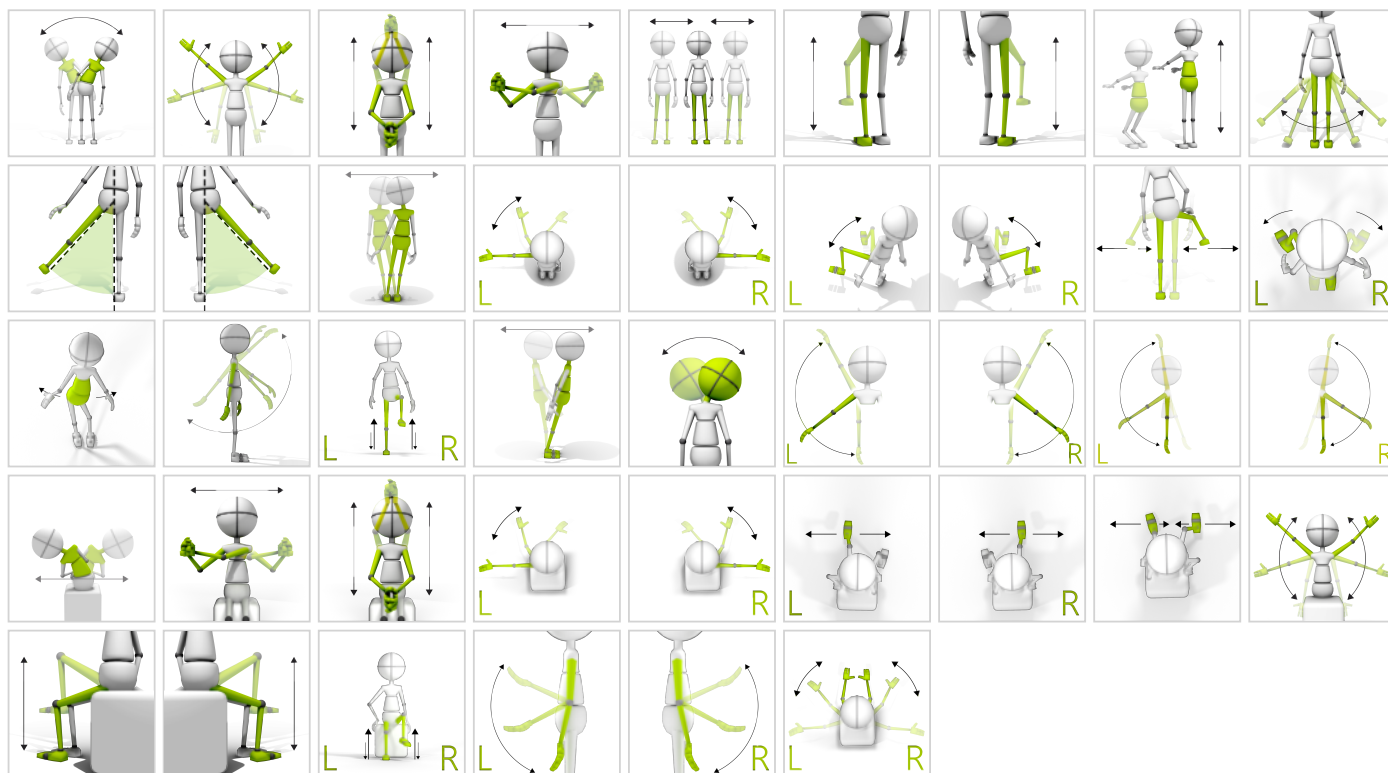


DIVIDED ATTENTION

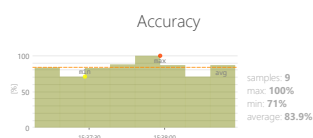
SORTER

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



Total points

32 point(s)



Divided attention

36 %

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

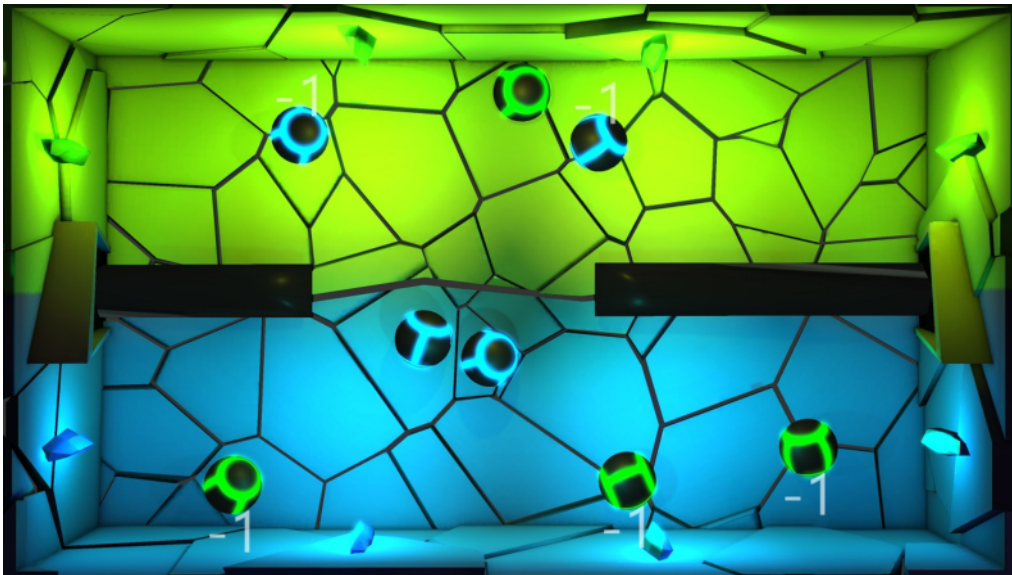
INSTRUCTION FOR PATIENT

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.

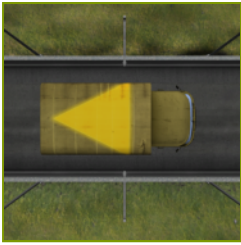


A 3D rendering of a game level. The environment is divided into two main color-coded areas: a green-lit left half and a blue-lit right half. The walls are composed of large, irregular polygonal tiles. Several glowing spheres are visible: a blue sphere with a '+5' score indicator in the blue area, and several green spheres in the green area. The floor is dark and reflective. The overall style is reminiscent of a retro or indie 3D platformer game.

The image displays a 4x4 grid of 16 tiles, each representing a different game setting or a game scene. The tiles are arranged in four rows and four columns. The top row shows a game scene with a blue and green background and a character. The second row shows the 'Difficulty' setting set to '1/3'. The third row shows the 'Treadmill speed' and 'Treadmill elevation' settings both set to 'Any'. The fourth row shows the 'Duration' setting set to '90s', the 'Range' setting set to '20%' to '80%', the 'Number of objects' setting set to '4', and the 'Gap size' setting set to '150%'. The bottom row shows the 'Speed of objects' setting set to '100%'. The tiles are color-coded: the top row has a blue and green background, the second row has a green background, the third row has a green background, and the fourth row has a green background. The bottom row has a green background.



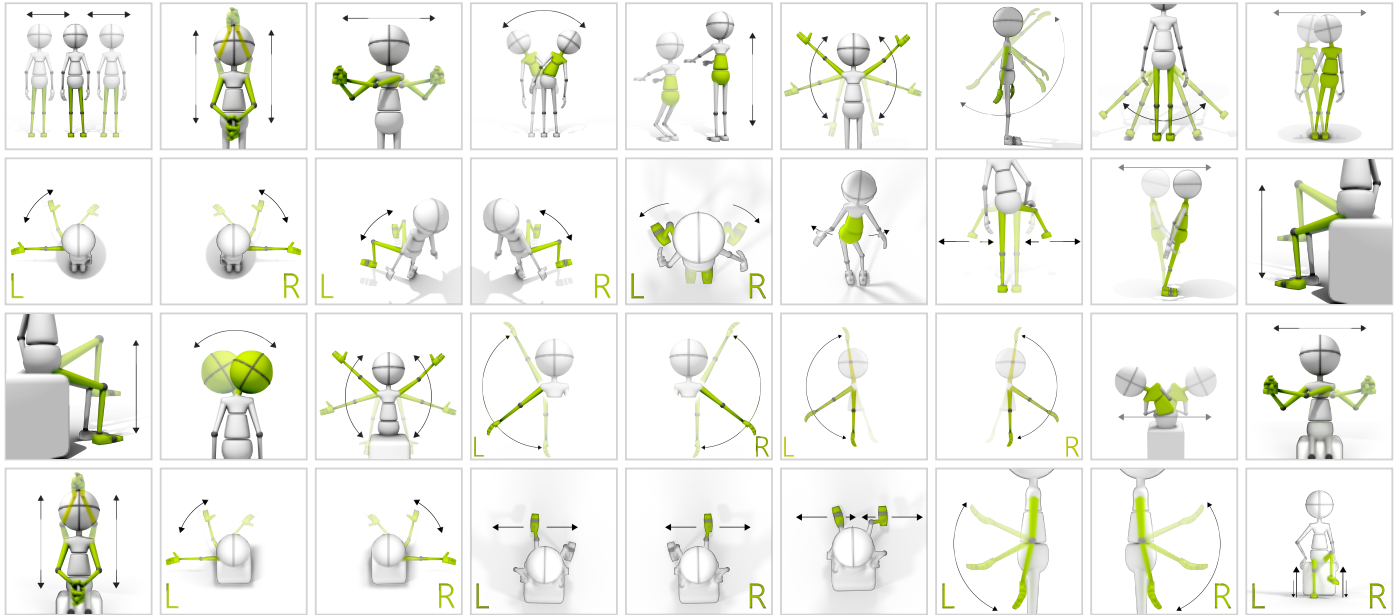
	<p>Difficulty</p> <p>custom</p>	
<p>Treadmill speed</p> <p>< Any ></p>		<p>Treadmill elevation</p> <p>< Any ></p>
<p>Duration</p> <p>< ></p> <p>90s</p>		<p>Range</p> <p>< ></p> <p>20% ↔ 80%</p>
<p>Number of objects</p> <p>< 8 ></p>		<p>Gap size</p> <p>< 150% ></p>
<p>Speed of objects</p> <p>< 100% ></p>		



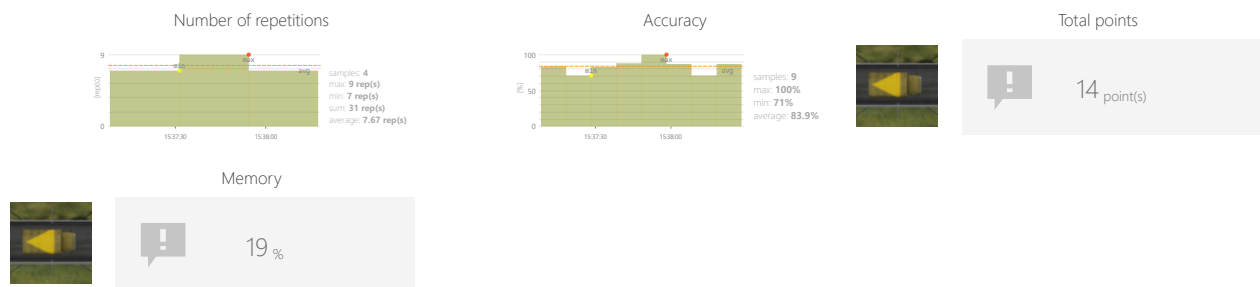
MEMORY TRUCKS

Measure and train individual's skills to memorize information.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Variations

OBJECTIVES

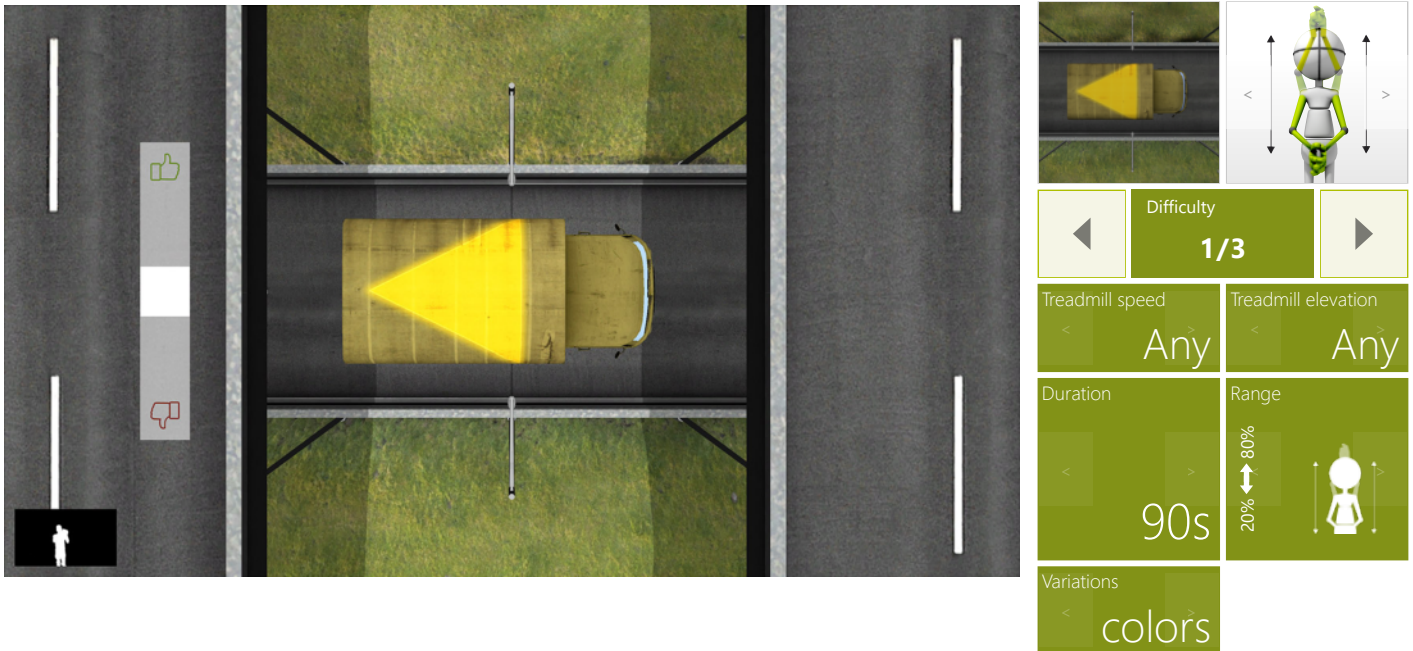
- Logical tasks
- Focusing
- Perceptivity

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



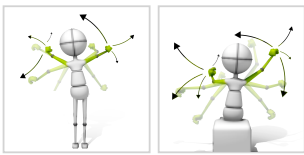


MEMORY

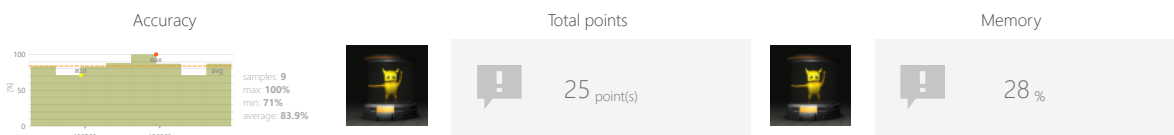
POSE REPEATER

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.

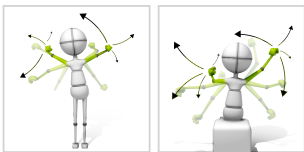


PROBLEM SOLVING

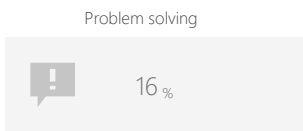
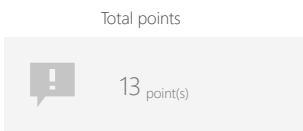
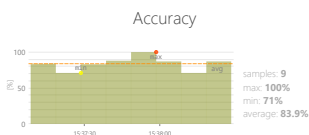
MATH

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

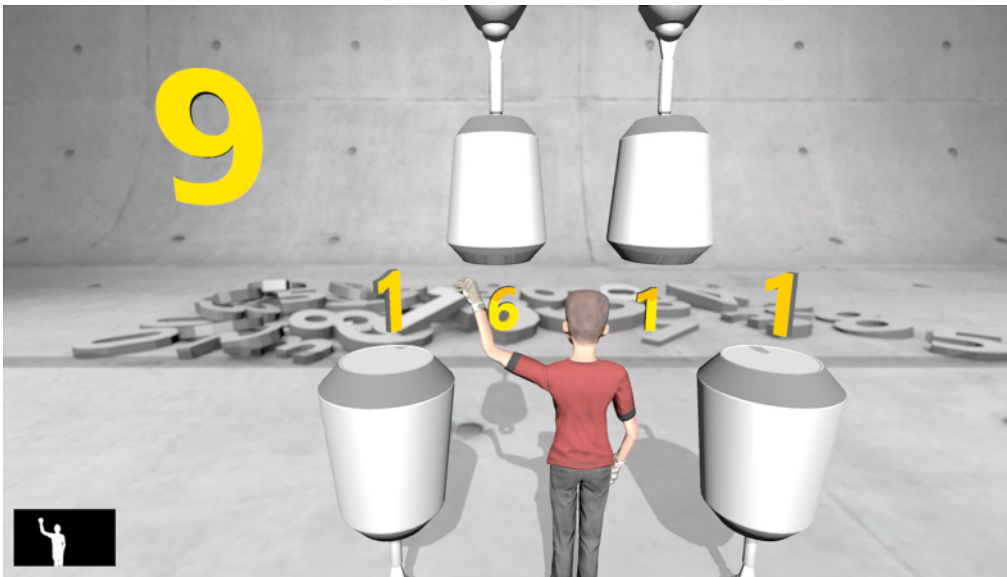
- Logical tasks

INSTRUCTION FOR PATIENT

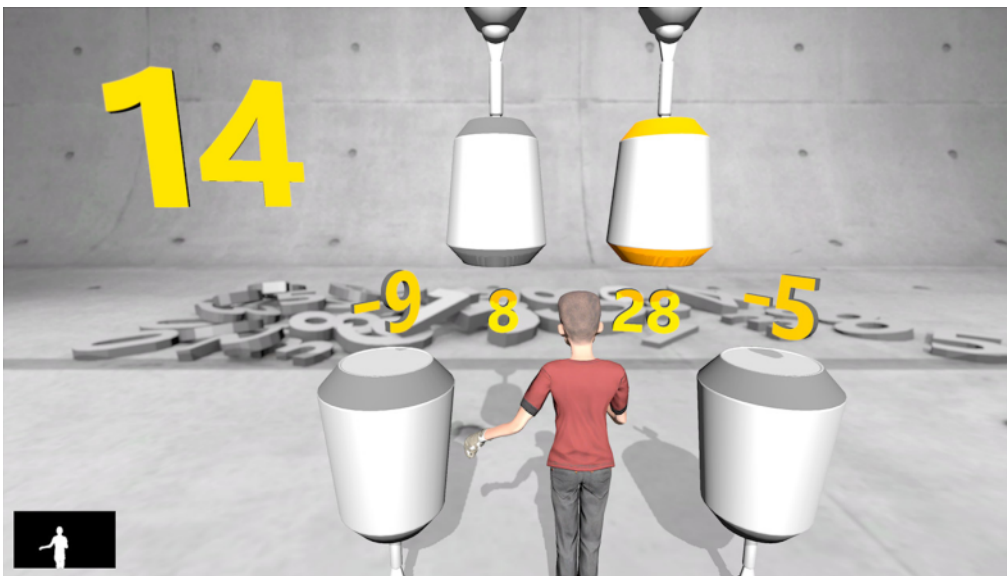
Hit the punching bag to change its state (orange ring means it is active). Make the sum of the numbers above active punching bags to be equal to the number in top left corner.



SAMPLE SETTINGS



Difficulty 1/5	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 30s >	Target number range min 5 max 10
Allow negative numbers < No >	



Difficulty 5/5	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 30s >	Target number range min 10 max 20
Allow negative numbers < Yes >	

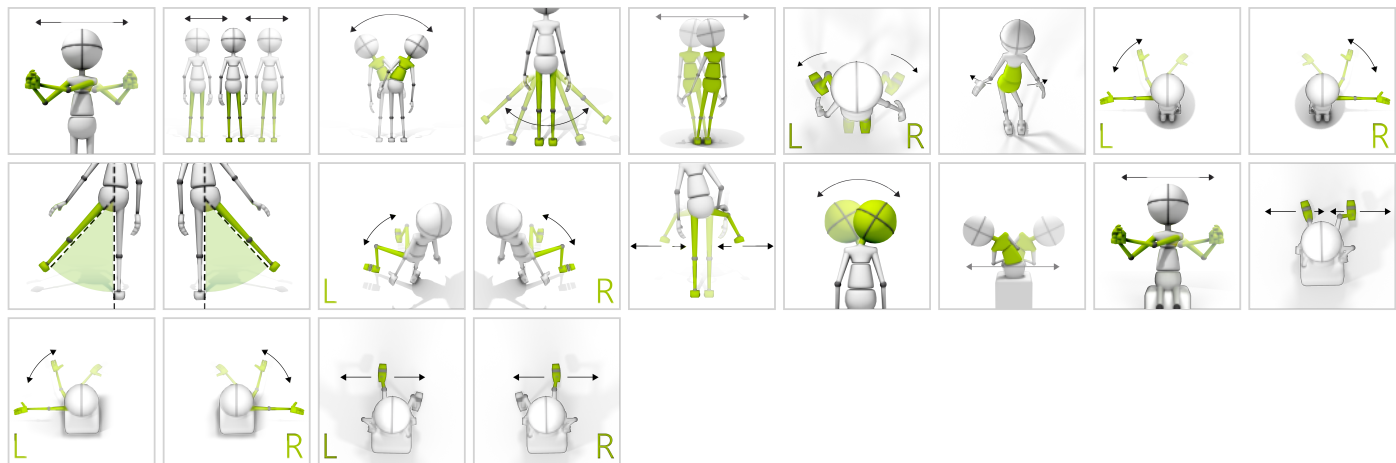


PROBLEM SOLVING

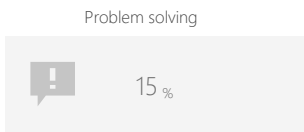
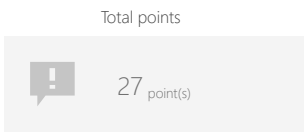
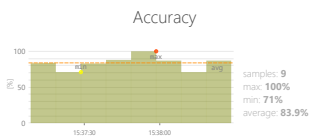
CLONES

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



ADJUSTMENTS

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

OBJECTIVES

- Perceptivity
- Visual motor coordination
- Logical tasks

INSTRUCTION FOR PATIENT

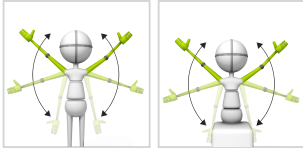
Select the item which has a pair on the screen.



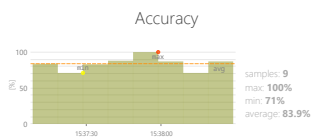
PROBLEM SOLVING CLOCK

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

14 point(s)



Problem solving

33 %

ADJUSTMENTS

- Task duration
- Time to complete action
- Angle

OBJECTIVES

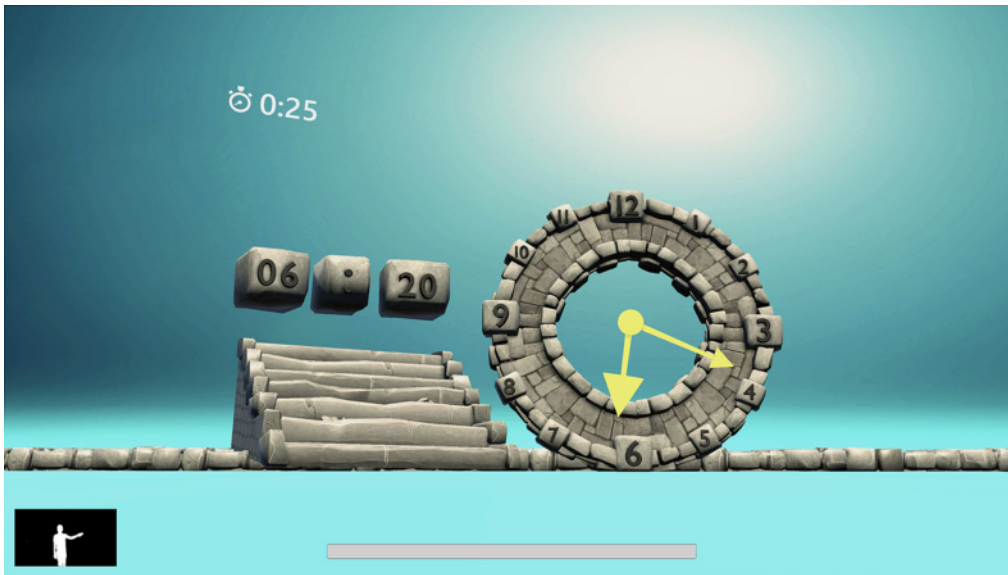
- Speed of decision making
- Visual motor coordination
- Logical tasks

INSTRUCTION FOR PATIENT

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



SAMPLE SETTINGS



Treadmill speed	Treadmill elevation
< Any >	< Any >
Duration	Minitask duration
< 90s >	< 30s >
Range	Angle
20% 80%	180°
	Angle
	180°

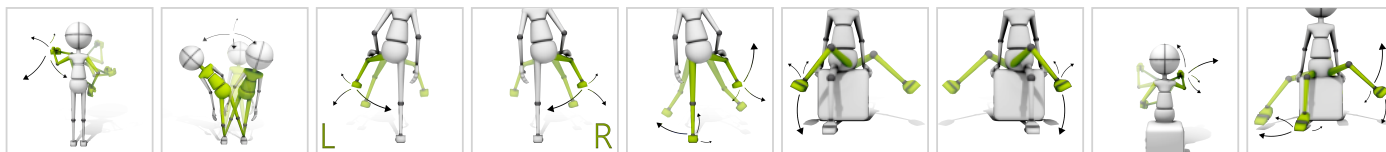


PROBLEM SOLVING

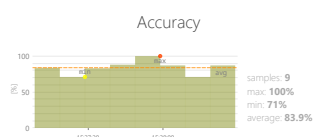
MAZE

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.

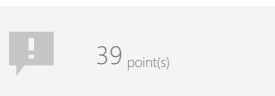
CONTROL MODES



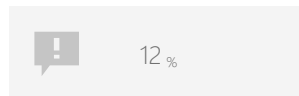
RESULTS



Total points



Problem solving



ADJUSTMENTS

- Task duration
- Range
- Show path
- Maze size
- Positioning

OBJECTIVES

- Logical tasks
- Planned movements
- Planning and Strategy

INSTRUCTION FOR PATIENT

Lead the hippo through the maze to the glowing target.






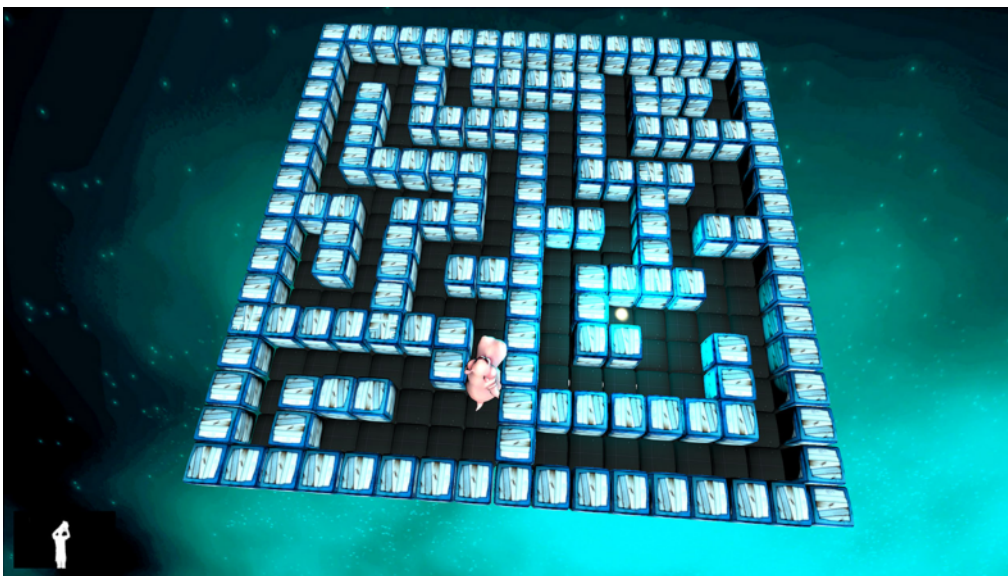
PROBLEM SOLVING




MAZE

SAMPLE SETTINGS



	
Difficulty 1/4	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range 80% 20% ↔ 80% 
Show path < No >	Maze size < 4 >



	
Difficulty 4/4	
Treadmill speed < Any >	Treadmill elevation < Any >
Duration < 90s >	Range 80% 20% ↔ 80% 
Show path < No >	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
- Positioning

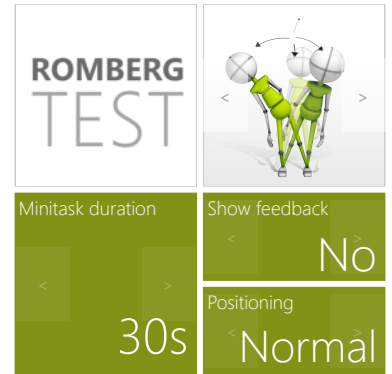
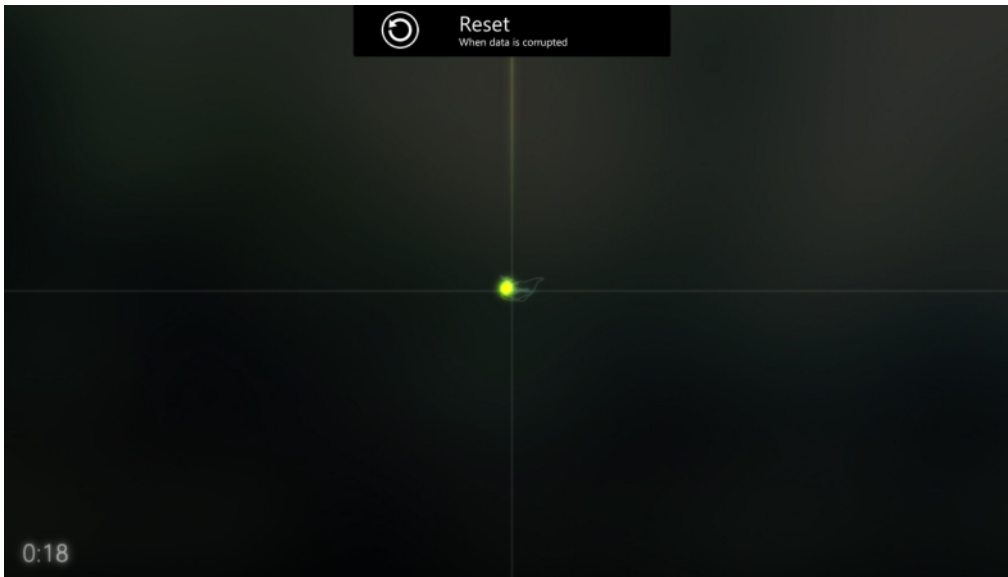
OBJECTIVES

- Assesses static standing balance

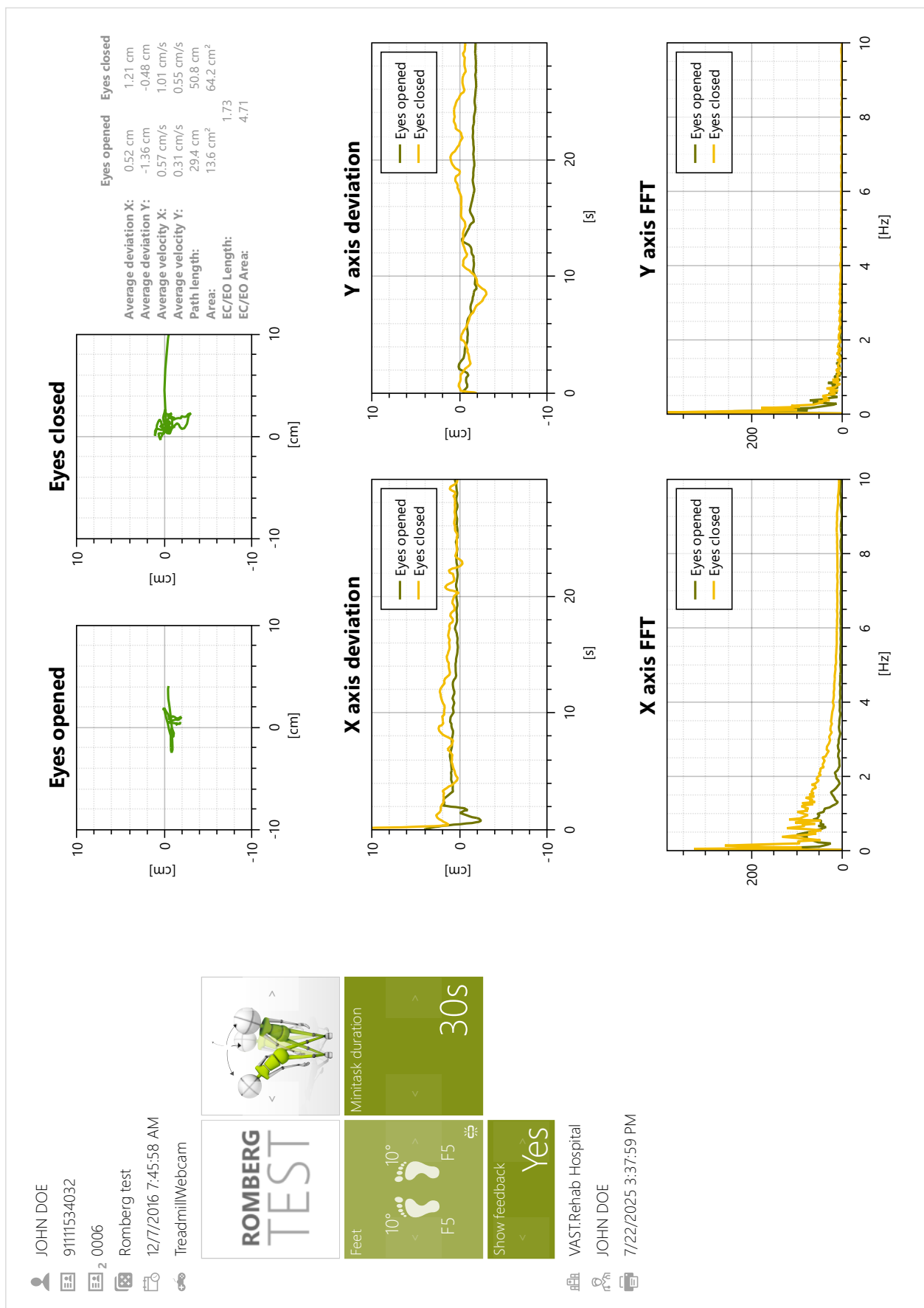
INSTRUCTION FOR PATIENT

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

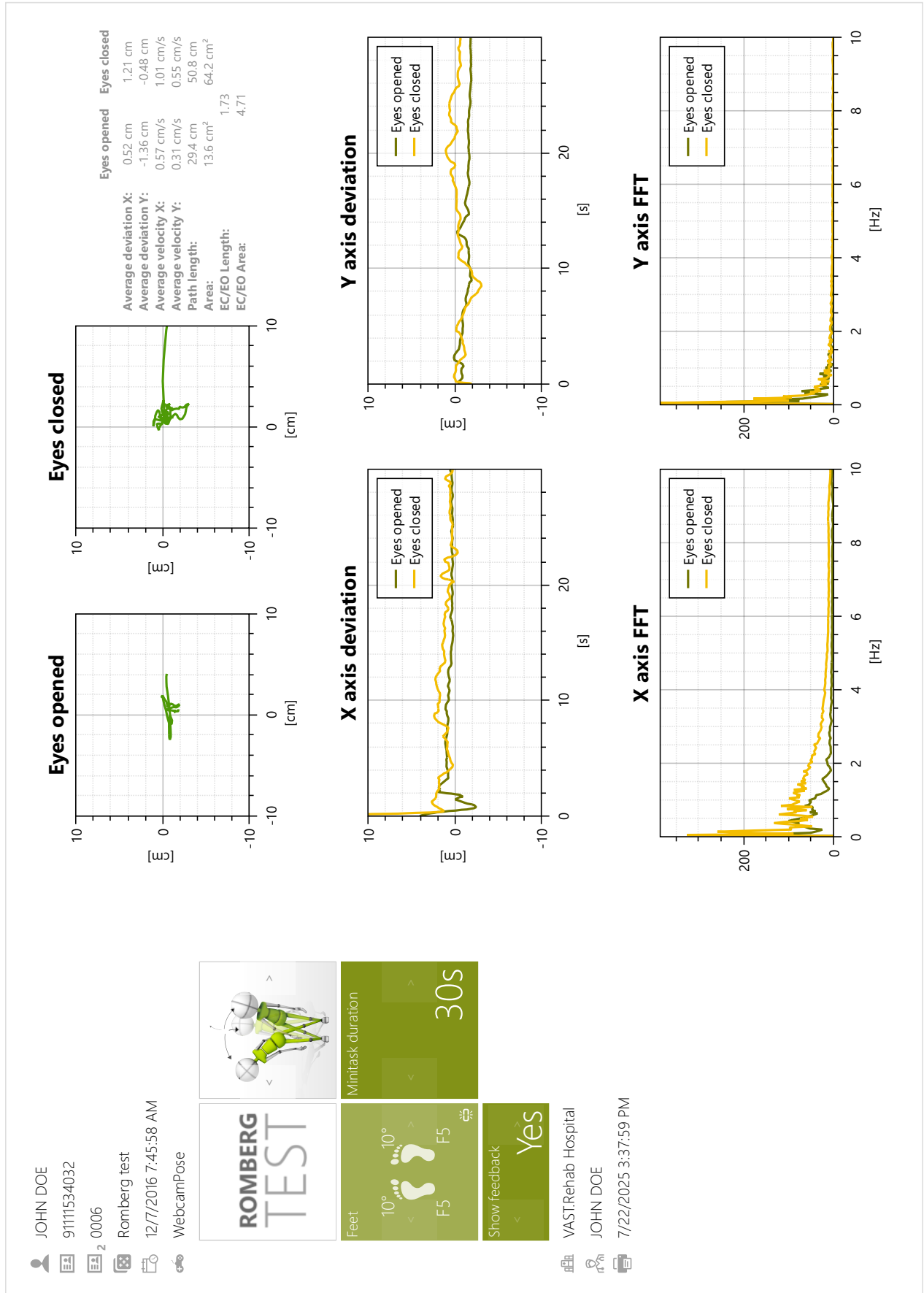
SAMPLE SETTINGS



SAMPLE REPORTS



SAMPLE REPORTS





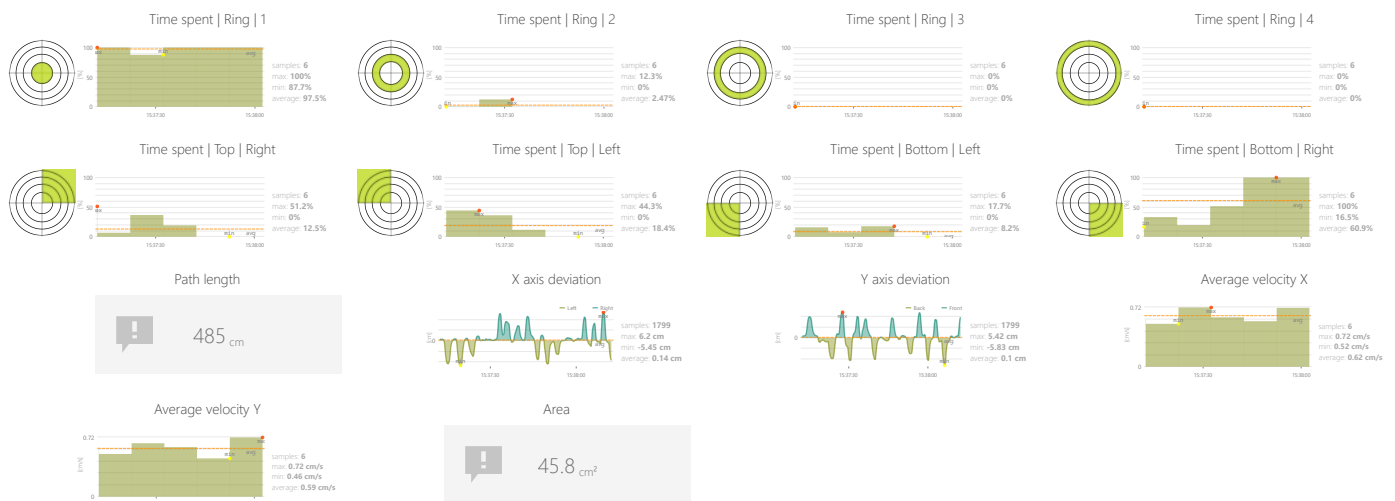
SPECIALIZED STABILITY TEST

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
- Positioning

OBJECTIVES

- Relaxation
- Postural stability

INSTRUCTION FOR PATIENT

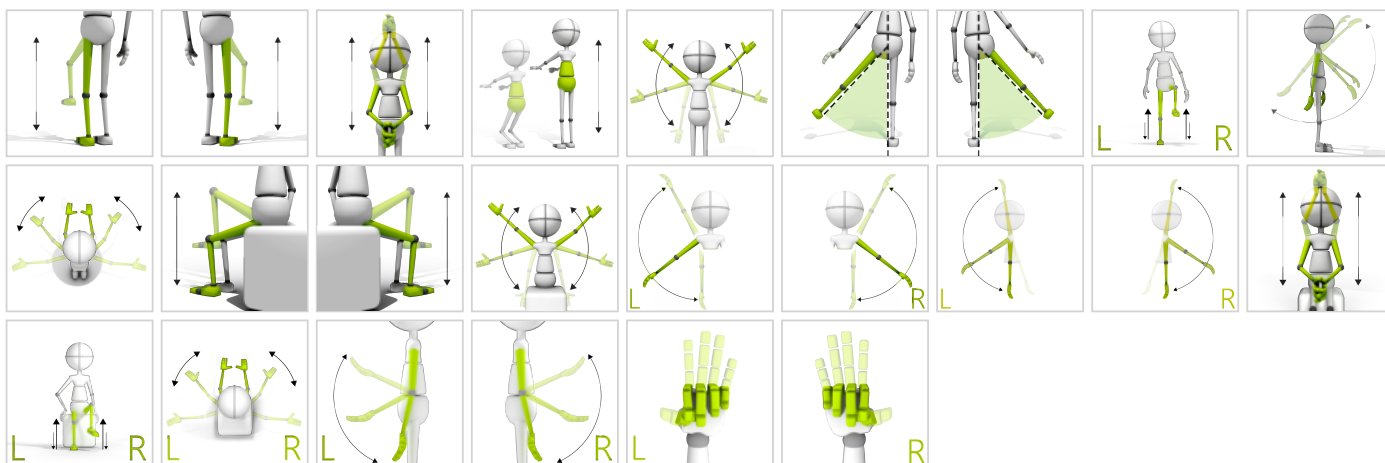
Keep your body balanced.



SPECIALIZED GONOGO TEST

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

CONTROL MODES



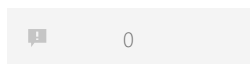
RESULTS



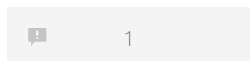
Number of NoGo impulses noticed (Go or NoGo mode)



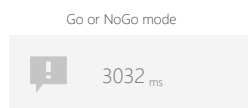
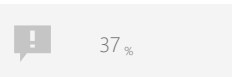
Number of Go impulses missed (always Go mode)



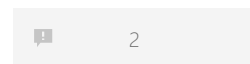
Number of Go impulses missed (Go or NoGo mode)



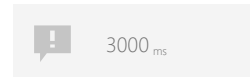
Time delay caused by distraction



Number of NoGo impulses hit (Go or NoGo mode)



Always Go mode



ADJUSTMENTS

- Range
- Required proper repetitions
- Triggering mechanism (rule-based, visual, or auditory)

OBJECTIVES

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

INSTRUCTION FOR PATIENT

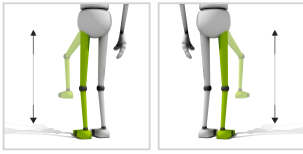
Hit the button when positive trigger appears.



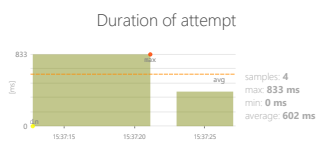
SPECIALIZED SINGLE LEG STANCE TEST

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Time to complete action
- Range

OBJECTIVES

- Test the limits of balance and equilibrium
- Postural stability

INSTRUCTION FOR PATIENT

Try to keep your body balanced while performing single leg stance.