

# KINECT BASE PACK

2021.4





Introduction	3
Adapt user interface	
Adapt user interface	4
Therapeutic tasks database	6
Range of motion	6
Movement time	
Speed	16
Balance	23
Movement precision	27
Functional movements	37
Divided attention	97
Memory	99
Problem solving	103
Specialized	111

# ADAPT USER INTERFACE

# INTRODUCTION

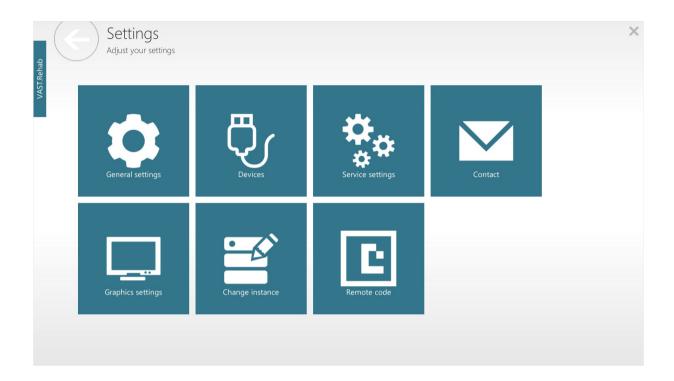
You can scale UI items to match your personal needs and to take advantage of your screen size.



# ADAPT USER INTERFACE

# INTRODUCTION

You can scale UI items to match your personal needs and to take advantage of your screen size.







# RANGE OF MOTION CRYSTALS

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

# **CONTROL MODES**









# **RESULTS**



## **ADJUSTMENTS**

- Task duration
- •
- Player speed

## **OBJECTIVES**

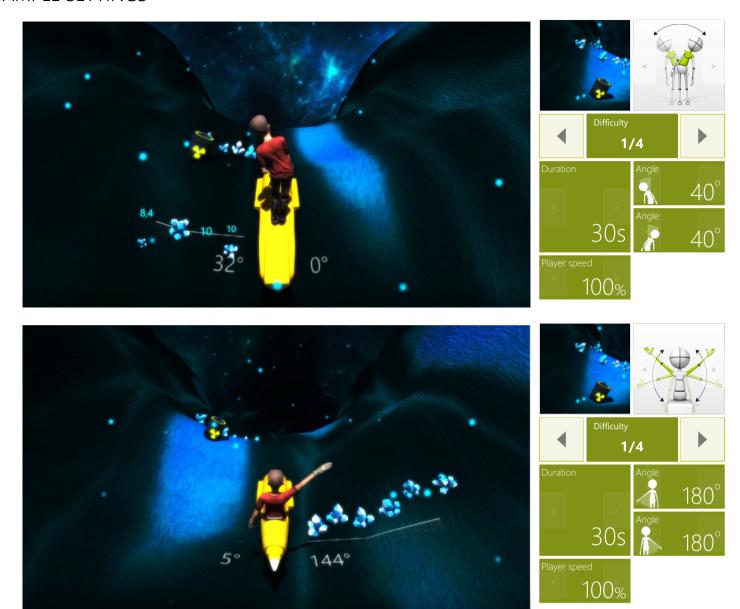
- Improve range of motion
- Perceptivity
- Response to negative visual stimuli
- Reaction to the positive visual stimuli

#### INSTRUCTION FOR PATIENT

Collect the crystals and avoid the radioactive barrels







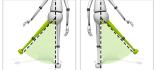


# RANGE OF MOTION

# ANGLES EVALUATION

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

# **CONTROL MODES**

















# RESULTS



## **OBJECTIVES**

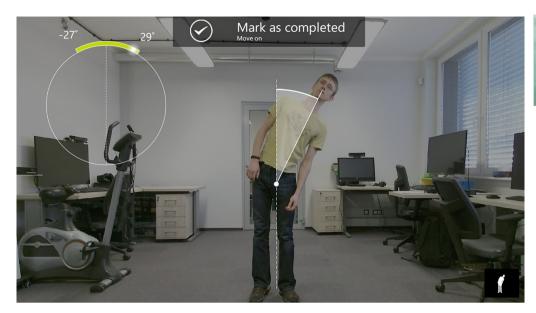
• Range of motion examination

## INSTRUCTION FOR PATIENT

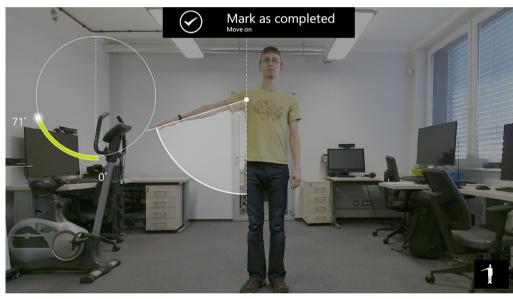
System will measure your range of motion

















# RANGE OF MOTION

## **REACH TEST**

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

# **CONTROL MODES**



# **RESULTS**



## **OBJECTIVES**

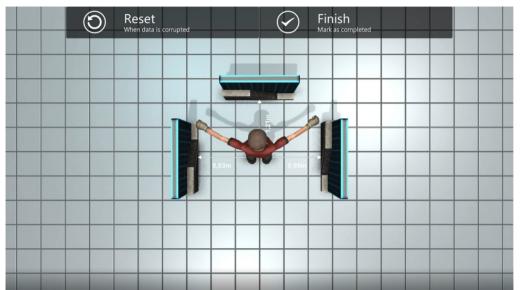
- Range of motion examination (transverse plane)
- Test the limits of balance and equilibrium

#### INSTRUCTION FOR PATIENT

Push the walls as far from you as you can keeping your legs in place













# 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**

- Task duration
- Time to react
- Distance to targets

## **OBJECTIVES**

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

## INSTRUCTION FOR PATIENT

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











# MOVEMENT TIME

# DYNAMIC TEST

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

# **CONTROL MODES**



# **RESULTS**



## **ADJUSTMENTS**

- Range
- Show path
- Repetitions

## **OBJECTIVES**

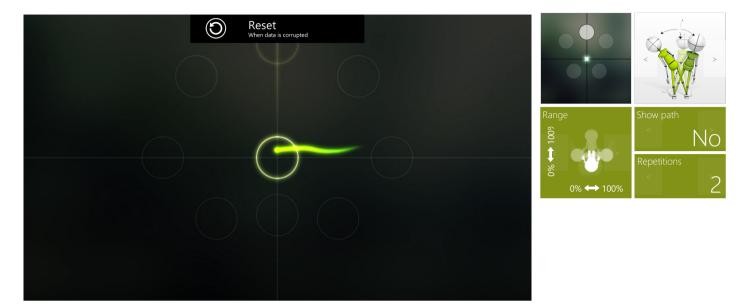
- Test the limits of balance and equilibrium
- Dynamics of planned movements

## INSTRUCTION FOR PATIENT

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







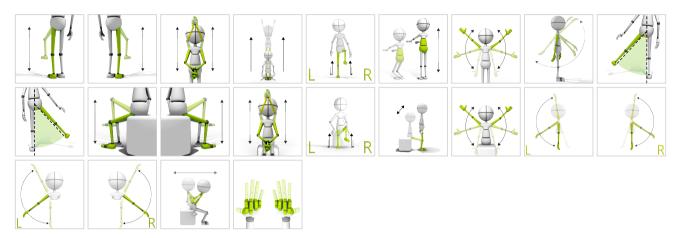




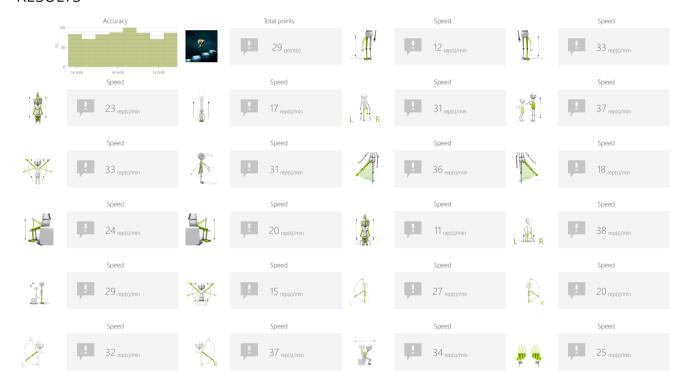
# SPEED STAIRS

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







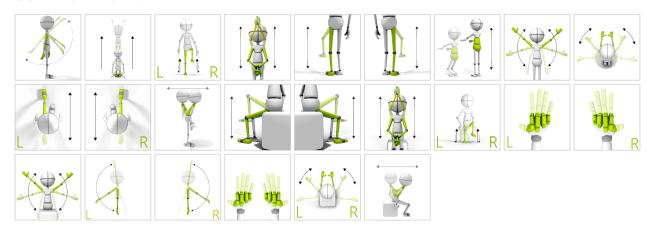




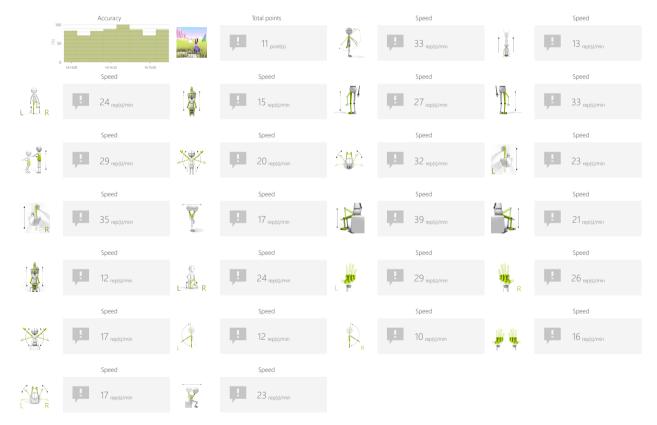
# SPEED RABBIT

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









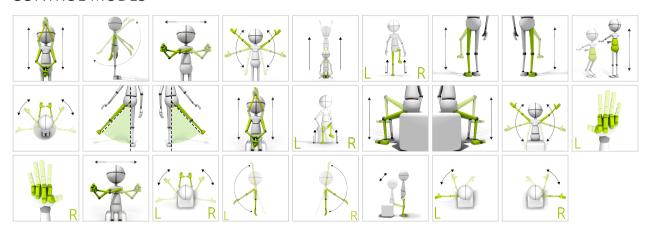




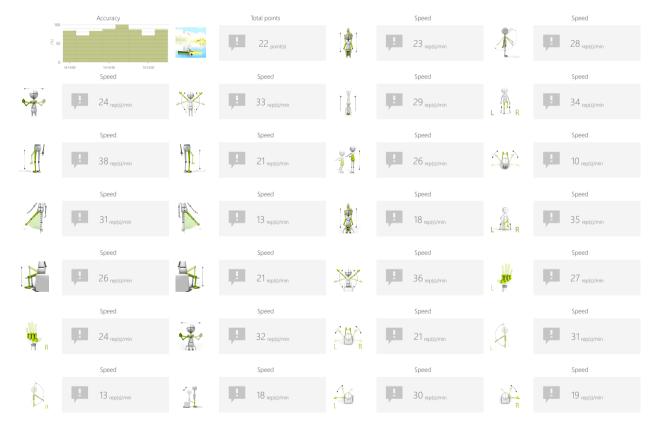
# SPEED KAYAK

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









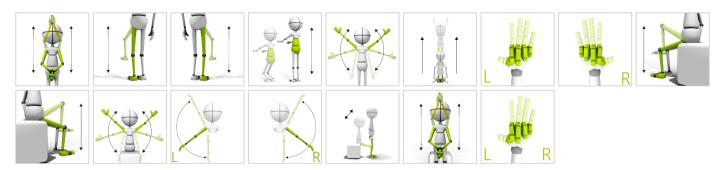




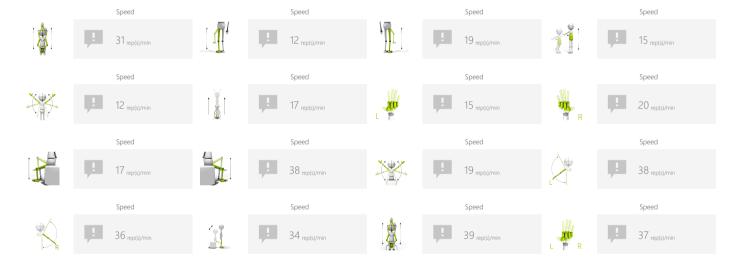
# SPEED TEST

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

# **CONTROL MODES**



## **RESULTS**



# **ADJUSTMENTS**

- Time to complete action
- Range

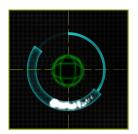
# **OBJECTIVES**

- Speed of movement
- Repetitive movements

#### INSTRUCTION FOR PATIENT

Perform the specified movement pattern as many times as possible





# BALANCE GRID

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

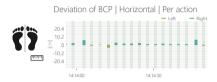
# **CONTROL MODES**



# **RESULTS**







## **ADJUSTMENTS**

- Task duration
- Range
- Period

## **OBJECTIVES**

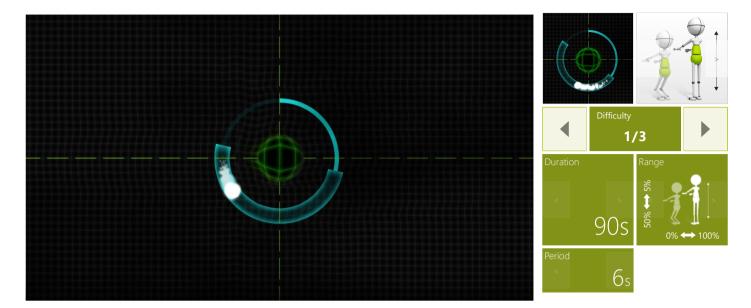
- Balance and equilibrium training
- 3D space movements reproduction
- Activity in a given rhythm

## INSTRUCTION FOR PATIENT

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









# BALANCE BLOCK BUILDER

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

# **CONTROL MODES**



# **RESULTS**







## **ADJUSTMENTS**

- Task duration
- Range
- Stack height

## **OBJECTIVES**

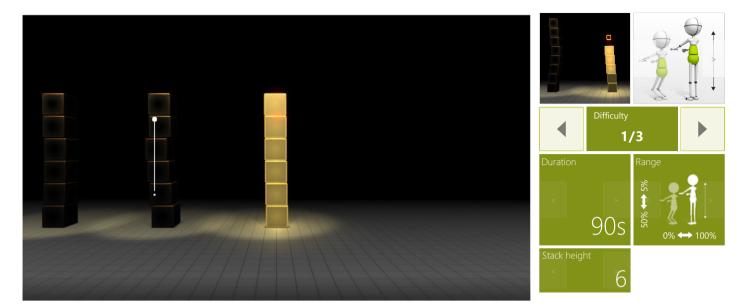
- Movement precision
- Muscle strengthening
- Balance and equilibrium training

## **INSTRUCTION FOR PATIENT**

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







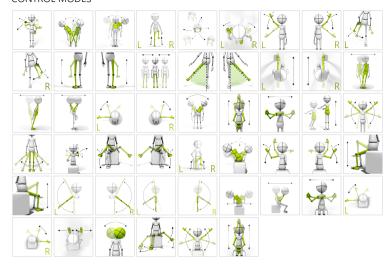


# MOVEMENT PRECISION



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

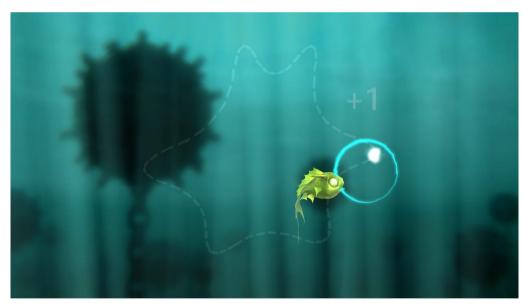
Move the blue circle to protect the sparks source from the fish. When the sparks source is inside the circle it is safe















# 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**

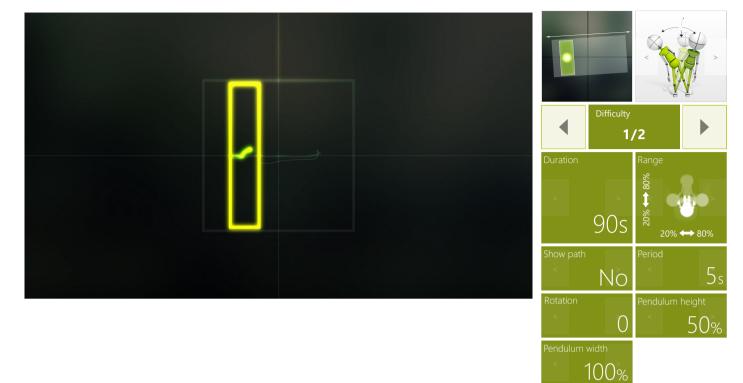
- 3D space movements reproduction
- Balance and equilibrium training
- Rhythmicity
- Activity in a given rhythm
- Movement precision

#### INSTRUCTION FOR PATIENT

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









# MOVEMENT PRECISION

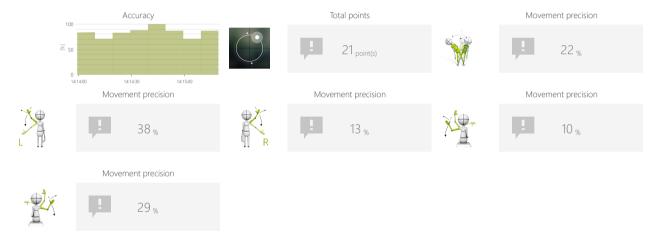
# **TRACKING**

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**

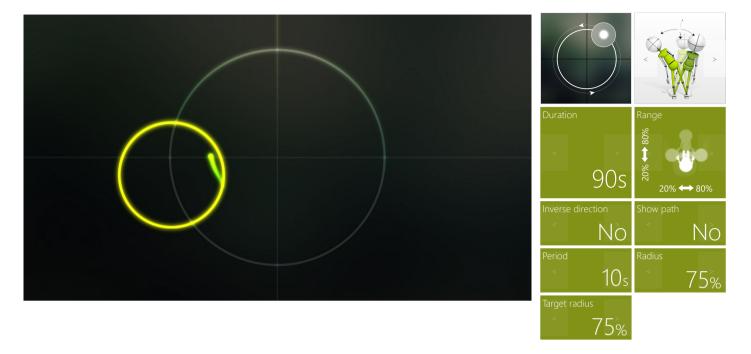
- 3D space movements reproduction
- Balance and equilibrium training
- Test the limits of balance and equilibrium

#### INSTRUCTION FOR PATIENT

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





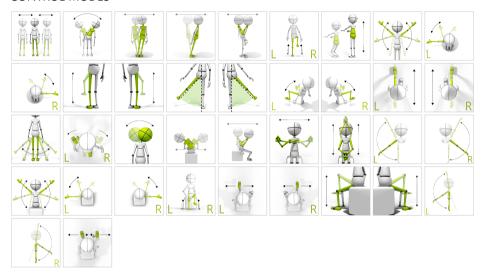




# MOVEMENT PRECISION

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**

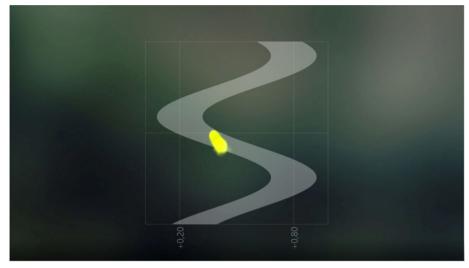
- Movement precision
- Activity in a given rhythm
- Repetitive movements
- Hands raising

#### INSTRUCTION FOR PATIENT

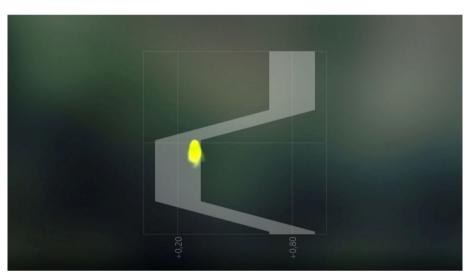
Try to stay within the borders



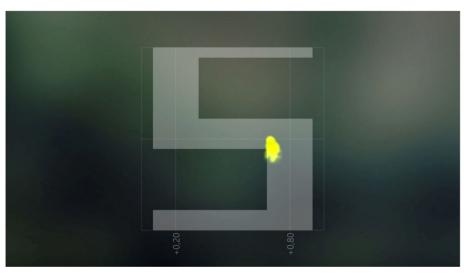


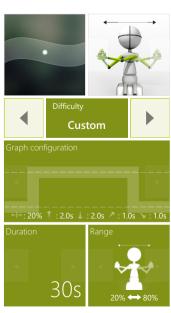
















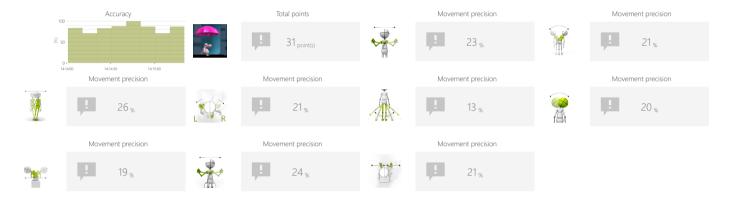
# MOVEMENT PRECISION UMBRELLA

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**

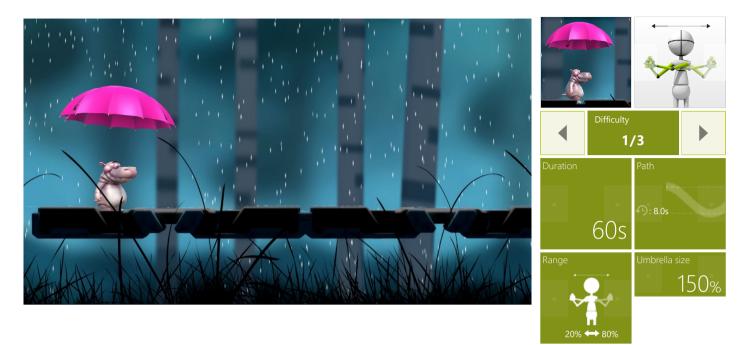
- Movement precision
- Visual motor coordination

## **INSTRUCTION FOR PATIENT**

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







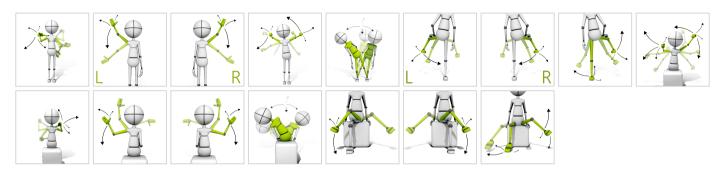


# **FUNCTIONAL MOVEMENTS**

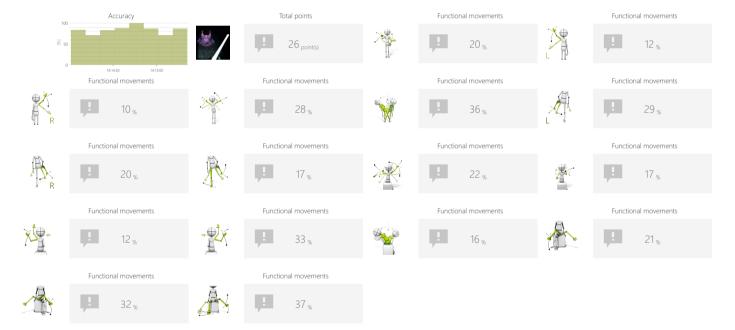
## **VAMPIRES**

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!









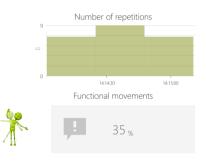
### PRODUCTION LINE

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

#### **CONTROL MODES**



#### **RESULTS**





#### **ADJUSTMENTS**

- Task duration
- Source line elevation
- Target line elevation

#### **OBJECTIVES**

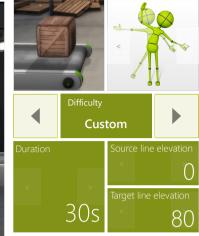
- Planned movements
- Repetitive movements
- Hands raising
- Sideways walking
- Both hands grabbing

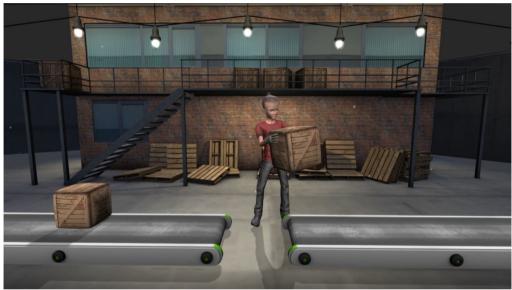
#### INSTRUCTION FOR PATIENT

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













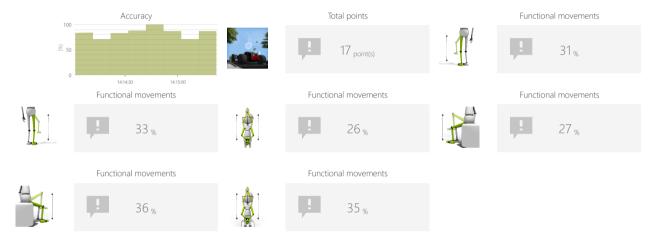
### **PUMPER**

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

### **CONTROL MODES**



#### **RESULTS**



#### **ADJUSTMENTS**

- Task duration
- Time to complete action

#### **OBJECTIVES**

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

#### INSTRUCTION FOR PATIENT

Pump the wheels as quickly as you can







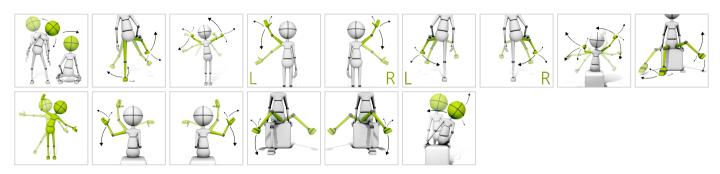




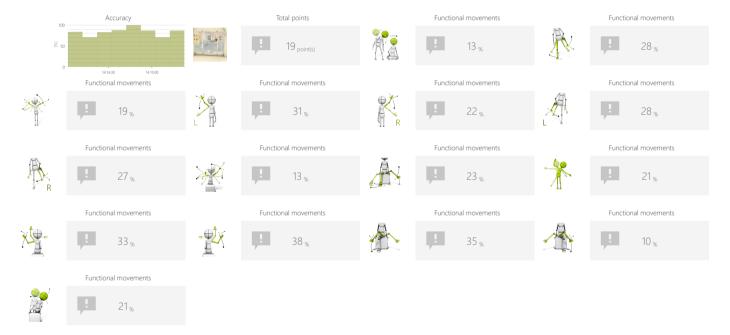
#### **CLEANER**

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

#### **CONTROL MODES**



## **RESULTS**



#### **ADJUSTMENTS**

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

#### **OBJECTIVES**

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

#### INSTRUCTION FOR PATIENT

Clean the largest possible window area as quickly as possible.







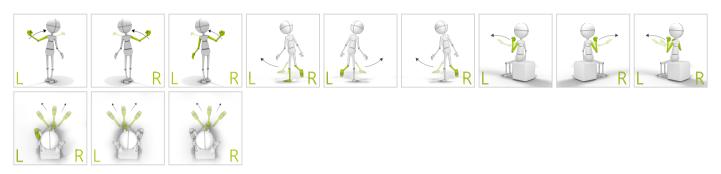




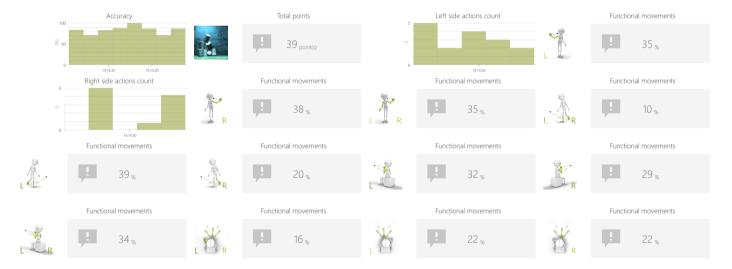
CANS

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
- 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



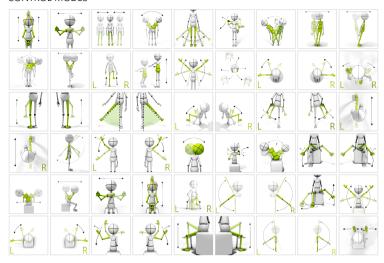




#### AIRPLANE

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**

- Task duration
- Range
- Player speed

#### OBJECTIVES

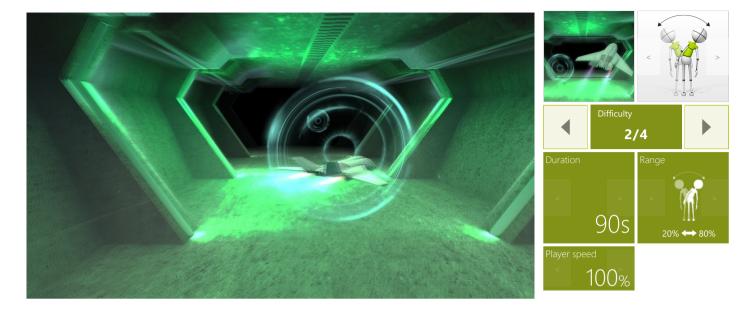
- Focusing
- Perceptivity
- Movement precision
- Predicting the trajectory of objects in 3D space
- Balance and equilibrium training

#### INSTRUCTION FOR PATIENT

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









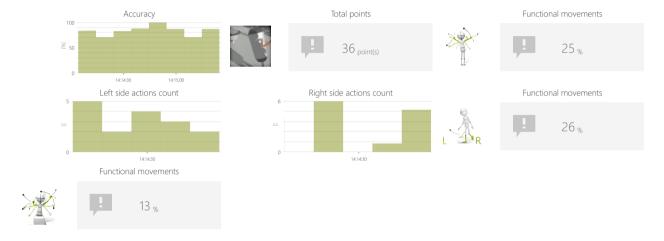
### **PUNCHER**

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

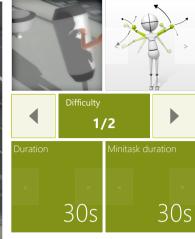
#### INSTRUCTION FOR PATIENT

Punch or kick the bag as many times as you can

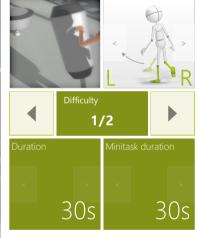










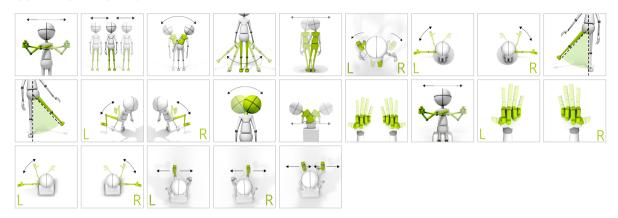




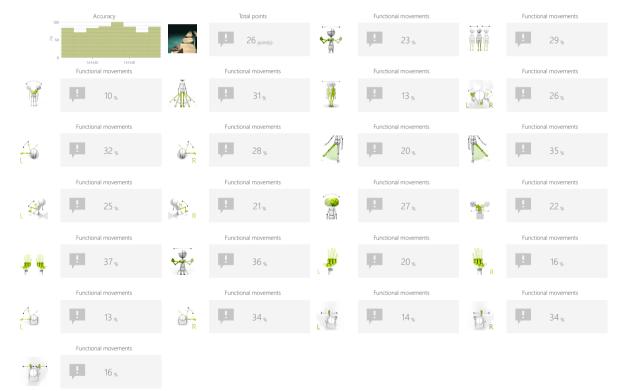
# FUNCTIONAL MOVEMENTS STONES

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**

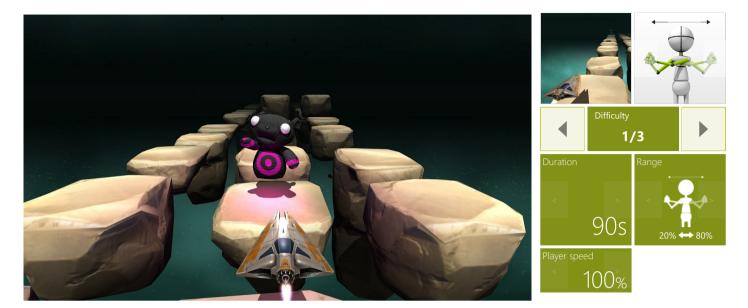
- Perceptivity
- Dynamics of planned movements
- Reaction to the positive visual stimuli
- Response to negative visual stimuli

#### INSTRUCTION FOR PATIENT

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







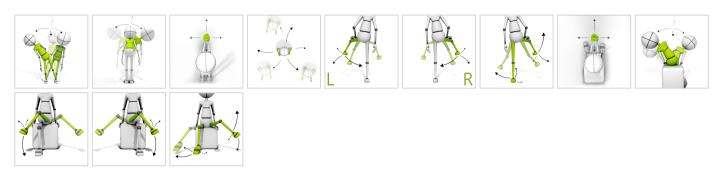




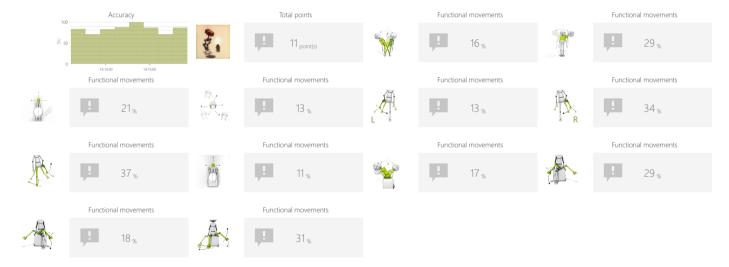
#### **HAMMER**

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

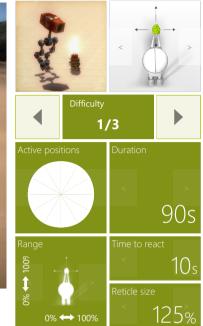
#### INSTRUCTION FOR PATIENT

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







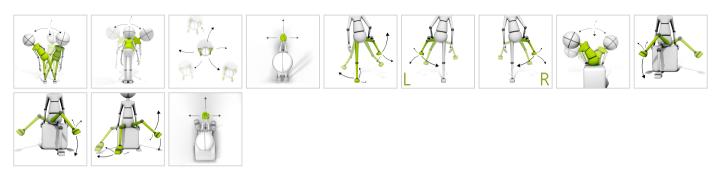




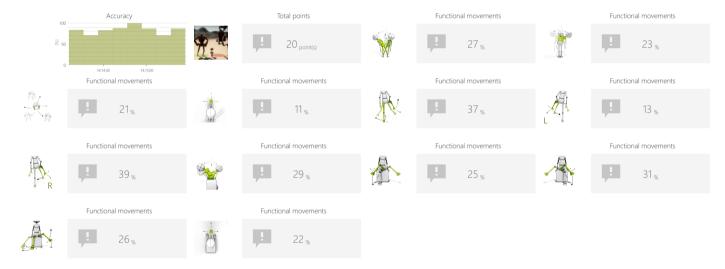
### **RUNAWAY**

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**

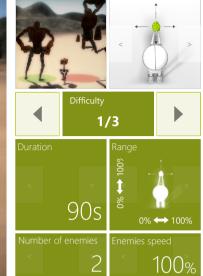
- Predicting the trajectory of objects in 3D space
- Response to negative visual stimuli
- Focusing
- Perceptivity
- Balance and equilibrium training

#### **INSTRUCTION FOR PATIENT**

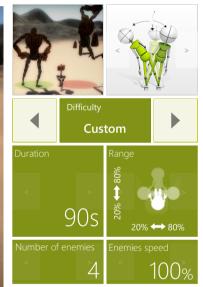
Keep away from the big robots













#### CANNON

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

#### **CONTROL MODES**



#### **RESULTS**



#### **ADJUSTMENTS**

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

#### **OBJECTIVES**

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

#### INSTRUCTION FOR PATIENT

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

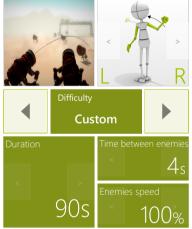














#### BALL

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

#### **CONTROL MODES**









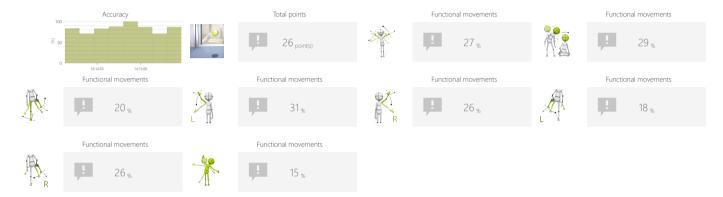








#### **RESULTS**



#### **ADJUSTMENTS**

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

#### **OBJECTIVES**

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

#### INSTRUCTION FOR PATIENT

Use your body to hit the balls







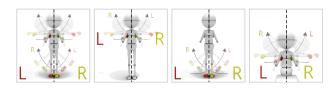




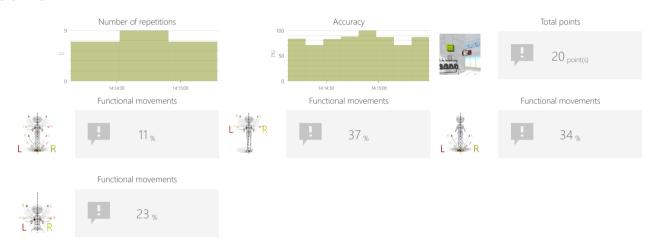
## **CROSS PUNCHER**

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



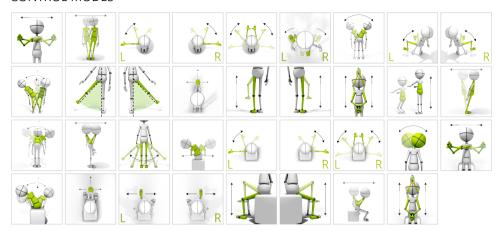




#### **AUTOMATIC CANNON**

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

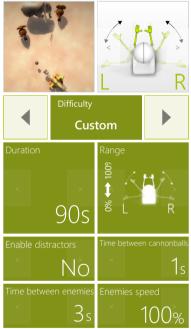
Control cannon(s) to destroy robots, but avoid hitting the elephant!









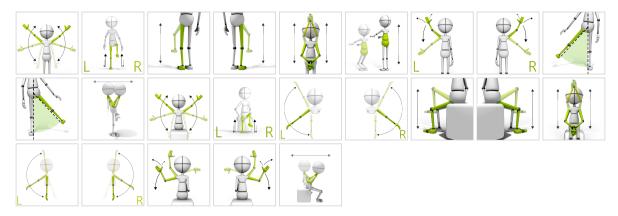




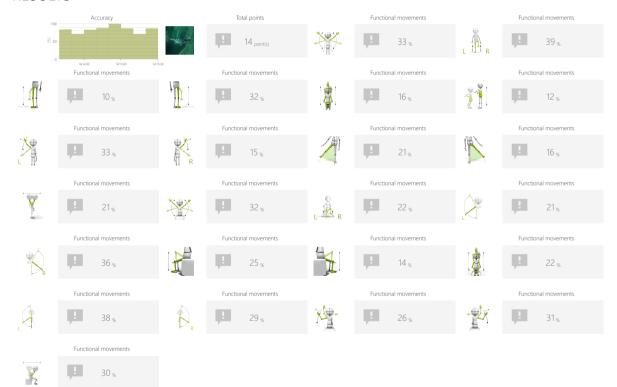
#### DRAGON

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

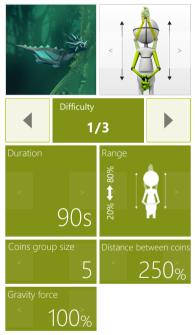










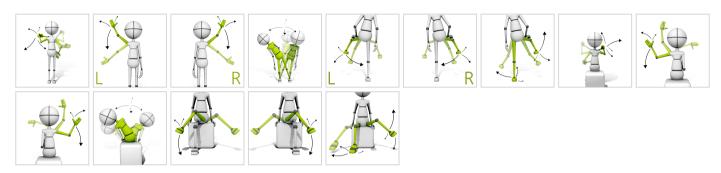




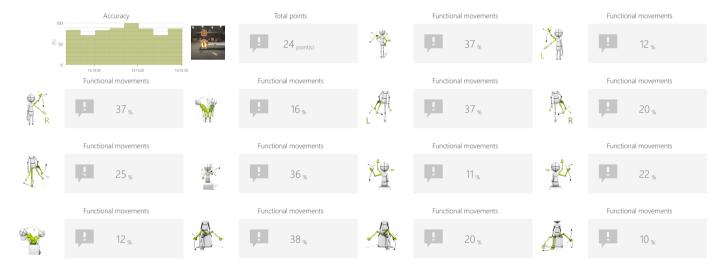
### **BOX CRUSHER**

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**

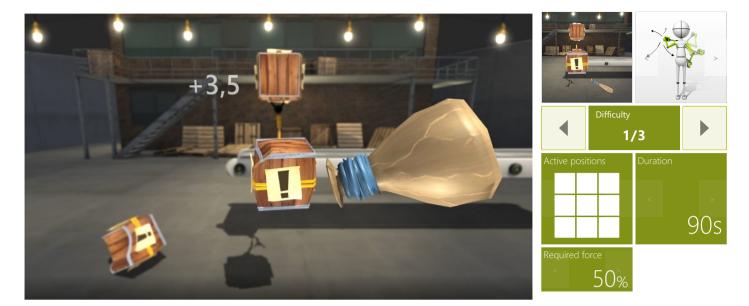
- 3D space movements reproduction
- Movement awareness
- Muscle strengthening
- Repetitive movements

#### INSTRUCTION FOR PATIENT

Smash boxes with the club







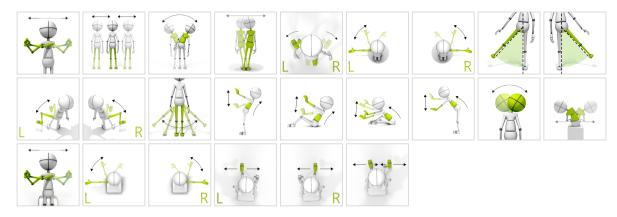




#### **AMBULANCE**

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

#### **CONTROL MODES**



#### **RESULTS**



#### **ADJUSTMENTS**

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

#### **OBJECTIVES**

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

#### INSTRUCTION FOR PATIENT

Go as fast as you can and avoid hitting other cars









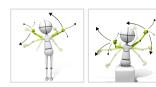




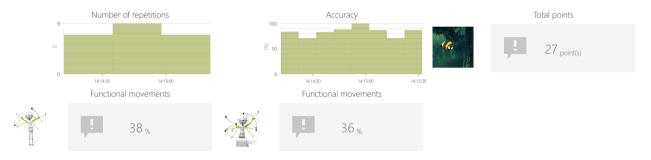
### **INSECTS**

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

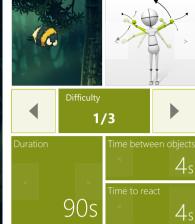
#### INSTRUCTION FOR PATIENT

Hit all the insects that sit on your body







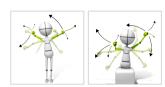




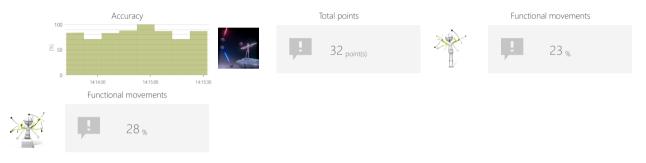
SORTER: LEGACY

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







90s

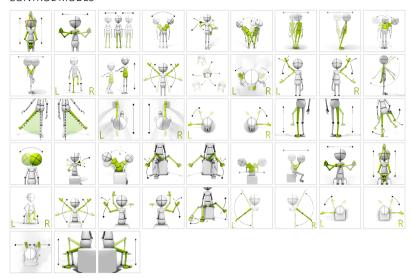
# 5

#### **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**

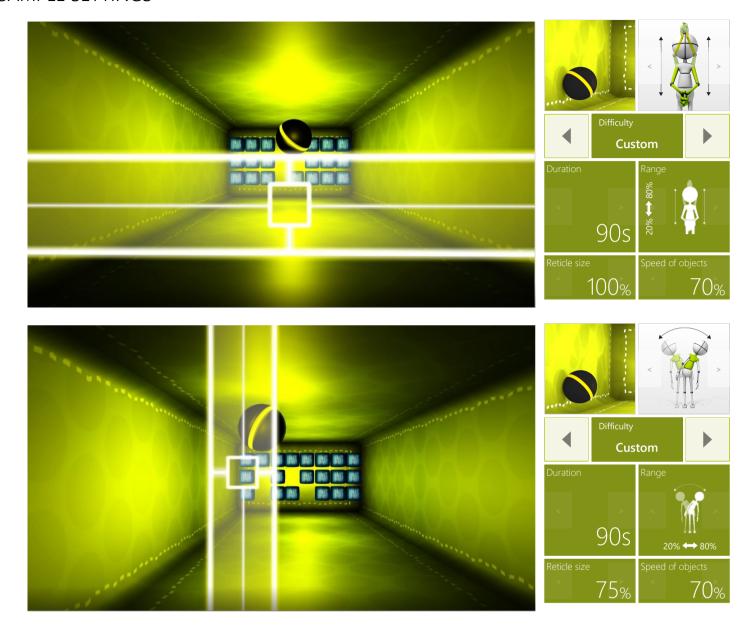
- Dynamics of planned movements
- $\bullet$  Predicting the trajectory of objects in 3D space
- Visual motor coordination

#### INSTRUCTION FOR PATIENT

Destroy as many boxes as you can





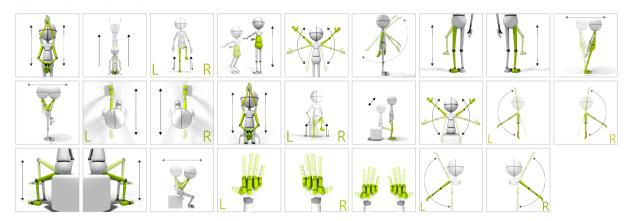




#### **ROCKET JUMPING**

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**

- 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.









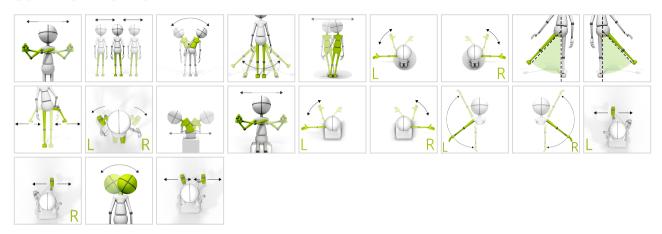




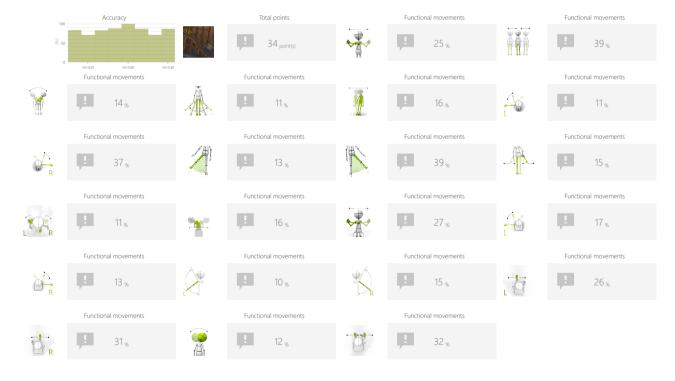
#### **RAILS**

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**

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

#### **OBJECTIVES**

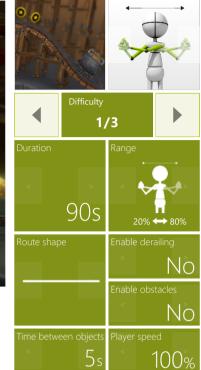
- Dynamic responses to emerging moving targets
- Predicting the trajectory of objects
- Visual motor coordination

#### INSTRUCTION FOR PATIENT

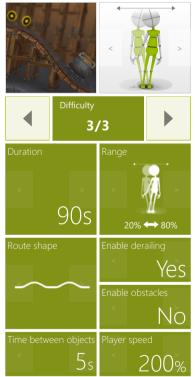
Tilt the world to let the trolley collect the coins









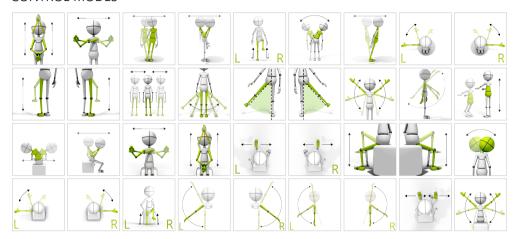




#### MOTOCROSS

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.









#### WALKER

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

#### **CONTROL MODES**



#### **RESULTS**









#### **ADJUSTMENTS**

- Task duration
- Range

#### **OBJECTIVES**

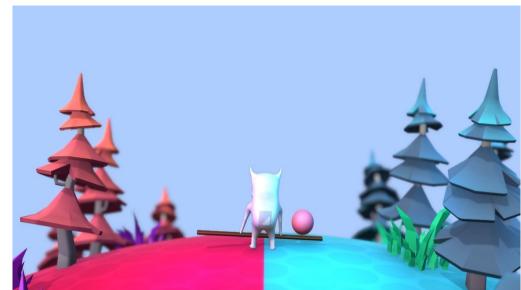
- Planned movements
- Knees lifting
- Balance and equilibrium training
- Repetitive movements

#### INSTRUCTION FOR PATIENT

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







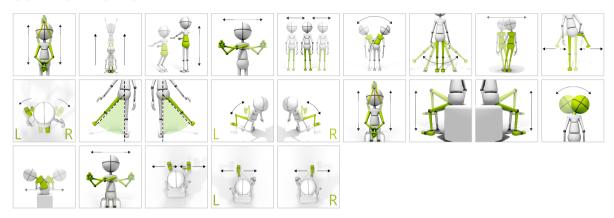




#### **FOREST RUNNER**

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

#### **CONTROL MODES**



#### **RESULTS**



#### **ADJUSTMENTS**

- Task duration
- Range
- Turning

#### **OBJECTIVES**

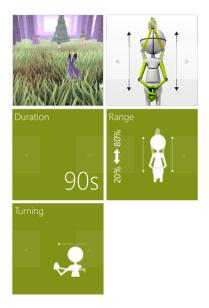
- Dynamics of planned movements
- Focusing
- Planned movements
- Speed of movement

#### INSTRUCTION FOR PATIENT

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







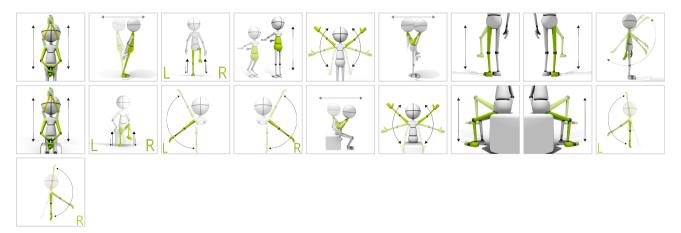




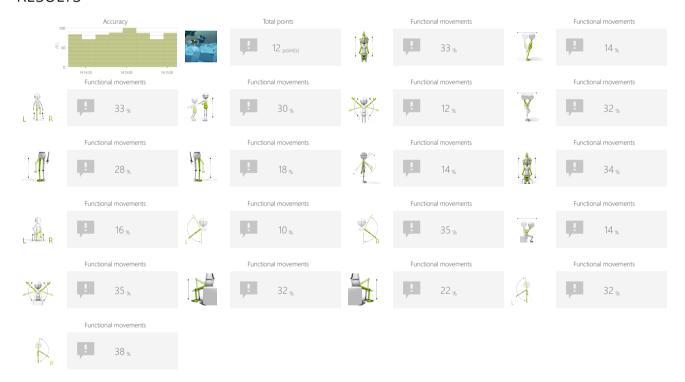
#### **GEOMETRY FLIER**

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**

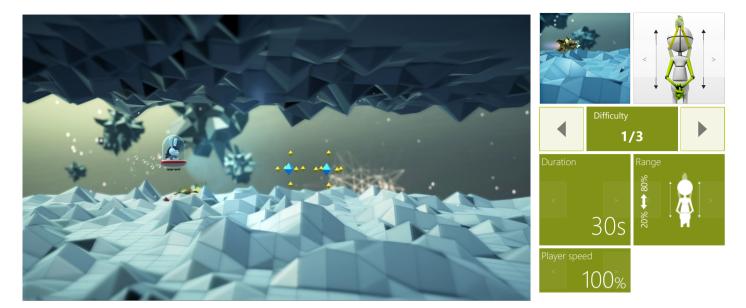
- Dynamics of planned movements
- Activity in a given rhythm
- Visual motor coordination

#### INSTRUCTION FOR PATIENT

Control the vehicle to avoid the obstacles











#### 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**









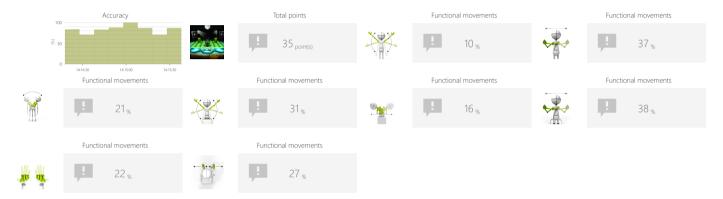








#### **RESULTS**



#### **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





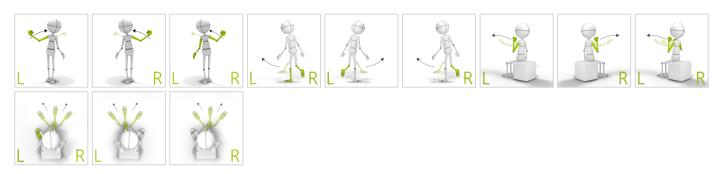




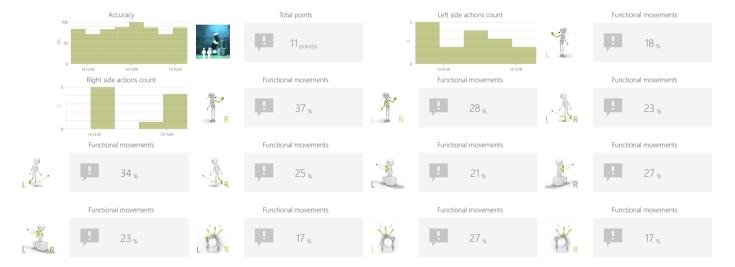
#### CANS MULTIPLAYER

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

#### **CONTROL MODES**



#### **RESULTS**



#### **ADJUSTMENTS**

- 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. Each player throws balls in unique color.







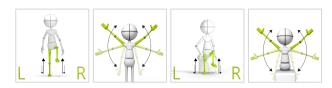




#### **PONG**

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







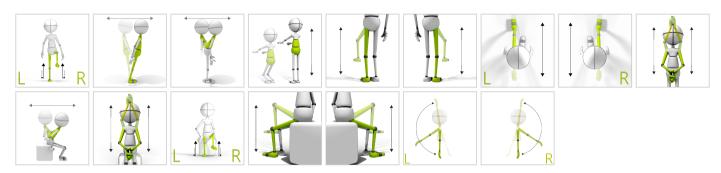




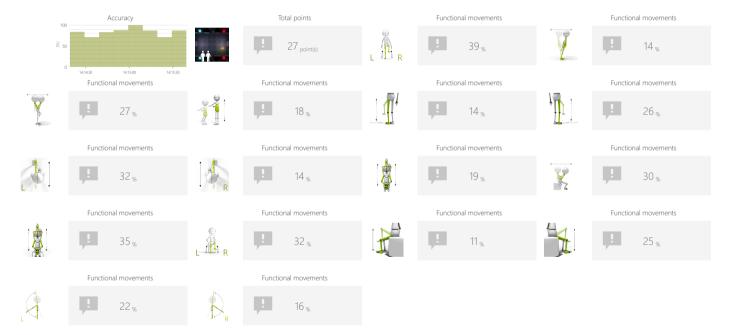
#### **PONG**

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





#### SORTER: LEGACY MULTIPLAYER

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

#### **CONTROL MODES**





#### **RESULTS**







#### **ADJUSTMENTS**

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

#### **OBJECTIVES**

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

#### **INSTRUCTION FOR PATIENT**

Make the ball fly through the gate in corresponding color

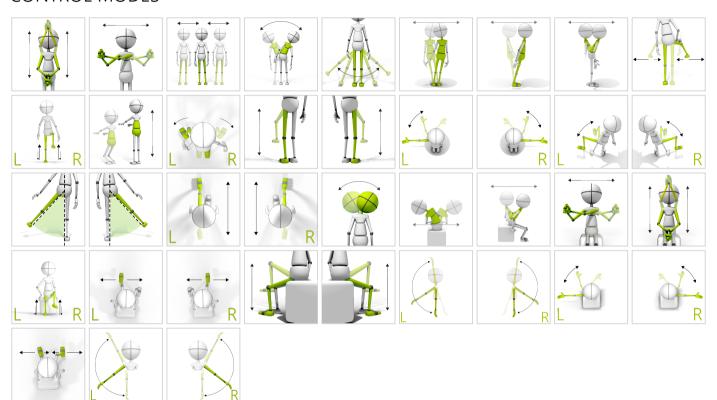




# DIVIDED ATTENTION SORTER

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

#### **CONTROL MODES**



#### **RESULTS**



#### **ADJUSTMENTS**

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

#### **OBJECTIVES**

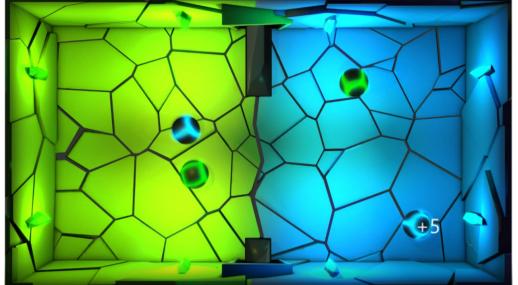
- Predicting the trajectory of objects
- Focusing
- Perceptivity
- Movement precision
- Exercise with or without support from healthy limb

#### INSTRUCTION FOR PATIENT

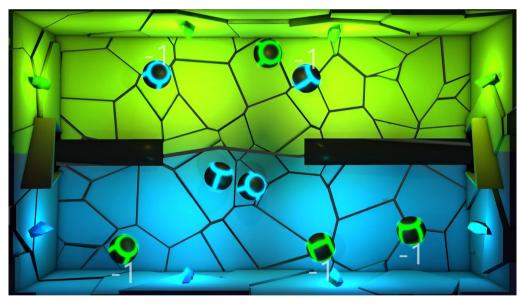
Pass or block the balls so that the blue balls are on the blue side and the green balls are on the green side of the screen.











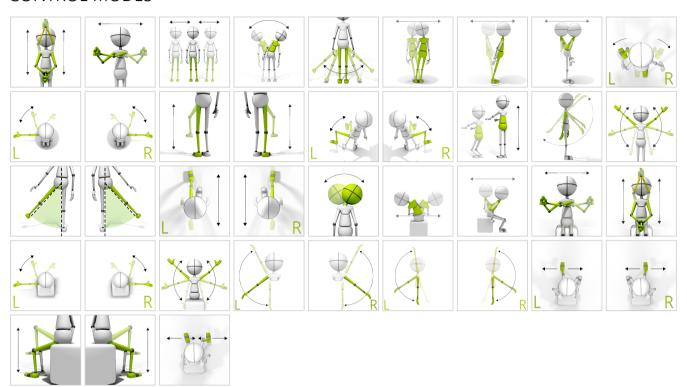




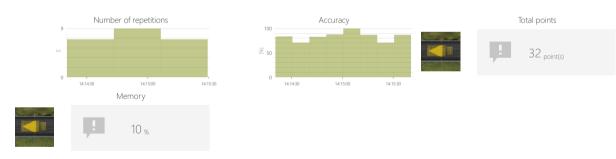
## MEMORY TRUCKS

Measure and train individual's skills to memorize information.

#### **CONTROL MODES**



#### **RESULTS**



#### **ADJUSTMENTS**

- Task duration
- Range
- Variations

#### **OBJECTIVES**

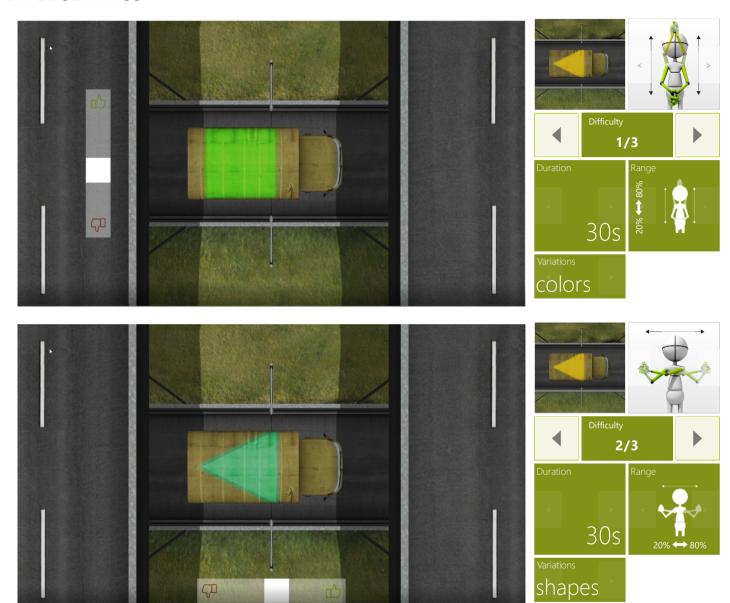
- Logical tasks
- Focusing
- Perceptivity

#### 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.





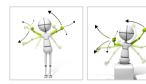




## **MEMORY** POSE REPEATER

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

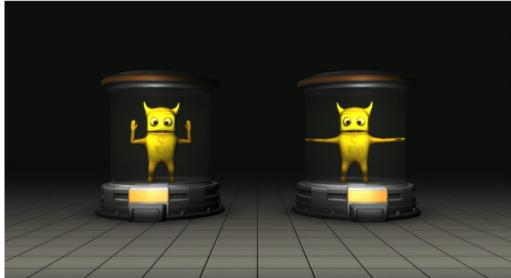
#### **INSTRUCTION FOR PATIENT**

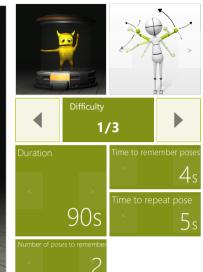
Remember poses presented by yellow creatures and then try to repeat selected pose based on what you managed to remember

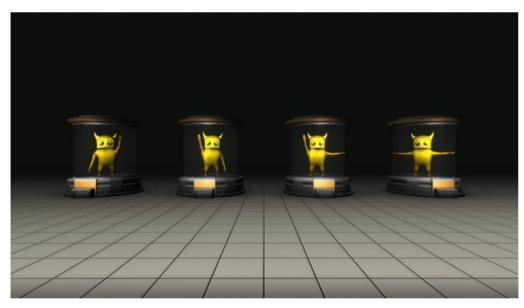
23 %















## PROBLEM SOLVING

#### **MATH**

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

#### **CONTROL MODES**





#### **RESULTS**









#### **ADJUSTMENTS**

- Task duration
- Target number range
- Allow negative numbers

#### **OBJECTIVES**

- Logical tasks
- Arms swings

#### **INSTRUCTION FOR PATIENT**

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















# 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

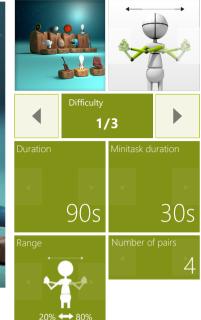
#### INSTRUCTION FOR PATIENT

Select the item which has a pair on the screen











# PROBLEM SOLVING

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

•

#### **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









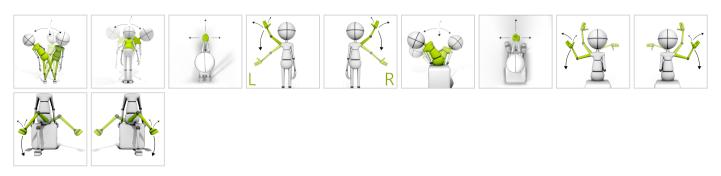


## PROBLEM SOLVING

#### 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**

- Task duration
- Range
- Show path
- Maze size

#### **OBJECTIVES**

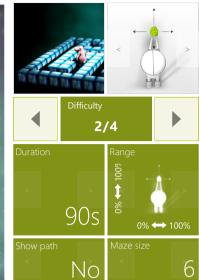
- Logical tasks
- Planned movements
- Planning and Strategy

#### **INSTRUCTION FOR PATIENT**

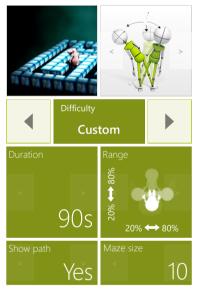
Lead the hippo through the maze to the glowing target.













# SPECIALIZED BLOOD PRESSURE

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

## **CONTROL MODES**



#### **OBJECTIVES**

• Monitor external parameters

#### INSTRUCTION FOR PATIENT

Measure yourself your blood pressure and type it in the result





# **SPECIALIZED**

#### **ROMBERG TEST**

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

#### **CONTROL MODES**



#### **RESULTS**









#### **ADJUSTMENTS**

- Time to complete action
- Show feedback

#### **OBJECTIVES**

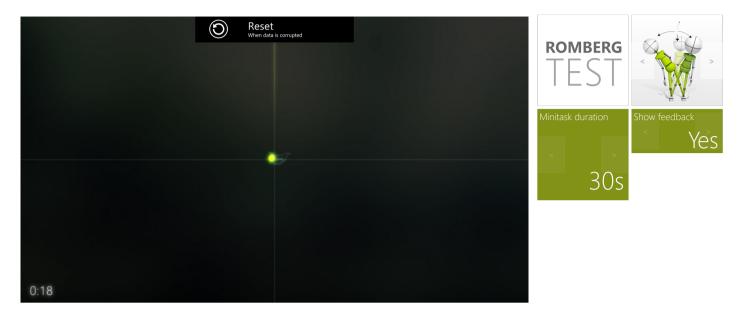
• Assesses static standing balance

#### INSTRUCTION FOR PATIENT

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

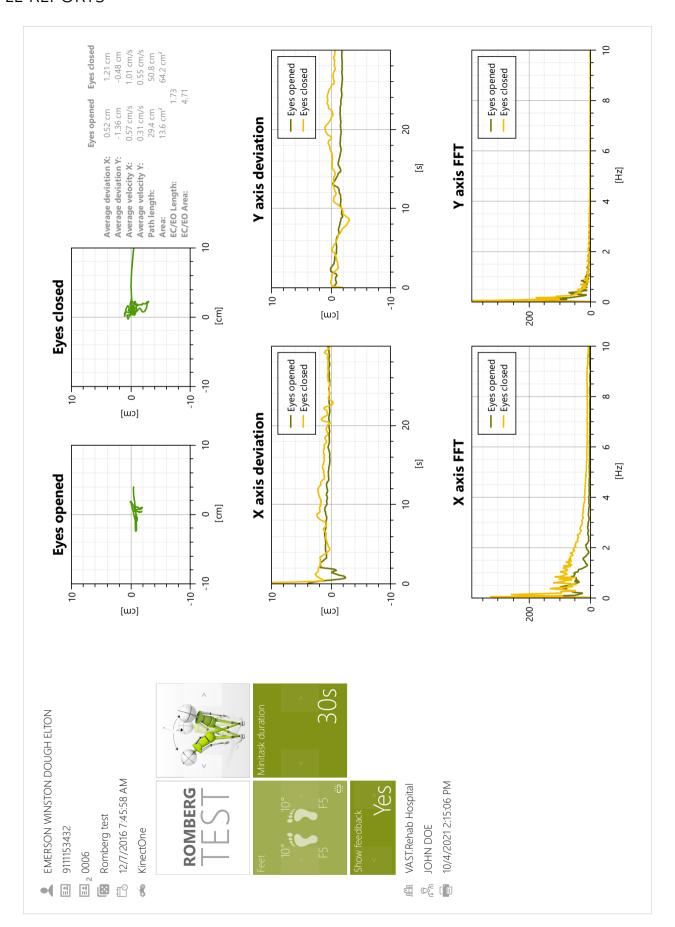








## SAMPLE REPORTS







# **SPECIALIZED**

## STABILITY TEST

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

#### **CONTROL MODES**



#### **RESULTS**



#### **ADJUSTMENTS**

- Time to complete action
- Show feedback
- Radius

#### **OBJECTIVES**

- Relaxation
- Postural stability

#### **INSTRUCTION FOR PATIENT**

Keep your body balanced

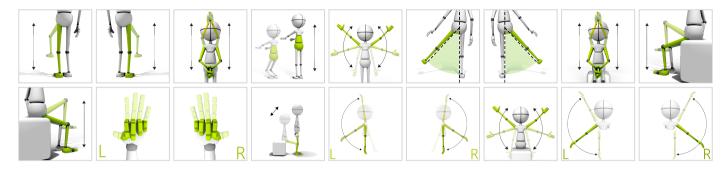




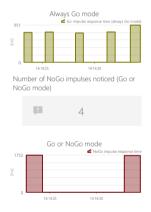
# SPECIALIZED GONOGO TEST

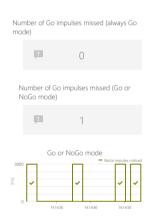
Specialized tasks and evaluations that collect data from multiple categories or do have a unique objectives.

#### **CONTROL MODES**



#### **RESULTS**









#### **ADJUSTMENTS**

- Range
- Required proper repetitions
- Hit if

#### **OBJECTIVES**

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

#### INSTRUCTION FOR PATIENT

Hit the button when positive trigger appears





# SPECIALIZED FUKUDA TEST

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

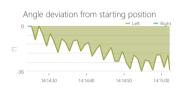
#### **CONTROL MODES**



#### **RESULTS**







#### **OBJECTIVES**

• Vestibular disorders diagnosis

#### INSTRUCTION FOR PATIENT

Take 50 steps in place with the eyes closed with arms outstretched at  $90^{\circ}$ 





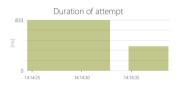
# SPECIALIZED SINGLE LEG STANCE TEST

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

#### **CONTROL MODES**



#### **RESULTS**



#### **ADJUSTMENTS**

• Time to complete action

#### **OBJECTIVES**

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

#### **INSTRUCTION FOR PATIENT**

Try to keep your body balanced while performing single leg stance

