

TREADMILL + CAMERA BASE PACK

2025.1



Hardware requirements	
What is needed?	
Therapeutic tasks database	
Range of motion	<u> </u>
Movement time	
Speed	9
Balance	
Movement precision	
Functional movements	
Divided attention	67
Memory	69
Problem solving	
Specialized	77

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

- Treadmill speed
- Treadmill elevation
- Player speed
- Task duration
- Angle

OBJECTIVES

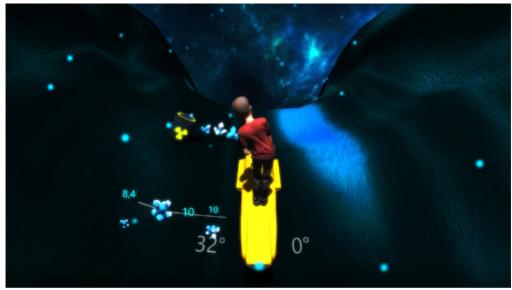
- Improve range of motion
- Perceptivity
- Response to negative visual stimuli
- Reaction to the positive visual stimuli

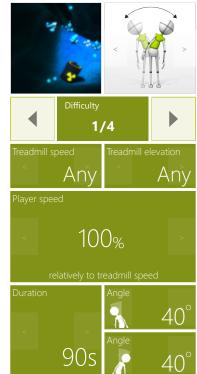
INSTRUCTION FOR PATIENT

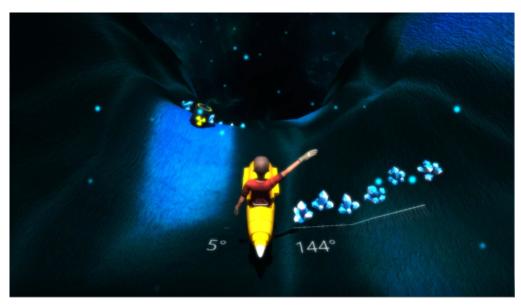
Collect the crystals and avoid the radioactive barrels.

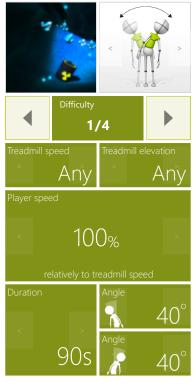














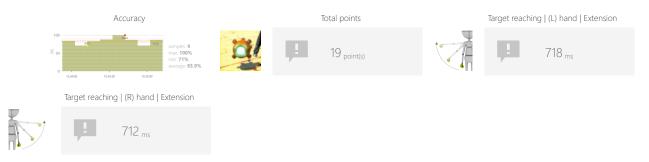
MOVEMENT TIME

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

- Treadmill speed
- Treadmill elevation
- 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)

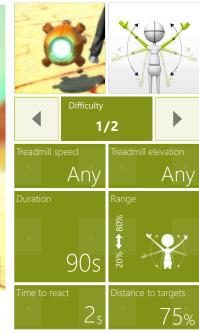
INSTRUCTION FOR PATIENT

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







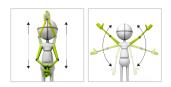




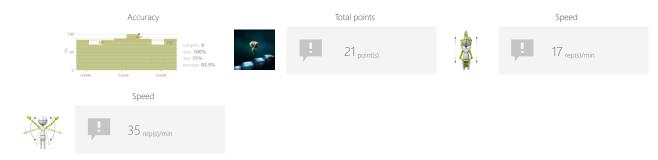
SPEED STAIRS

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- 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.







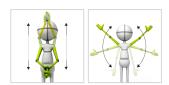




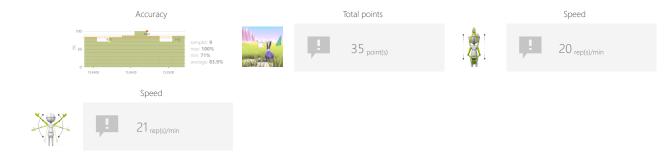
SPEED RABBIT

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- Task duration
- Range

OBJECTIVES

- Speed of movement
- Repetitive movements

INSTRUCTION FOR PATIENT

Go through the entire route as fast as you can.





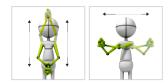




SPEED KAYAK

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- Task duration
- Range

OBJECTIVES

- Speed of movement
- Repetitive movements

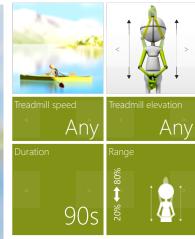
INSTRUCTION FOR PATIENT

Row as fast as you can.











MOVEMENT PRECISION

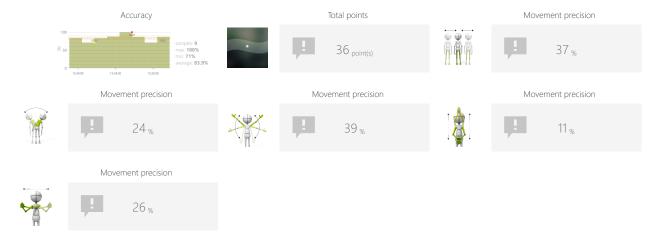
GRAPH

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

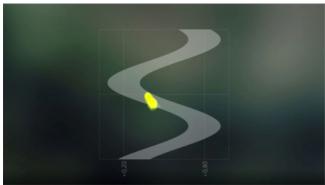
OBJECTIVES

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

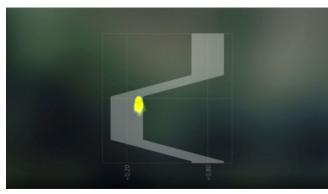
INSTRUCTION FOR PATIENT

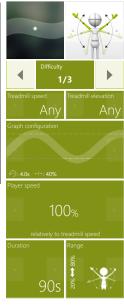
Try to stay within the borders.



















MOVEMENT PRECISION UMBRELLA

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- Task duration
- Path
- Range
- Umbrella size

OBJECTIVES

- Movement precision
- Visual motor coordination

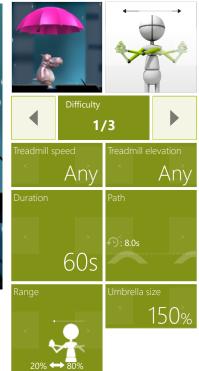
INSTRUCTION FOR PATIENT

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







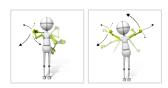




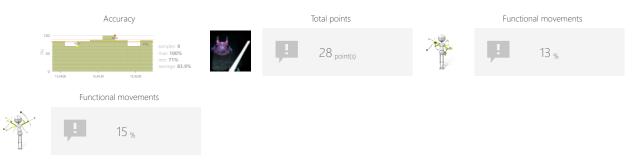
VAMPIRES

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

- Treadmill speed
- Treadmill elevation
- Positions to have targets on
- Task duration
- Range
- 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

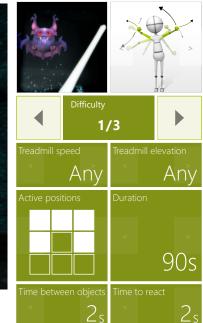
INSTRUCTION FOR PATIENT

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

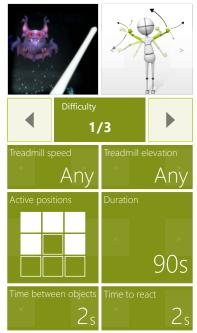
















PUMPER

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

- Treadmill speed
- Treadmill elevation
- Task duration
- Time to complete action
- Range

OBJECTIVES

- Speed of movement
- Dynamics of planned movements

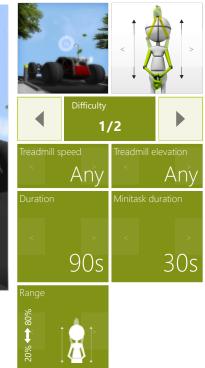
INSTRUCTION FOR PATIENT

Pump the wheels as quickly as you can.









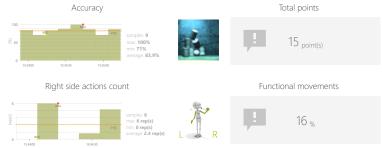


Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES



RESULTS





Left side actions count

ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- Task duration
- Speed of objects
- Weight of targets

OBJECTIVES

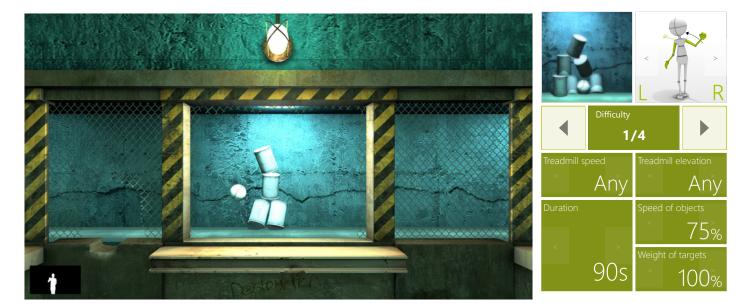
- Movement precision
- Predicting the trajectory of objects in 3D space
- Dynamics of planned movements
- Dynamic responses to emerging moving targets
- The ability of spatial visualization

INSTRUCTION FOR PATIENT

Throw the balls to strike as many cans as you can.









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





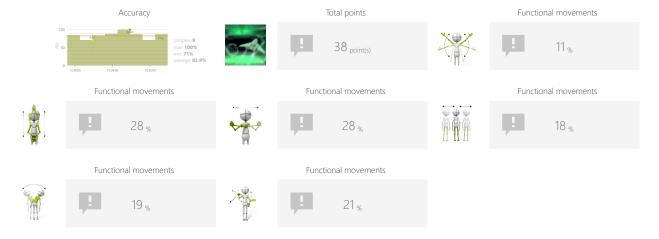








RESULTS



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- Player speed
- Task duration
- Range

OBJECTIVES

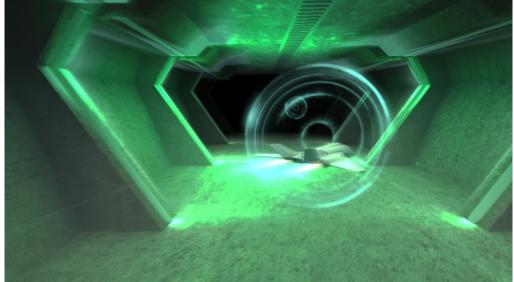
- Focusing
- Perceptivity
- Movement precision
- Predicting the trajectory of objects in 3D space

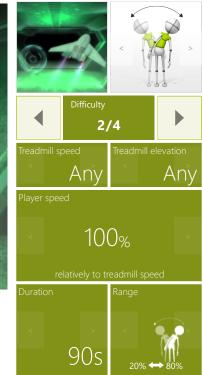
INSTRUCTION FOR PATIENT

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











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

- Treadmill speed
- Treadmill elevation
- Task duration
- Time to complete action

OBJECTIVES

- Speed of movement
- Spontaneous movements

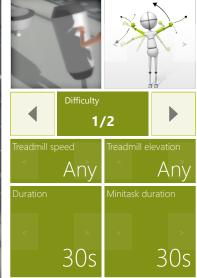
INSTRUCTION FOR PATIENT

Punch or kick the bag as many times as you can.











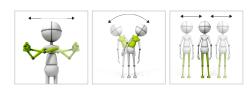




STONES

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

- Treadmill speed
- Treadmill elevation
- Player speed
- Task duration
- Range

OBJECTIVES

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

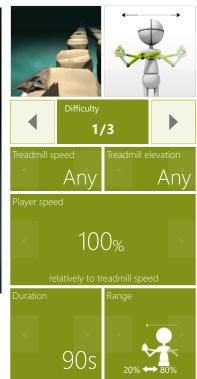
INSTRUCTION FOR PATIENT

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













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

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

OBJECTIVES

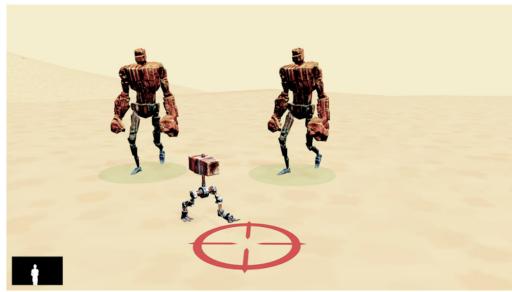
- Predicting the trajectory of objects in 3D space
- Response to negative visual stimuli
- Focusing
- Perceptivity

INSTRUCTION FOR PATIENT

Keep away from the big robots.

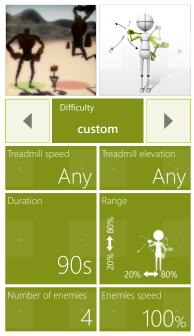
















CANNON

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

- Treadmill speed
- Treadmill elevation
- 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.

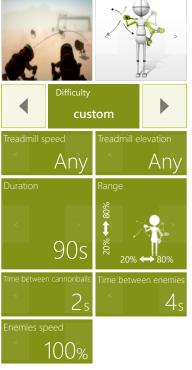














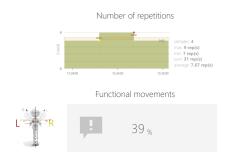
CROSS PUNCHER

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

- Treadmill speed
- Treadmill elevation
- 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.



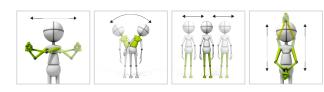




AUTOMATIC CANNON

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

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

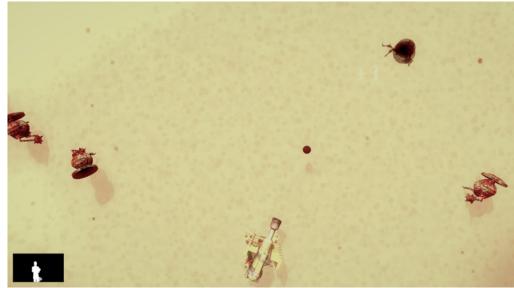
OBJECTIVES

- Divided attention
- Spontaneous movements
- Predicting the trajectory of objects

INSTRUCTION FOR PATIENT

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













DRAGON

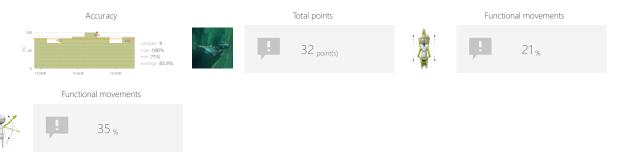
Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES





RESULTS



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- 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.















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

- Treadmill speed
- Treadmill elevation
- Positions to have targets on
- Task duration
- Range
- Required force

OBJECTIVES

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

INSTRUCTION FOR PATIENT

Smash boxes with the club.





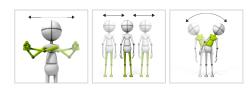




AMBULANCE

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

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

OBJECTIVES

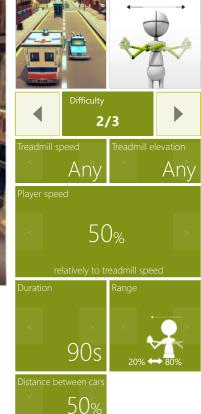
- Dynamics of planned movements
- Focusing
- Speed of decision making
- Visual motor coordination

INSTRUCTION FOR PATIENT

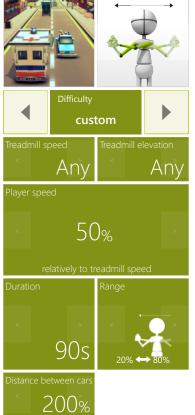
Go as fast as you can and avoid hitting other cars.















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

- Treadmill speed
- Treadmill elevation
- Task duration
- Number of gates
- Gravity force

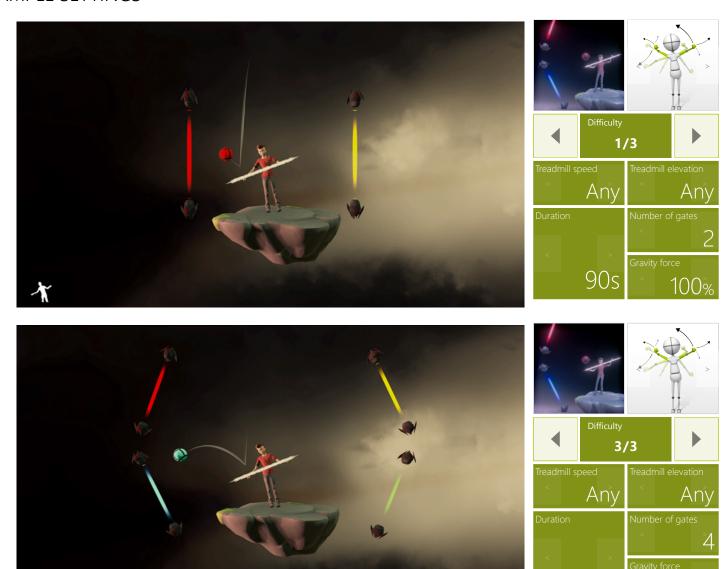
OBJECTIVES

- 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.





90s

100%



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





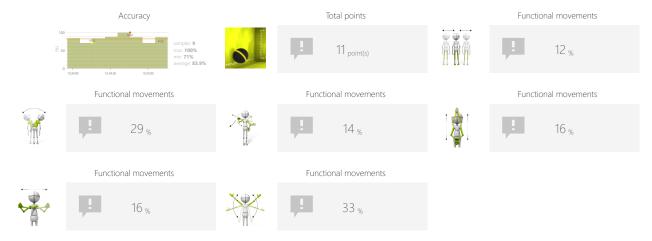








RESULTS



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- Task duration
- Range
- Reticle size
- Speed of objects

OBJECTIVES

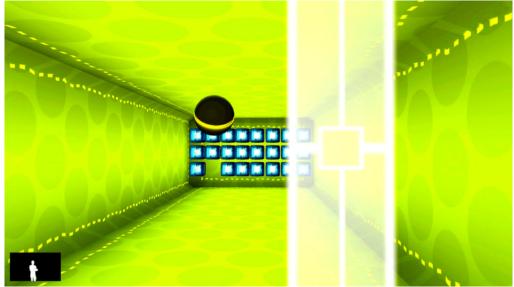
- Dynamics of planned movements
- Predicting the trajectory of objects in 3D space
- Visual motor coordination

INSTRUCTION FOR PATIENT

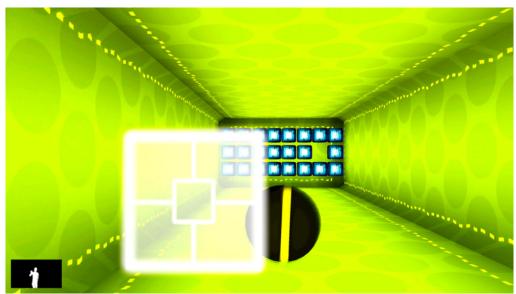
Destroy as many boxes as you can.















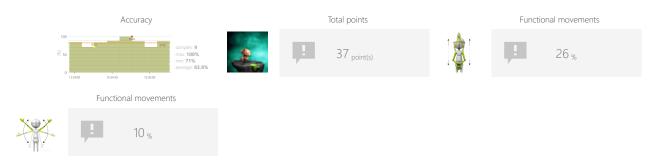
ROCKET JUMPING

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

- Treadmill speed
- Treadmill elevation
- 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.











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

- Treadmill speed
- Treadmill elevation
- Player speed
- Task duration
- Range
- Route shape
- Enable derailing
- Enable obstacles
- Time between objects

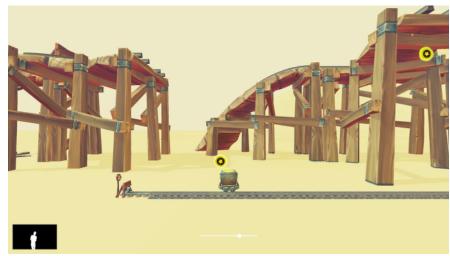
OBJECTIVES

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

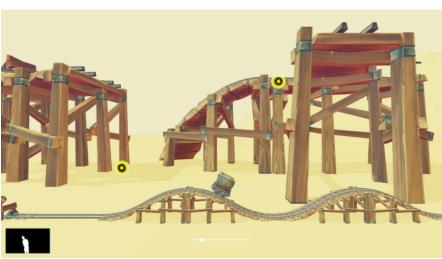
INSTRUCTION FOR PATIENT

Control the trolley to collect the coins.











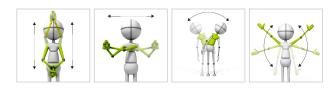




MOTOCROSS

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

- Treadmill speed
- Treadmill elevation
- 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.











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

- Treadmill speed
- Treadmill elevation
- Player speed
- Task duration

OBJECTIVES

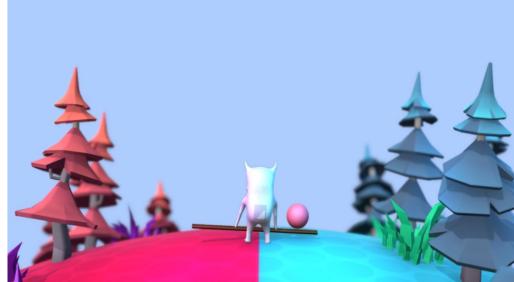
- Planned movements
- Balance and equilibrium training
- Repetitive movements

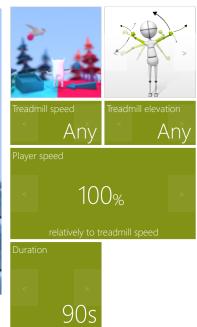
INSTRUCTION FOR PATIENT

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







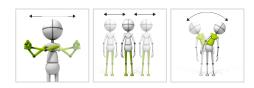




FOREST RUNNER

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

- Treadmill speed
- Treadmill elevation
- Player speed
- Task duration
- Range

OBJECTIVES

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

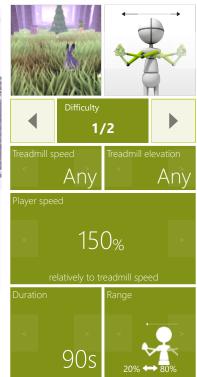
INSTRUCTION FOR PATIENT

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











GEOMETRY FLIER

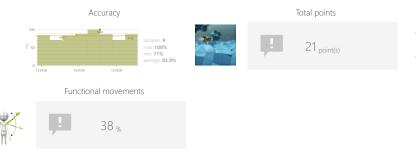
Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES





RESULTS



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- Player speed
- Task duration
- Range

OBJECTIVES

• Dynamics of planned movements

Functional movements

24 %

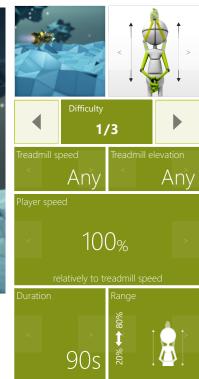
- Activity in a given rhythm
- Visual motor coordination

INSTRUCTION FOR PATIENT

Control the vehicle to avoid the obstacles.









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

- Treadmill speed
- Treadmill elevation
- Task duration
- Range
- Advanced scoring
- Song index
- Spawn rate level

OBJECTIVES

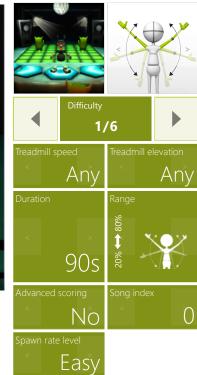
- Activity in a given rhythm
- Spontaneous movements
- Visual motor coordination

INSTRUCTION FOR PATIENT

Hit the green characters when they come close.









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

- Treadmill speed
- Treadmill elevation
- Task duration
- Range
- Speed of objects

OBJECTIVES

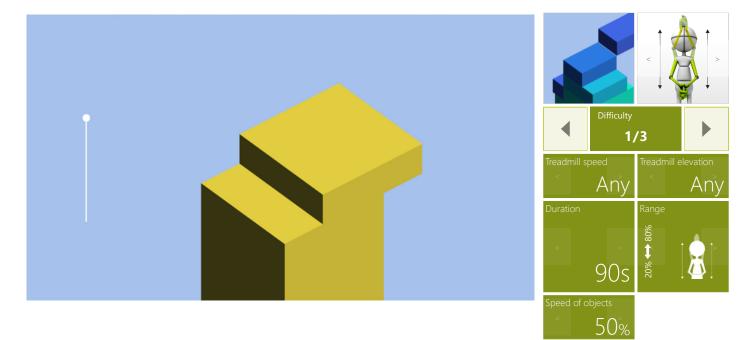
- Repetitive movements
- Rhythmicity
- Planned movements
- Focusing

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.









IMP DODGE

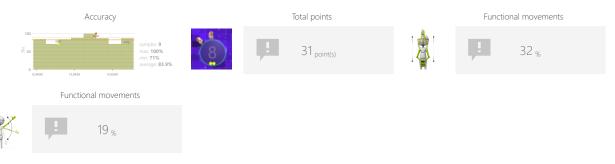
Measure and train individual's skills to perform movements based on real-world situational biomechanics. They usually involve multi-planar, multi-joint movements which place demand on the body's core musculature and innervation.

CONTROL MODES





RESULTS



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- Task duration
- Range
- Number of imps
- 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 hitting imps.









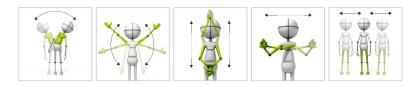




DIVIDED ATTENTION SORTER

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

- Treadmill speed
- Treadmill elevation
- Task duration
- Range
- Number of objects
- Gap size
- Speed of objects

OBJECTIVES

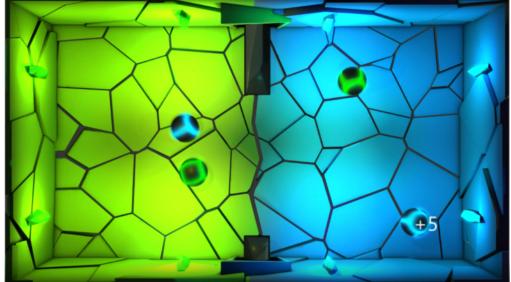
- Predicting the trajectory of objects
- Focusing
- Perceptivity
- Movement precision
- Exercise with or without support from healthy limb

INSTRUCTION FOR PATIENT

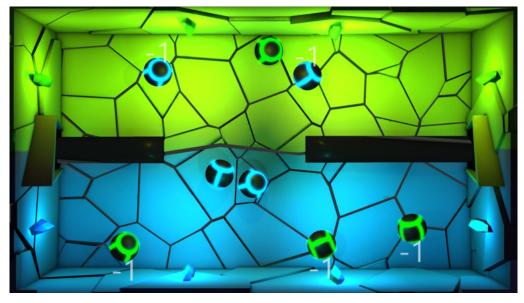
Pass or block the balls so that the blue balls are on the blue side and the green balls are on the green side of the screen.











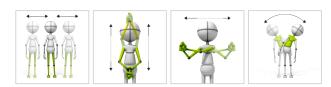




MEMORY TRUCKS

Measure and train individual's skills to memorize information.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- Task duration
- Range
- Variations

OBJECTIVES

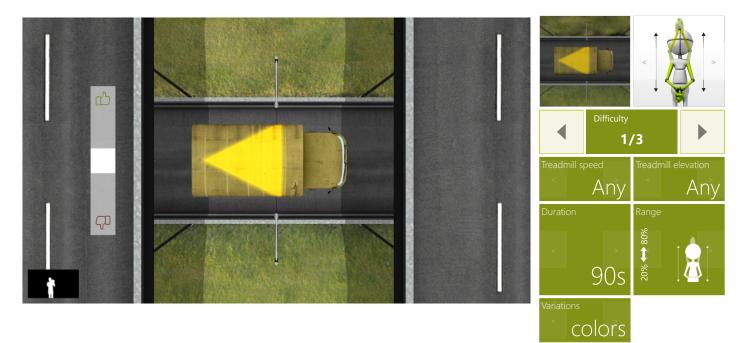
- Logical tasks
- Focusing
- Perceptivity

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.











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

- Treadmill speed
- Treadmill elevation
- Task duration
- Target number range
- Allow negative numbers

OBJECTIVES

• Logical tasks

INSTRUCTION FOR PATIENT

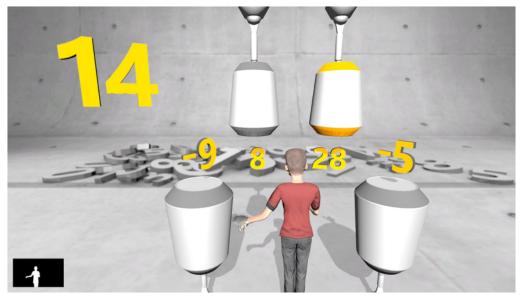
Hit the punching bag to change its state (orange ring means it is active). Make the sum of the numbers above active punching bags to be equal to the number in top left corner.















PROBLEM SOLVING

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

- Treadmill speed
- Treadmill elevation
- Task duration
- Time to complete action
- Range
- Angle

OBJECTIVES

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

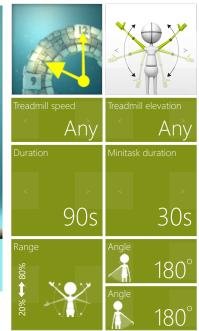
INSTRUCTION FOR PATIENT

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











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



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation
- 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.

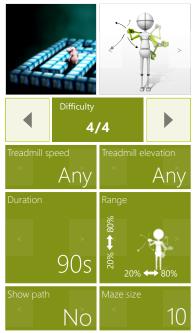














SPECIALIZED BLOOD PRESSURE

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

CONTROL MODES



ADJUSTMENTS

- Treadmill speed
- Treadmill elevation

OBJECTIVES

• Monitor external parameters

INSTRUCTION FOR PATIENT

Measure yourself your blood pressure and type it in the result.

