VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

VR BASE PACK

2021.4

WHAT IS NEEDED?

HARDWARE REQUIREMENTS

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

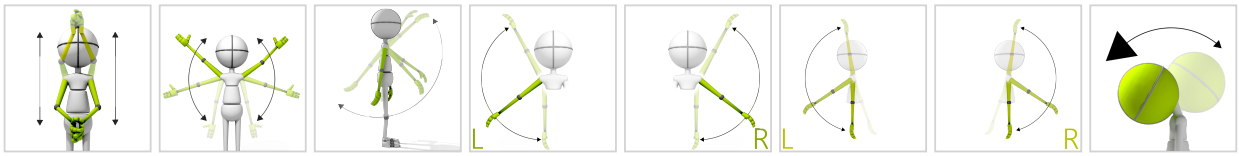
- Oculus Quest 2

SPEED

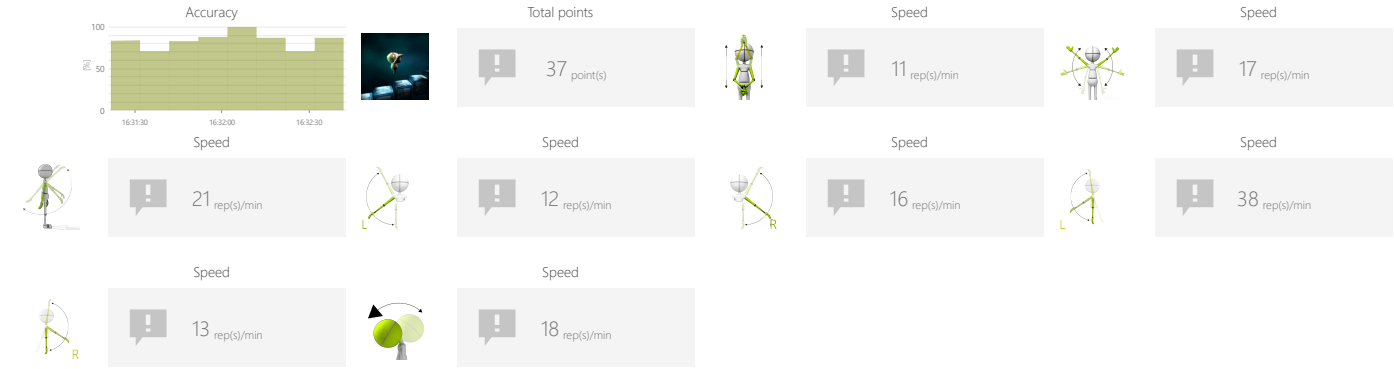
STAIRS

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

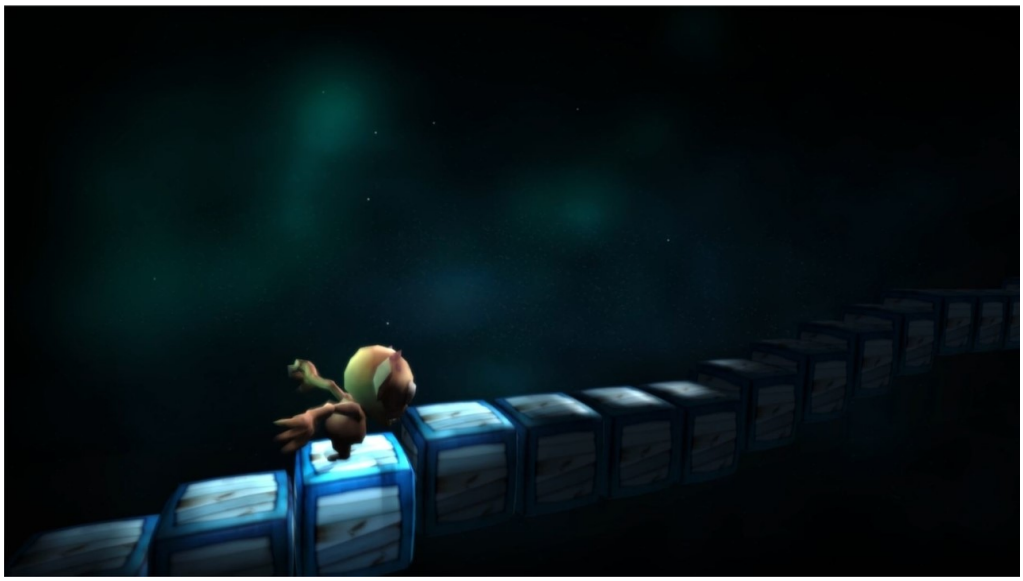
OBJECTIVES

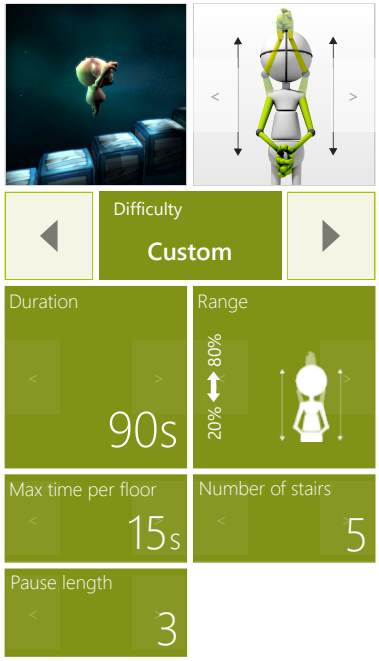
- Jumping
- Knees lifting
- Dynamics of planned movements

INSTRUCTION FOR PATIENT

Climb the stairs before they disappear

SAMPLE SETTINGS



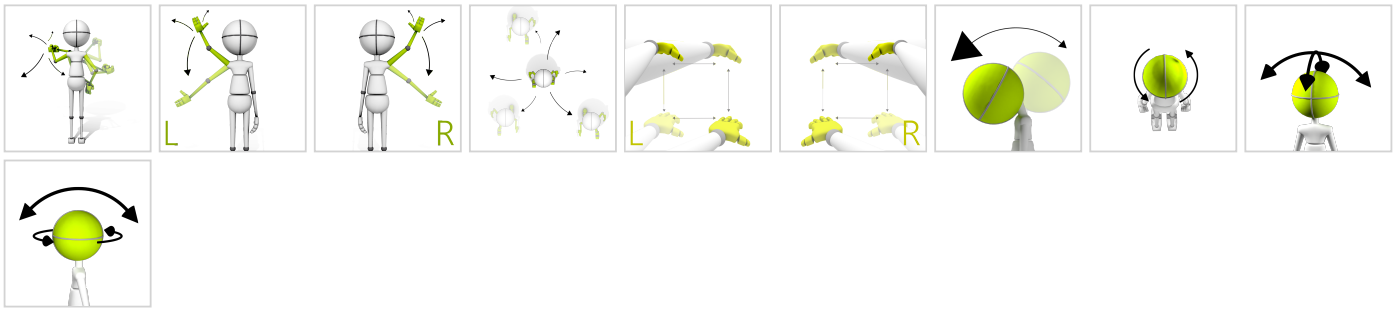


MOVEMENT PRECISION

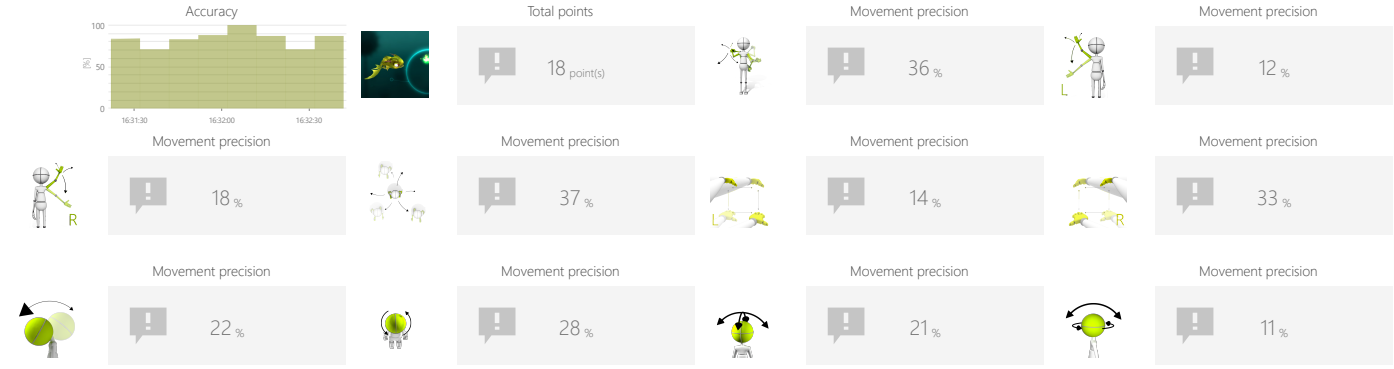
FISH

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

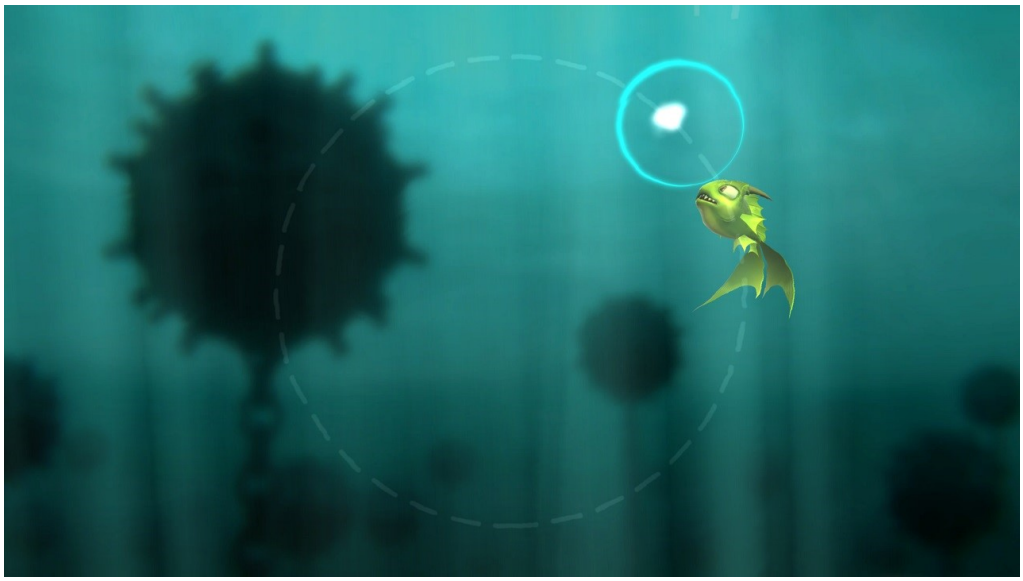
OBJECTIVES

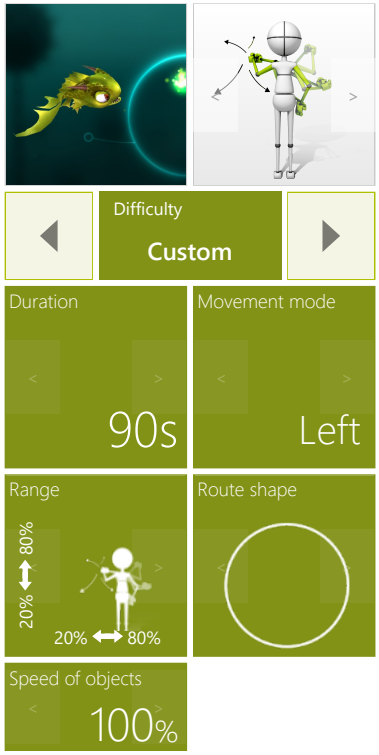
- 3D space movements reproduction
- Planned movements
- Muscle strengthening
- Movement precision
- Visual motor coordination

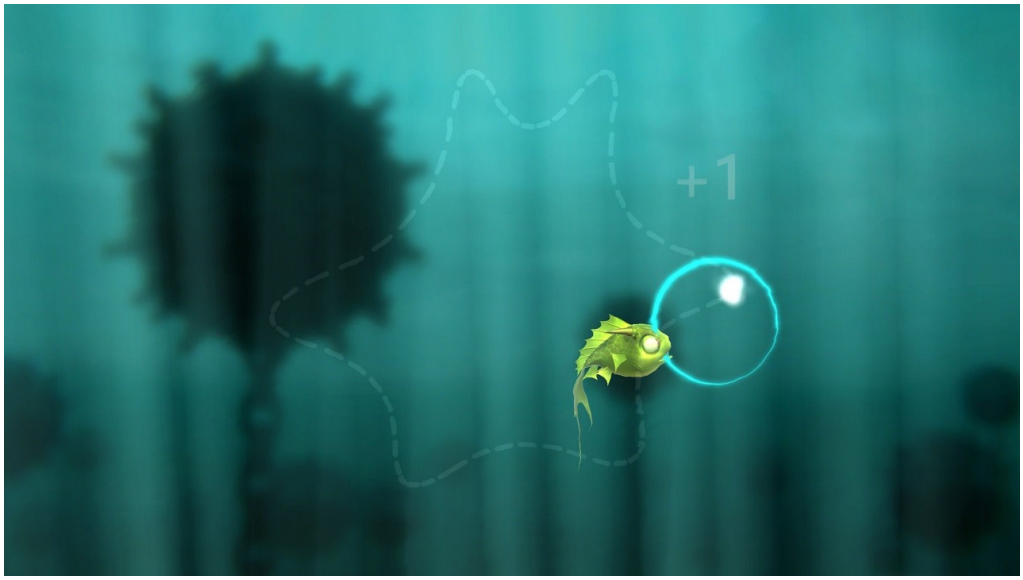
INSTRUCTION FOR PATIENT

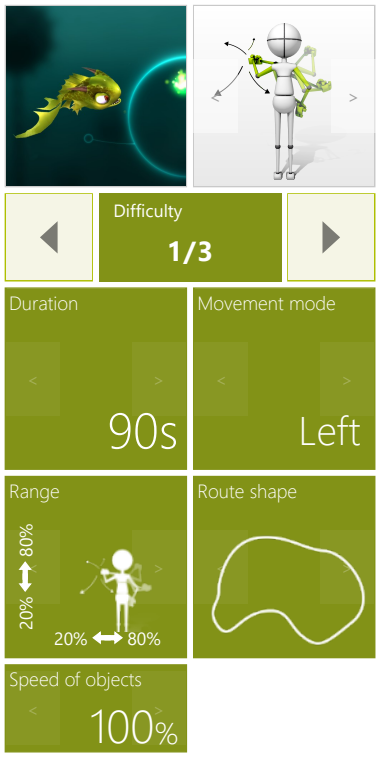
Move the blue circle to protect the sparks source from the fish. When the sparks source is inside the circle it is safe

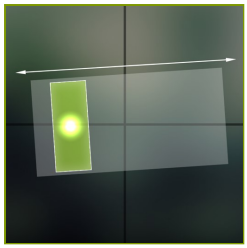
SAMPLE SETTINGS









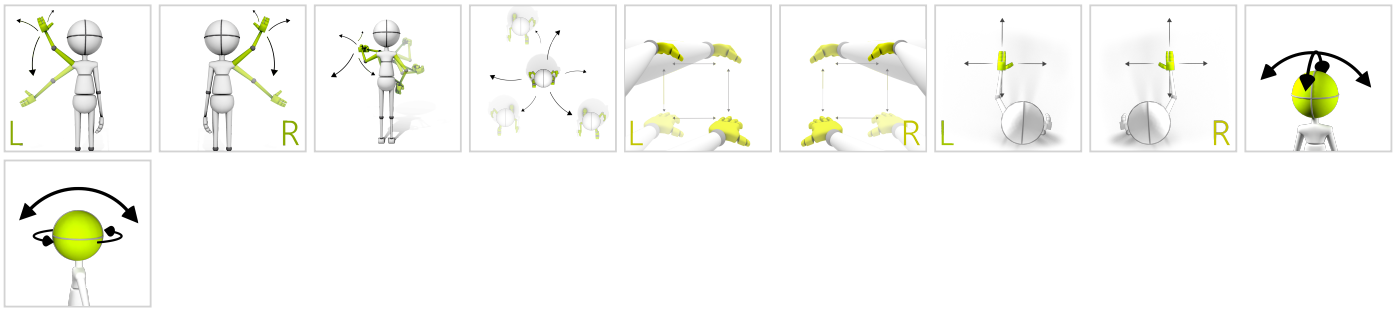


MOVEMENT PRECISION

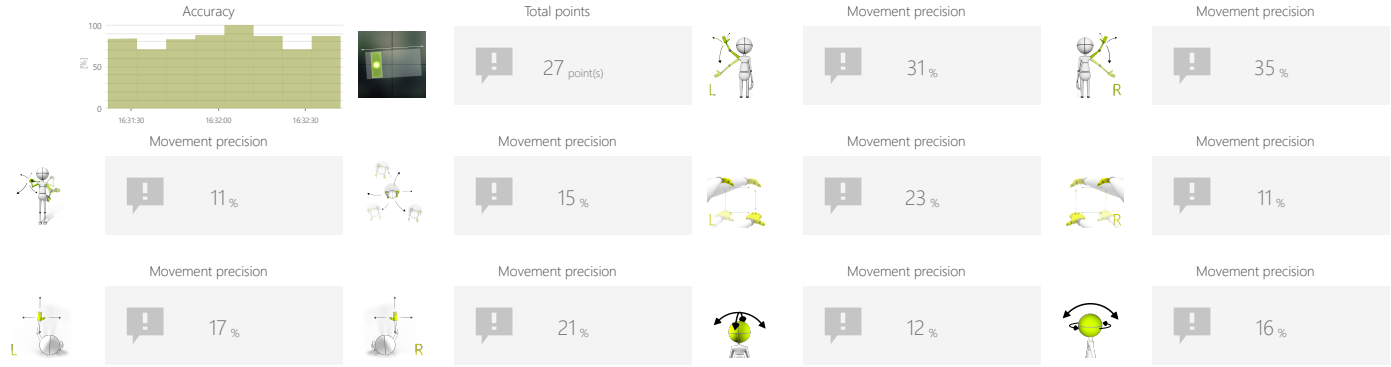
PENDULUM

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

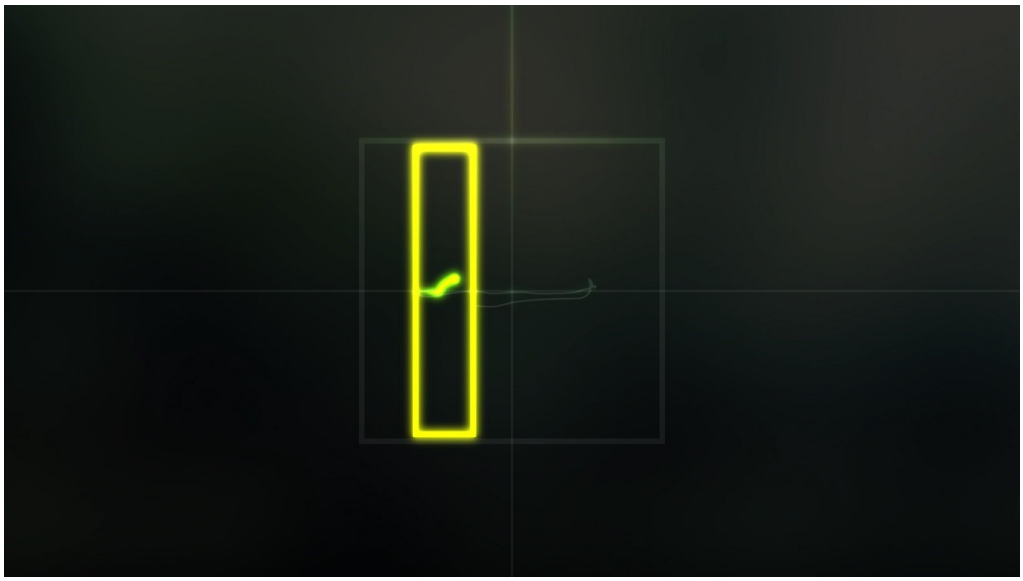
OBJECTIVES

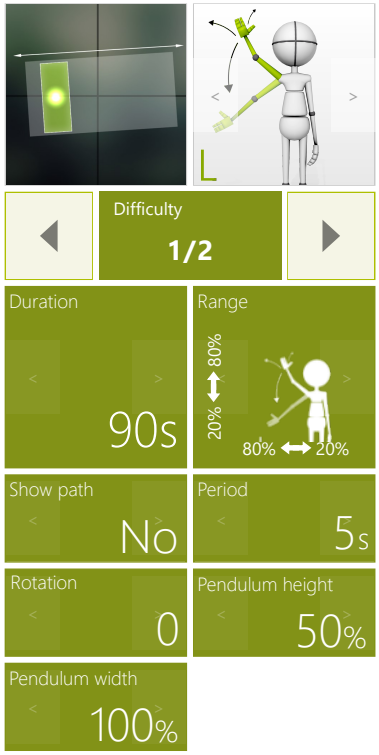
- 3D space movements reproduction
- Balance and equilibrium training
- Rhythmicity
- Activity in a given rhythm
- Movement precision

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



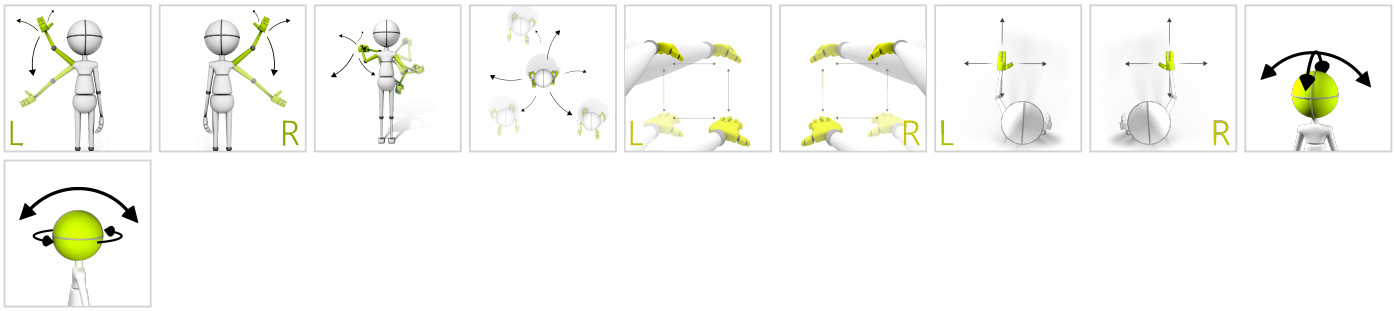


MOVEMENT PRECISION

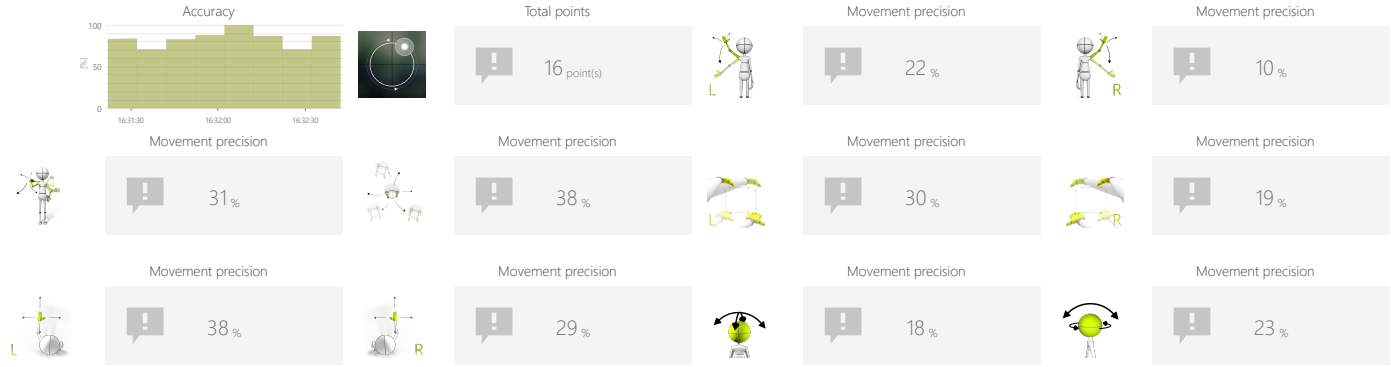
TRACKING

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

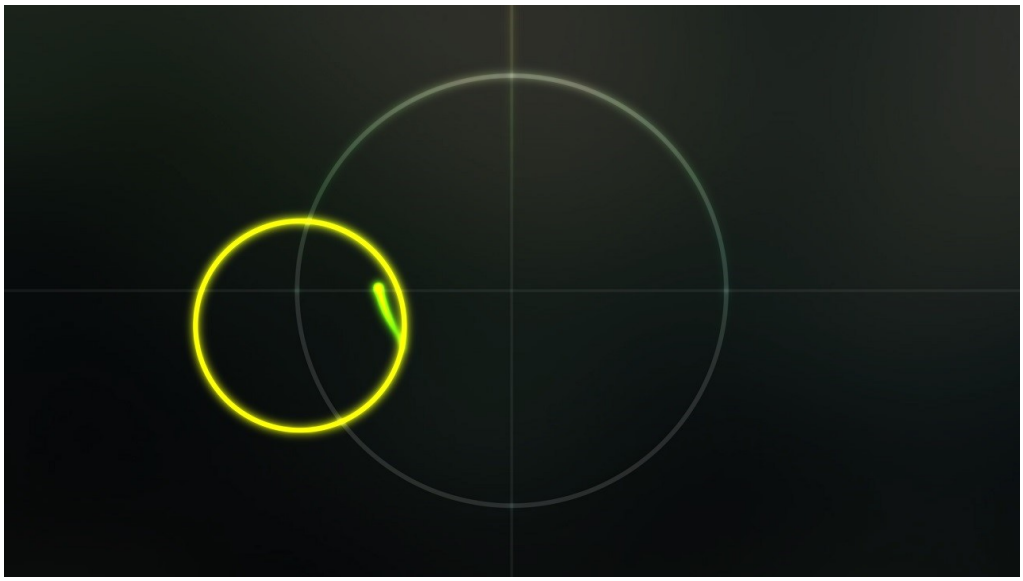
OBJECTIVES

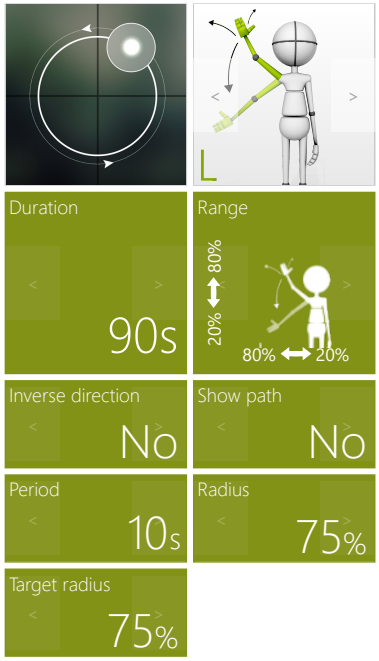
- 3D space movements reproduction
- Balance and equilibrium training
- Test the limits of balance and equilibrium

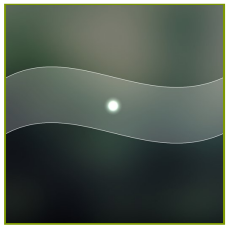
INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS





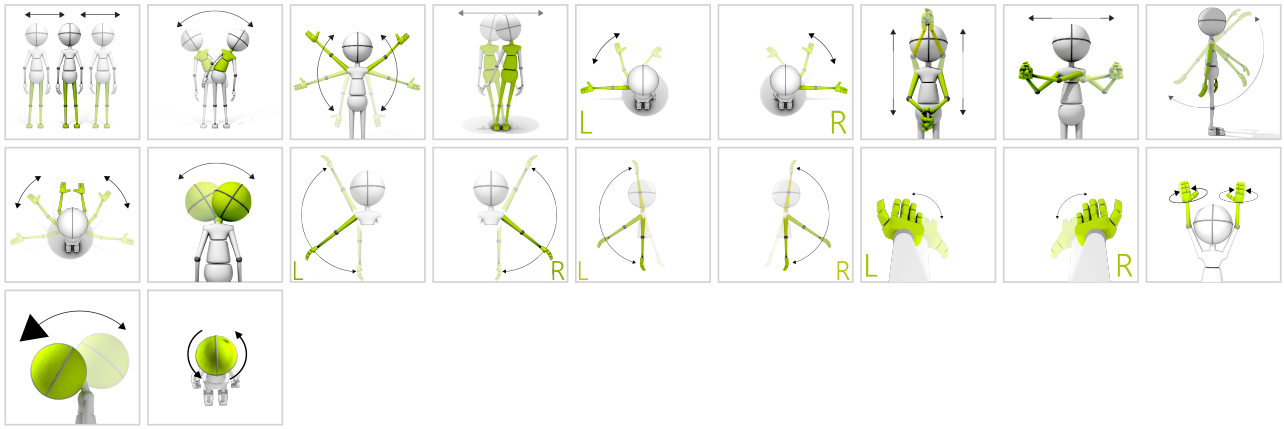


MOVEMENT PRECISION

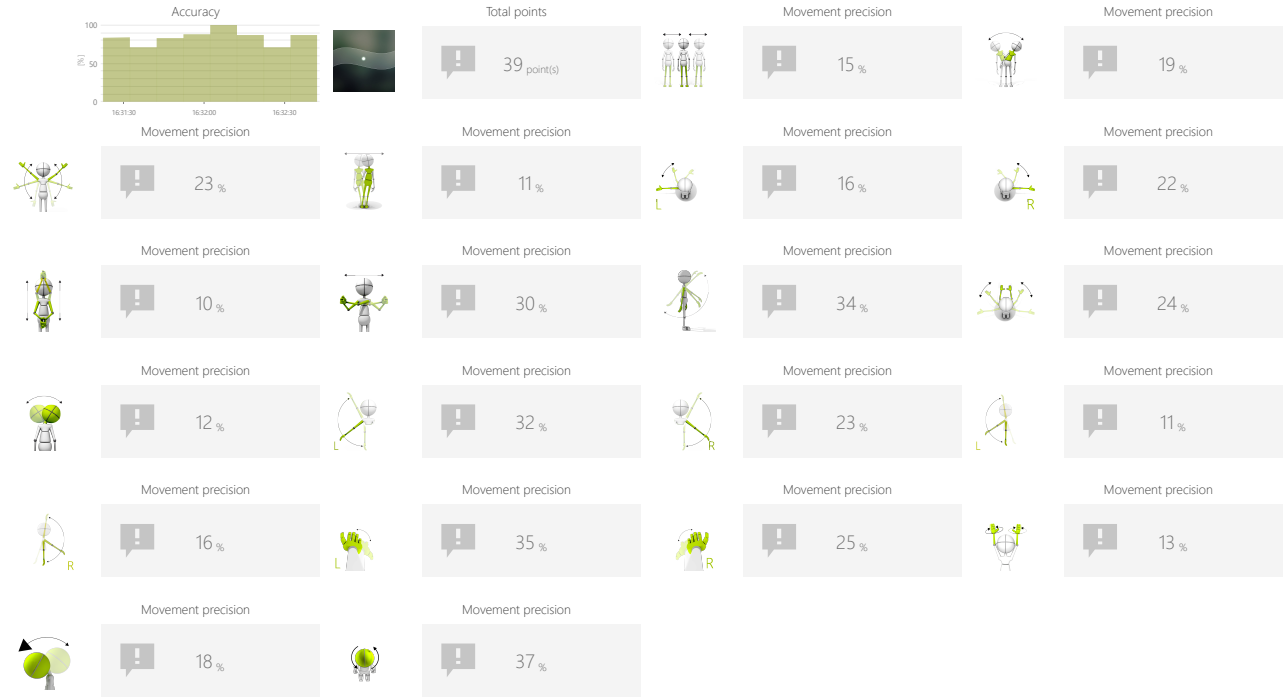
GRAPH

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

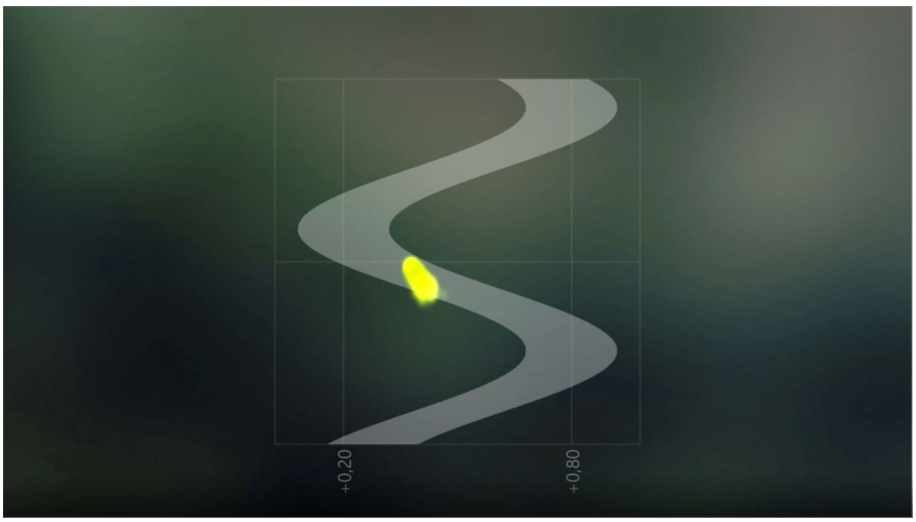
OBJECTIVES

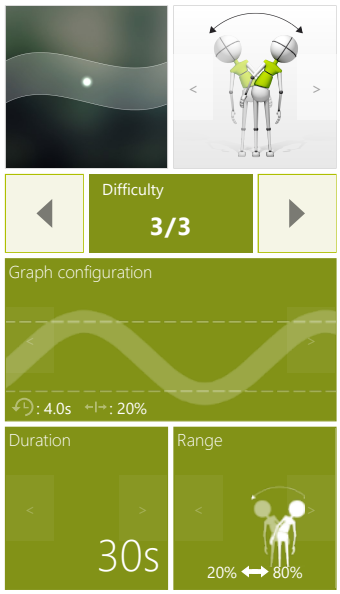
- Movement precision
- Activity in a given rhythm
- Repetitive movements
- Hands raising

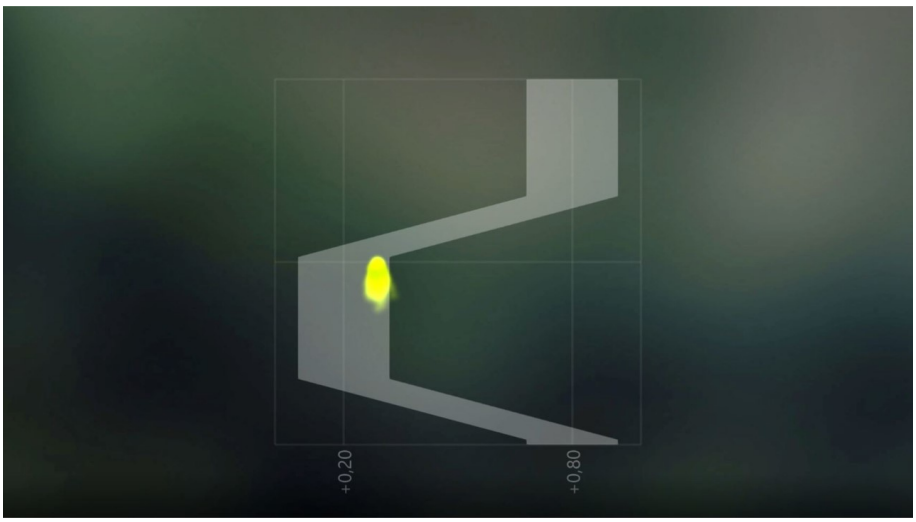
INSTRUCTION FOR PATIENT

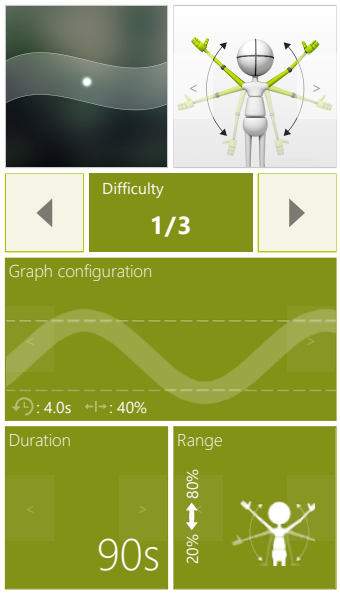
Try to stay within the borders

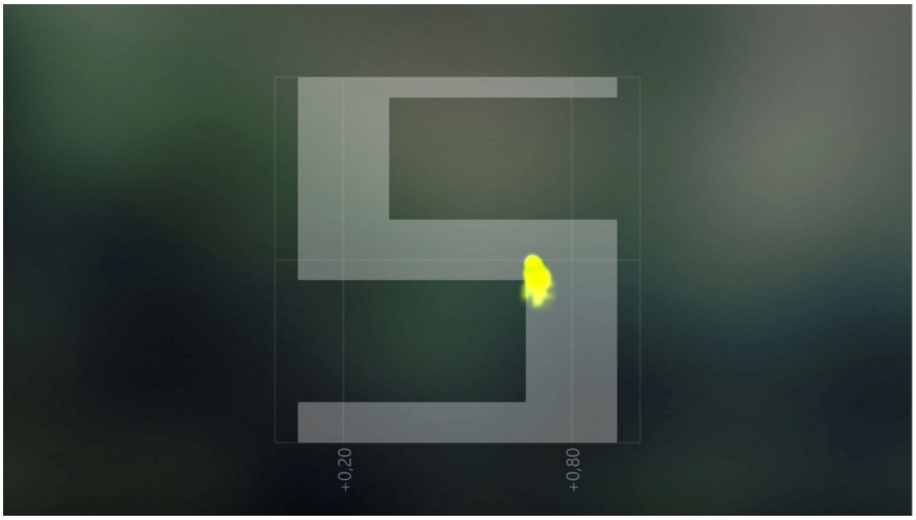
SAMPLE SETTINGS

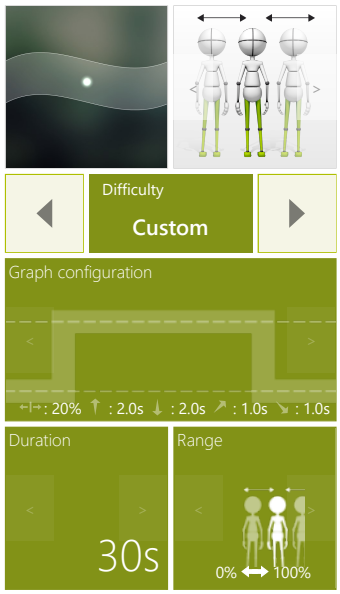










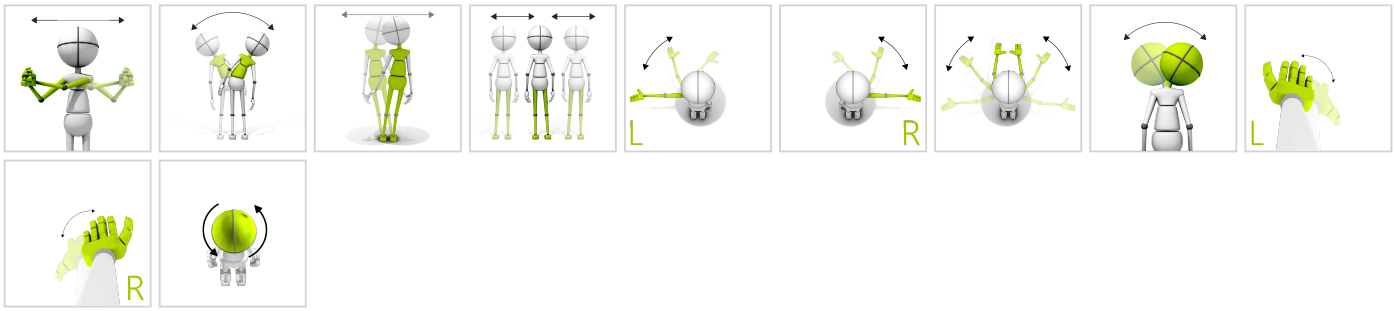


MOVEMENT PRECISION

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

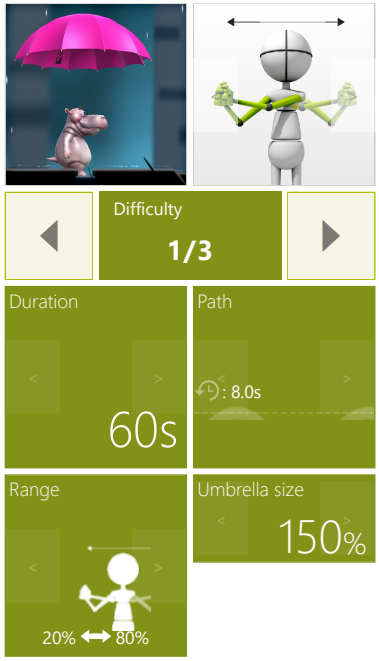
OBJECTIVES

- Movement precision
- Visual motor coordination

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS

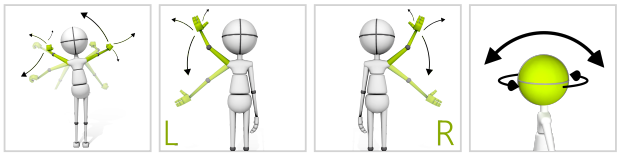


FUNCTIONAL MOVEMENTS

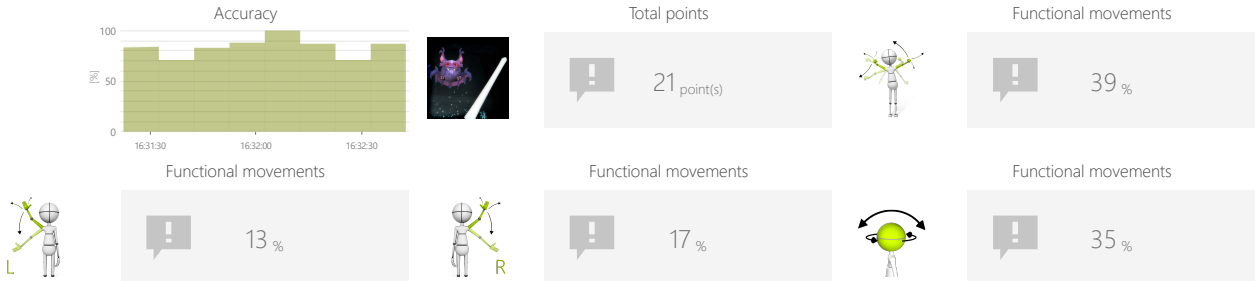
VAMPIRES

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

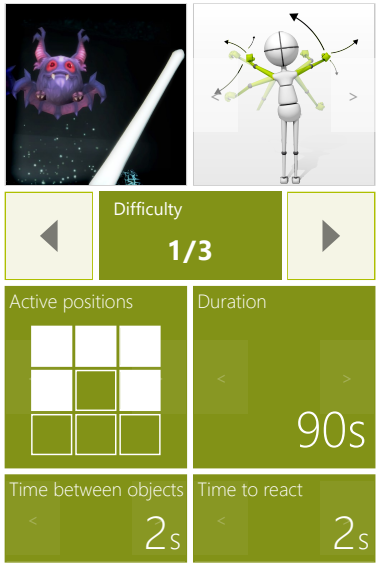
OBJECTIVES

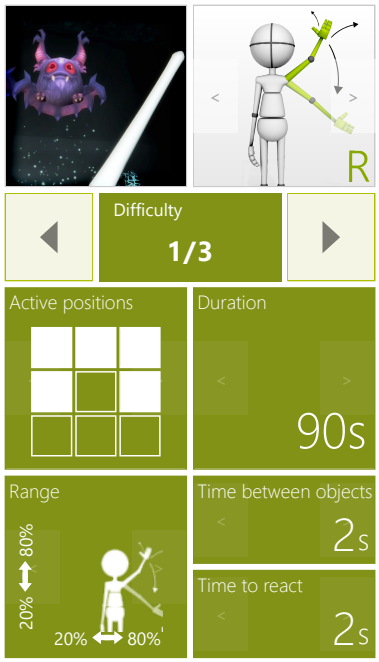
- Visual motor coordination
- Exercise with or without support from healthy limb
- Spontaneous movements in 3D space
- Speed of movement

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



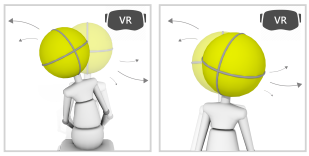


FUNCTIONAL MOVEMENTS

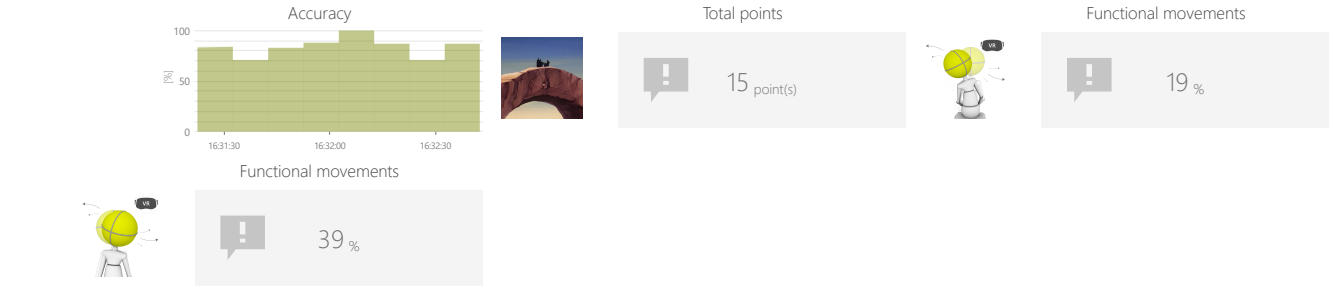
CANYON

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



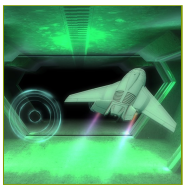
ADJUSTMENTS

- Task duration
- Object size width

OBJECTIVES

INSTRUCTION FOR PATIENT

Collect as many flowers as you can. Look straight onto it to collect one

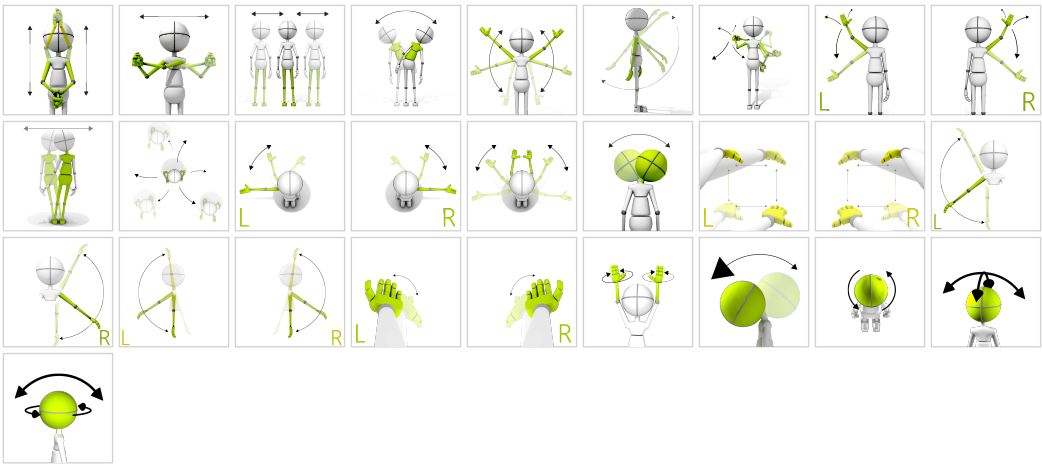


FUNCTIONAL MOVEMENTS

AIRPLANE

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

CONTROL MODES



RESULTS

ADJUSTMENTS

- Task duration
- Range
- Player speed

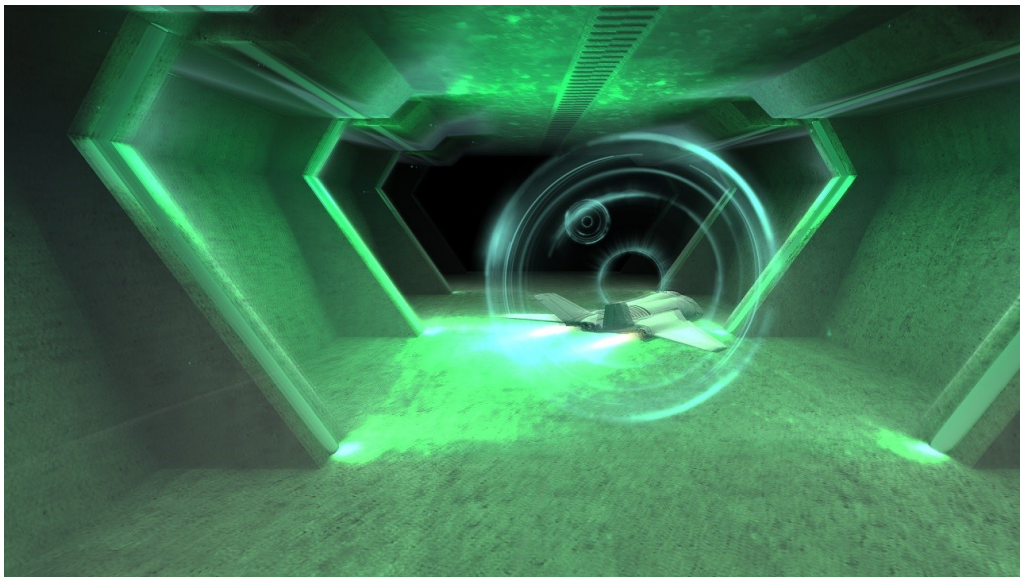
OBJECTIVES

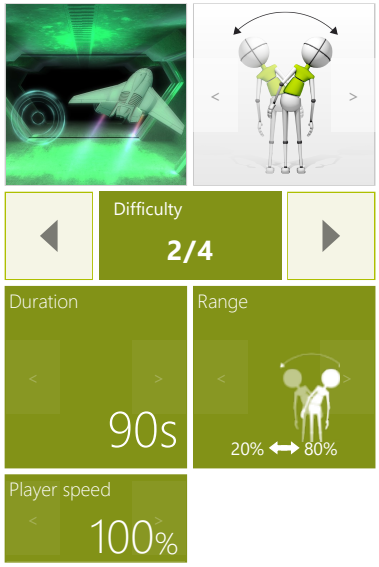
- Focusing
- Perceptivity
- Movement precision
- Predicting the trajectory of objects in 3D space
- Balance and equilibrium training

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



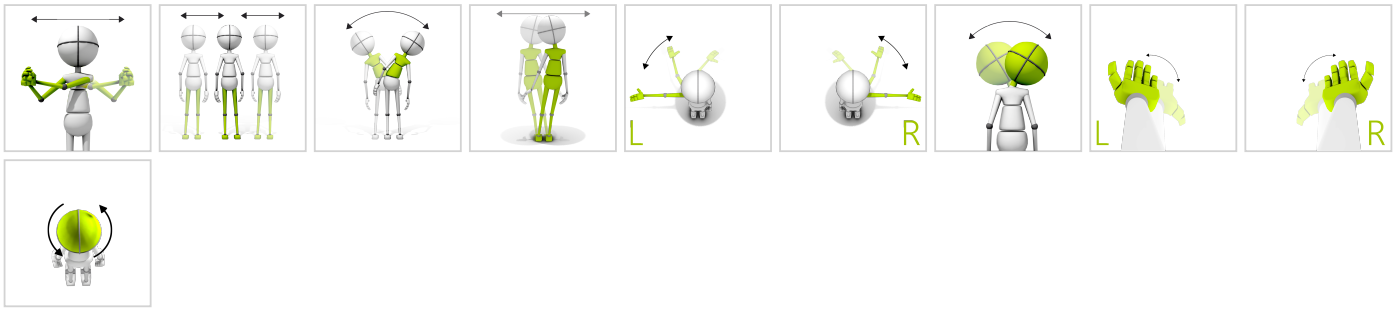


FUNCTIONAL MOVEMENTS

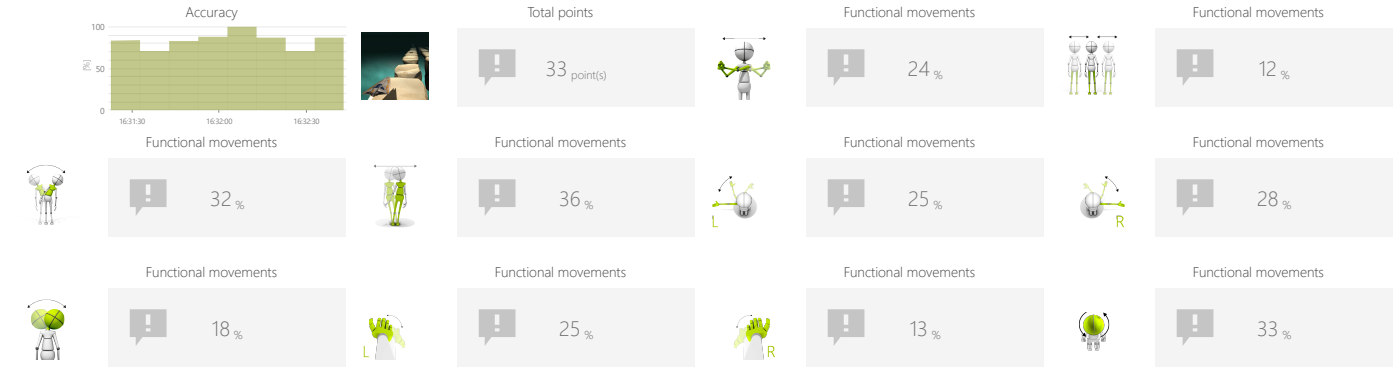
STONES

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Player speed

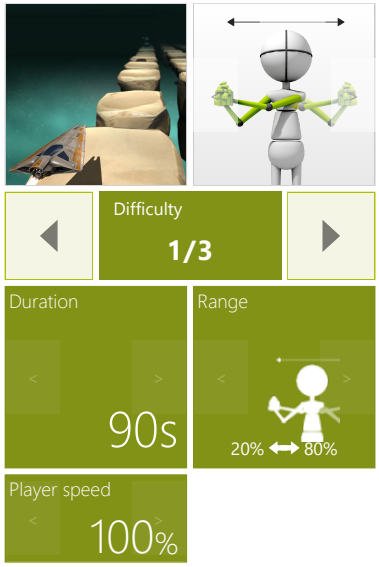
OBJECTIVES

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

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS

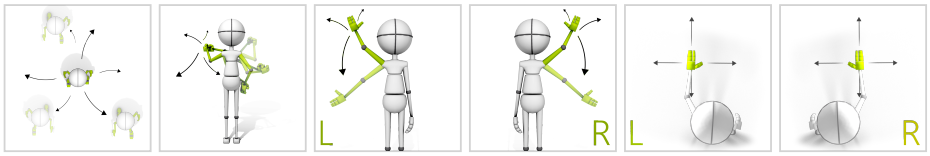


FUNCTIONAL MOVEMENTS

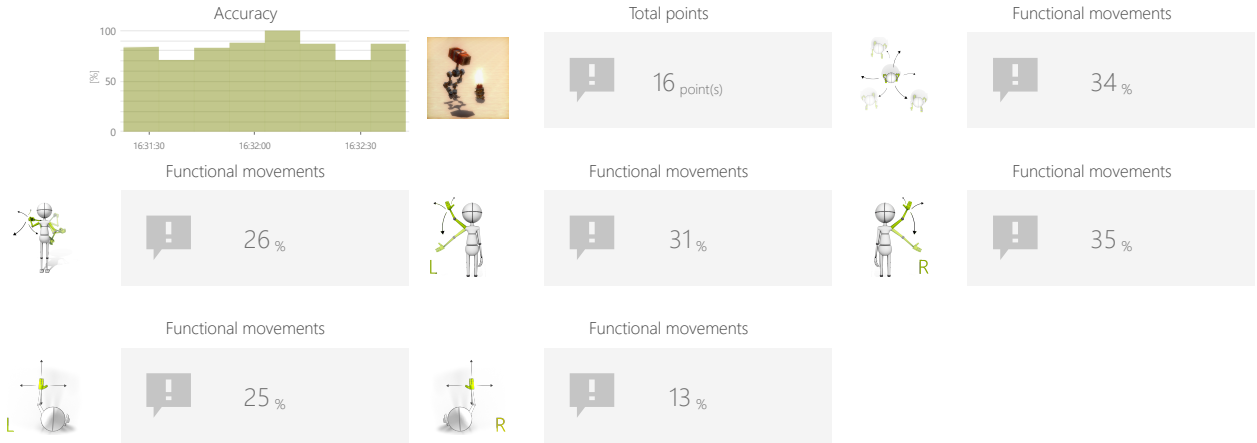
HAMMER

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

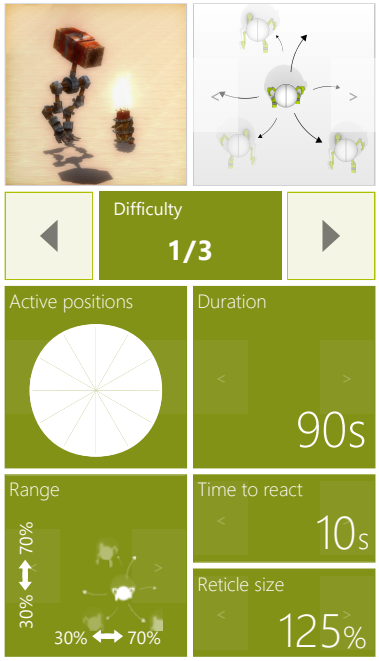
OBJECTIVES

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

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS

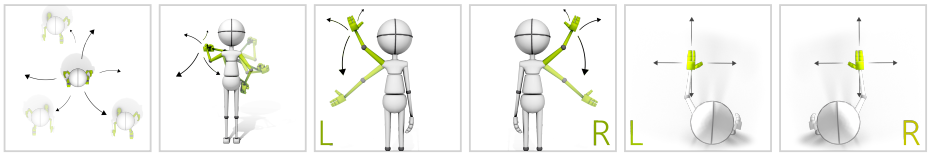


FUNCTIONAL MOVEMENTS

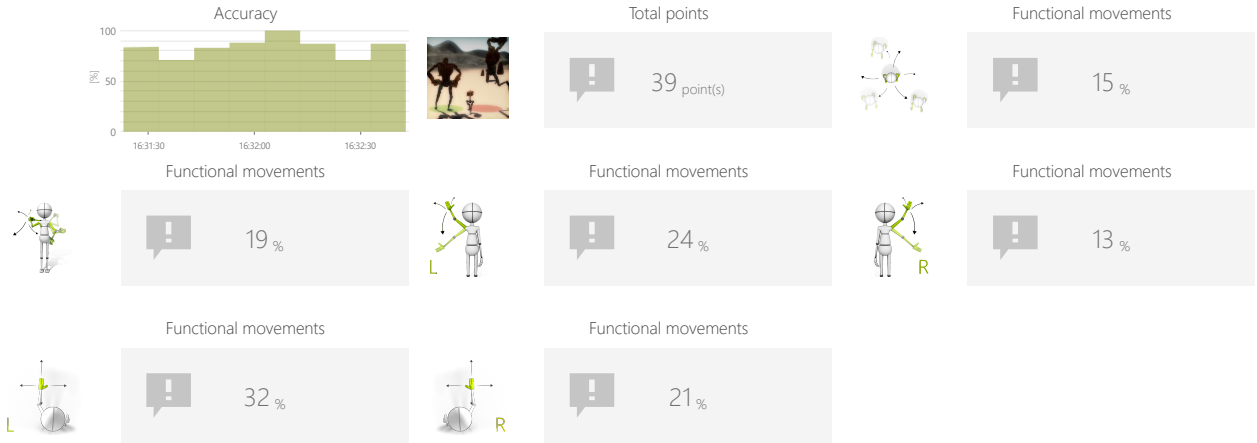
RUNAWAY

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

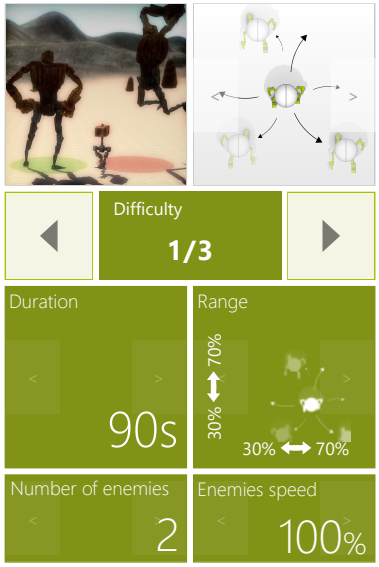
OBJECTIVES

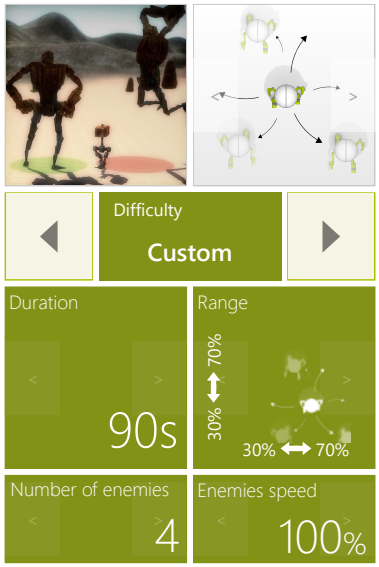
- Predicting the trajectory of objects in 3D space
- Response to negative visual stimuli
- Focusing
- Perceptivity
- Balance and equilibrium training

INSTRUCTION FOR PATIENT

Keep away from the big robots

SAMPLE SETTINGS



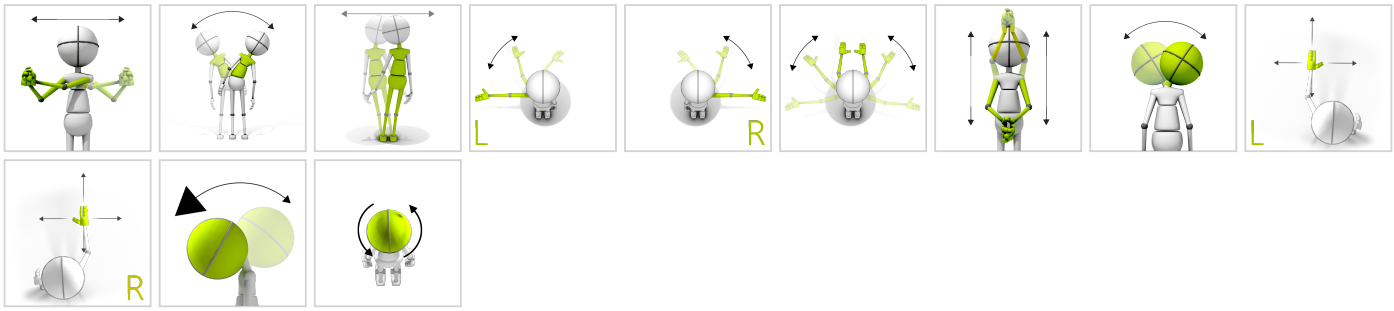


FUNCTIONAL MOVEMENTS

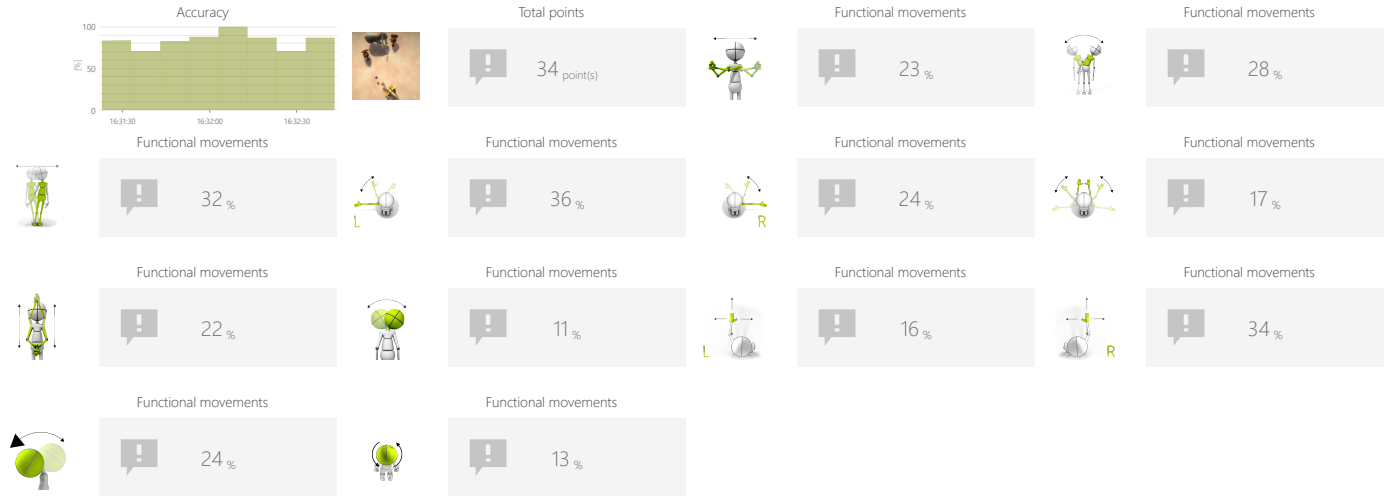
AUTOMATIC CANNON

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

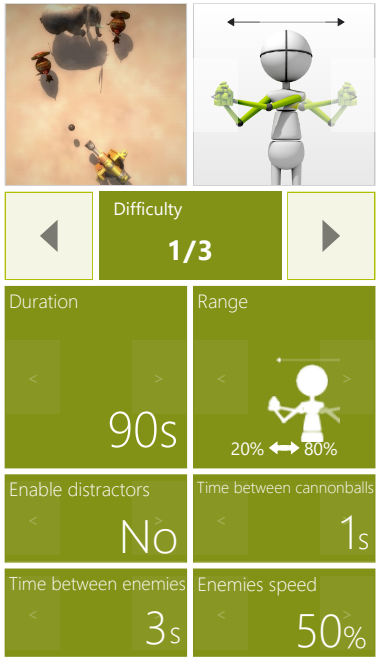
OBJECTIVES

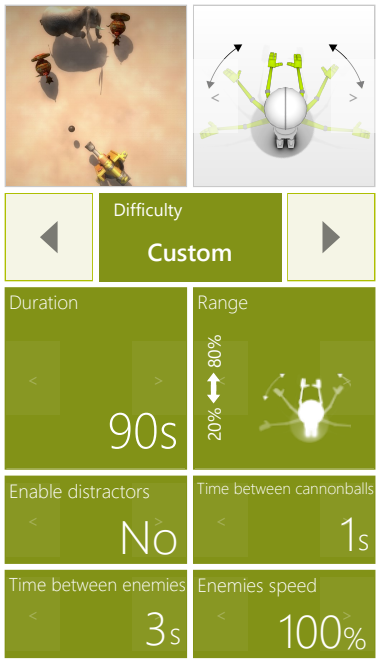
- Divided attention
- Spontaneous movements
- Arms swings
- Muscle strengthening

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



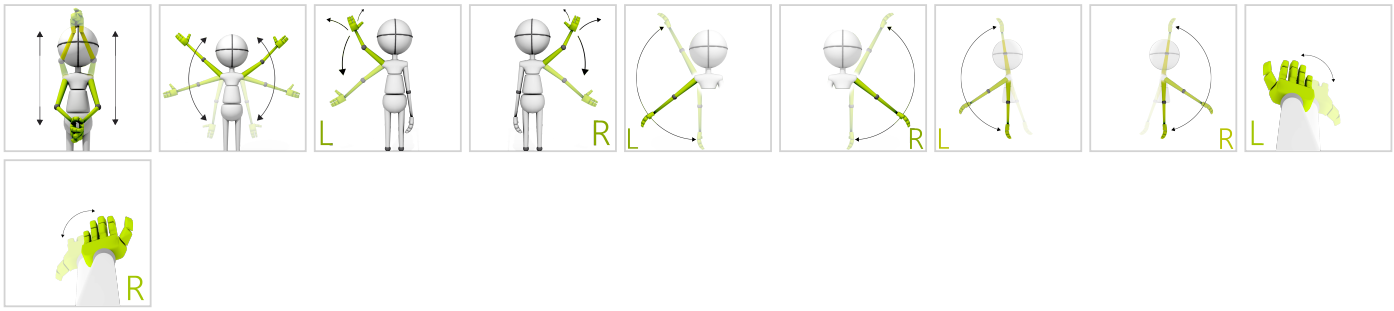


FUNCTIONAL MOVEMENTS

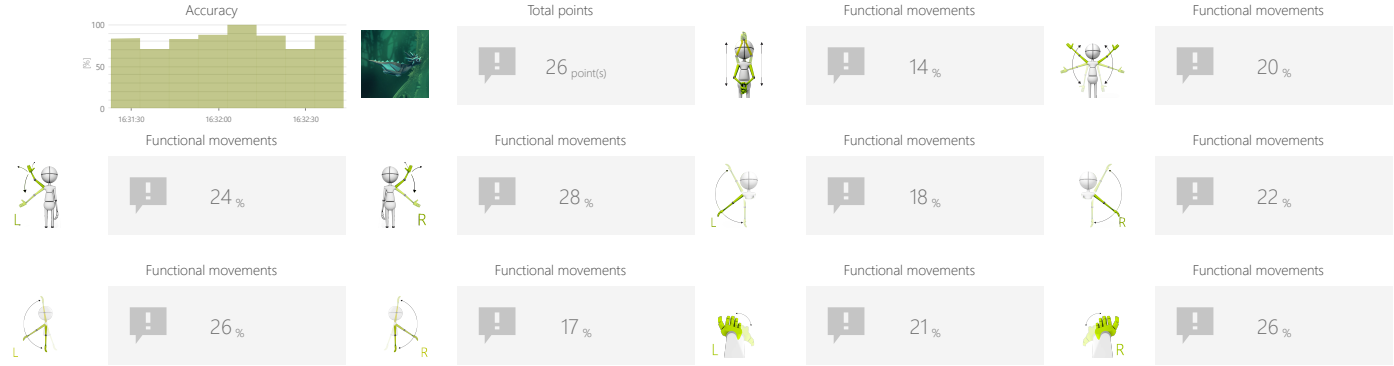
DRAGON

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

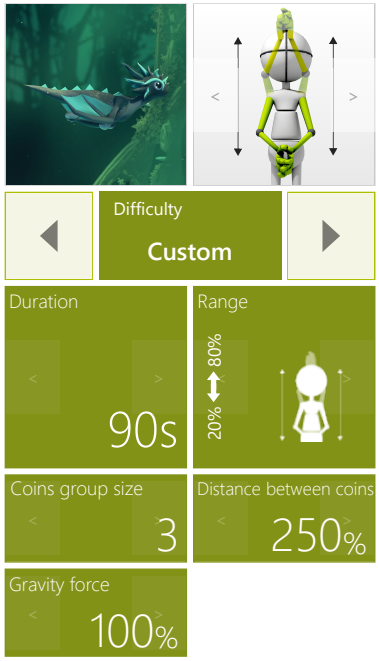
OBJECTIVES

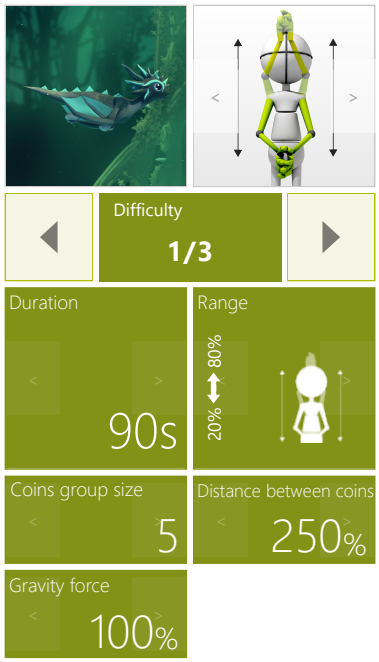
- Predicting the trajectory of objects
- Improve range of motion
- Visual motor coordination
- Muscle strengthening
- Planning and Strategy

INSTRUCTION FOR PATIENT

Fly and collect the coins

SAMPLE SETTINGS





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

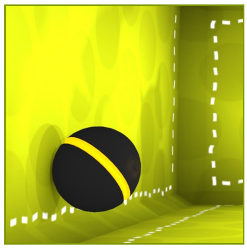
RESULTS

OBJECTIVES

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

INSTRUCTION FOR PATIENT

Go as fast as you can and avoid hitting other cars

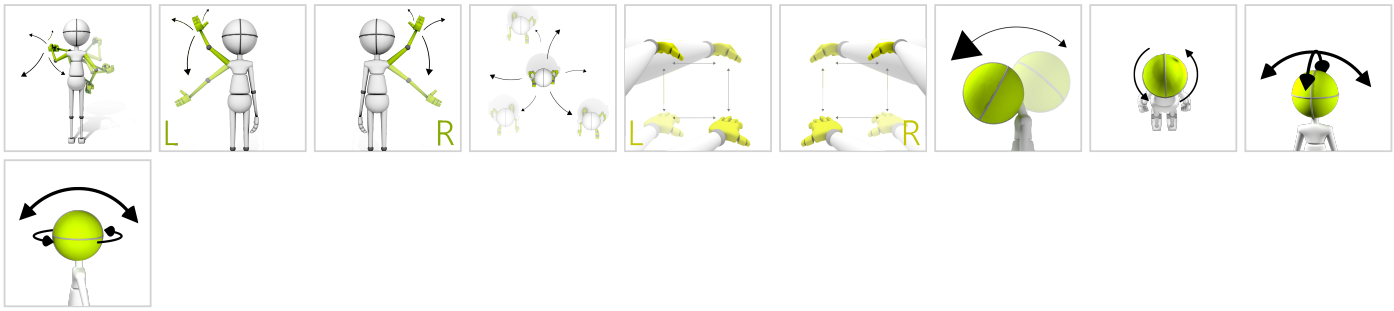


FUNCTIONAL MOVEMENTS

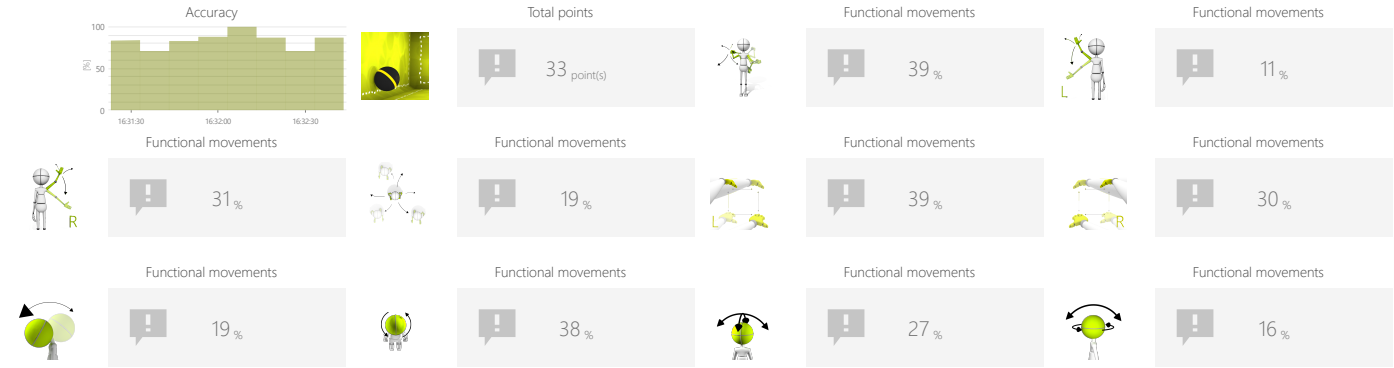
ARCANOID

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

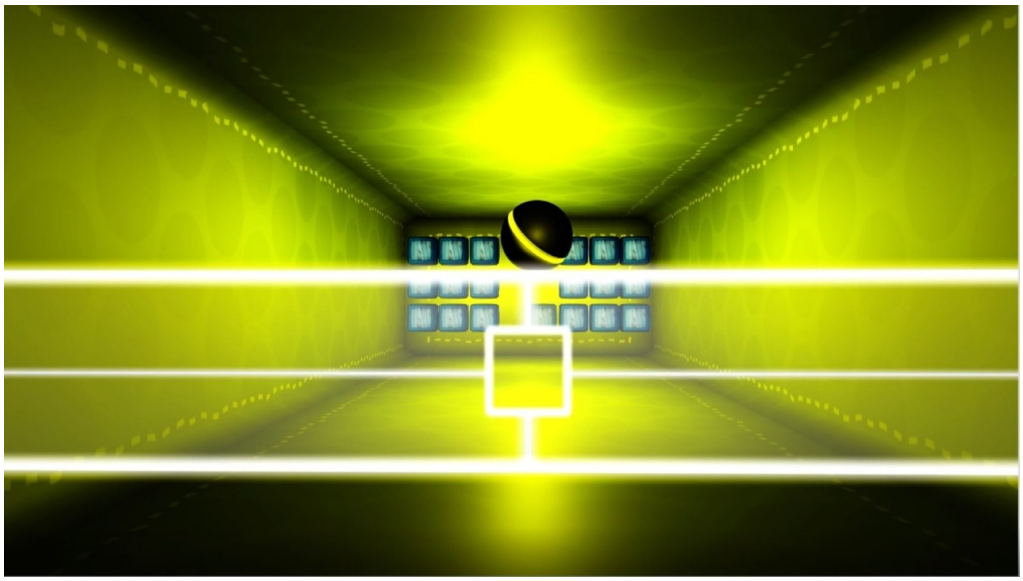
OBJECTIVES

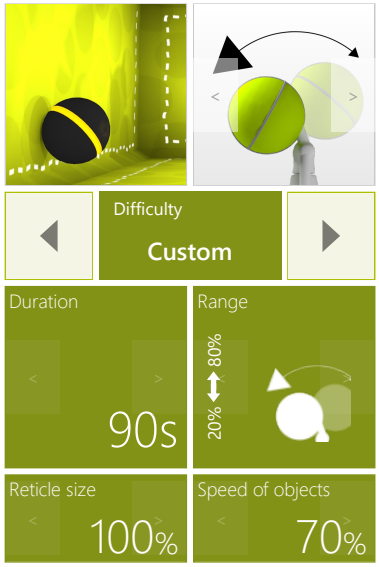
- Dynamics of planned movements
- Predicting the trajectory of objects in 3D space
- Visual motor coordination

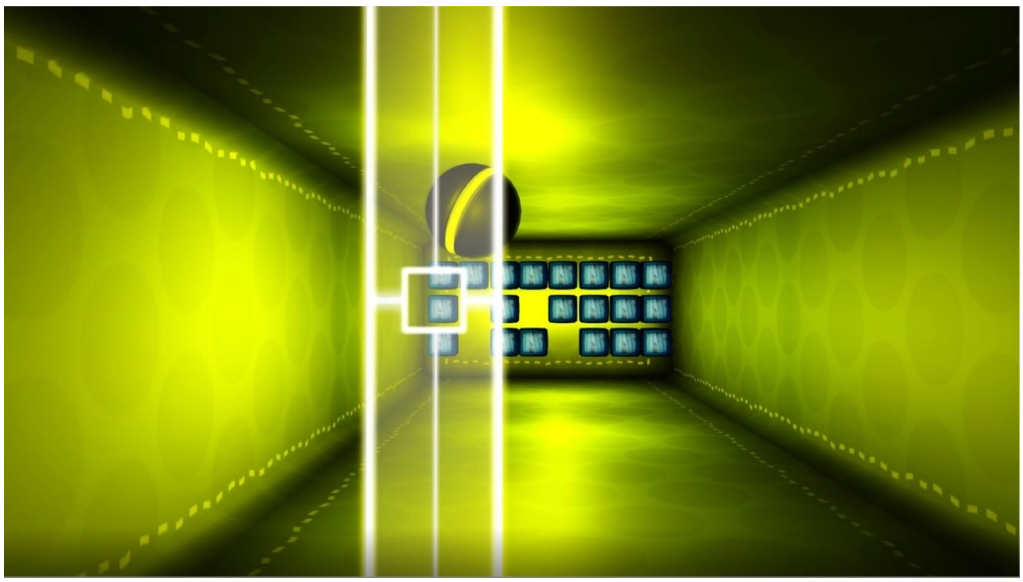
INSTRUCTION FOR PATIENT

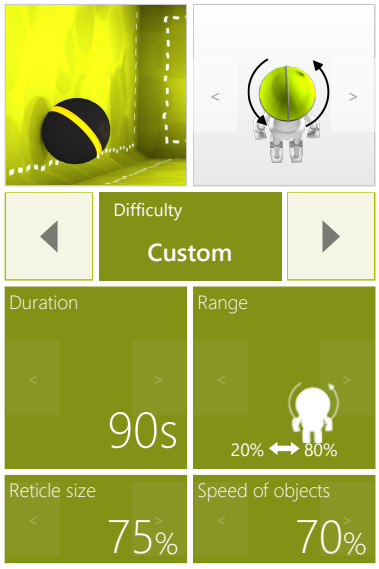
Destroy as many boxes as you can

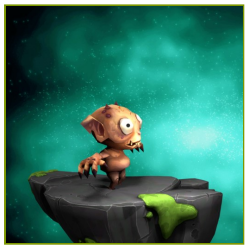
SAMPLE SETTINGS











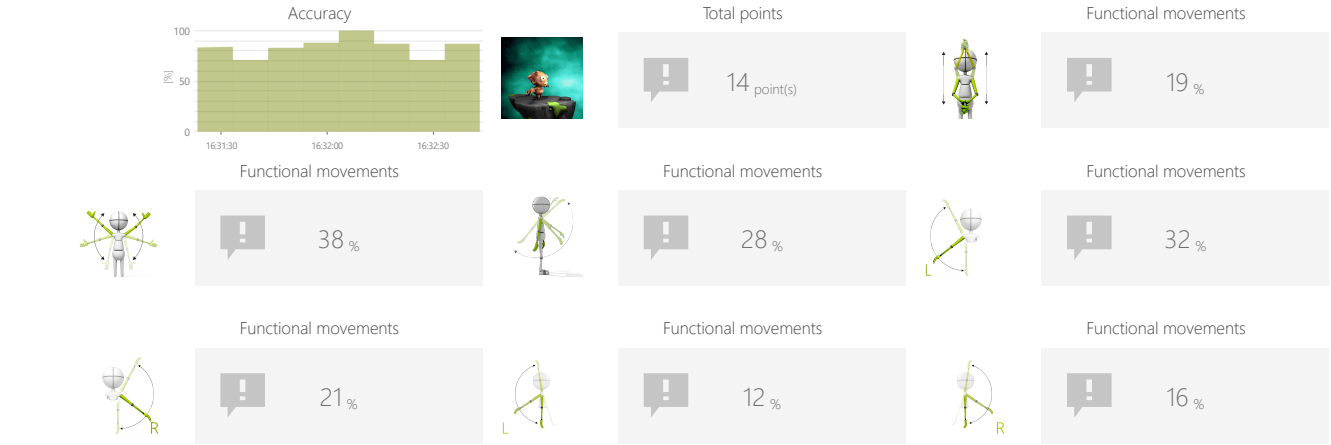
FUNCTIONAL MOVEMENTS

ROCKET JUMPING

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

CONTROL MODES

RESULTS



ADJUSTMENTS

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

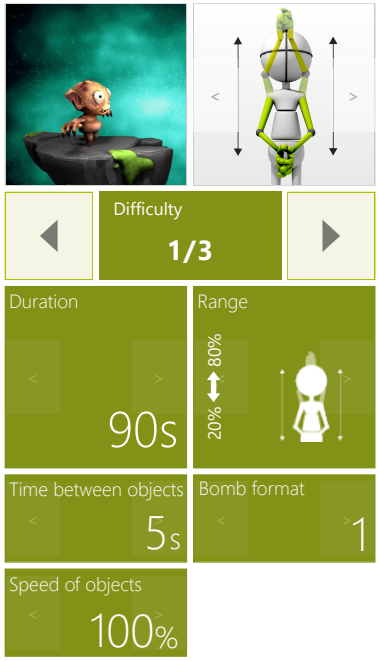
OBJECTIVES

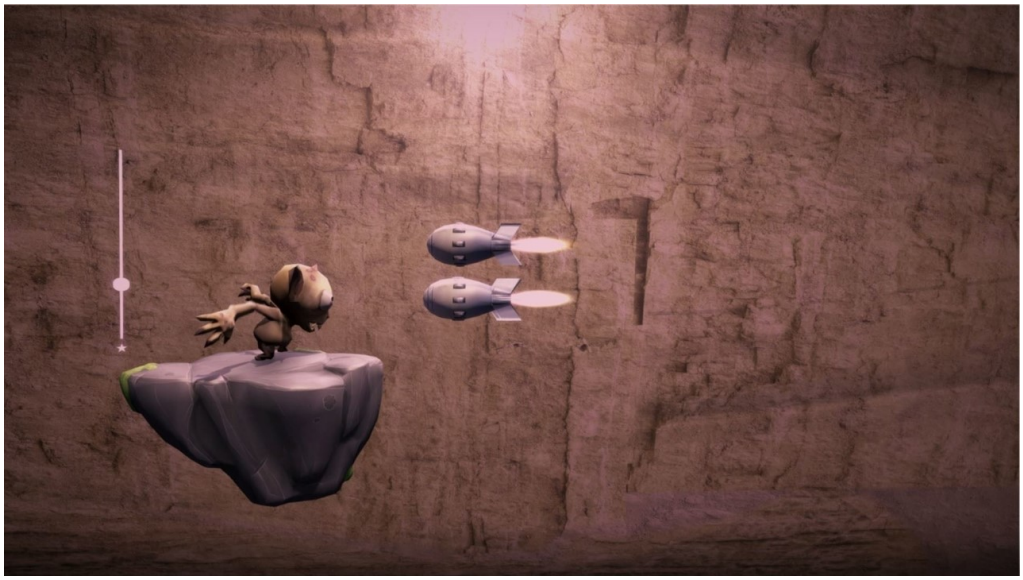
- Spontaneous movements
- Dynamic responses to emerging moving targets
- Predicting the trajectory of objects

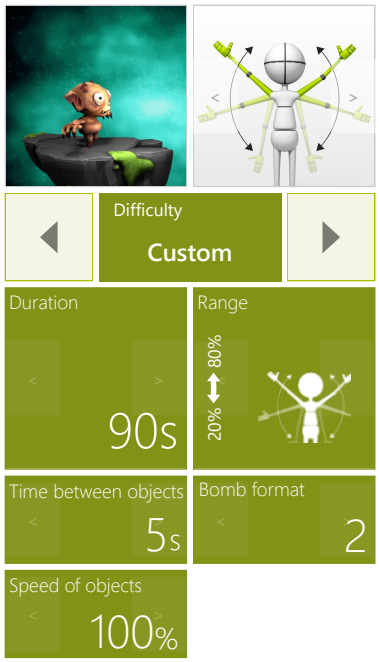
INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS





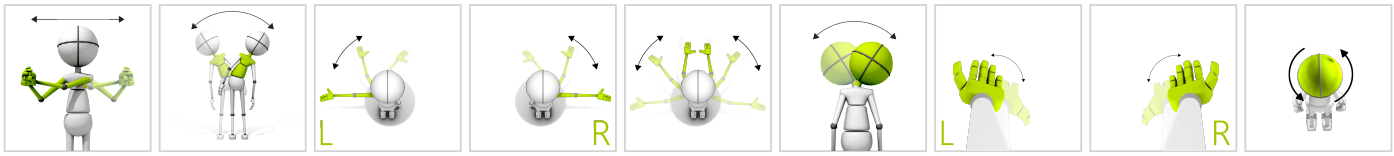


FUNCTIONAL MOVEMENTS

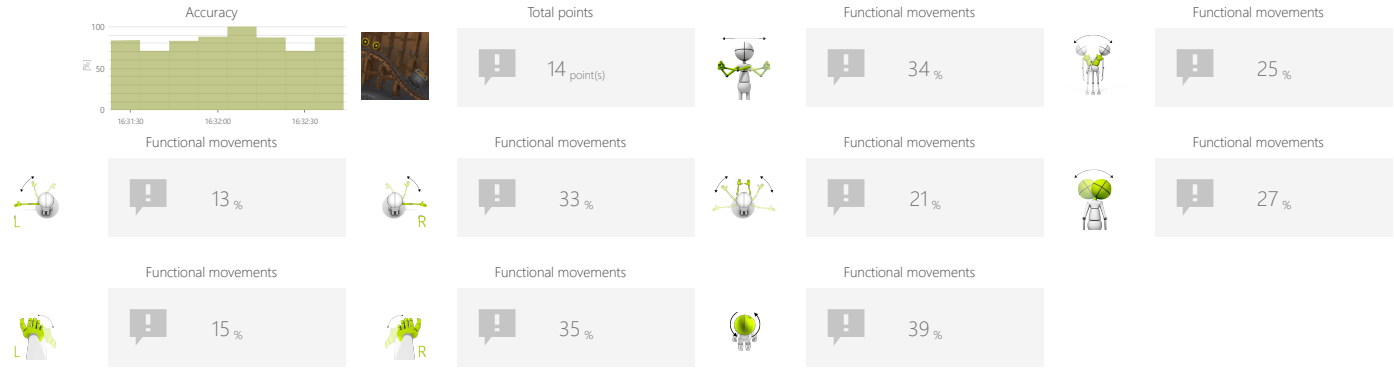
RAILS

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

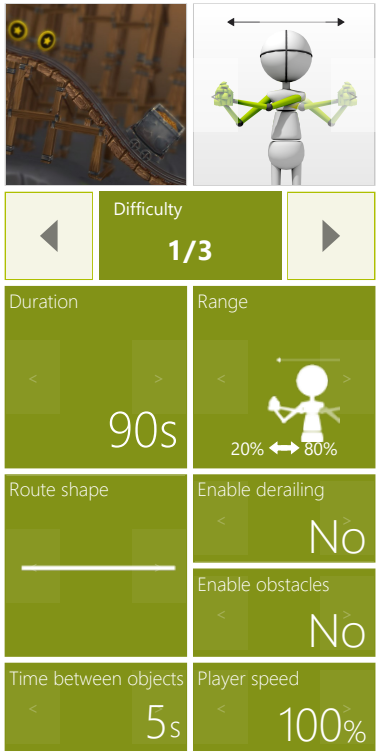
OBJECTIVES

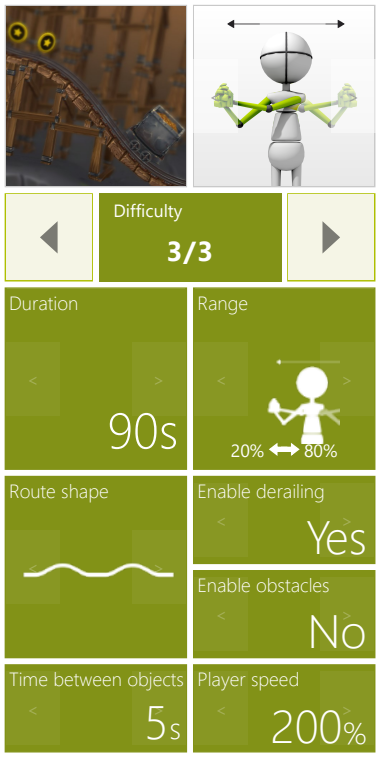
- Dynamic responses to emerging moving targets
- Predicting the trajectory of objects
- Visual motor coordination

INSTRUCTION FOR PATIENT

Tilt the world to let the trolley collect the coins

SAMPLE SETTINGS



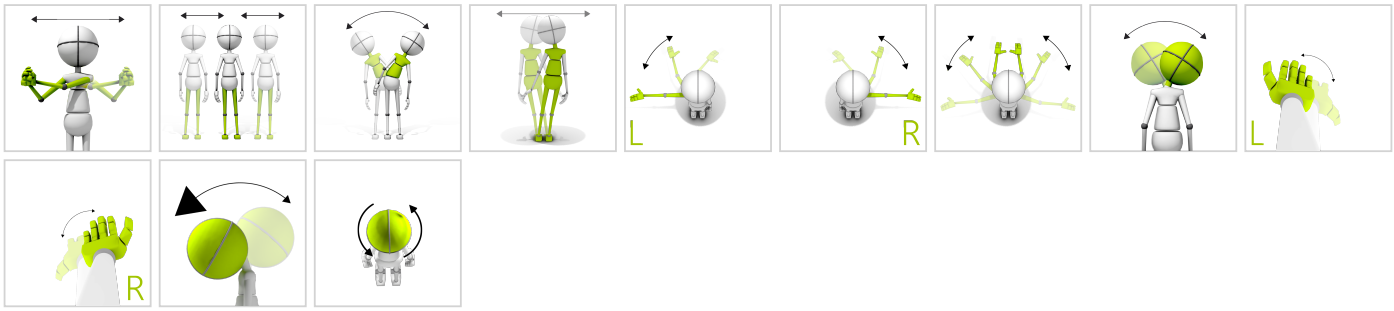


FUNCTIONAL MOVEMENTS

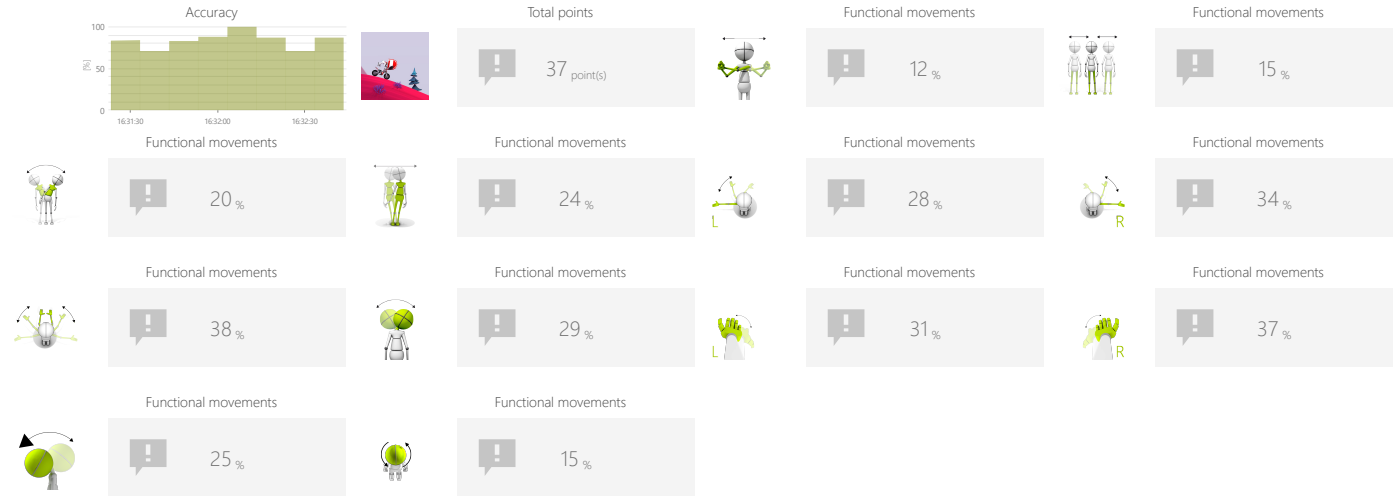
MOTOCROSS

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Route shape

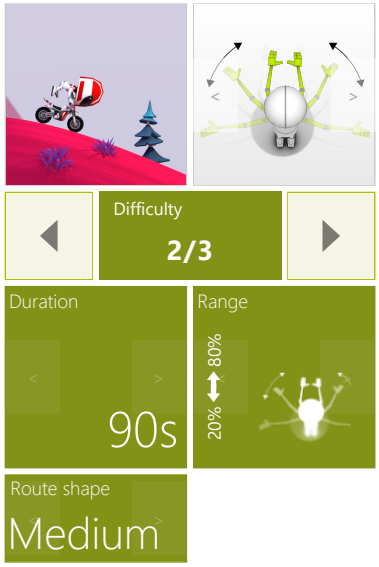
OBJECTIVES

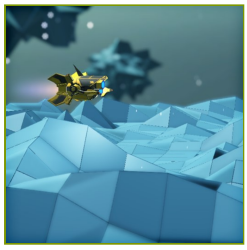
- Dynamics of planned movements
- Planning and Strategy

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS





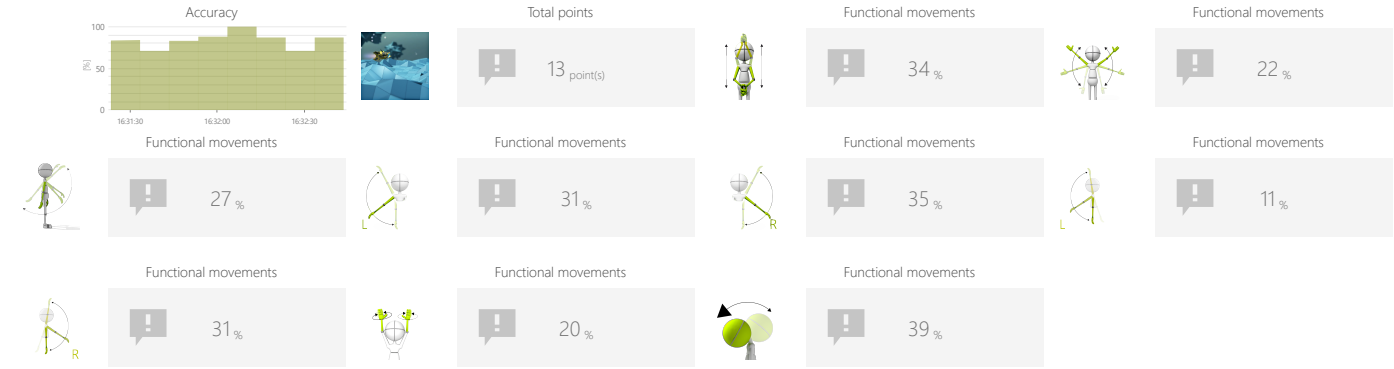
FUNCTIONAL MOVEMENTS

GEOMETRY FLIER

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

CONTROL MODES

RESULTS



ADJUSTMENTS

- Task duration
- Range
- Player speed

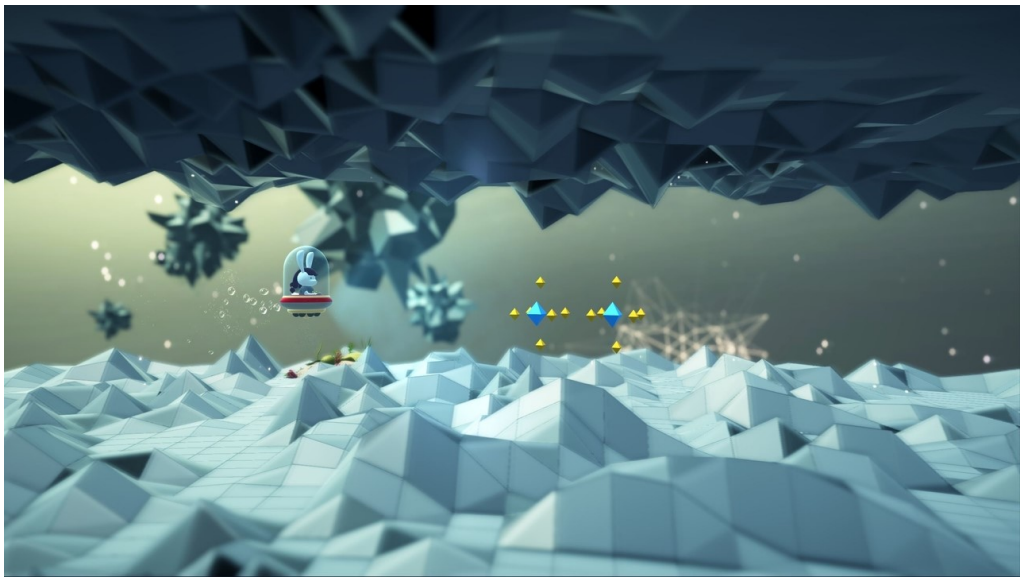
OBJECTIVES

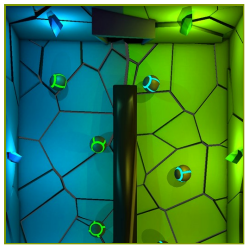
- Dynamics of planned movements
- Activity in a given rhythm
- Visual motor coordination

INSTRUCTION FOR PATIENT

Control the vehicle to avoid the obstacles

SAMPLE SETTINGS



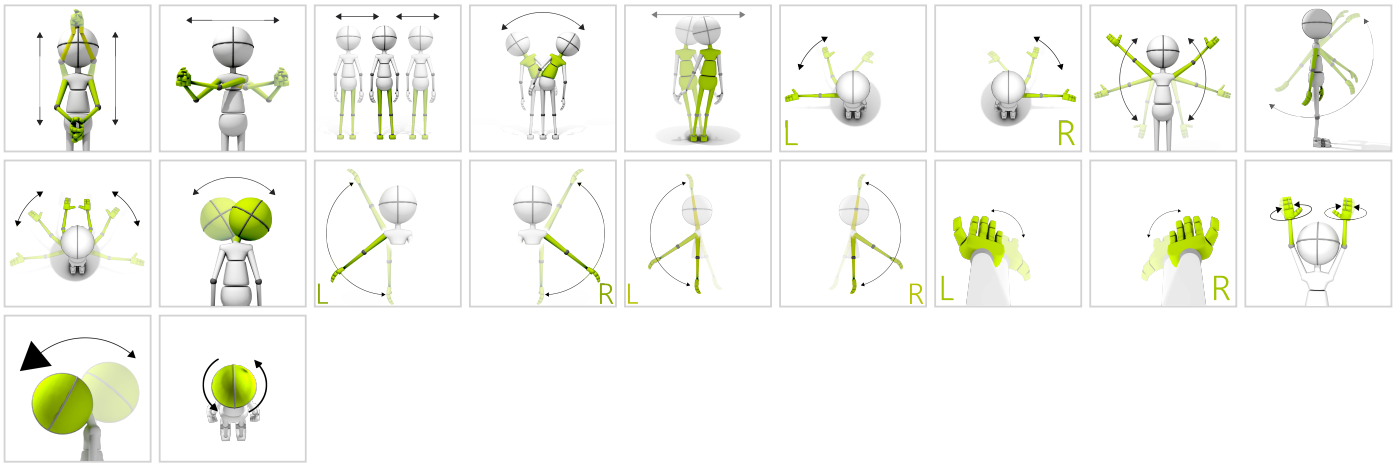


DIVIDED ATTENTION

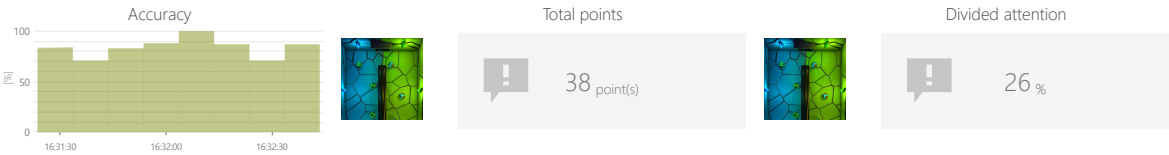
SORTER

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

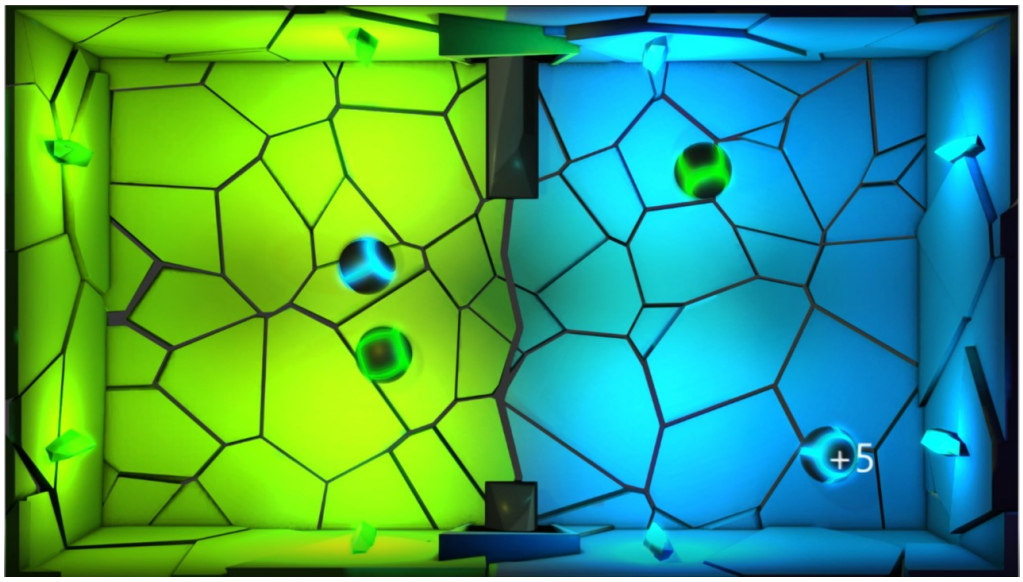
OBJECTIVES

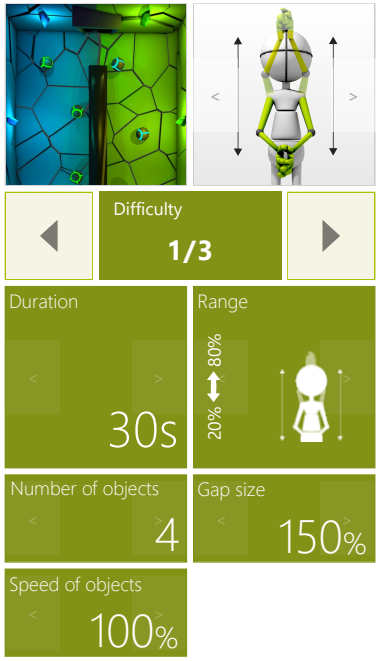
- Predicting the trajectory of objects
- Focusing
- Perceptivity
- Movement precision
- Exercise with or without support from healthy limb

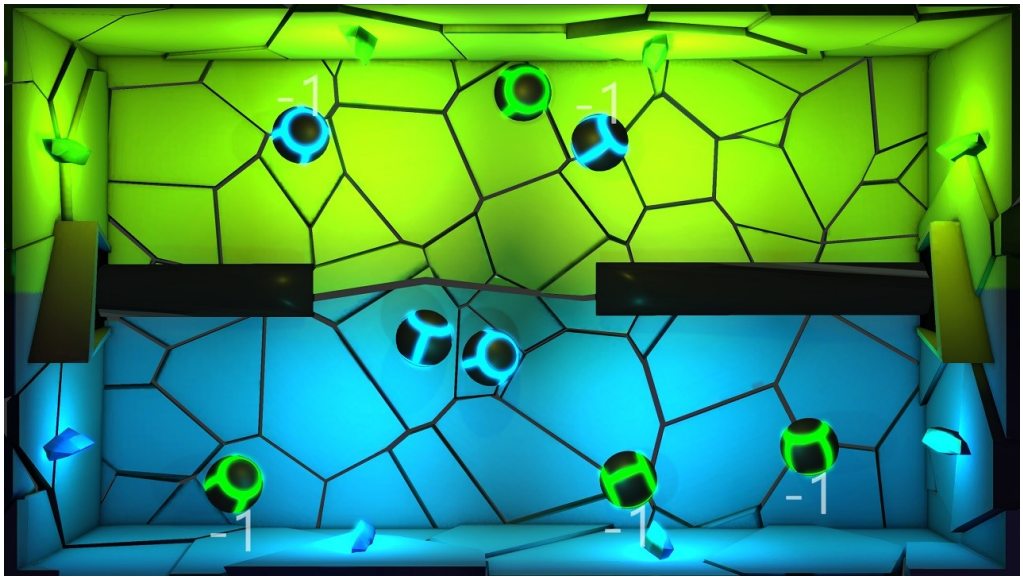
INSTRUCTION FOR PATIENT

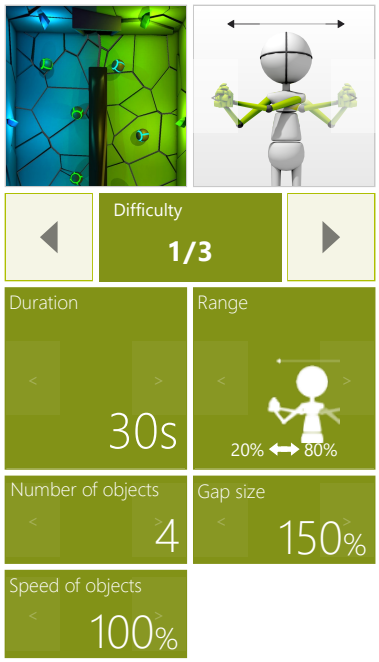
Pass or block the balls so that the blue balls are on the blue side and the green balls are on the green side of the screen.

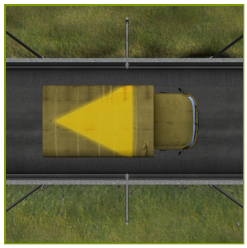
SAMPLE SETTINGS









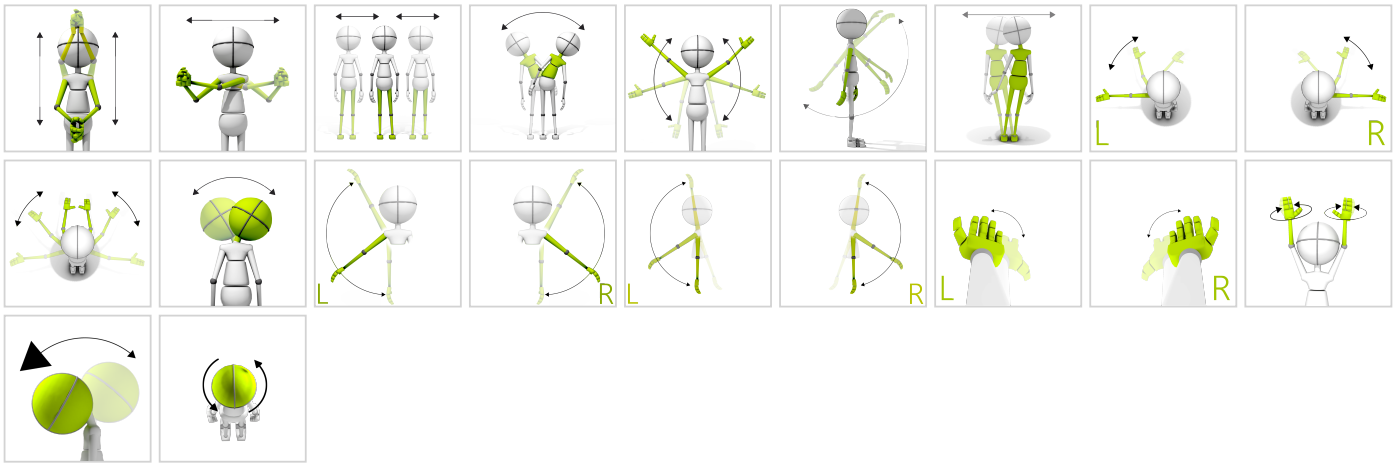


MEMORY

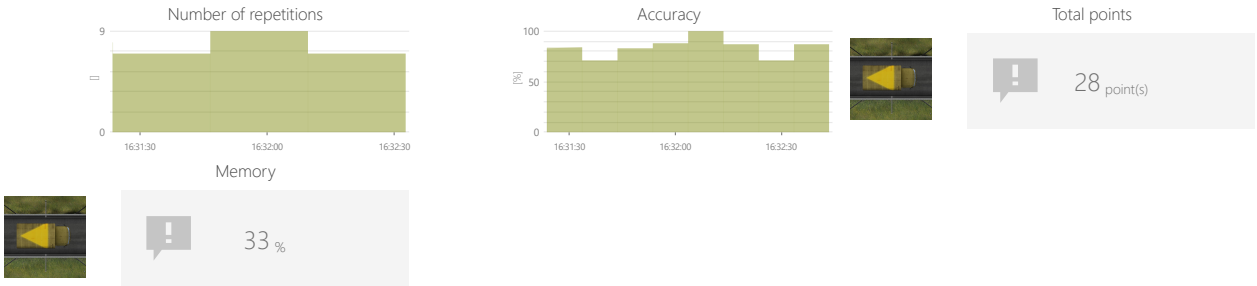
TRUCKS

Measure and train individual's skills to memorize information.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Variations

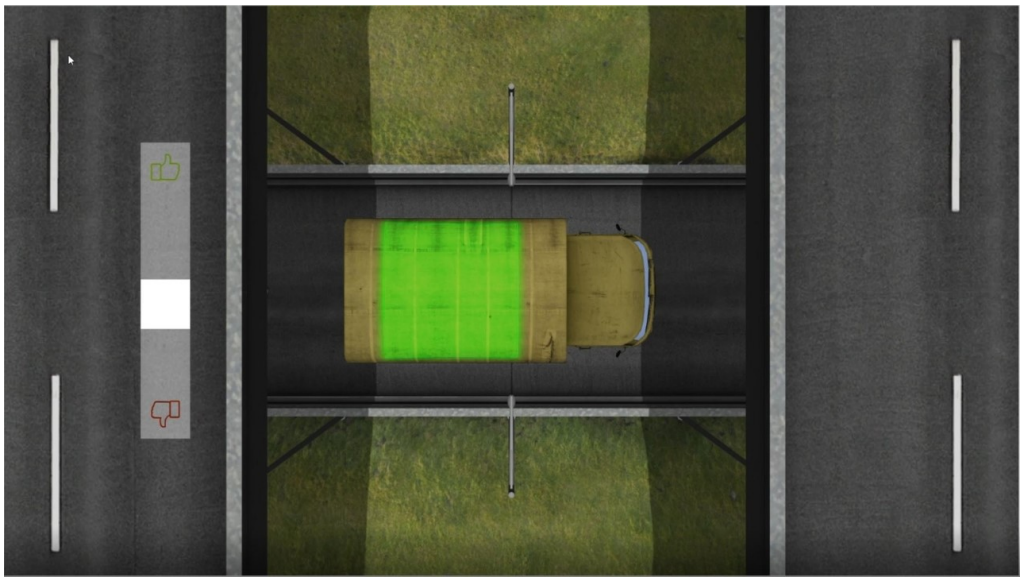
OBJECTIVES

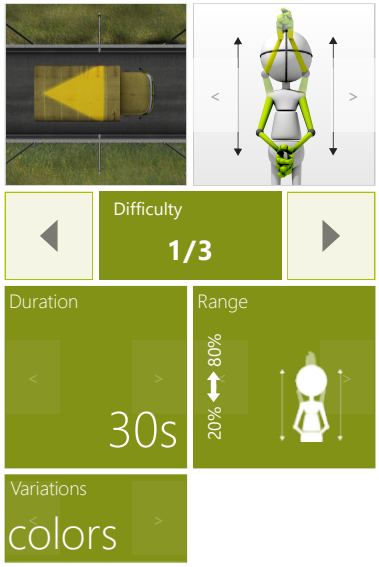
- Logical tasks
- Focusing
- Perceptivity

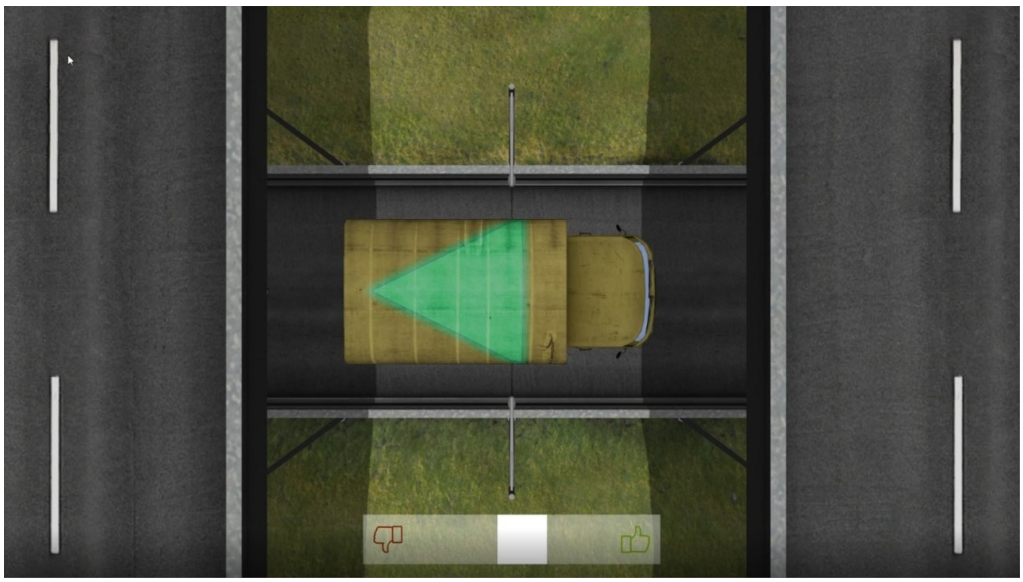
INSTRUCTION FOR PATIENT

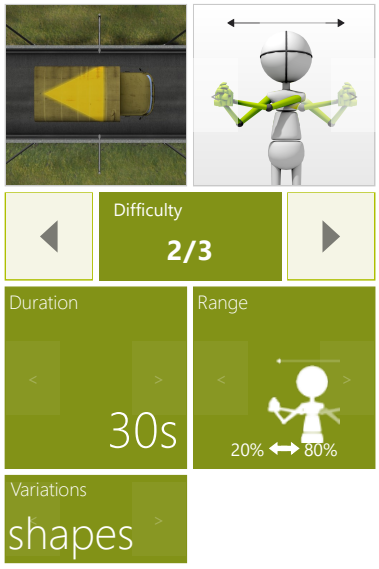
Remember the shape and/or its color on the roof of the car you see. Decide with thumbs up or down whether the next car has the same shape and/or color on the roof as the previous one.

SAMPLE SETTINGS







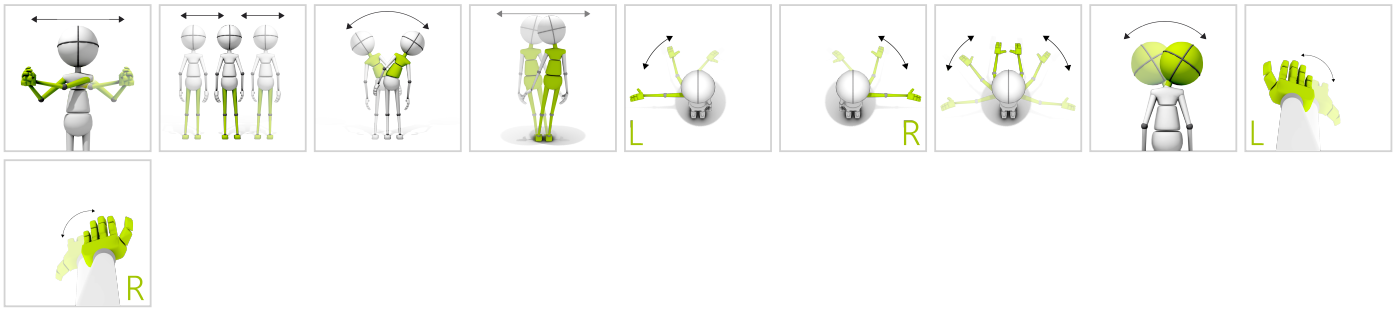


PROBLEM SOLVING

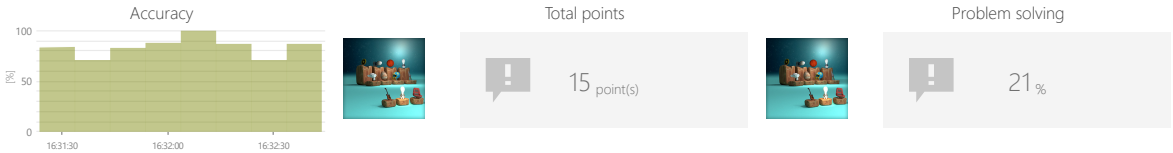
CLONES

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

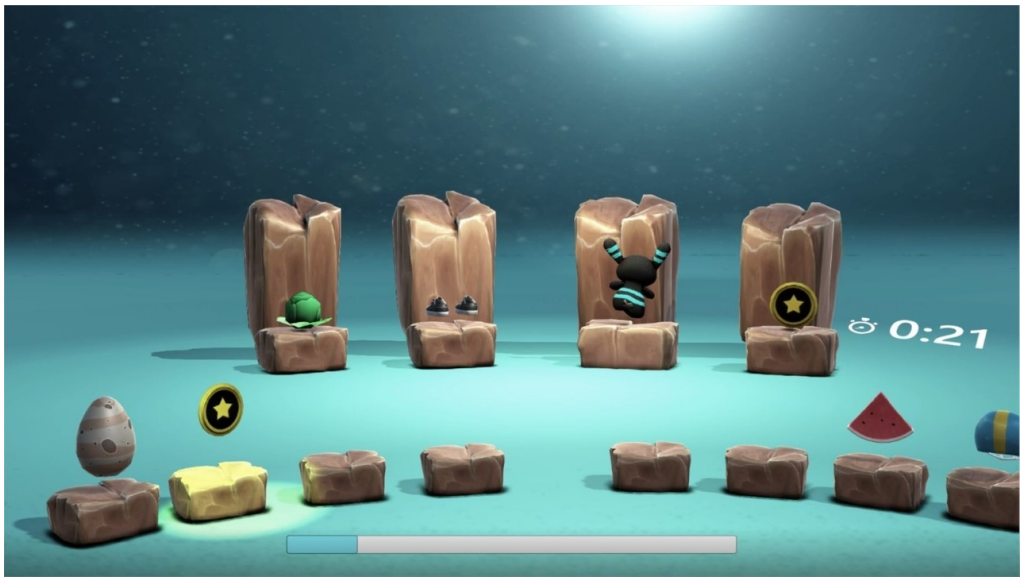
OBJECTIVES

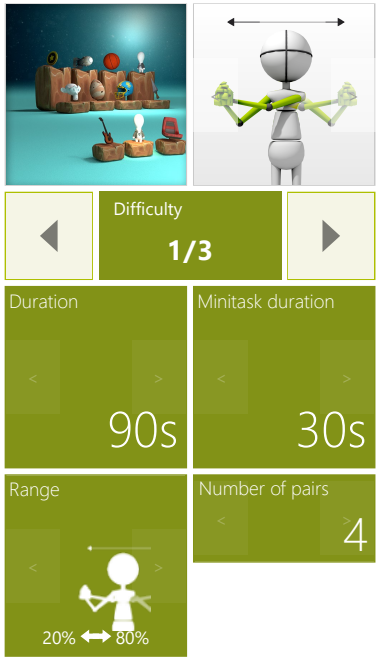
- Perceptivity
- Visual motor coordination
- Logical tasks

INSTRUCTION FOR PATIENT

Select the item which has a pair on the screen

SAMPLE SETTINGS



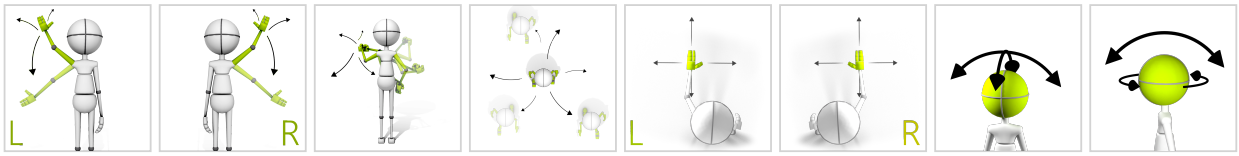


PROBLEM SOLVING

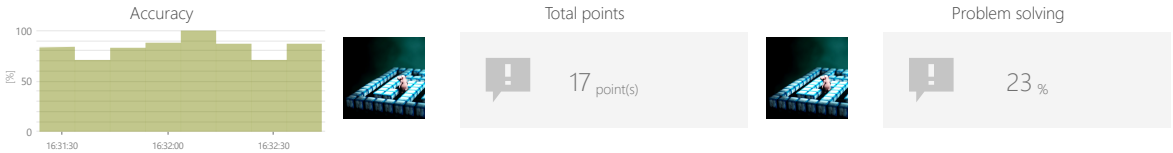
MAZE

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

- Task duration
- Range
- Show path
- Maze size

OBJECTIVES

- Logical tasks
- Planned movements
- Planning and Strategy

INSTRUCTION FOR PATIENT

Lead the hippo through the maze to the glowing target.

SAMPLE SETTINGS