VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

ZED 2 BASE PACK

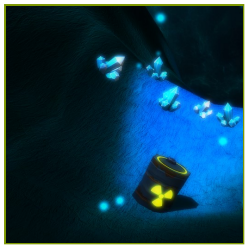
2021.4

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:

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

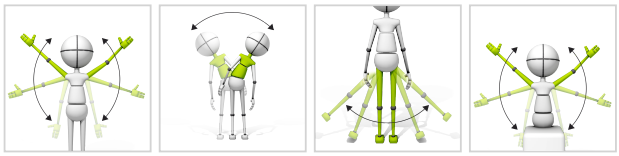


RANGE OF MOTION

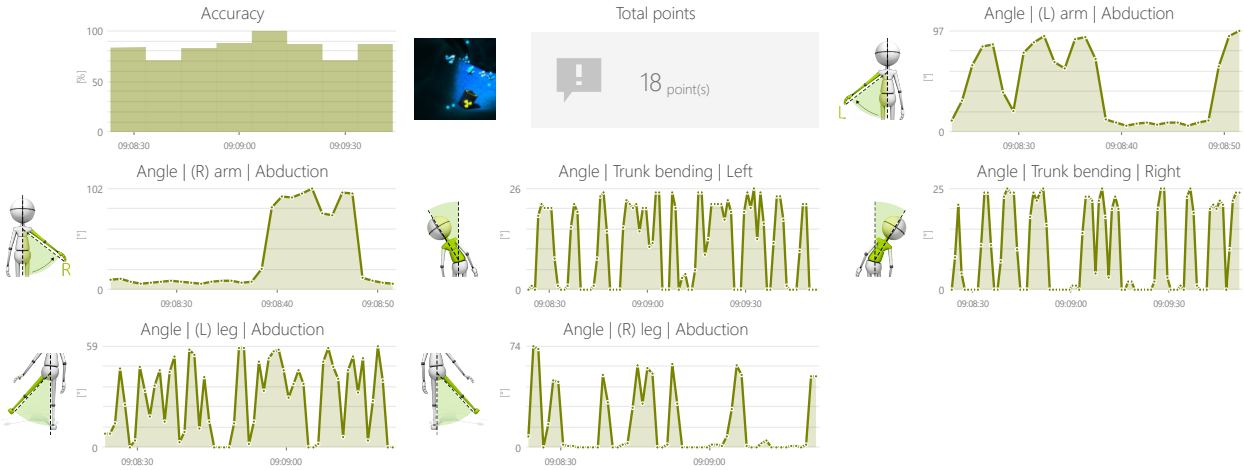
CRYSTALS

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
-
- Player speed

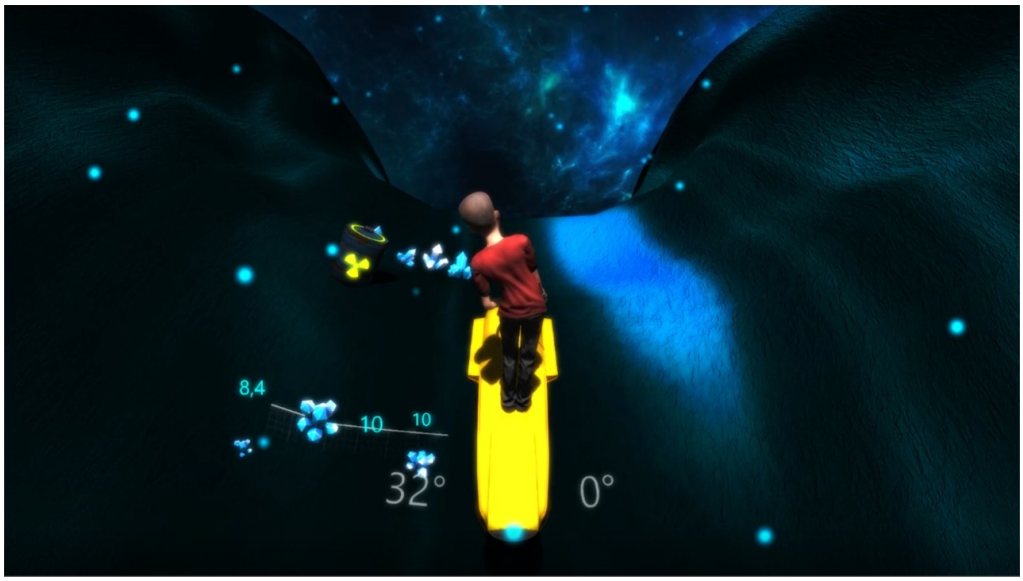
OBJECTIVES

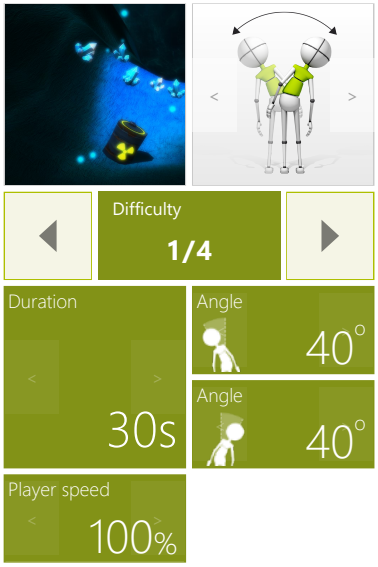
- Improve range of motion
- Perceptivity
- Response to negative visual stimuli
- Reaction to the positive visual stimuli

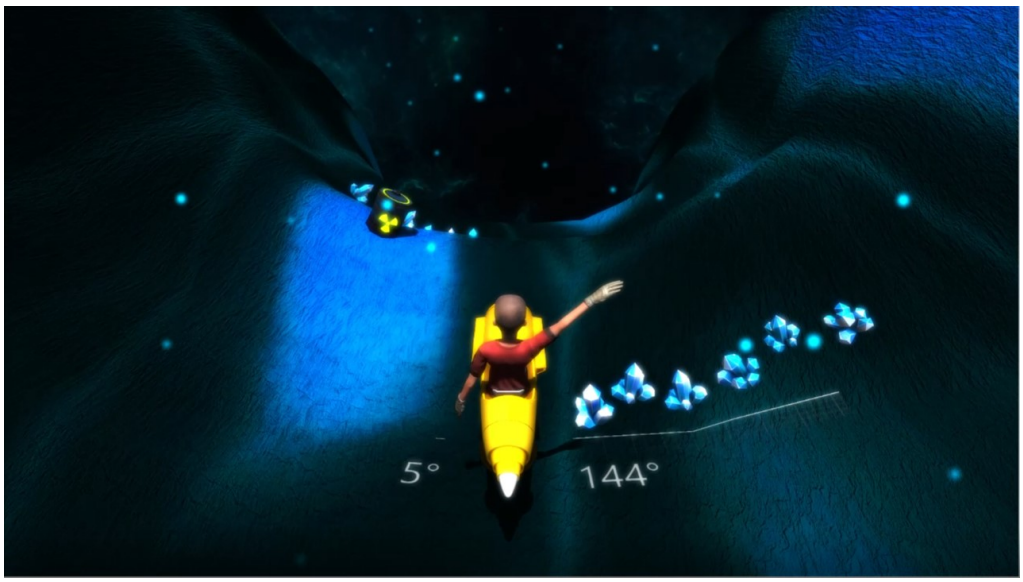
INSTRUCTION FOR PATIENT

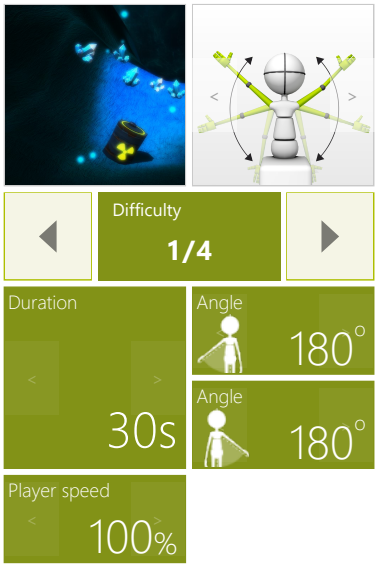
Collect the crystals and avoid the radioactive barrels

SAMPLE SETTINGS









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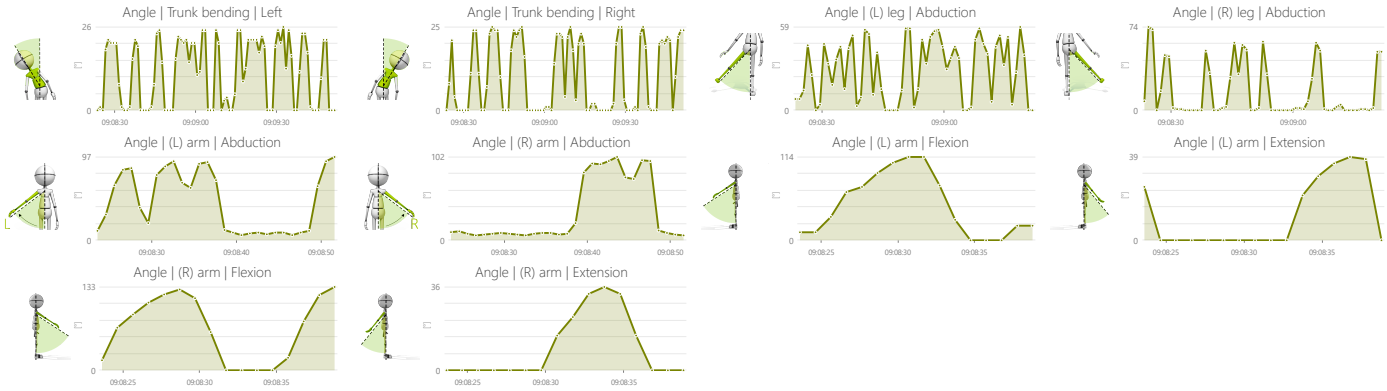
RANGE OF MOTION

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

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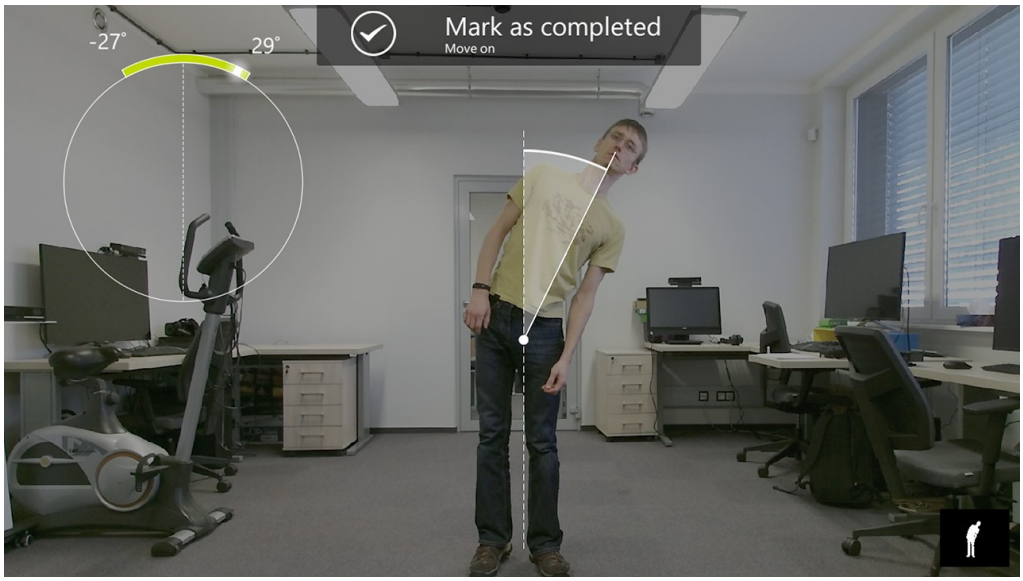
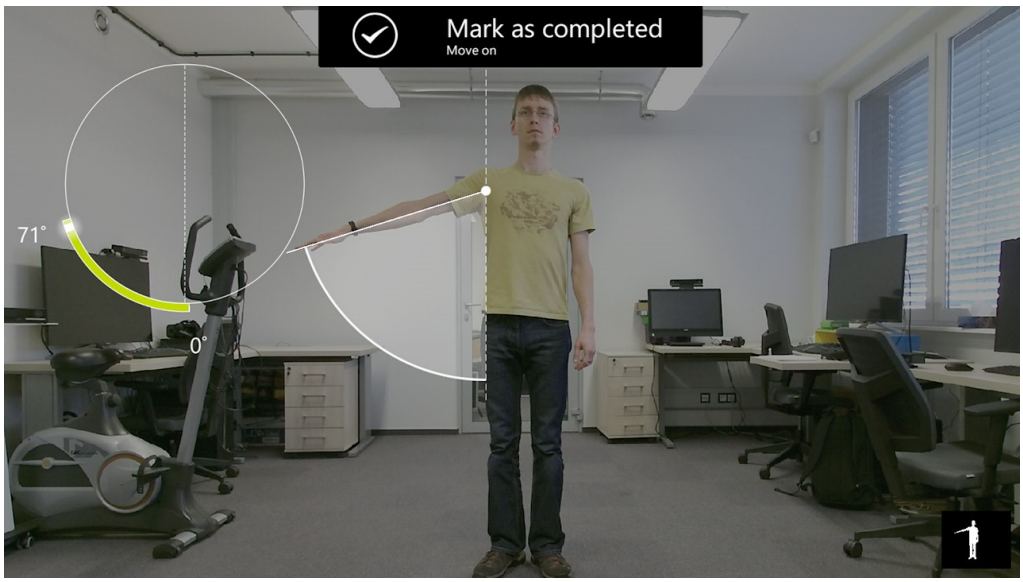
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





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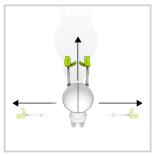
RANGE OF MOTION

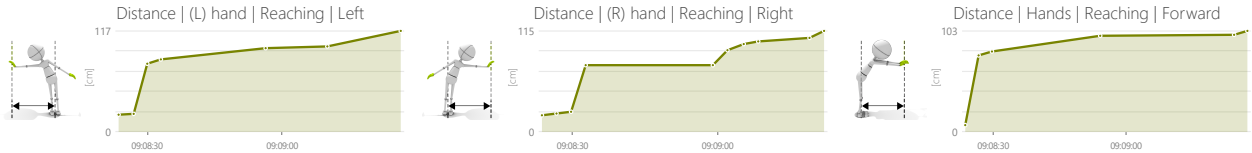
REACH TEST

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

CONTROL MODES



RESULTS



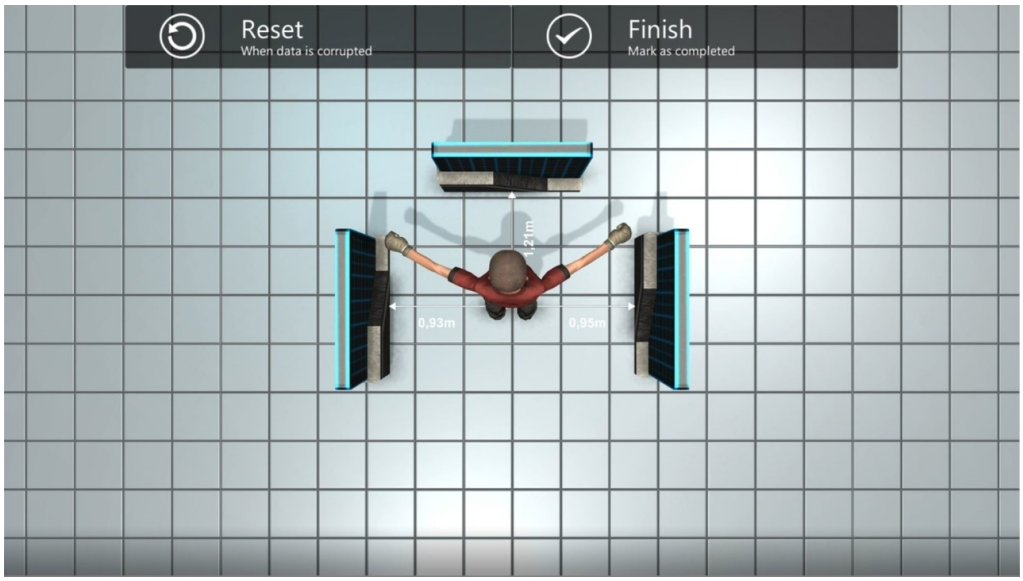
OBJECTIVES

- 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

SAMPLE SETTINGS

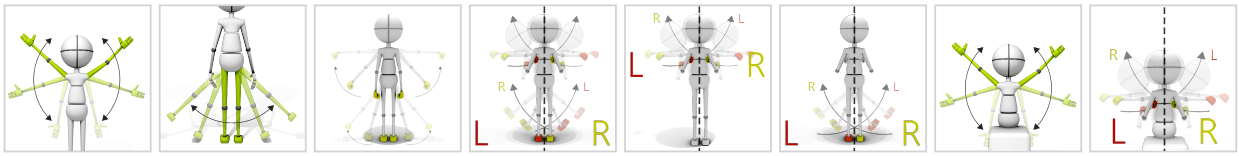


MOVEMENT TIME

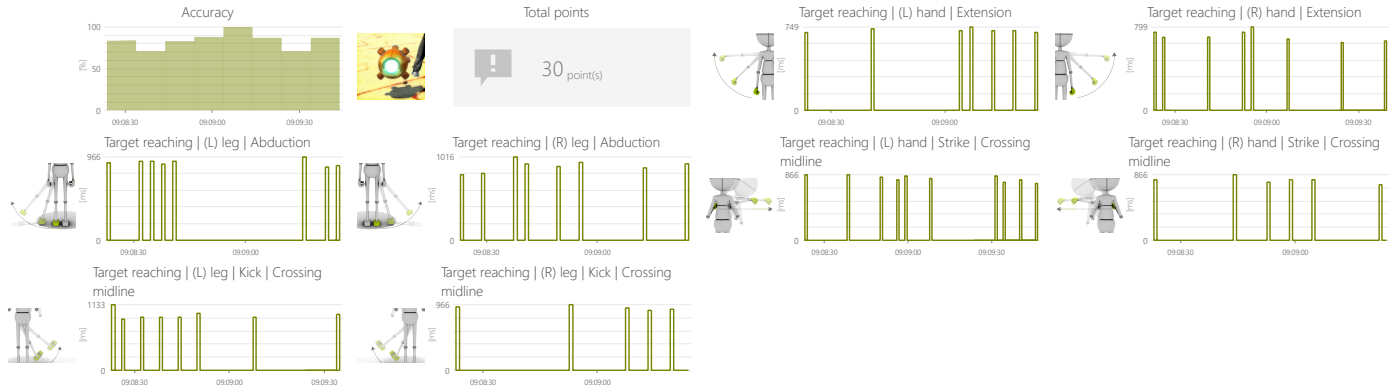
REACT

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time to react
- Distance to targets

OBJECTIVES

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

INSTRUCTION FOR PATIENT

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

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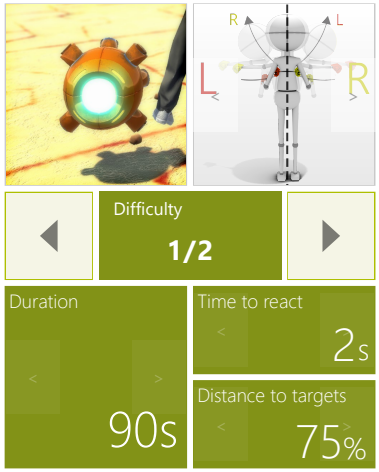
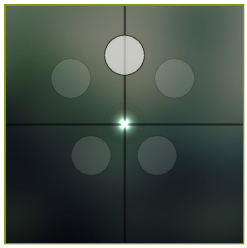
SAMPLE SETTINGS





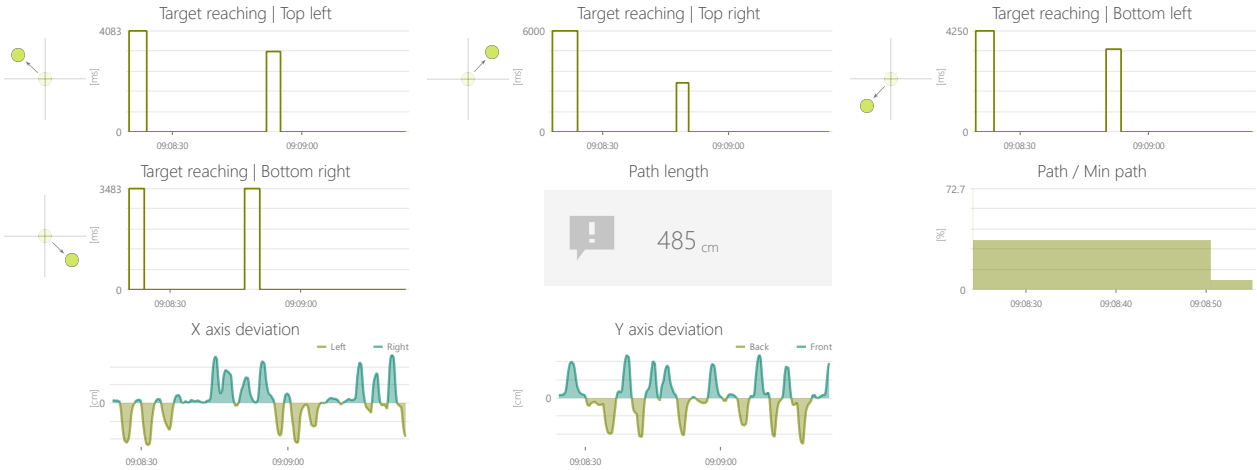
MOVEMENT TIME

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.

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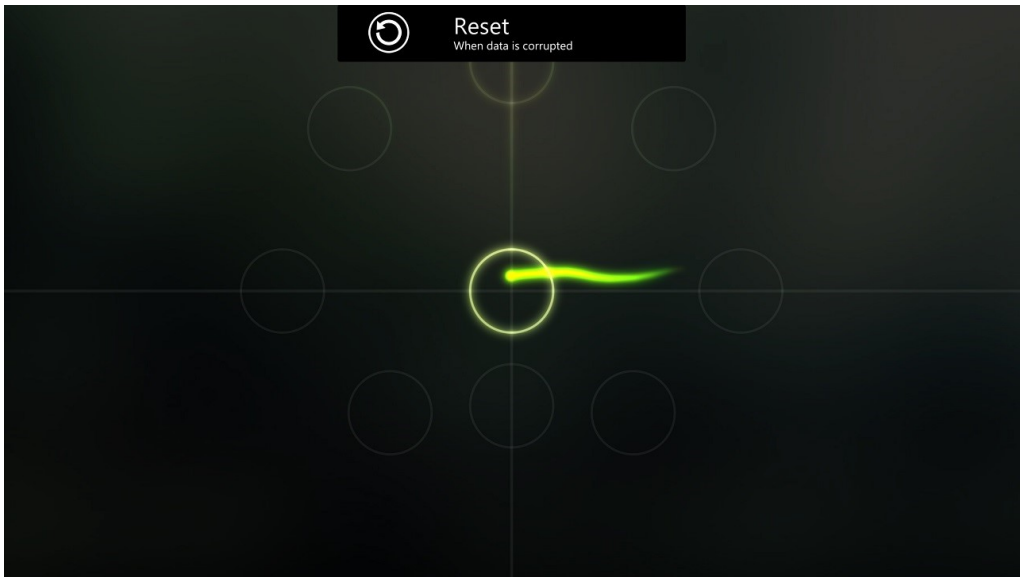
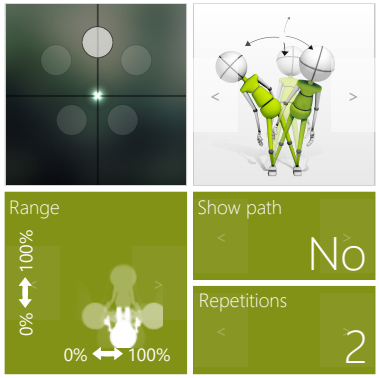
SAMPLE SETTINGS



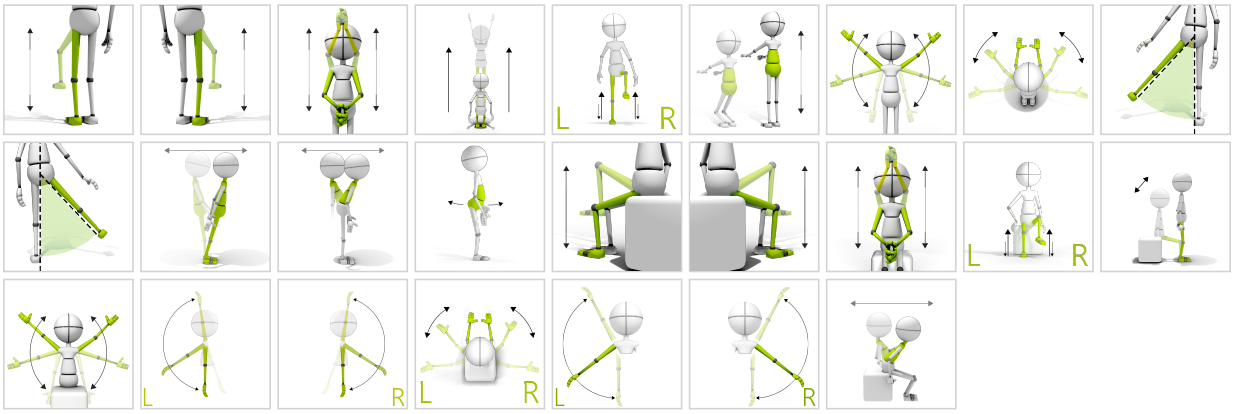


SPEED

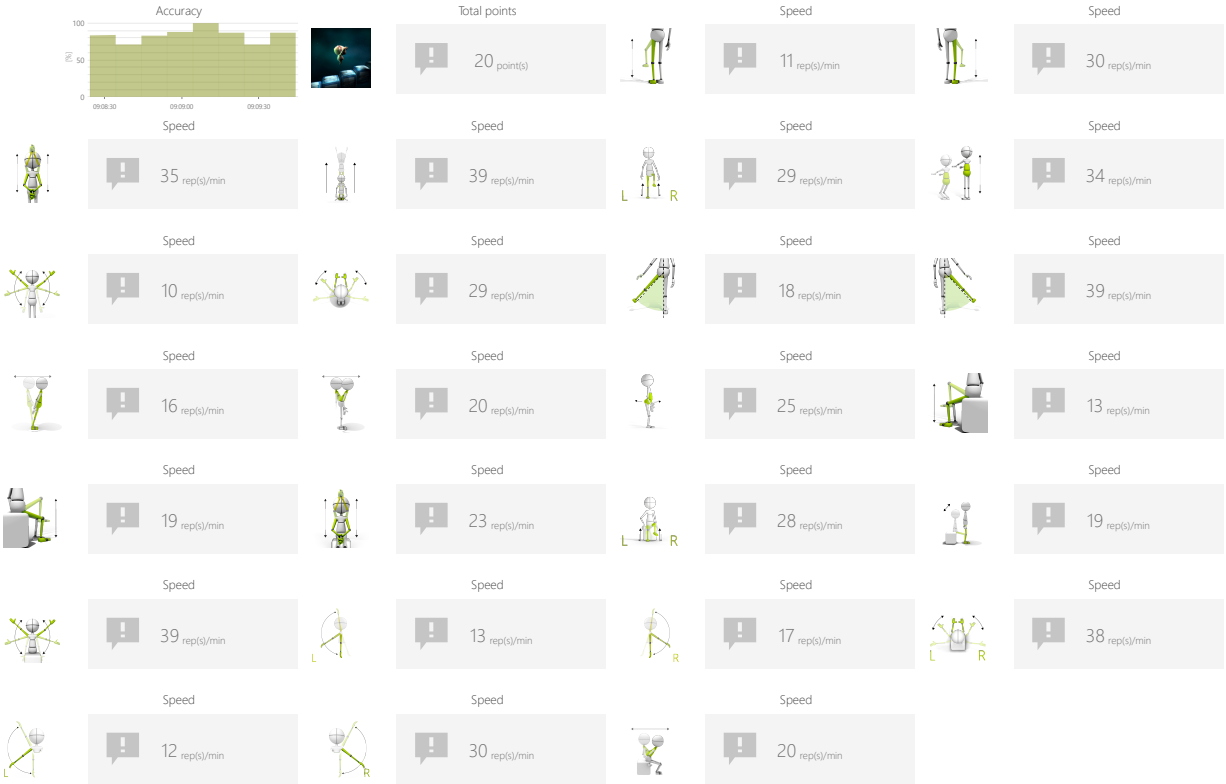
STAIRS

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

OBJECTIVES

- Jumping
- Knees lifting
- Dynamics of planned movements

INSTRUCTION FOR PATIENT

Climb the stairs before they disappear

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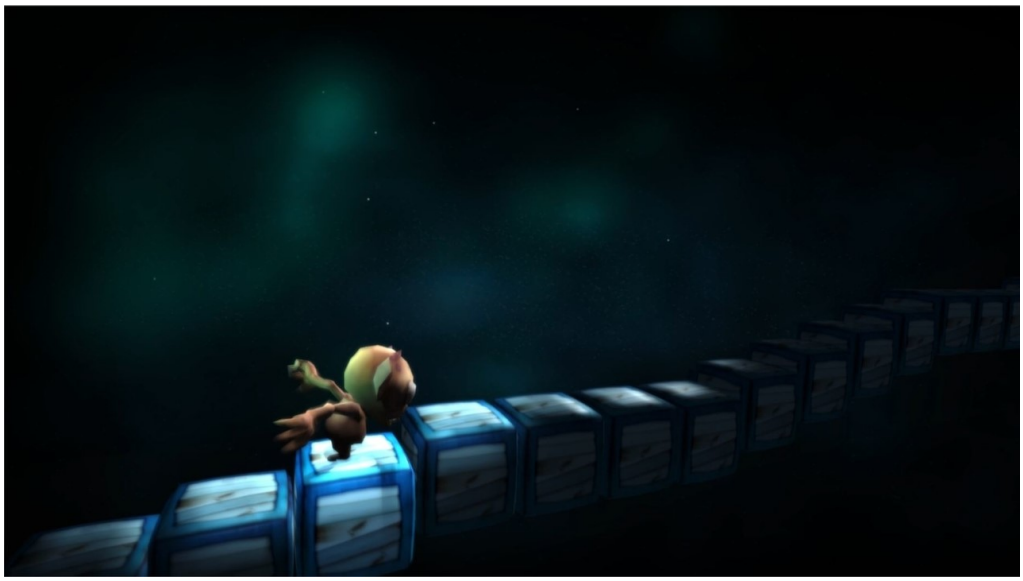
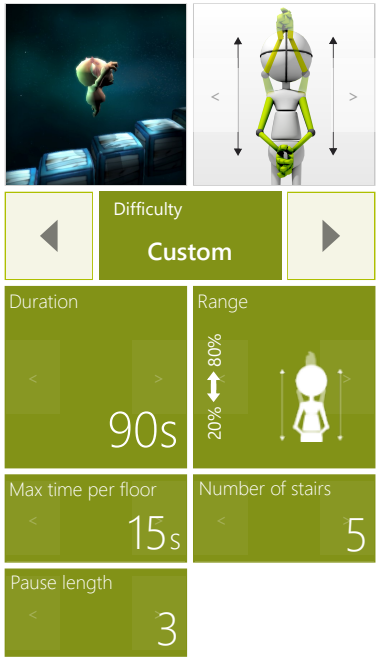
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



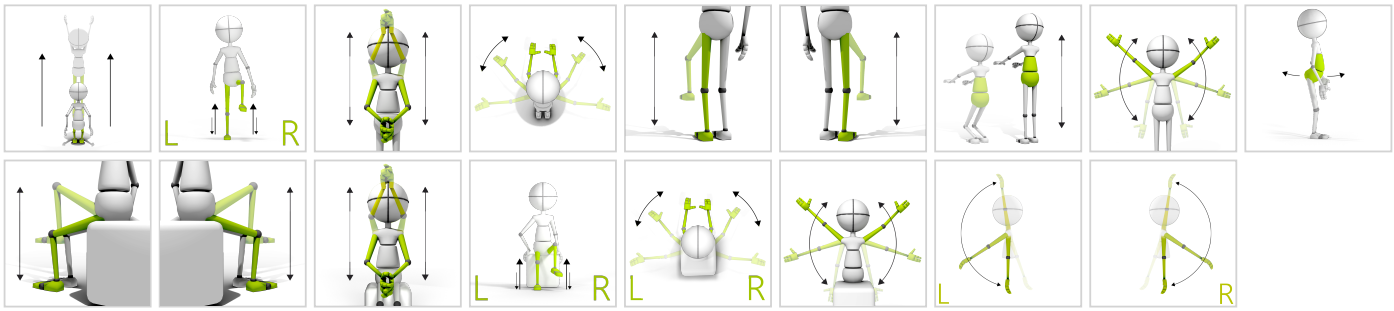


SPEED

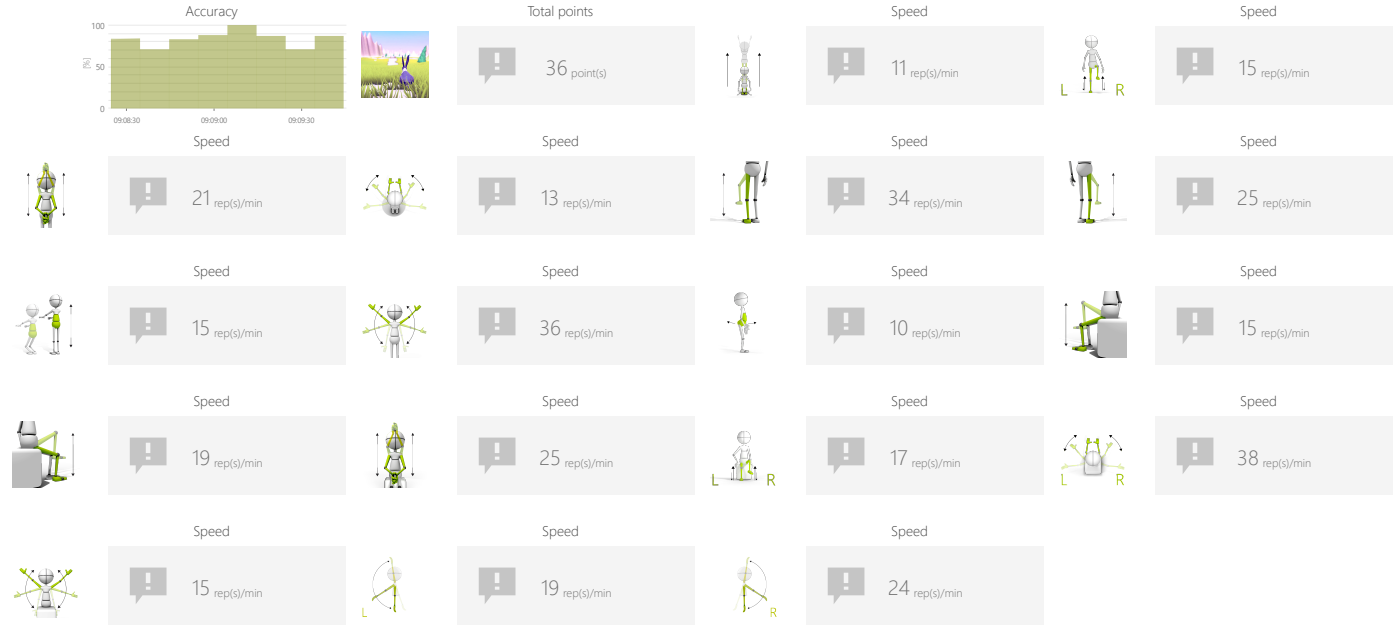
RABBIT

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

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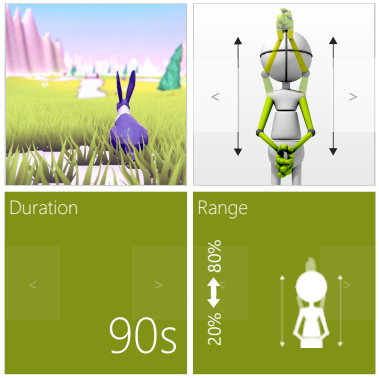
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



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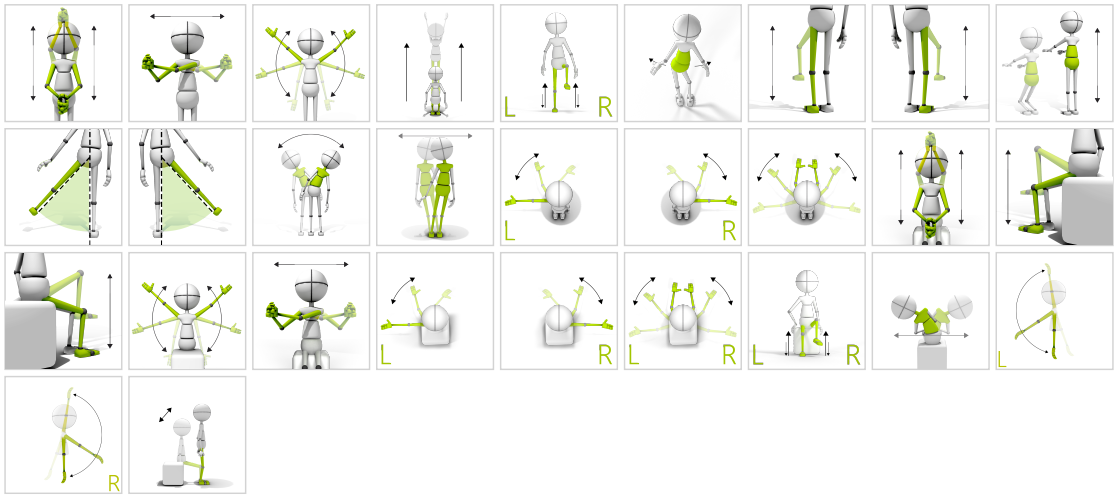
SPEED

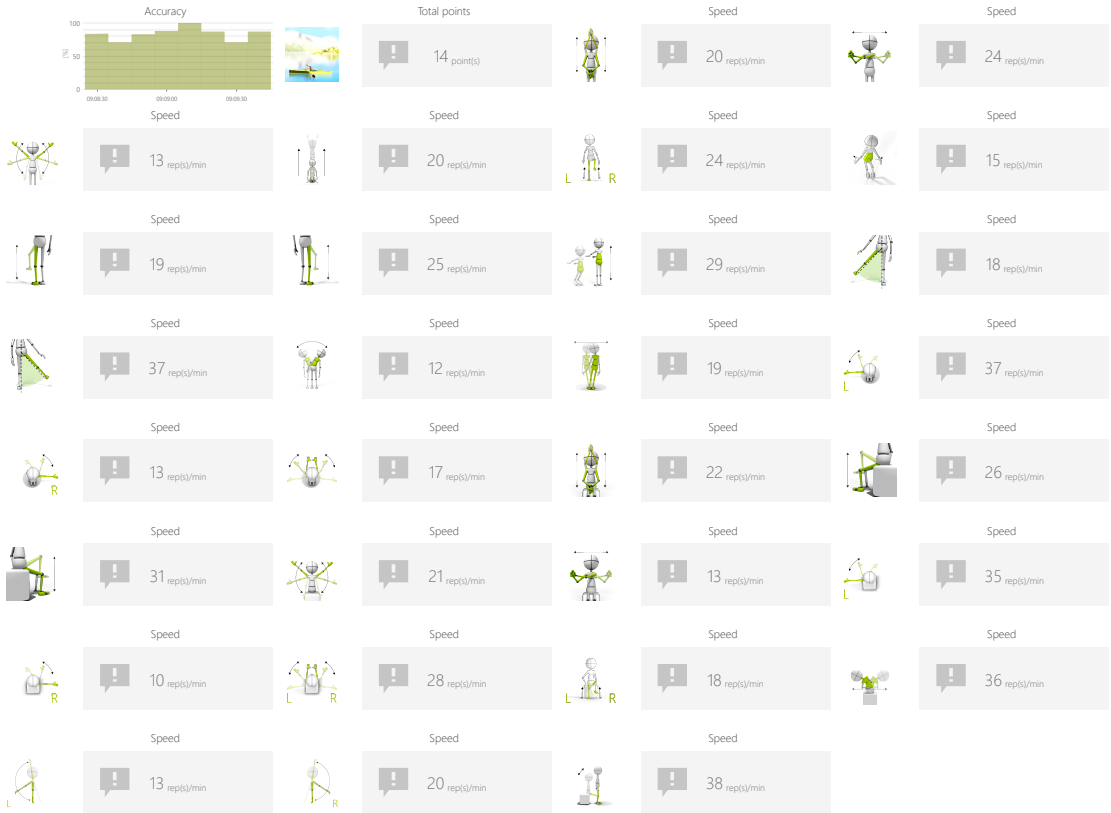
KAYAK

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

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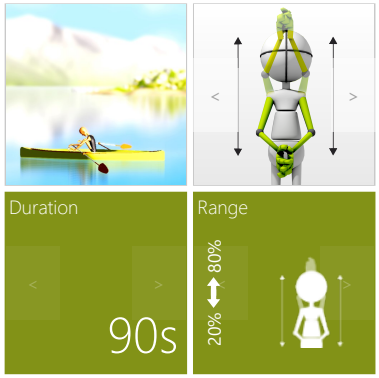
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



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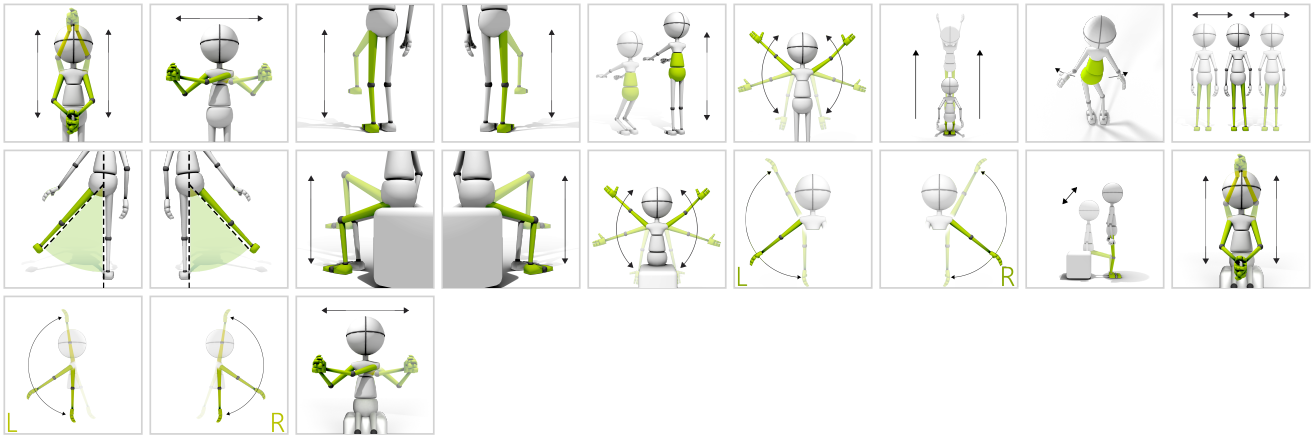
SPEED

SPEED TEST

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

CONTROL MODES



RESULTS

Speed 20 rep(s)/min	Speed 24 rep(s)/min	Speed 30 rep(s)/min	Speed 18 rep(s)/min
Speed 27 rep(s)/min	Speed 20 rep(s)/min	Speed 38 rep(s)/min	Speed 29 rep(s)/min
Speed 33 rep(s)/min	Speed 24 rep(s)/min	Speed 28 rep(s)/min	Speed 34 rep(s)/min
Speed 38 rep(s)/min	Speed 12 rep(s)/min	Speed 33 rep(s)/min	Speed 22 rep(s)/min
Speed 31 rep(s)/min	Speed 22 rep(s)/min	Speed 27 rep(s)/min	Speed 31 rep(s)/min
Speed 21 rep(s)/min			

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

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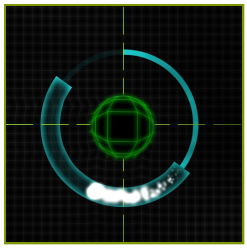
REHABILITATION IN VIRTUAL REALITY

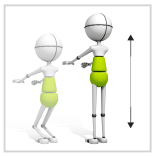


BALANCE

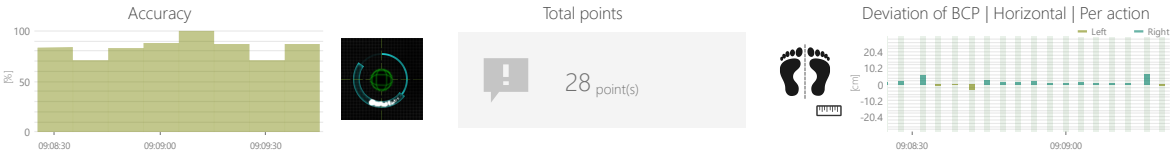
GRID

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

CONTROL MODES




RESULTS



ADJUSTMENTS

- Task duration
- Range
- Period

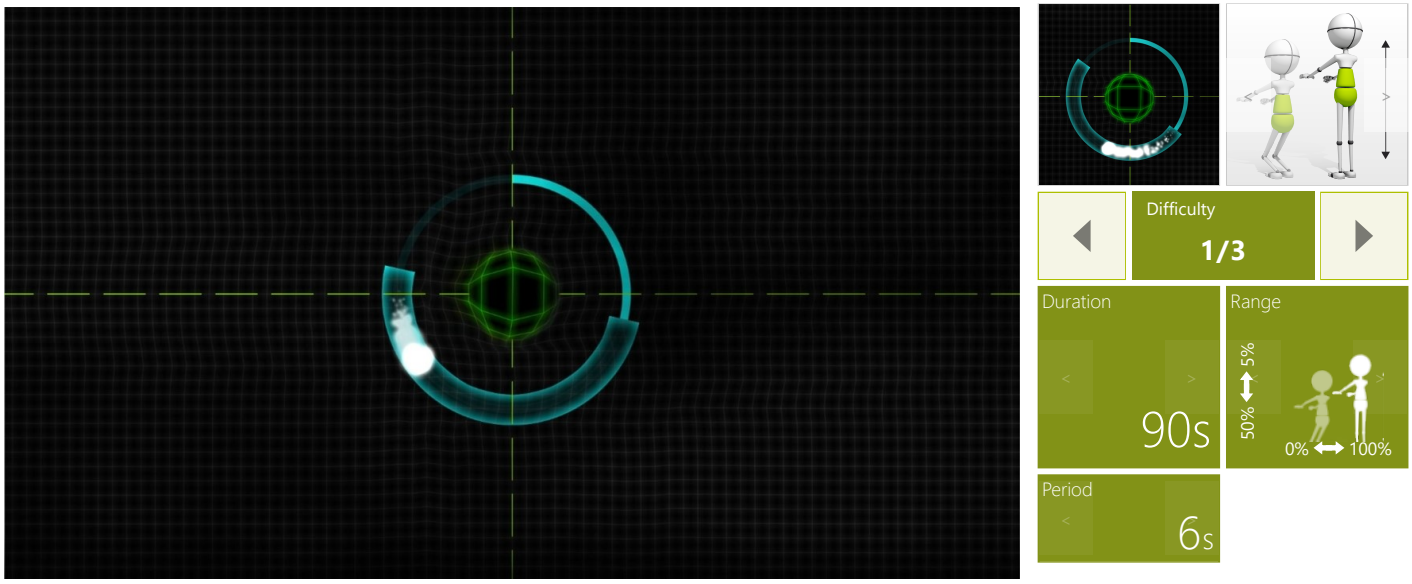
OBJECTIVES

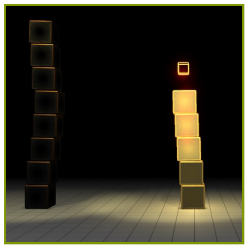
- Balance and equilibrium training
- 3D space movements reproduction
- Activity in a given rhythm

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



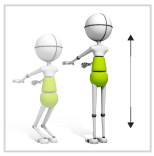


BALANCE

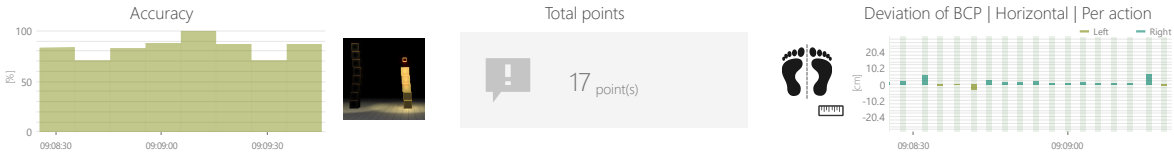
BLOCK BUILDER

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

CONTROL MODES




RESULTS



ADJUSTMENTS

- Task duration
- Range
- Stack height

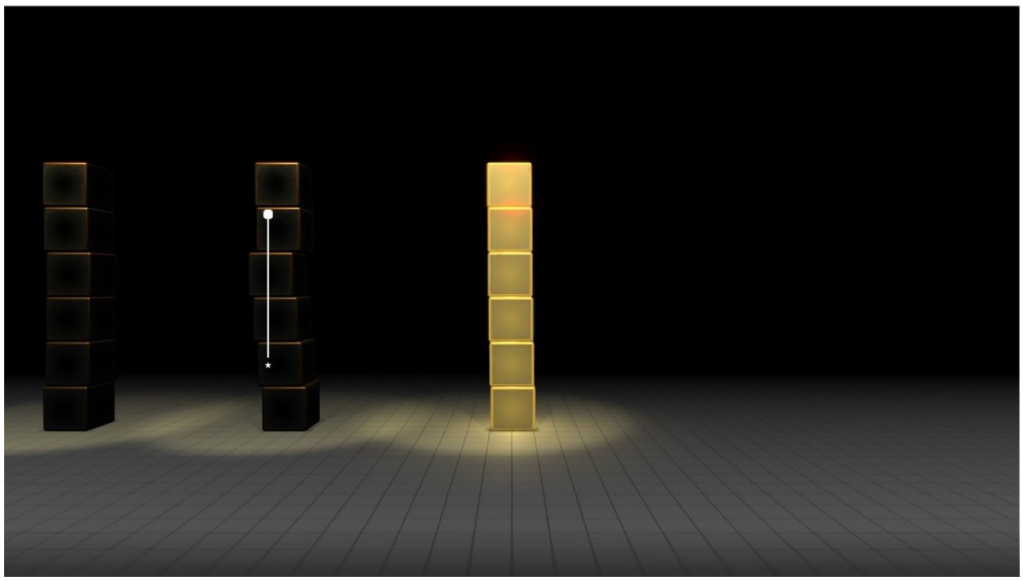
OBJECTIVES

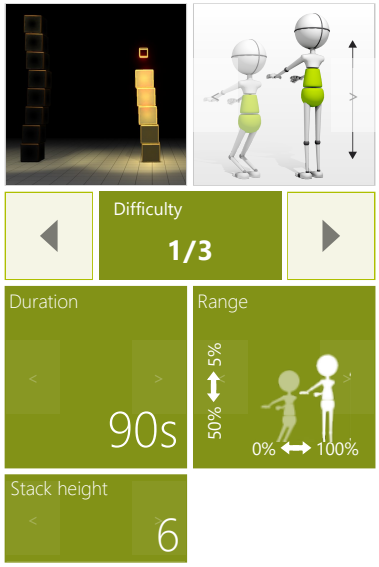
- Movement precision
- Muscle strengthening
- Balance and equilibrium training

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



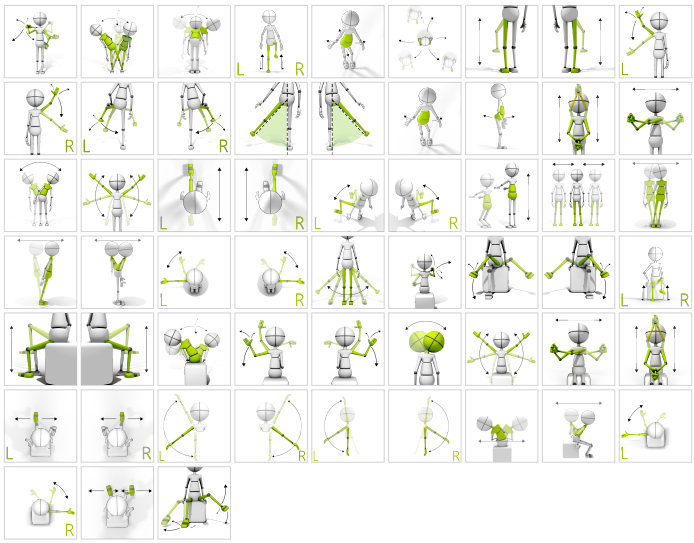


MOVEMENT PRECISION

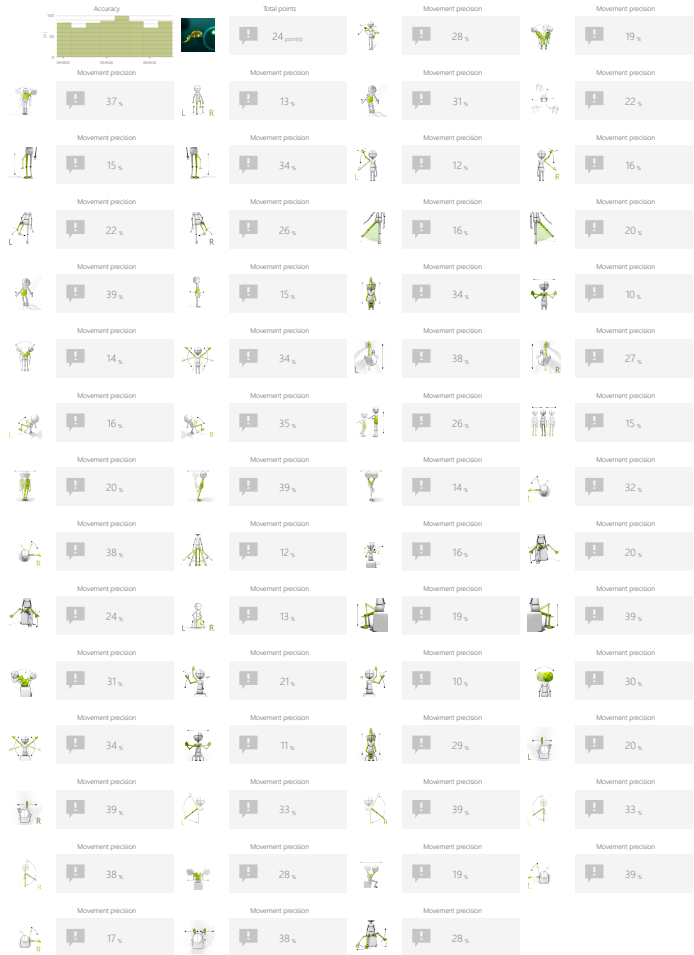
FISH

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

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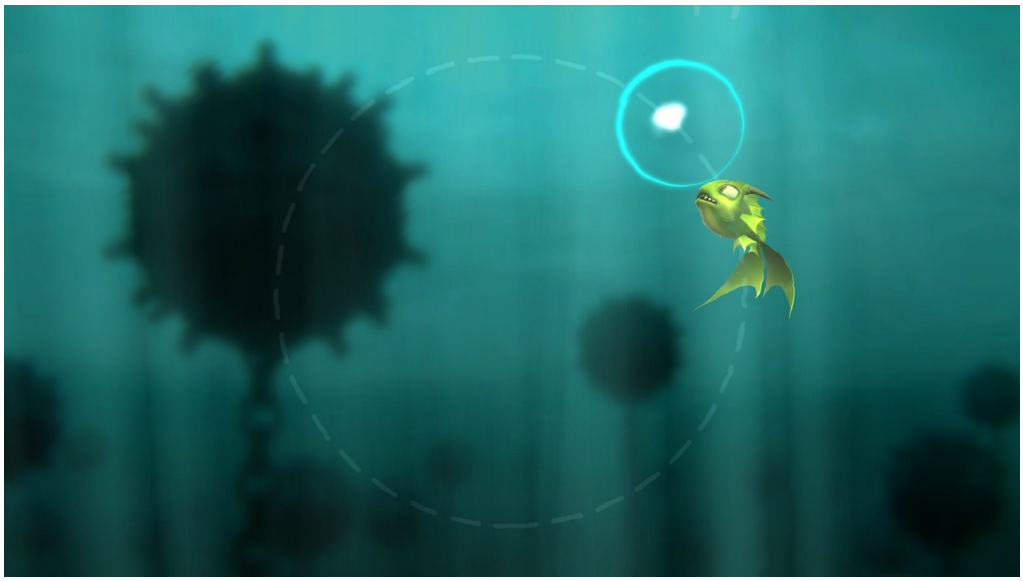
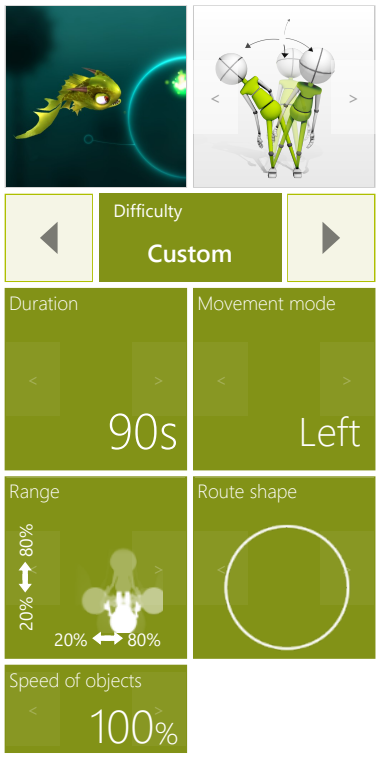
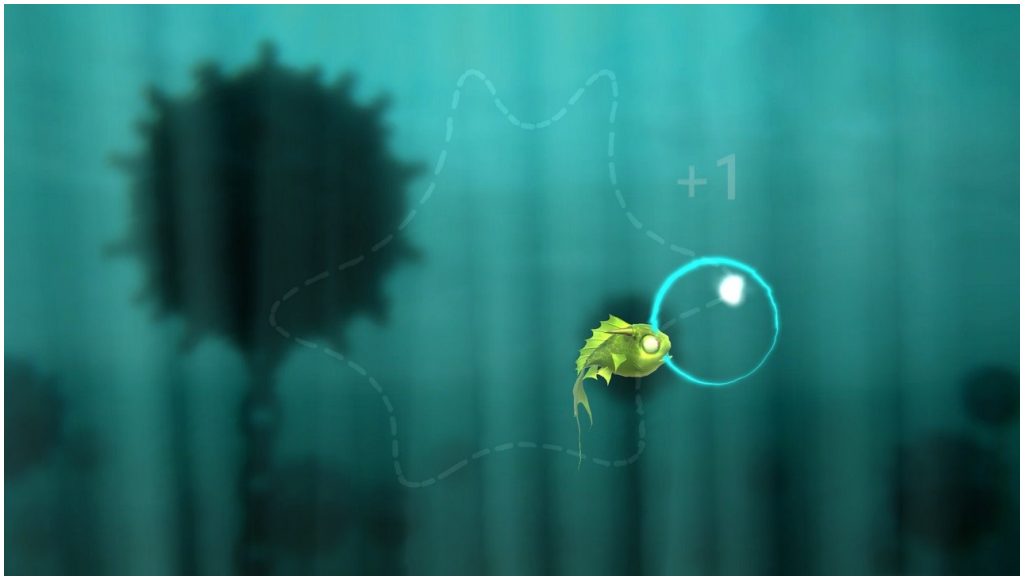
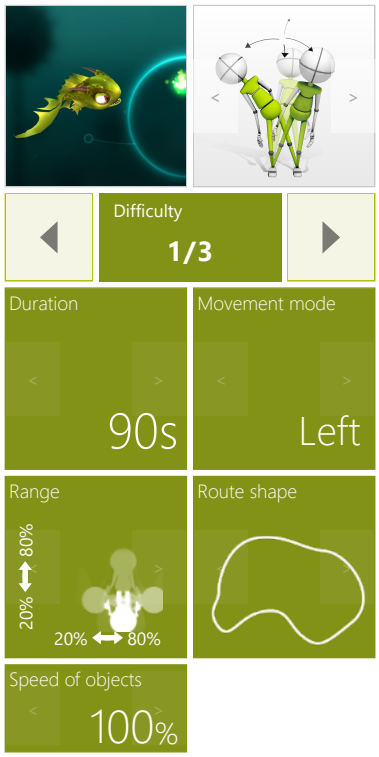
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS









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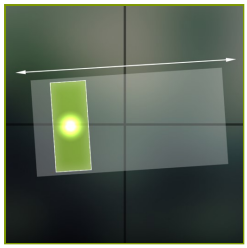
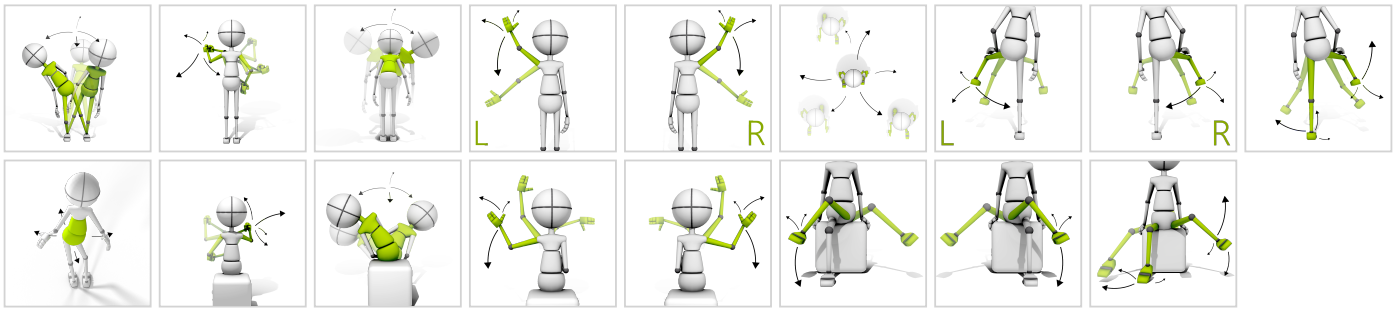


MOVEMENT PRECISION

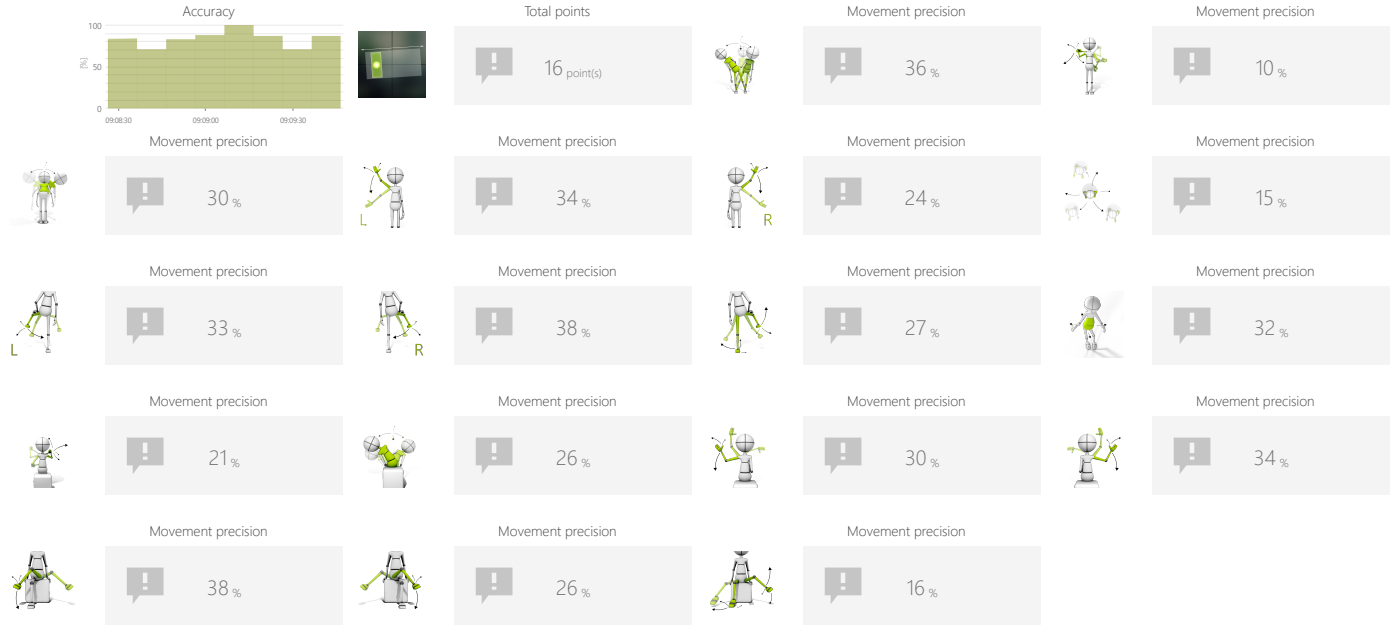
PENDULUM

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

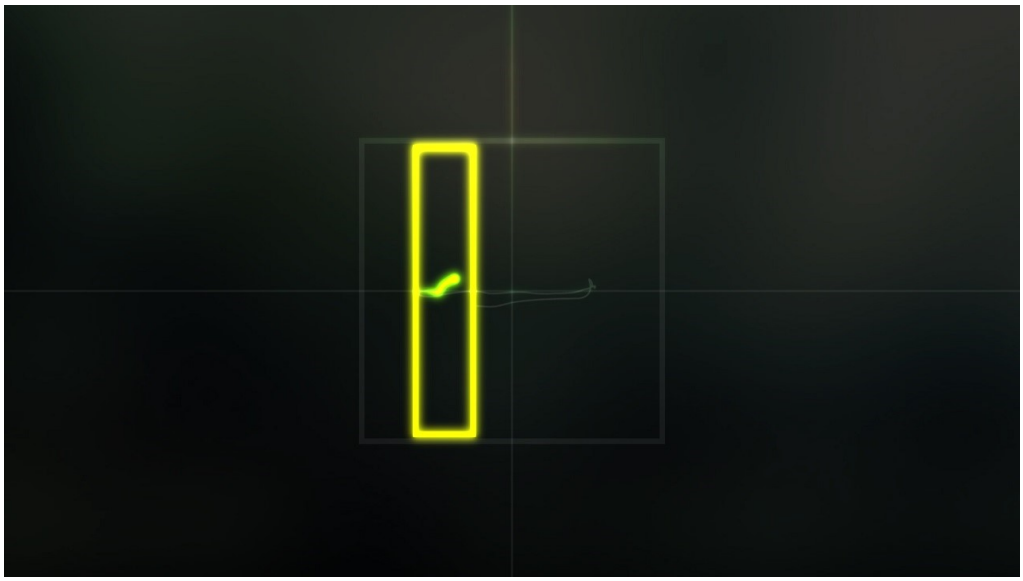
- 3D space movements reproduction
- Balance and equilibrium training
- Rhythmicity
- Activity in a given rhythm
- Movement precision

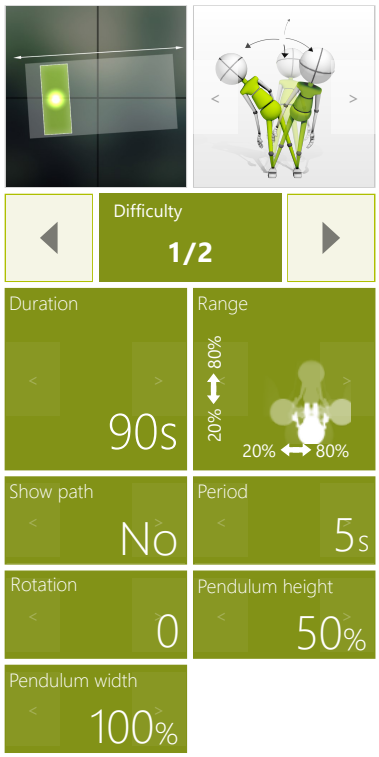
INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





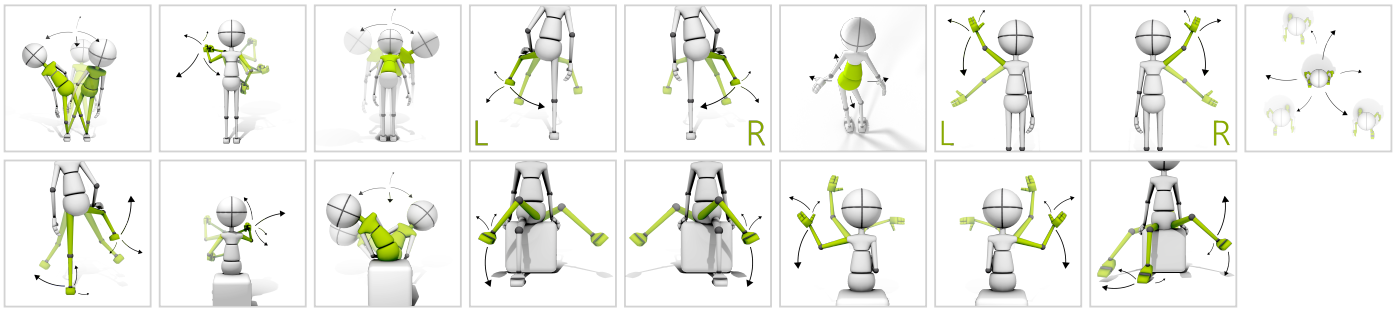
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

MOVEMENT PRECISION

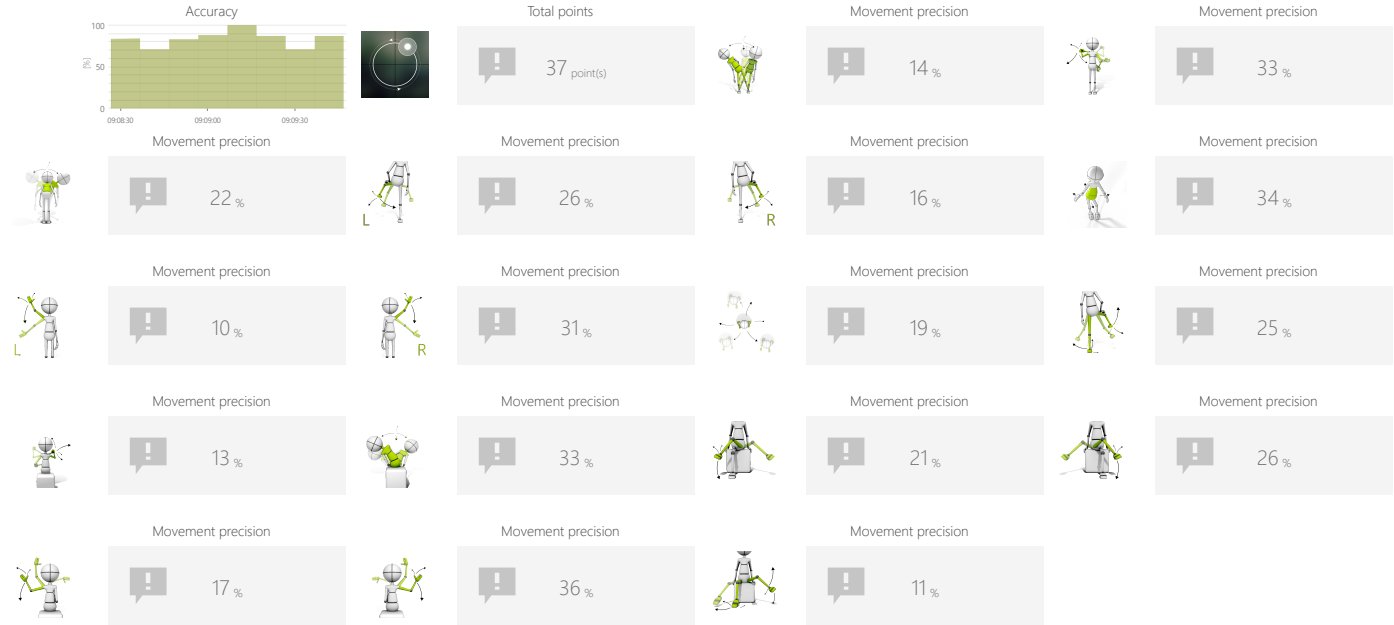
TRACKING

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

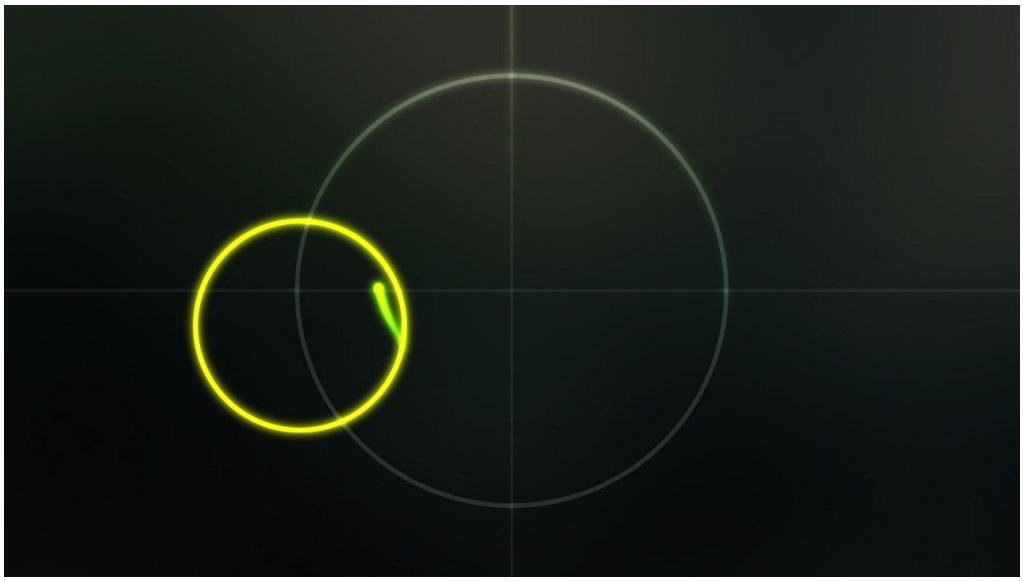
- 3D space movements reproduction
- Balance and equilibrium training
- Test the limits of balance and equilibrium

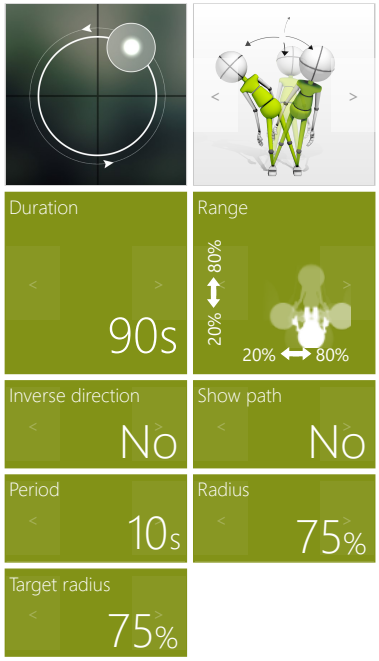
INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



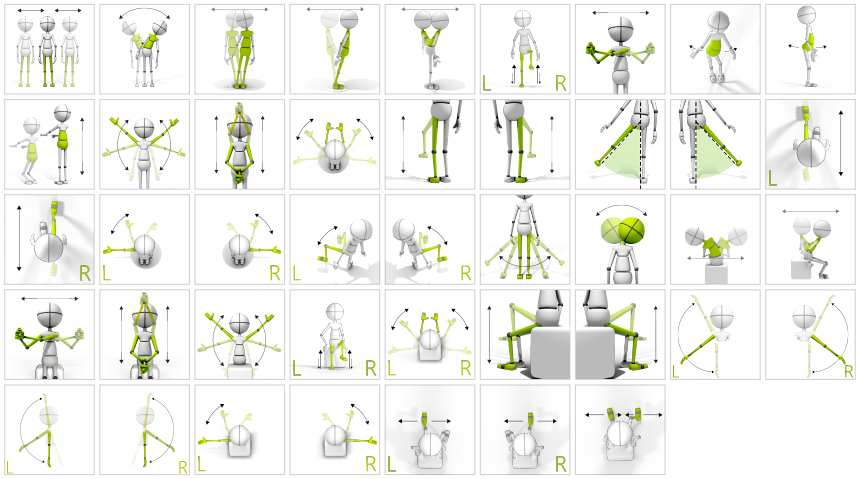


MOVEMENT PRECISION

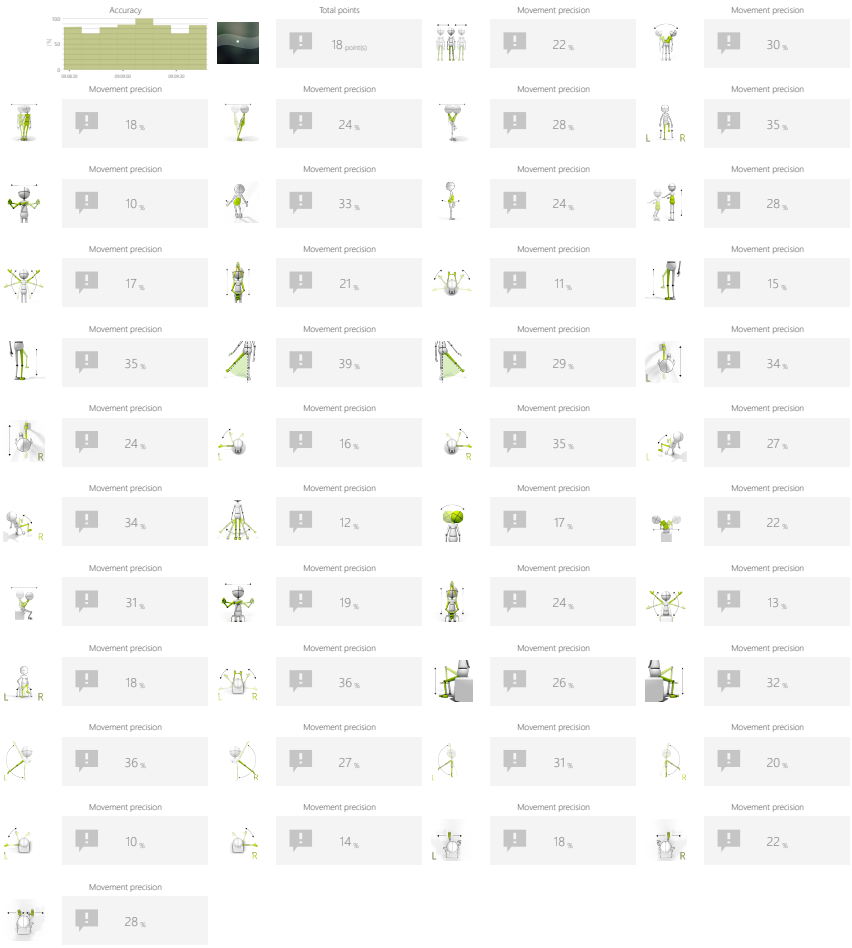
GRAPH

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

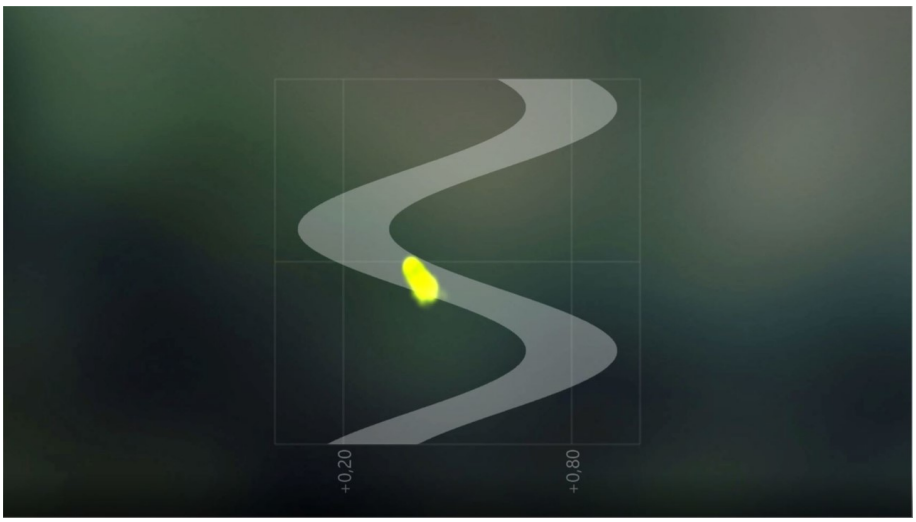
- Movement precision
- Activity in a given rhythm
- Repetitive movements
- Hands raising

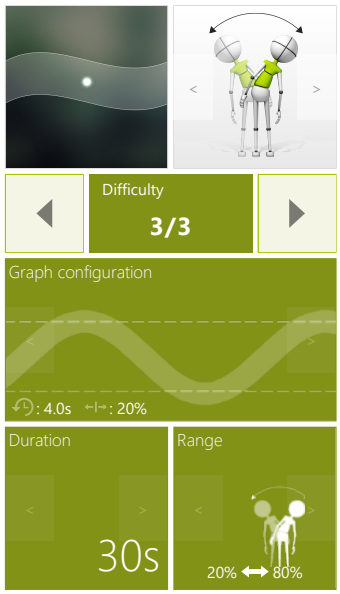
INSTRUCTION FOR PATIENT

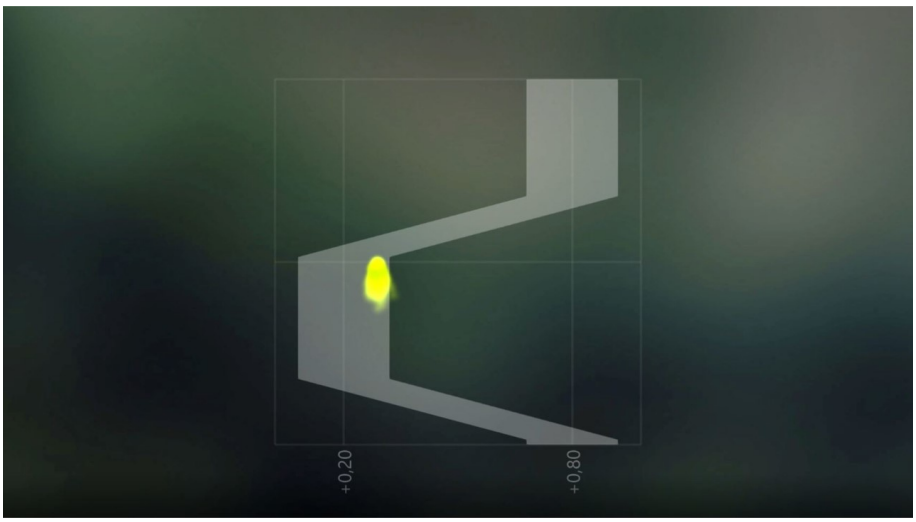
Try to stay within the borders

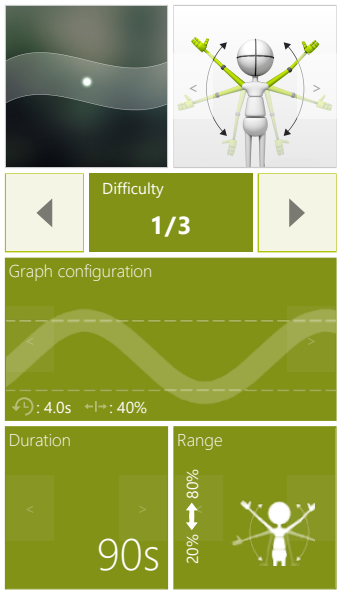
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

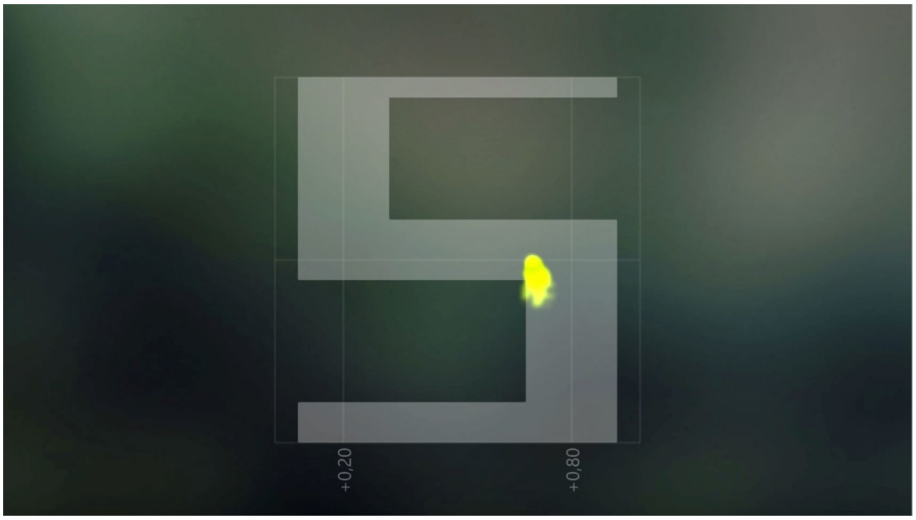
SAMPLE SETTINGS

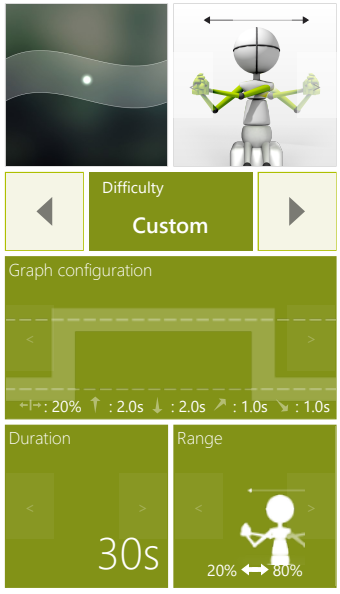












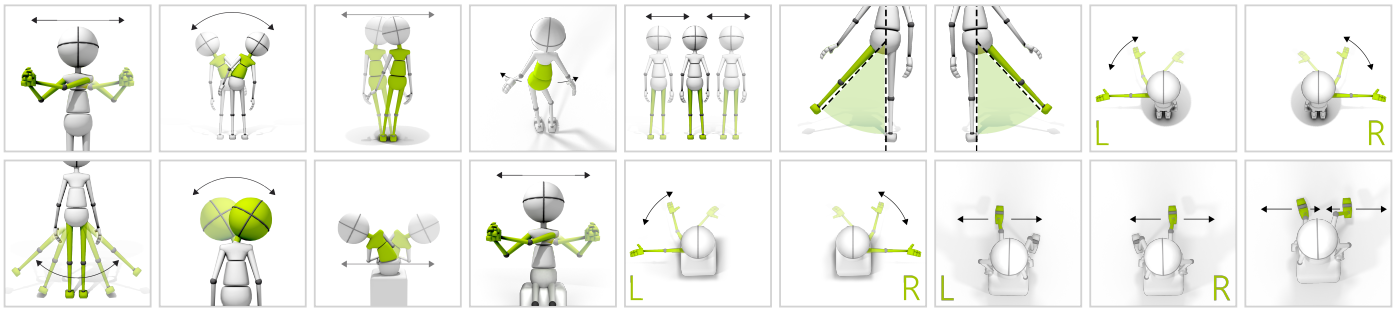
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

MOVEMENT PRECISION

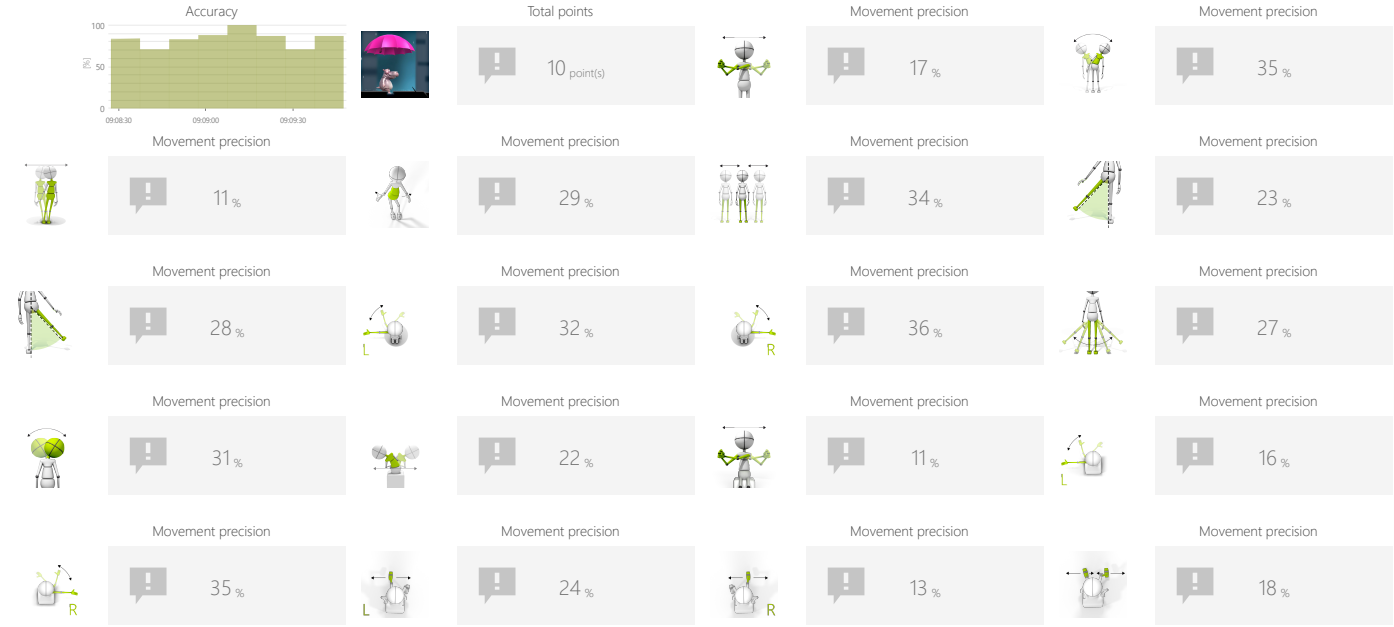
UMBRELLA

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

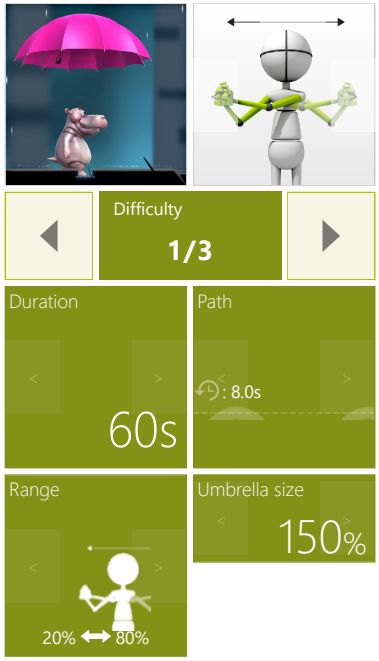
- Movement precision
- Visual motor coordination

INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS

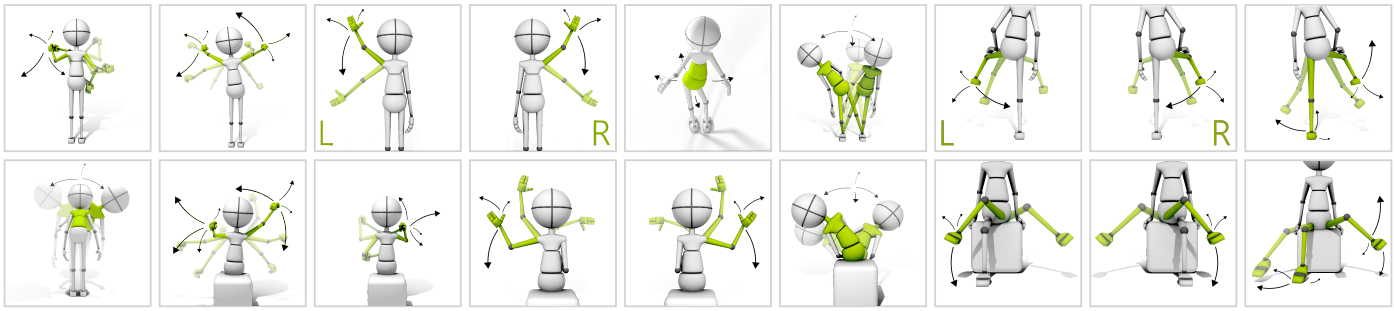


FUNCTIONAL MOVEMENTS

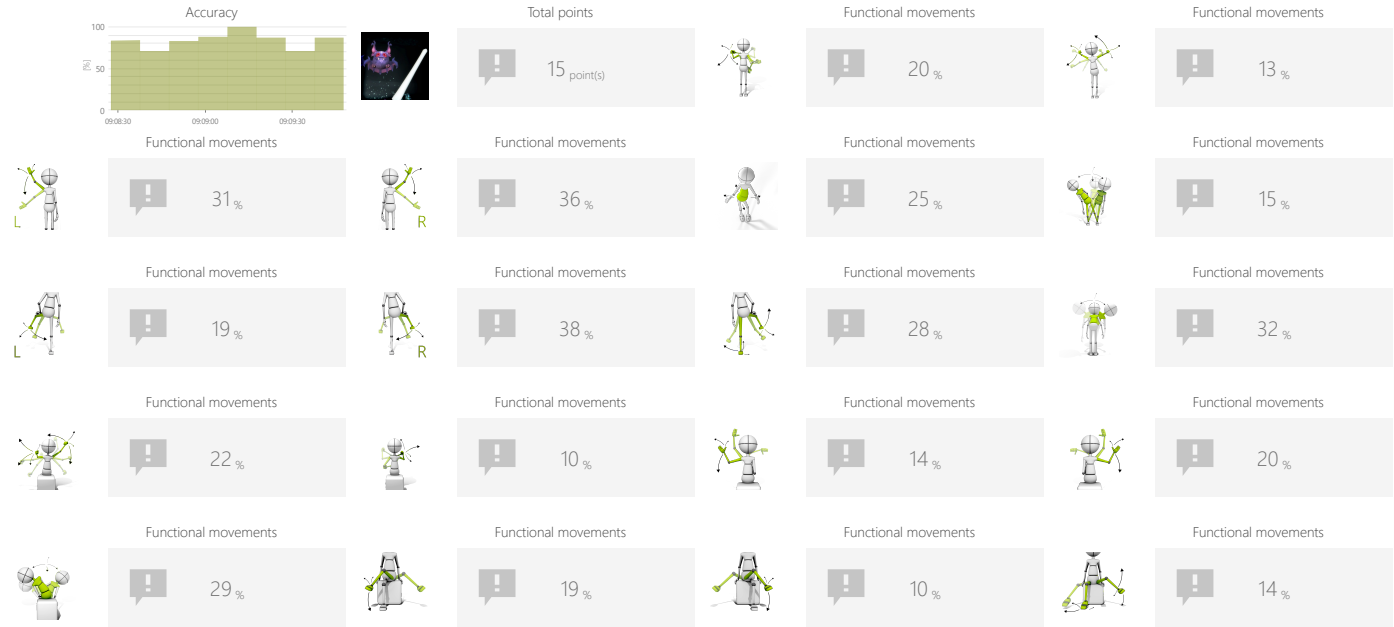
VAMPIRES

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

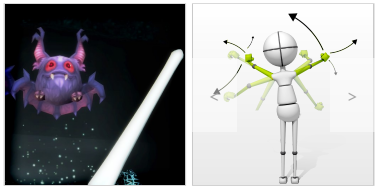
- Visual motor coordination
- Exercise with or without support from healthy limb
- Spontaneous movements in 3D space
- Speed of movement

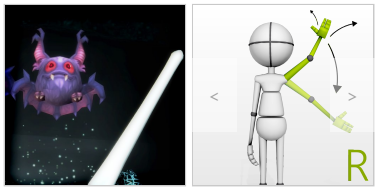
INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

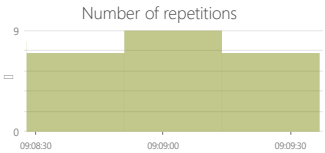
FUNCTIONAL MOVEMENTS

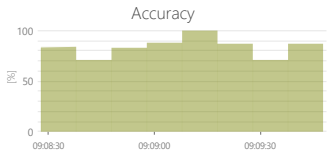
PRODUCTION LINE

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

CONTROL MODES

RESULTS





Total points

12 point(s)

Functional movements

19 %

ADJUSTMENTS

- Task duration
- Source line elevation
- Target line elevation

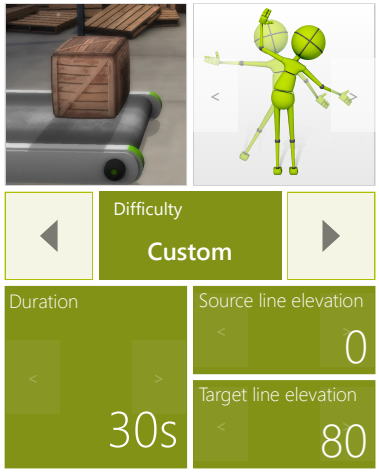
OBJECTIVES

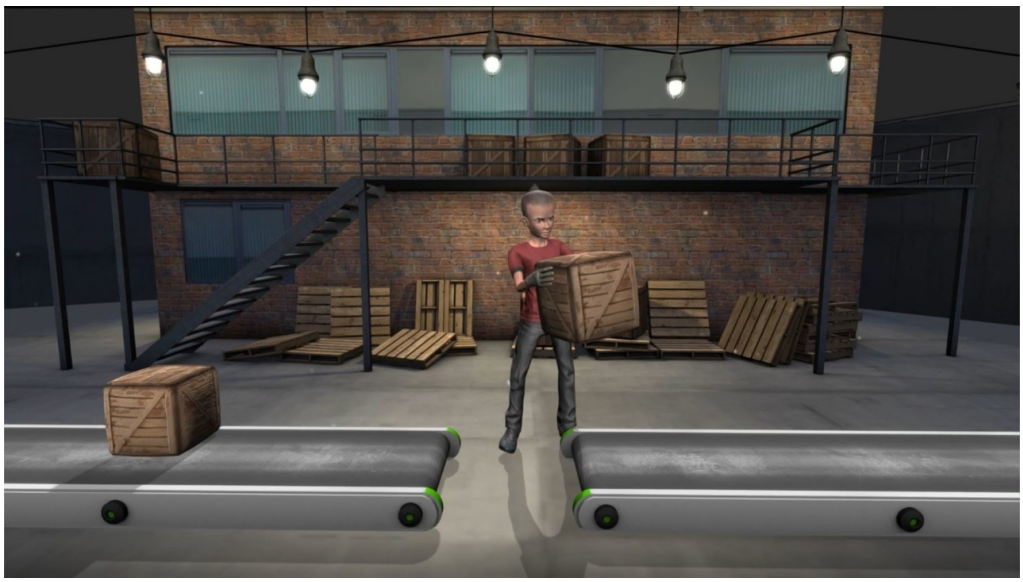
- Planned movements
- Repetitive movements
- Hands raising
- Sideways walking
- Both hands grabbing

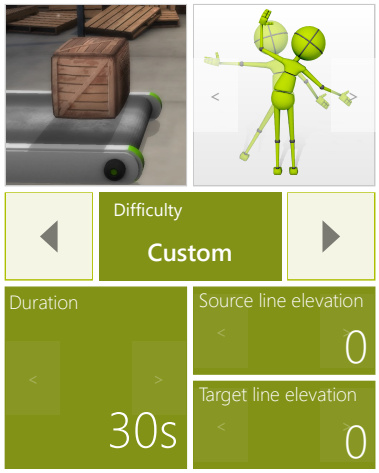
INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS





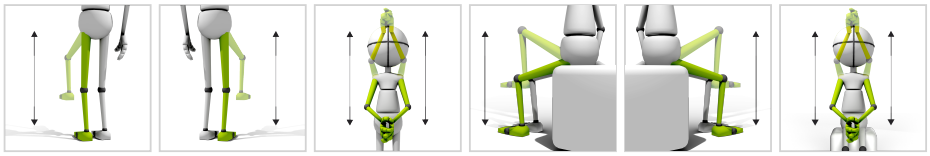


FUNCTIONAL MOVEMENTS

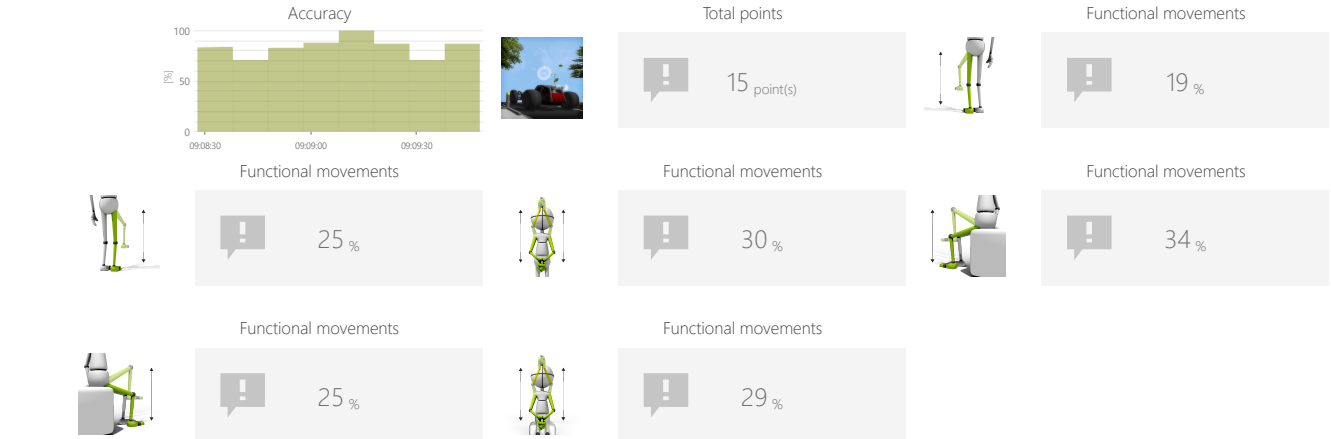
PUMPER

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time to complete action

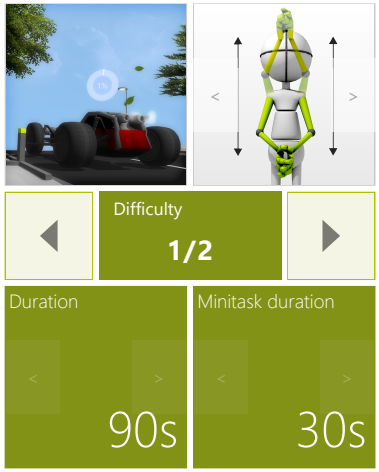
OBJECTIVES

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

INSTRUCTION FOR PATIENT

Pump the wheels as quickly as you can

SAMPLE SETTINGS

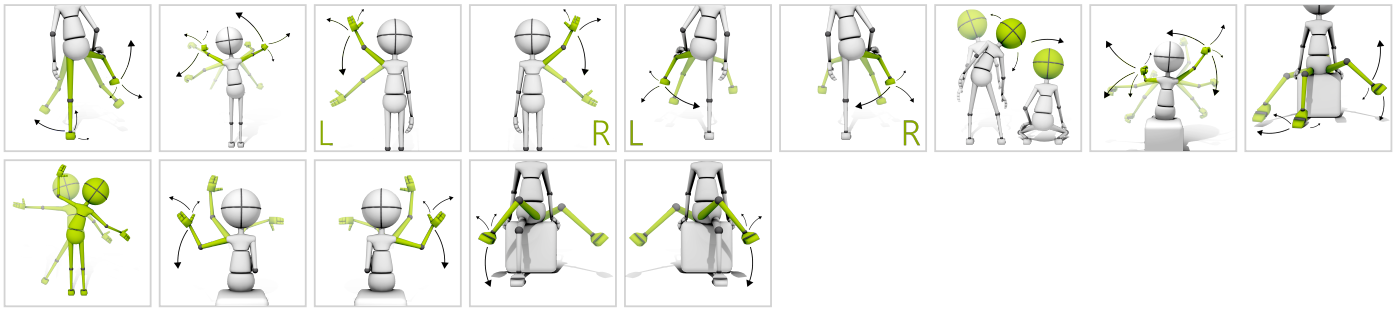


FUNCTIONAL MOVEMENTS

CLEANER

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

CONTROL MODES



RESULTS

ADJUSTMENTS

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

OBJECTIVES

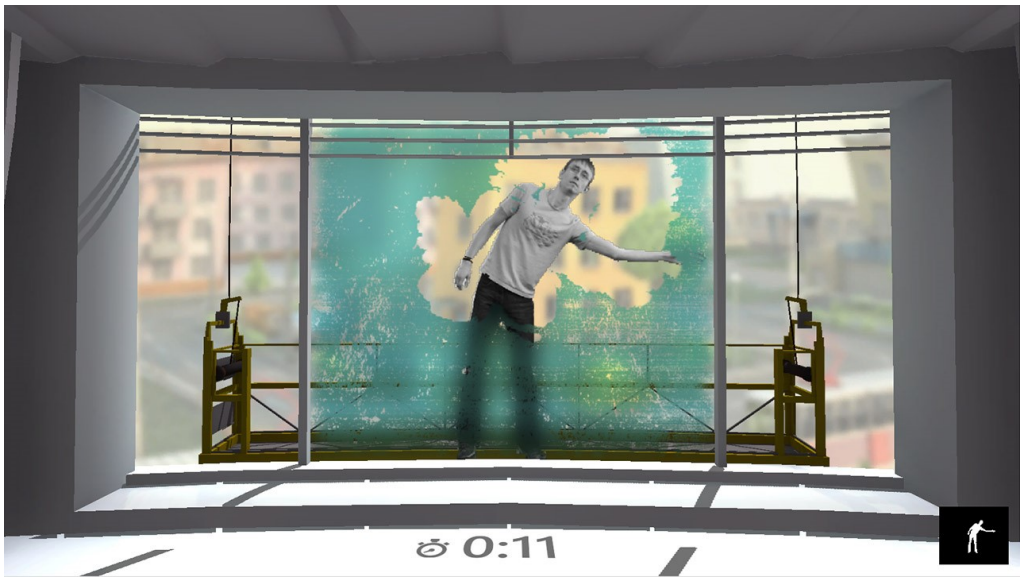
- Visual motor coordination
- Exercise with or without support from healthy limb
- Improve range of motion
- Movement awareness
- Mirrored feedback exercises

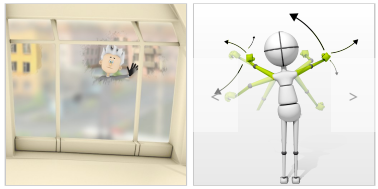
INSTRUCTION FOR PATIENT

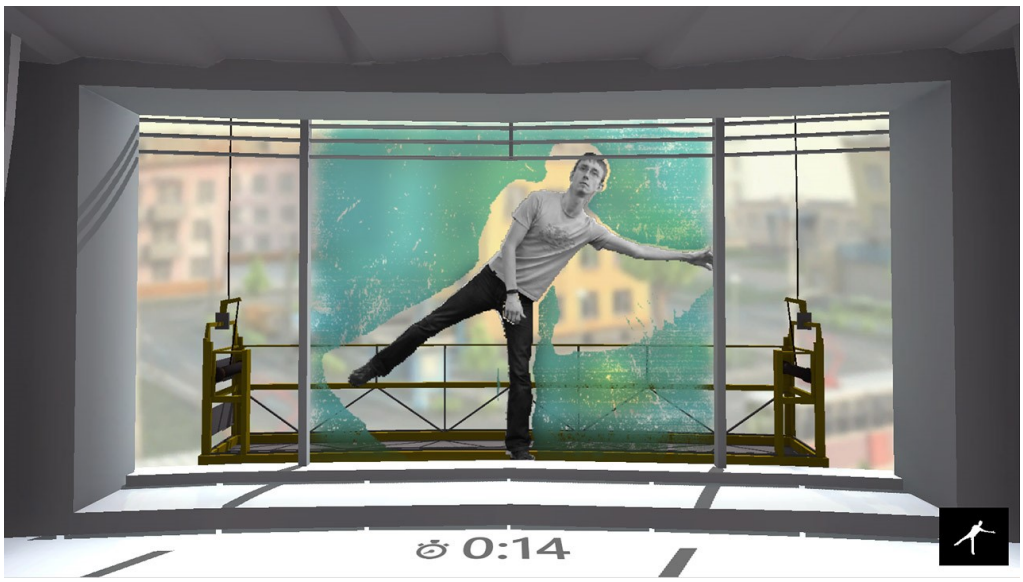
Clean the largest possible window area as quickly as possible.

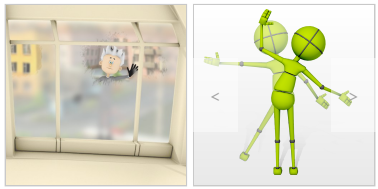
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS









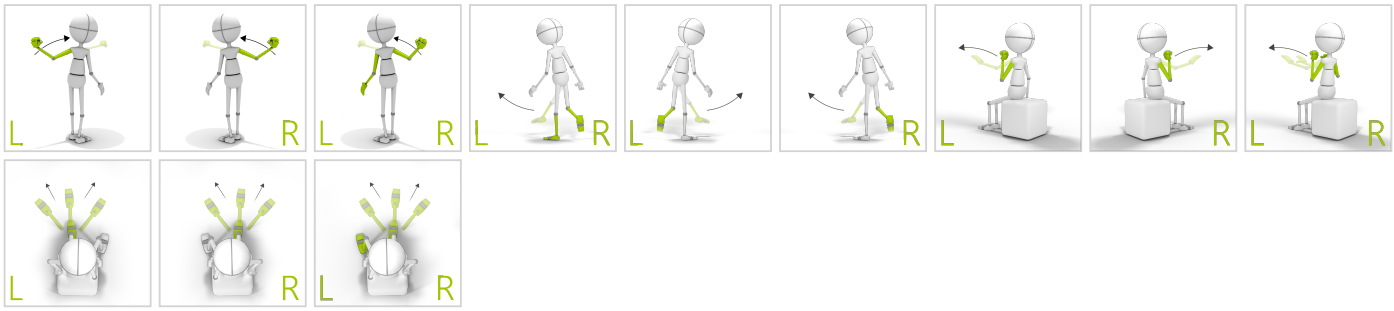
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

FUNCTIONAL MOVEMENTS

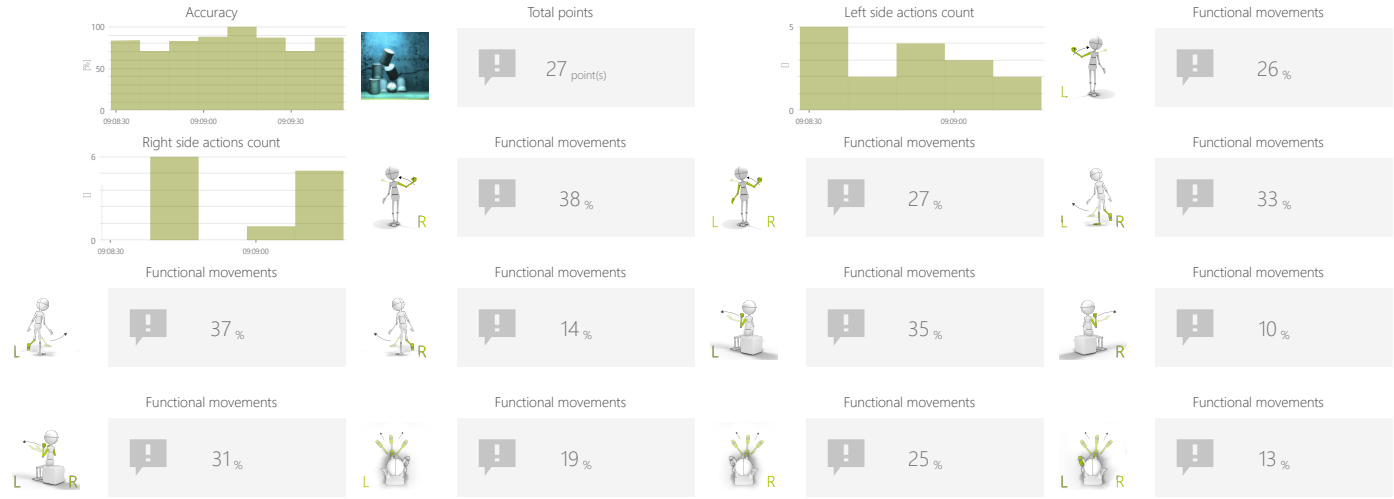
CANS

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Speed of objects

OBJECTIVES

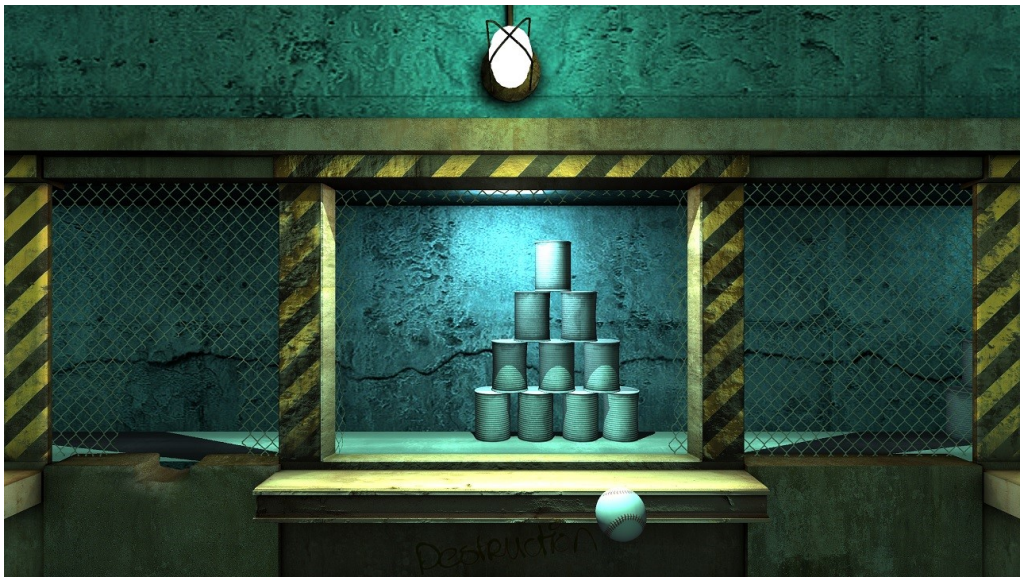
- Movement precision
- Predicting the trajectory of objects in 3D space
- Dynamics of planned movements
- Dynamic responses to emerging moving targets
- The ability of spatial visualization

INSTRUCTION FOR PATIENT

Throw the balls to strike as many cans as you can

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS

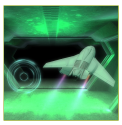


Duration

90s

Speed of objects

75%

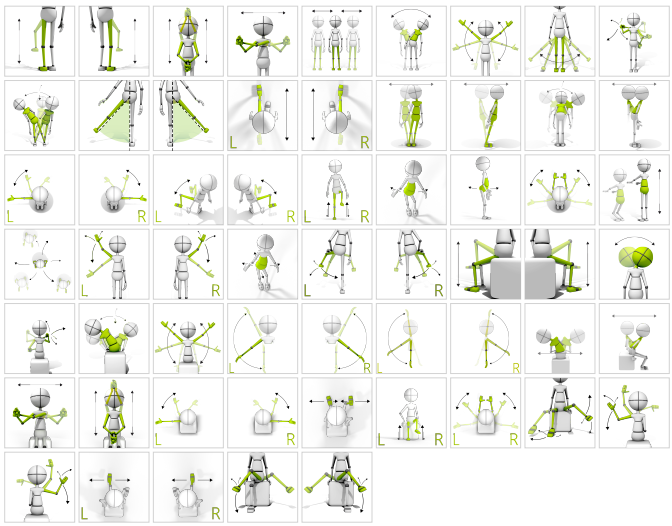


FUNCTIONAL MOVEMENTS

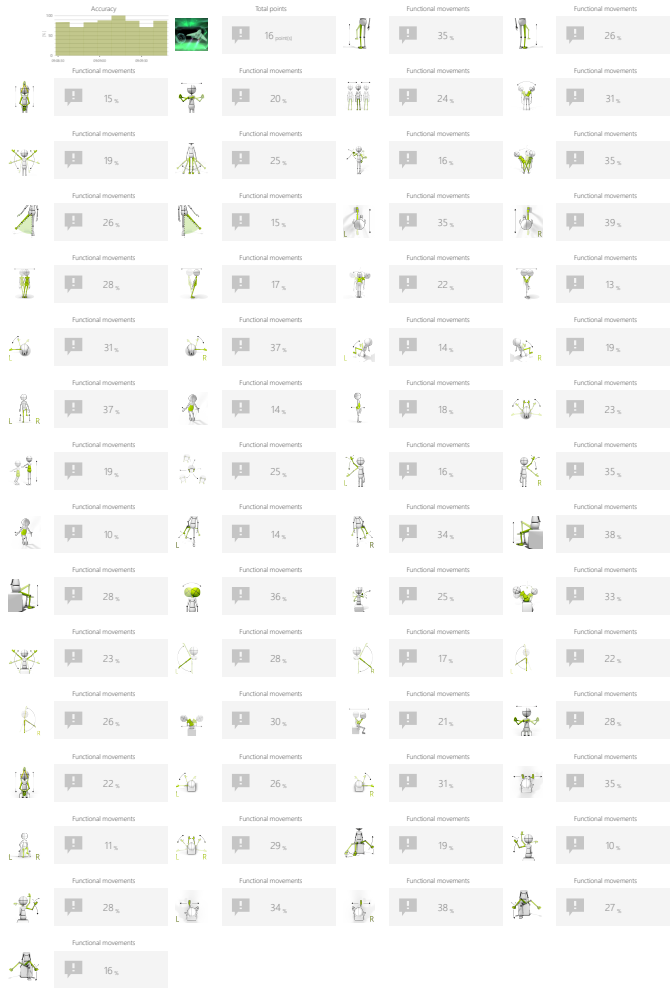
AIRPLANE

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Player speed

OBJECTIVES

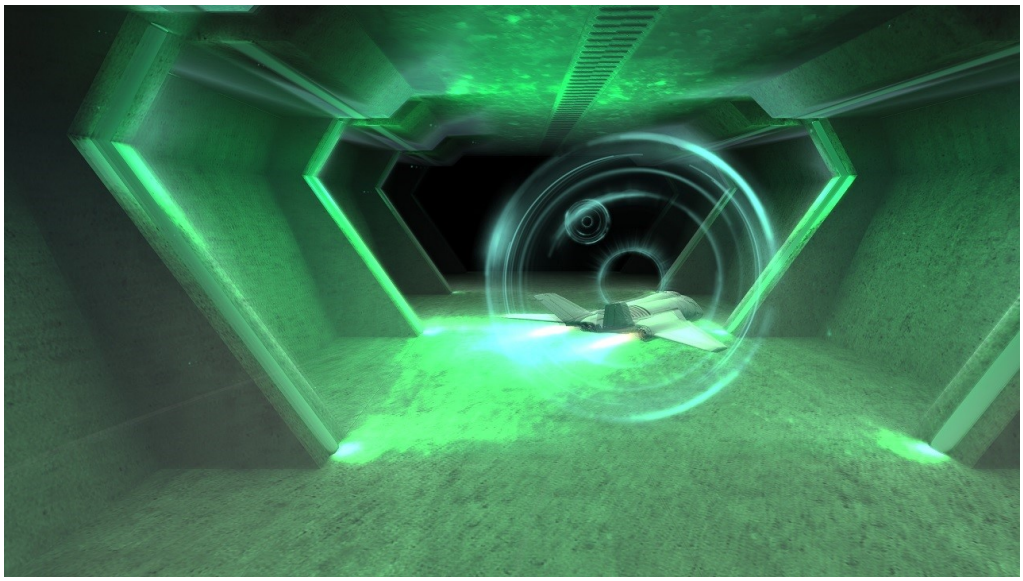
- Focusing
- Perceptivity
- Movement precision
- Predicting the trajectory of objects in 3D space
- Balance and equilibrium training

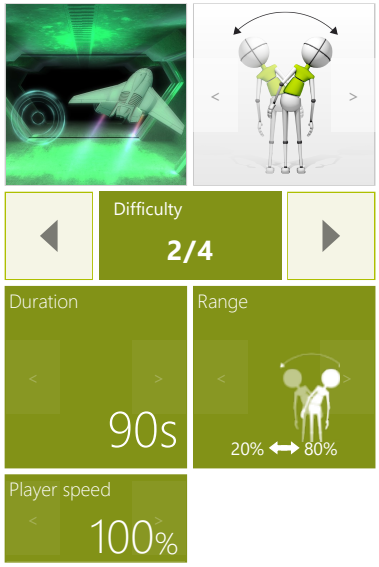
INSTRUCTION FOR PATIENT

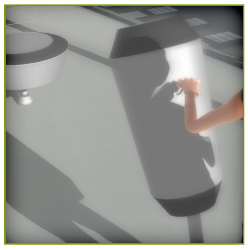
Make the airplane fly through the circles. The closer to the center it flies the more points you get

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





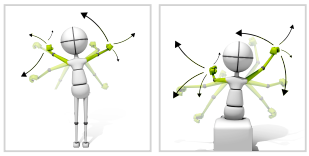


FUNCTIONAL MOVEMENTS

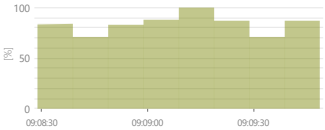
PUNCHER

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

CONTROL MODES



RESULTS



Total points

29 point(s)

Functional movements

19 %

Functional movements

24 %

ADJUSTMENTS

- Task duration
- Time to complete action

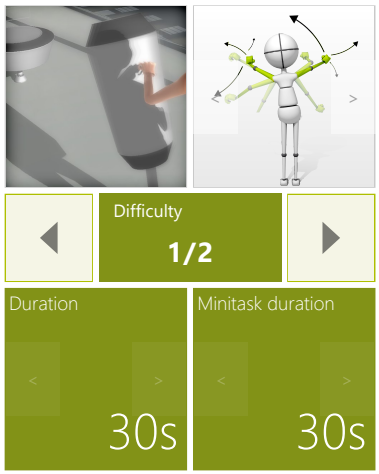
OBJECTIVES

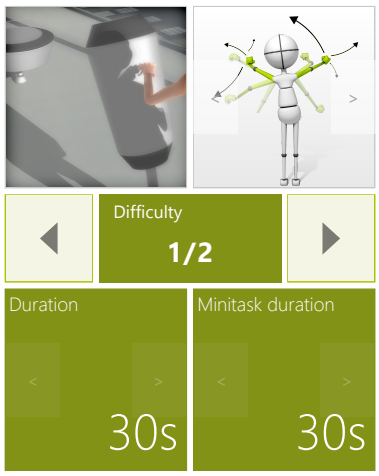
- Speed of movement
- Spontaneous movements

INSTRUCTION FOR PATIENT

Punch or kick the bag as many times as you can

SAMPLE SETTINGS



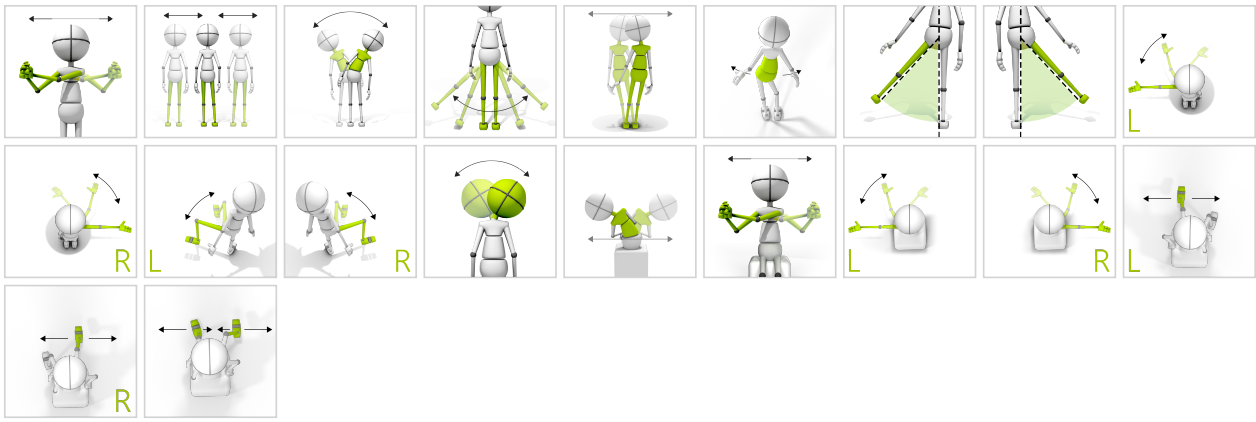


FUNCTIONAL MOVEMENTS

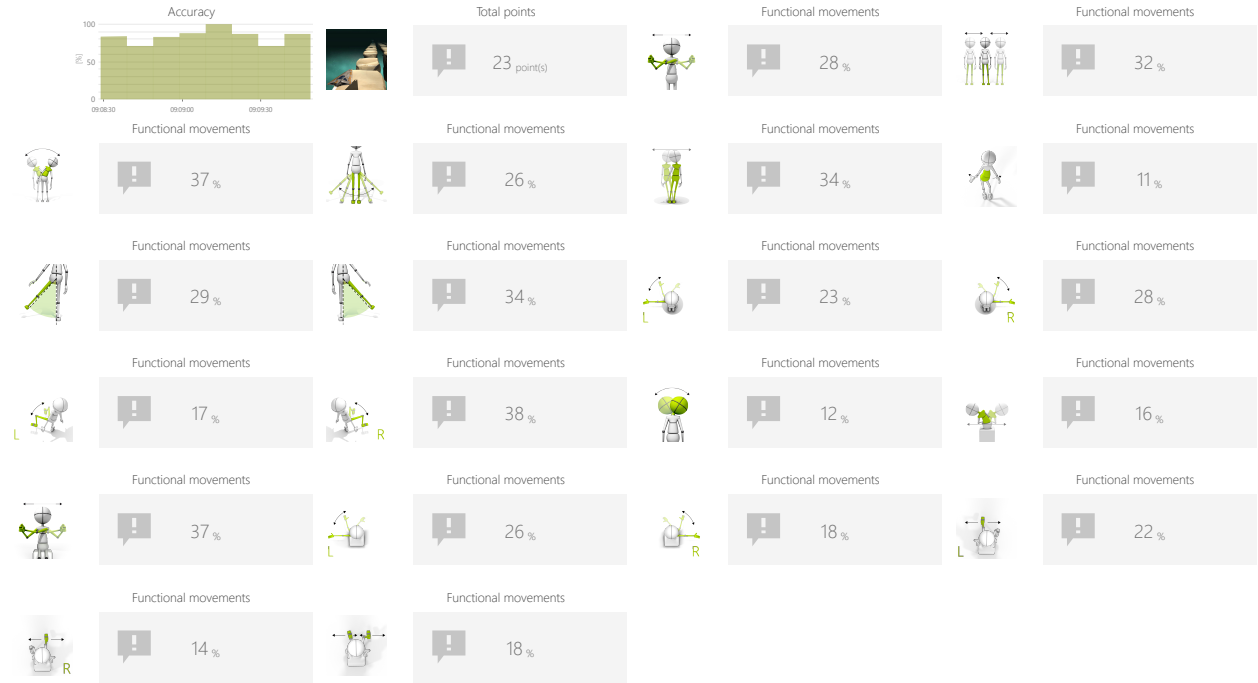
STONES

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

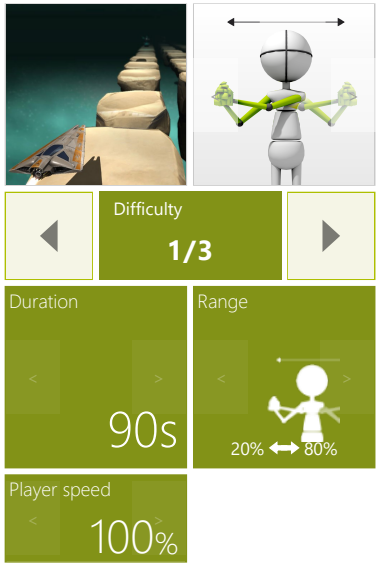
- Perceptivity
- Dynamics of planned movements
- Reaction to the positive visual stimuli
- Response to negative visual stimuli

INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS

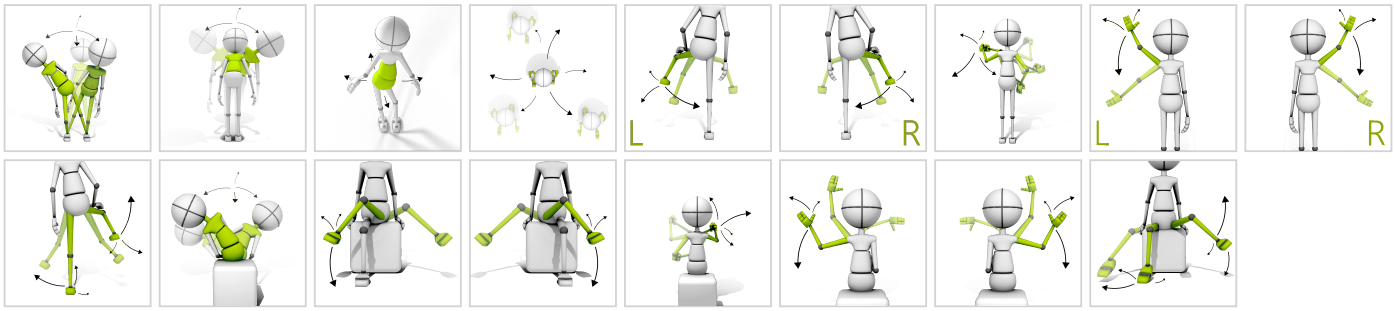


FUNCTIONAL MOVEMENTS

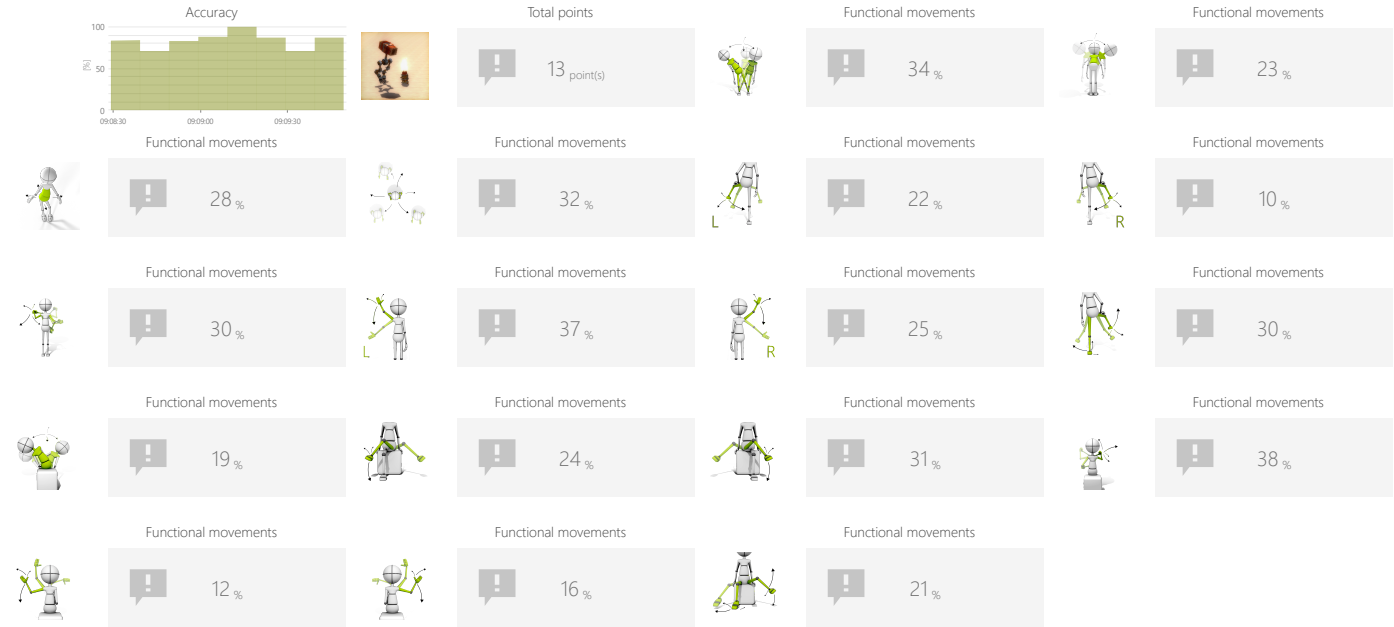
HAMMER

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

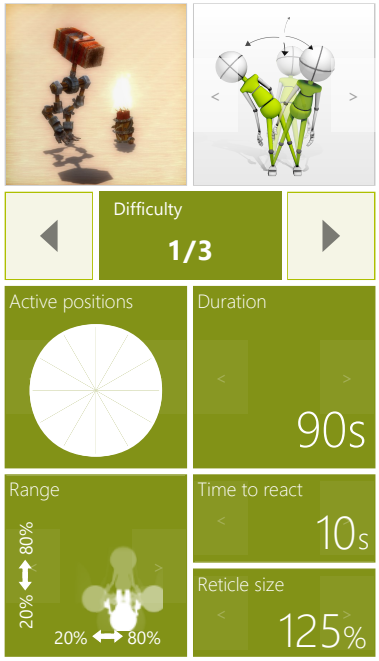
- Planning and Strategy
- Sideways walking
- Balance and equilibrium training
- Speed of decision making

INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



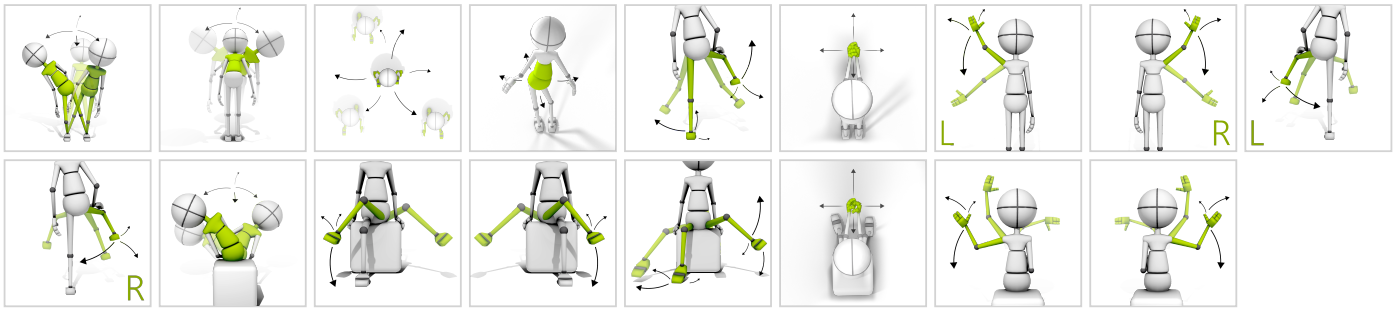
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

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

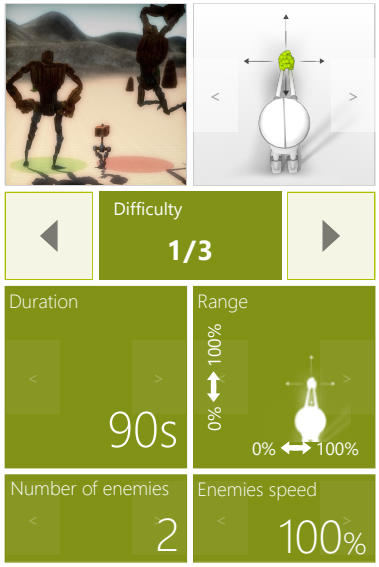
- Predicting the trajectory of objects in 3D space
- Response to negative visual stimuli
- Focusing
- Perceptivity
- Balance and equilibrium training

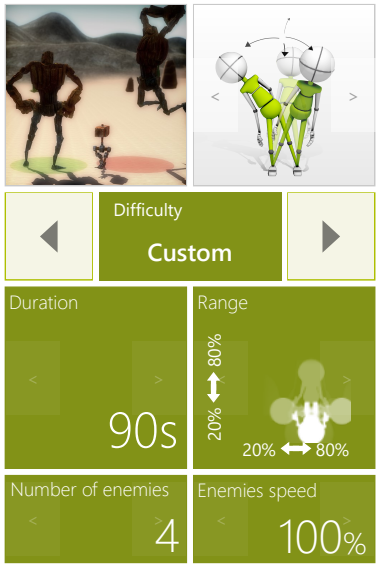
INSTRUCTION FOR PATIENT

Keep away from the big robots

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





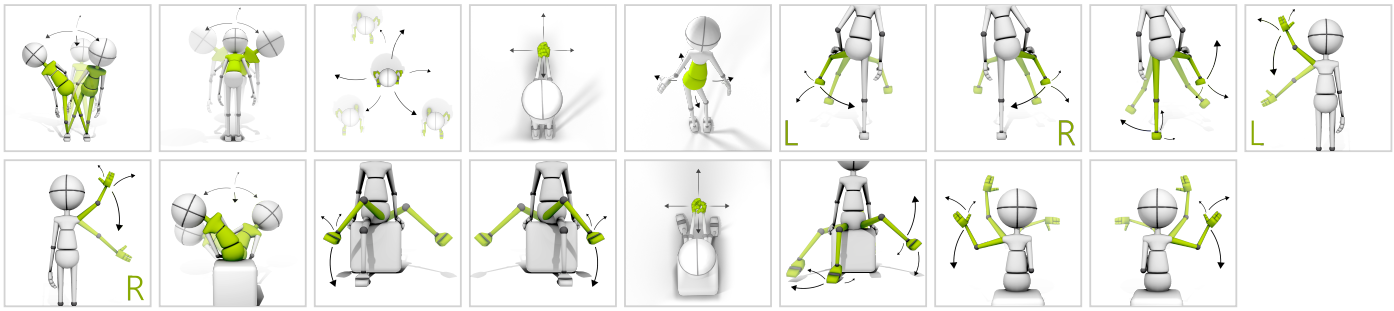
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

FUNCTIONAL MOVEMENTS

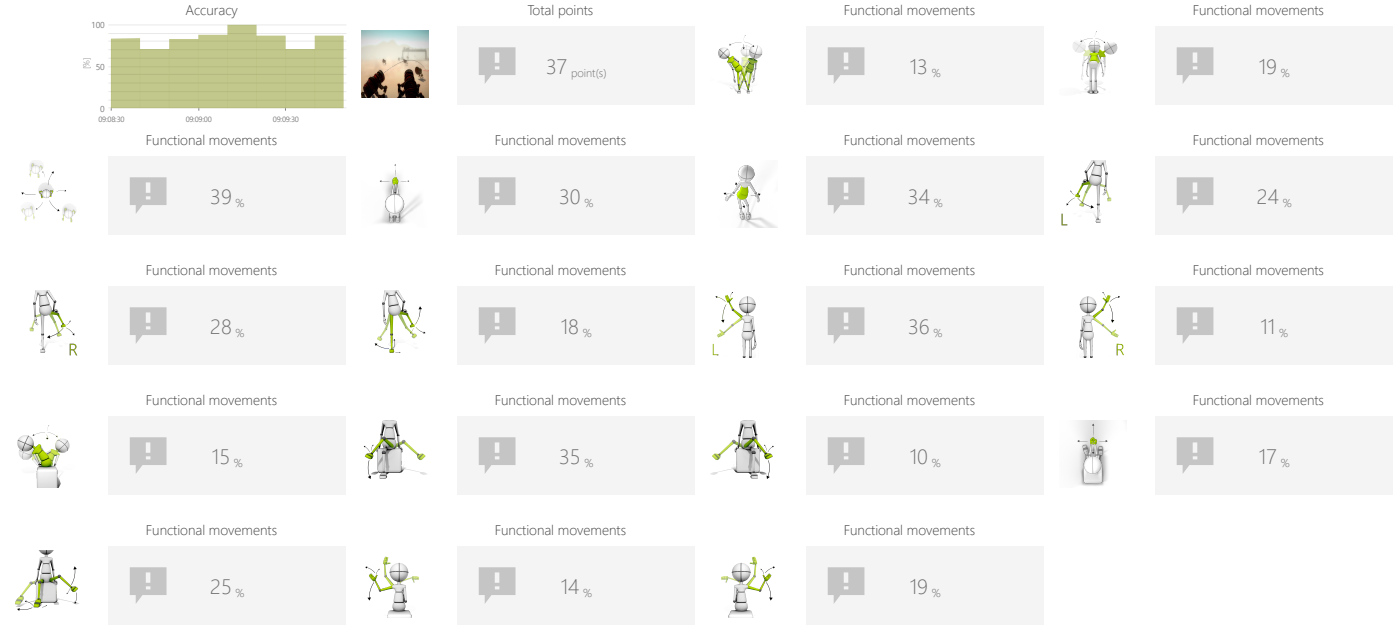
CANNON

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

OBJECTIVES

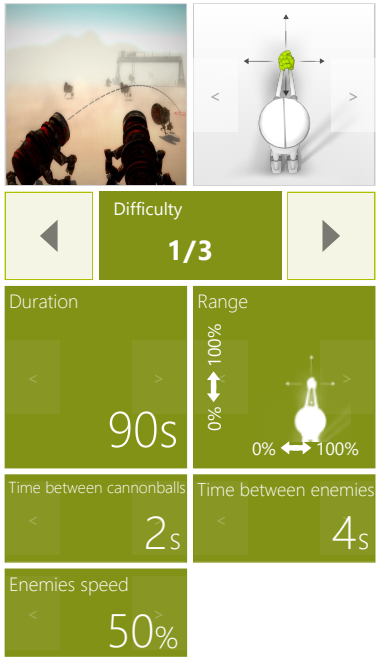
- Planning and Strategy
- Movement precision
- Predicting the trajectory of objects

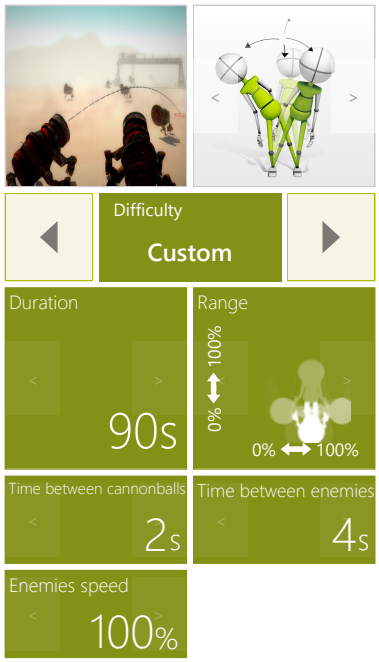
INSTRUCTION FOR PATIENT

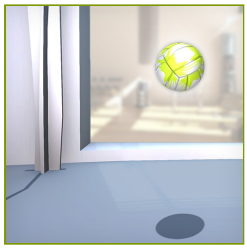
Use the cannon(s) to shoot into the robots coming in your direction

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





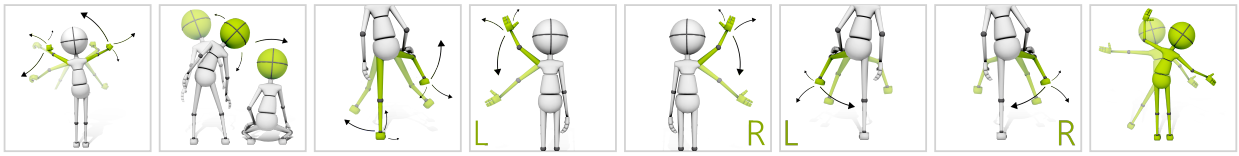


FUNCTIONAL MOVEMENTS

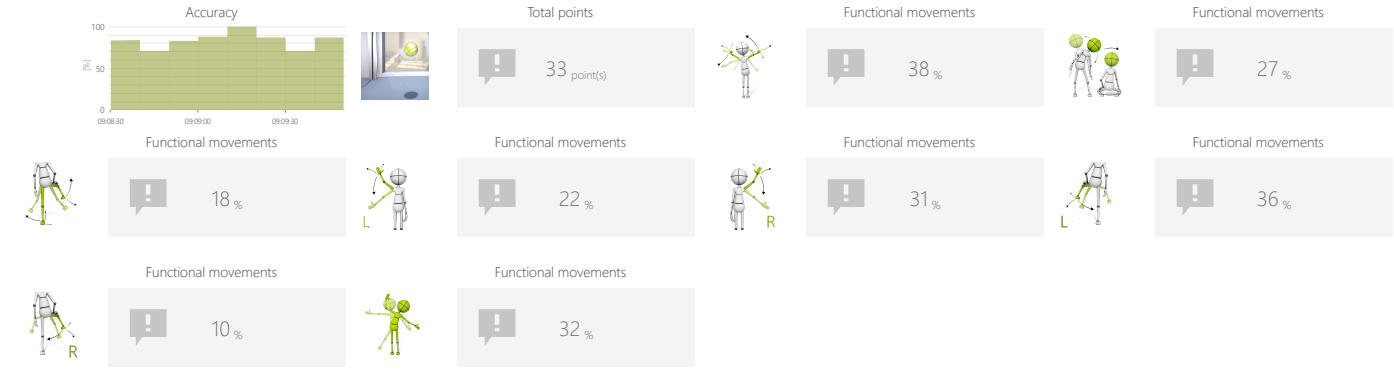
BALL

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

OBJECTIVES

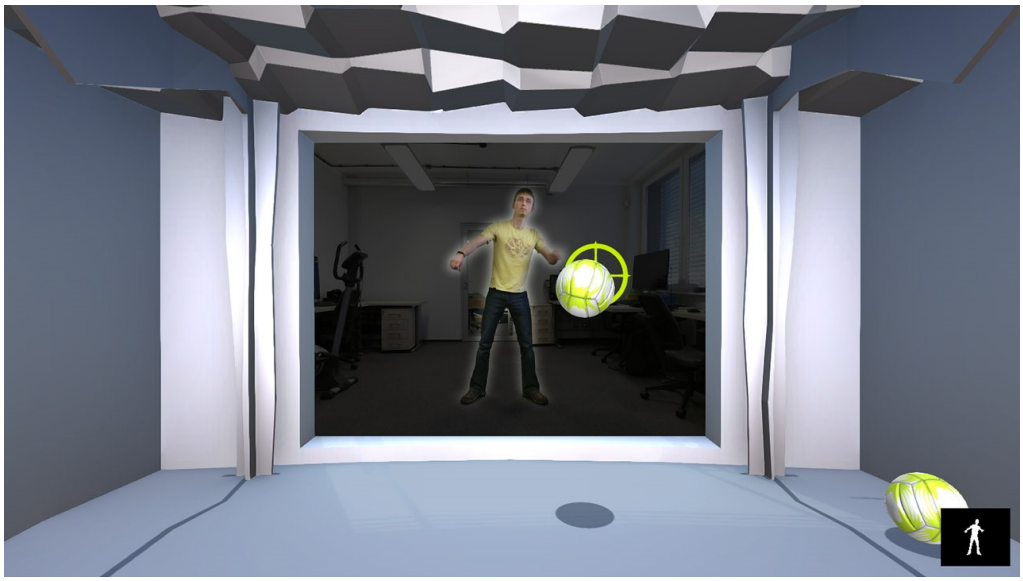
- Improve range of motion
- Visual motor coordination
- Predicting the trajectory of objects in 3D space
- Activity in a given rhythm
- Mirrored feedback exercises

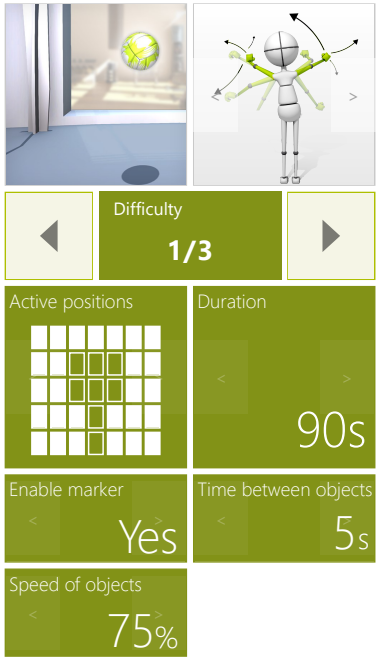
INSTRUCTION FOR PATIENT

Use your body to hit the balls

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



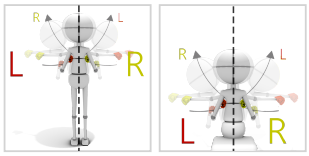


FUNCTIONAL MOVEMENTS

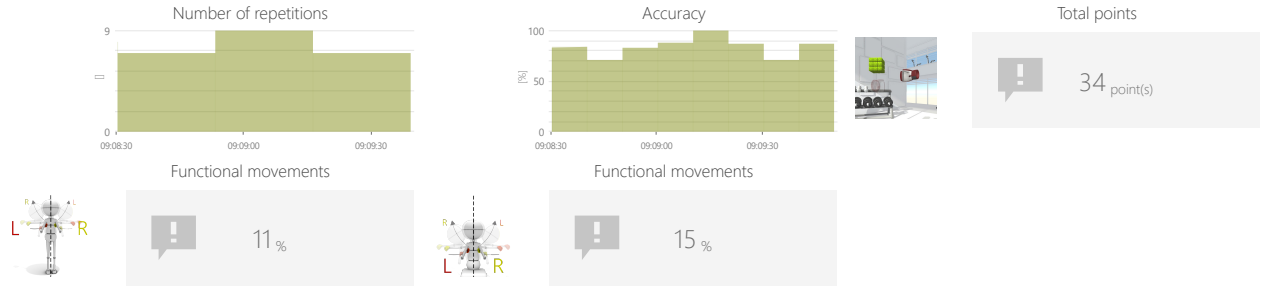
CROSS PUNCHER

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time to react
- Distance to targets

OBJECTIVES

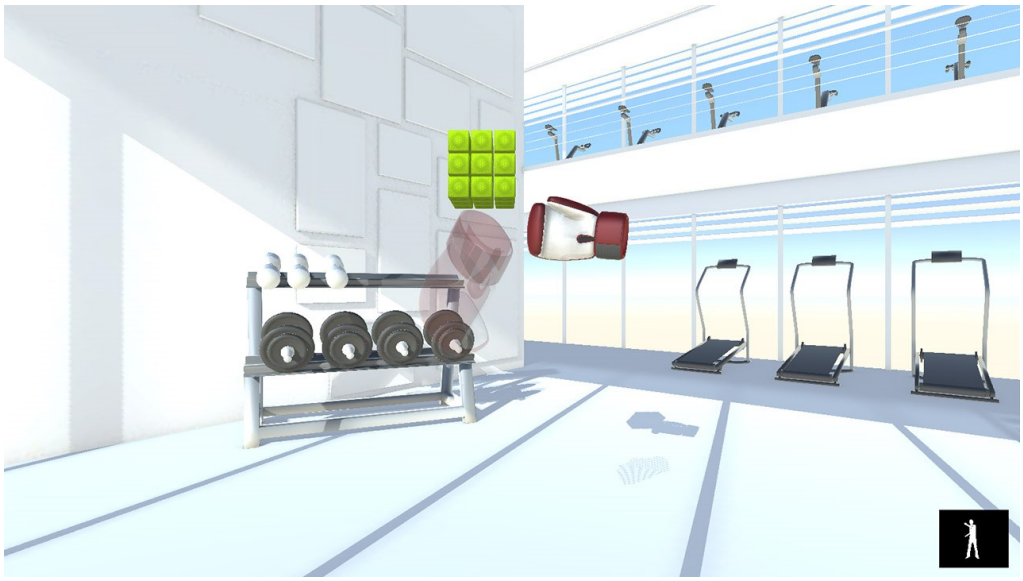
- Crossing the midline
- Speed of movement
- Rhythmicity
- Repetitive movements

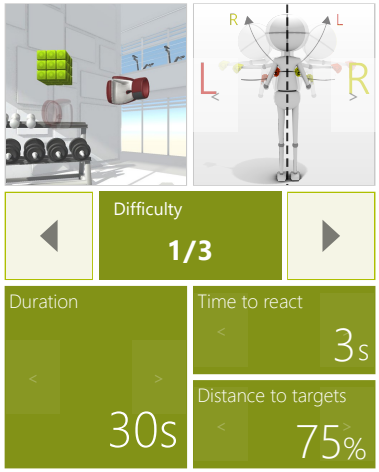
INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





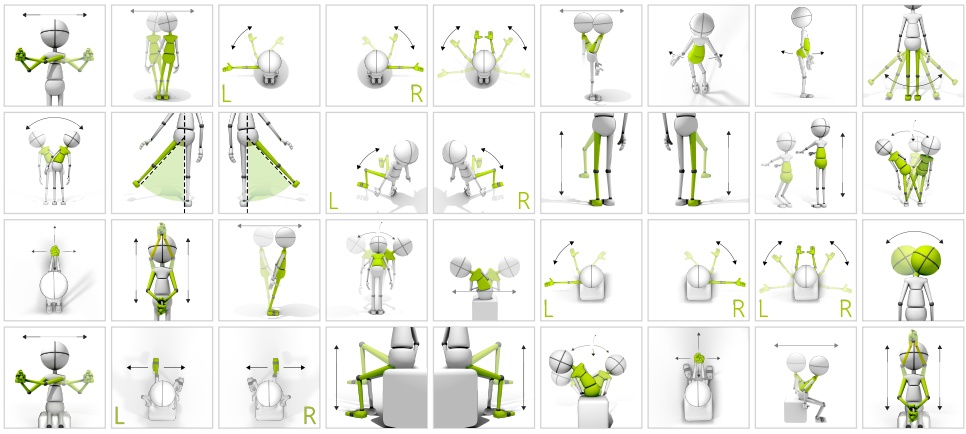
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

FUNCTIONAL MOVEMENTS

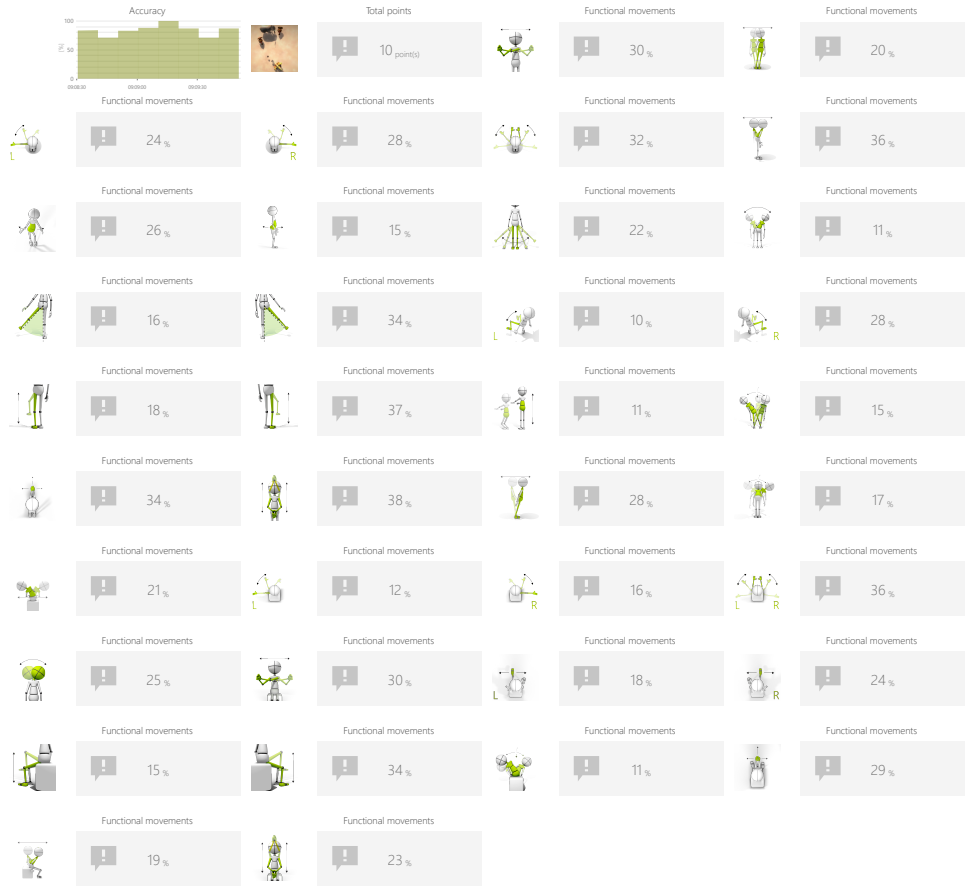
AUTOMATIC CANNON

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

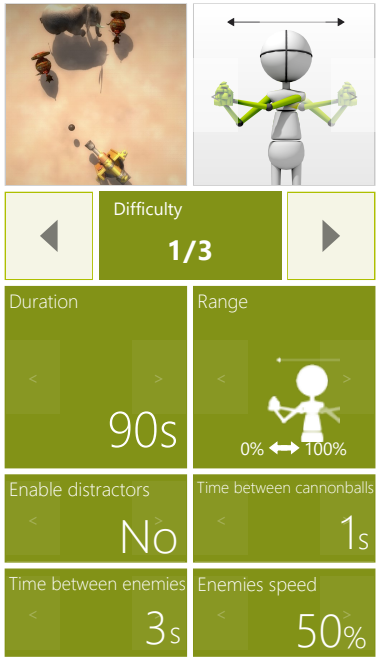
- Divided attention
- Spontaneous movements
- Arms swings
- Muscle strengthening

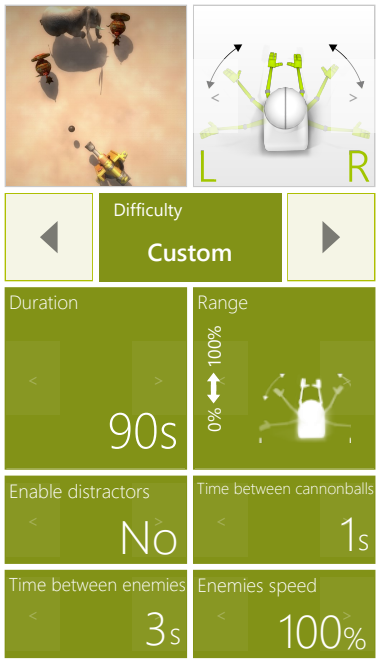
INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





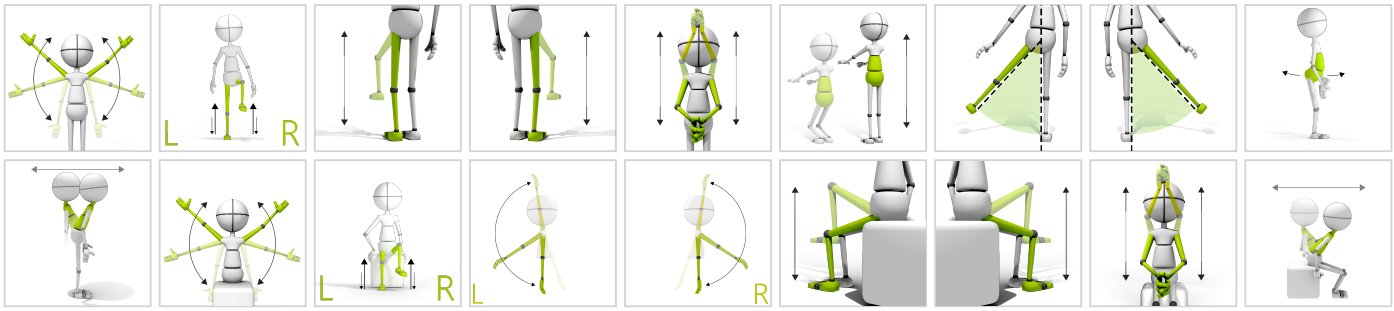
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

FUNCTIONAL MOVEMENTS

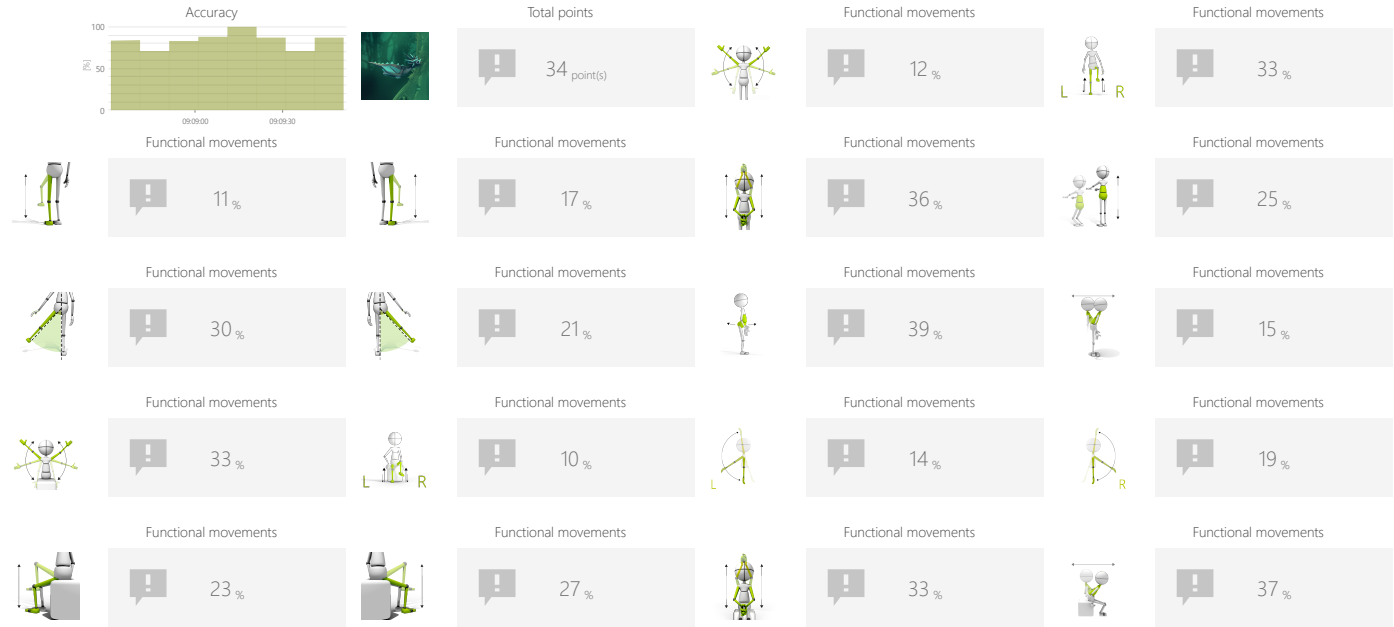
DRAGON

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

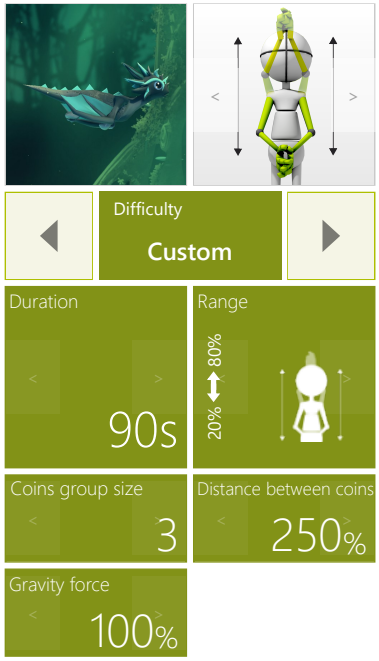
- Predicting the trajectory of objects
- Improve range of motion
- Visual motor coordination
- Muscle strengthening
- Planning and Strategy

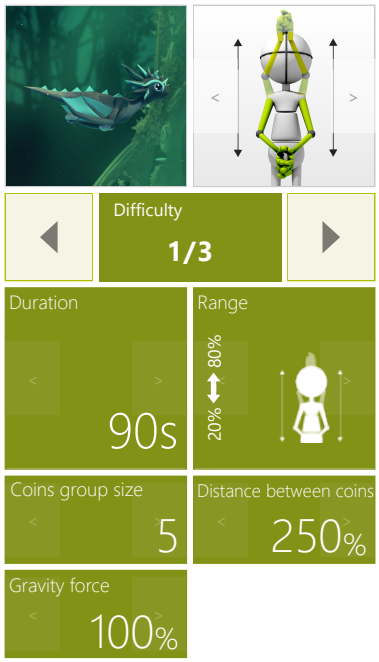
INSTRUCTION FOR PATIENT

Fly and collect the coins

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



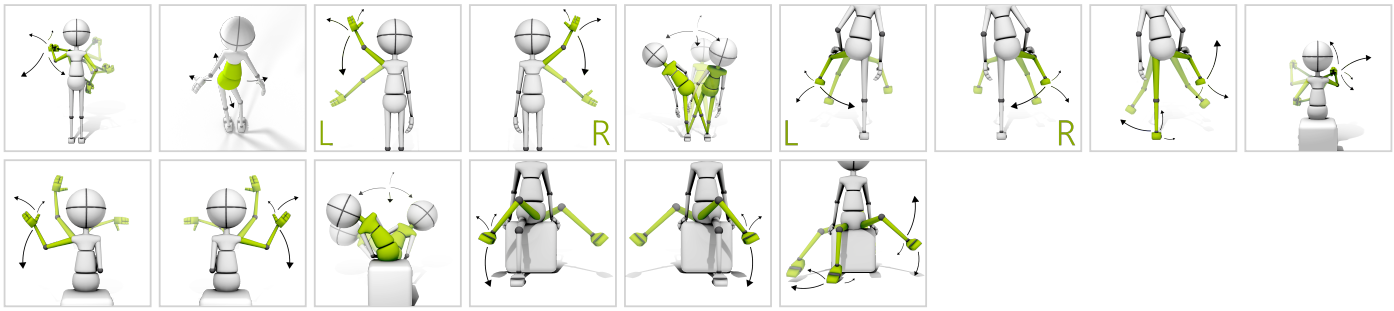


FUNCTIONAL MOVEMENTS

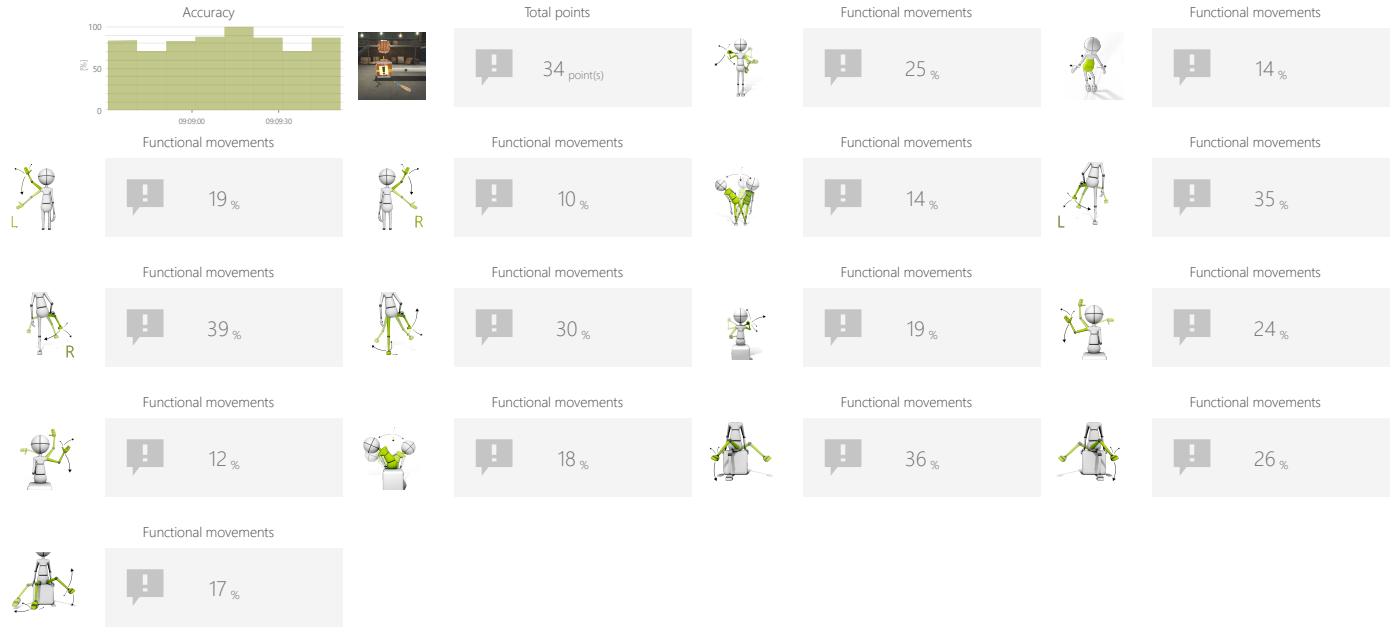
BOX CRUSHER

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

OBJECTIVES

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

INSTRUCTION FOR PATIENT

Smash boxes with the club

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS

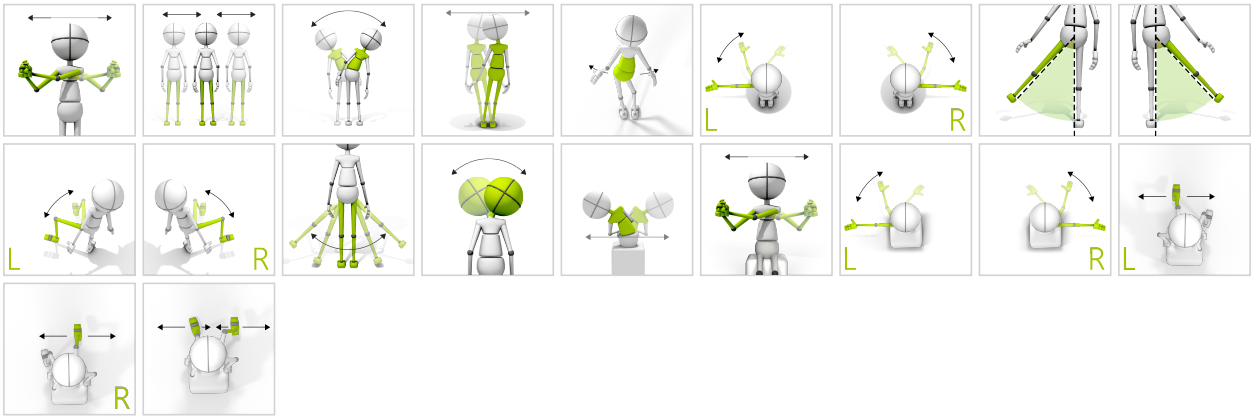
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

FUNCTIONAL MOVEMENTS

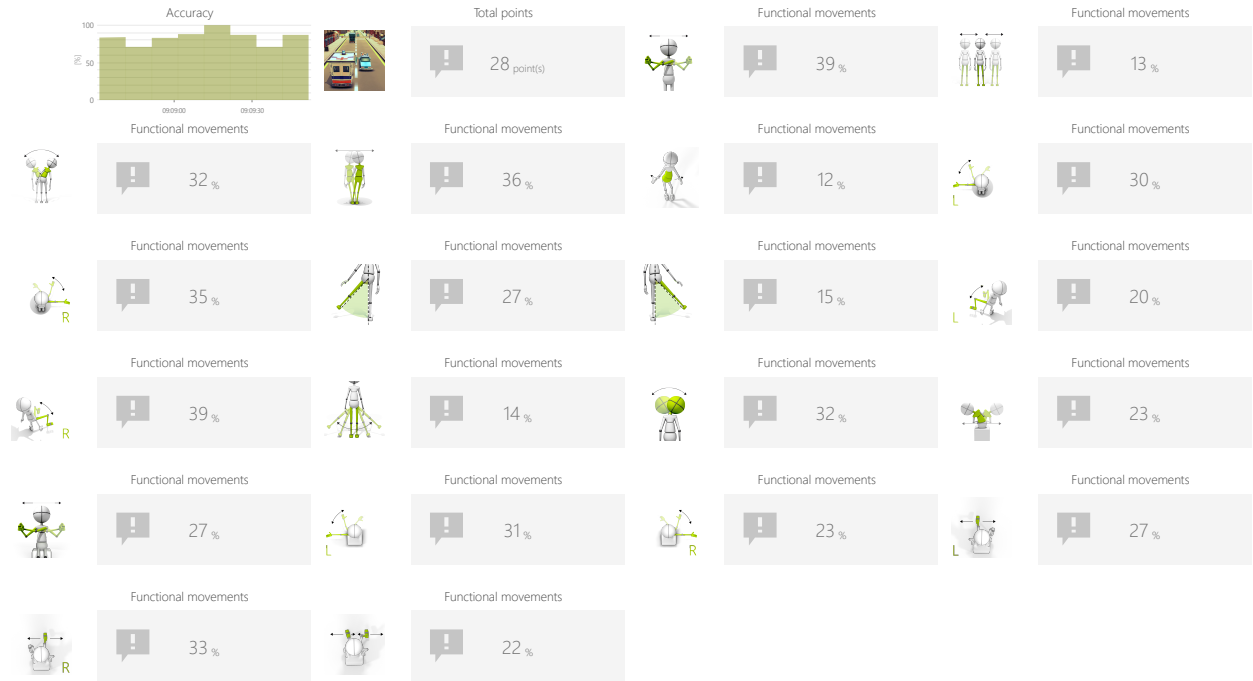
AMBULANCE

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

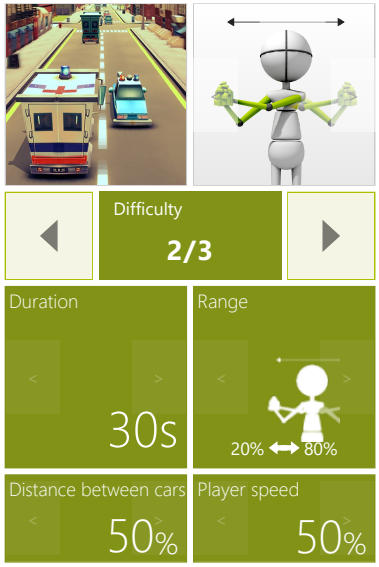
OBJECTIVES

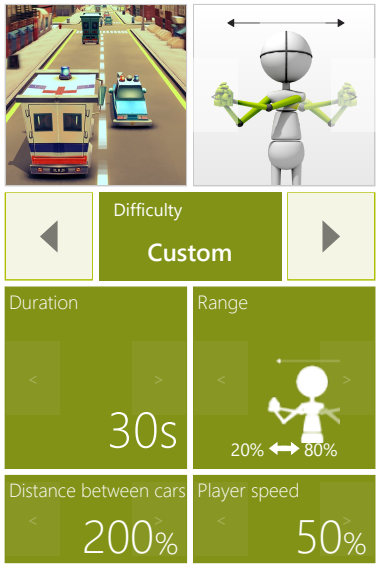
- Balance and equilibrium training
- Dynamics of planned movements
- Focusing
- Speed of decision making
- Visual motor coordination

INSTRUCTION FOR PATIENT

Go as fast as you can and avoid hitting other cars

SAMPLE SETTINGS





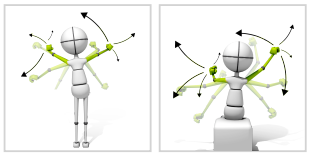
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

FUNCTIONAL MOVEMENTS

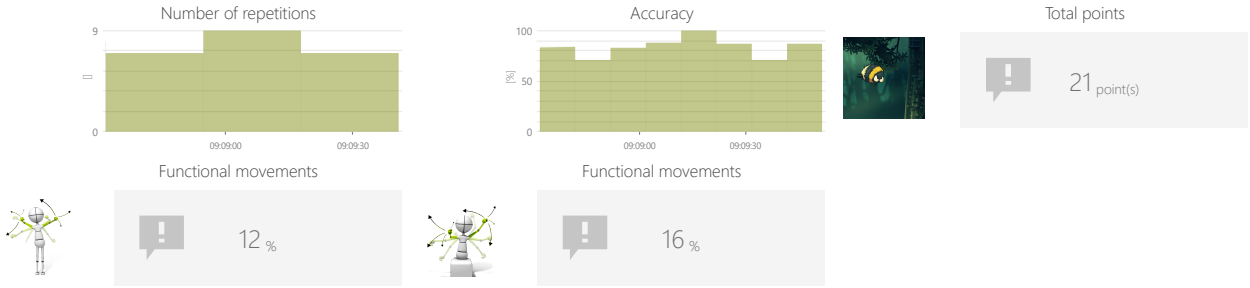
INSECTS

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time between objects
- Time to react

OBJECTIVES

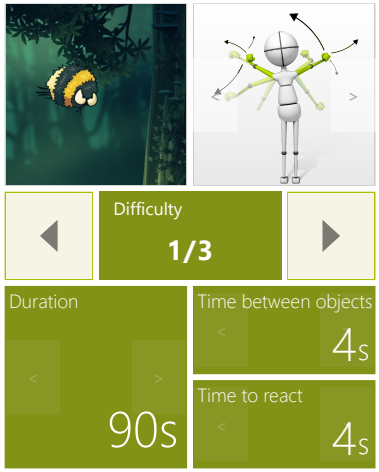
- Dynamic responses to emerging moving targets
- Focusing
- Mirrored feedback exercises
- Visual motor coordination

INSTRUCTION FOR PATIENT

Hit all the insects that sit on your body

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS

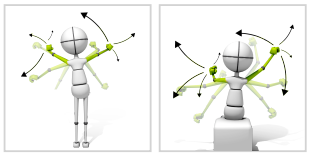


FUNCTIONAL MOVEMENTS

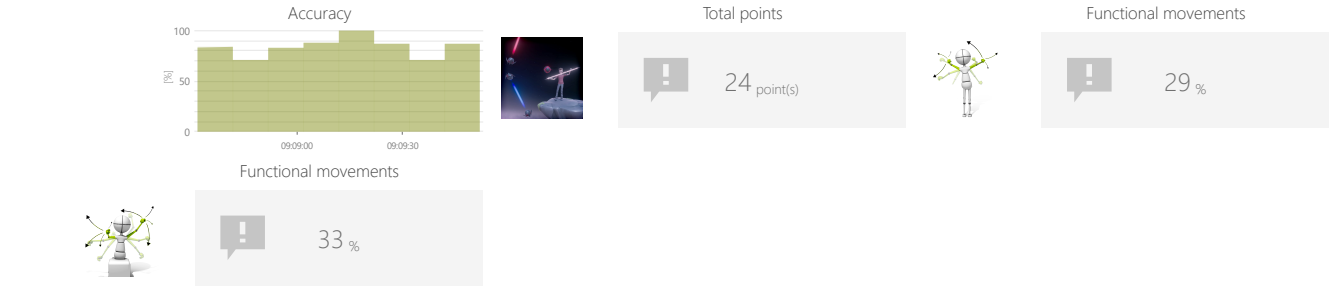
SORTER: LEGACY

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Number of gates
- Gravity force

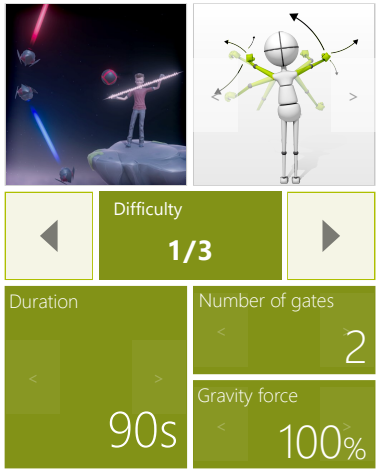
OBJECTIVES

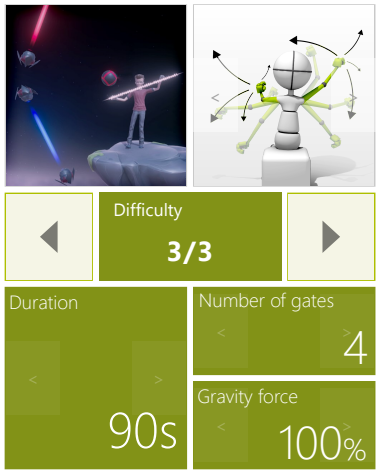
- 3D space movements reproduction
- Dynamic responses to emerging moving targets
- Planning and Strategy

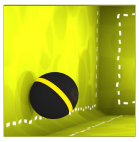
INSTRUCTION FOR PATIENT

Make the ball fly through the gate in corresponding color

SAMPLE SETTINGS





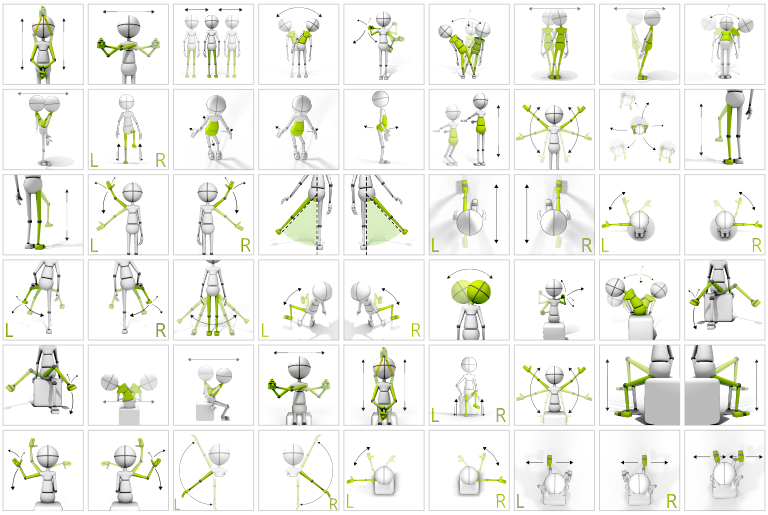


FUNCTIONAL MOVEMENTS

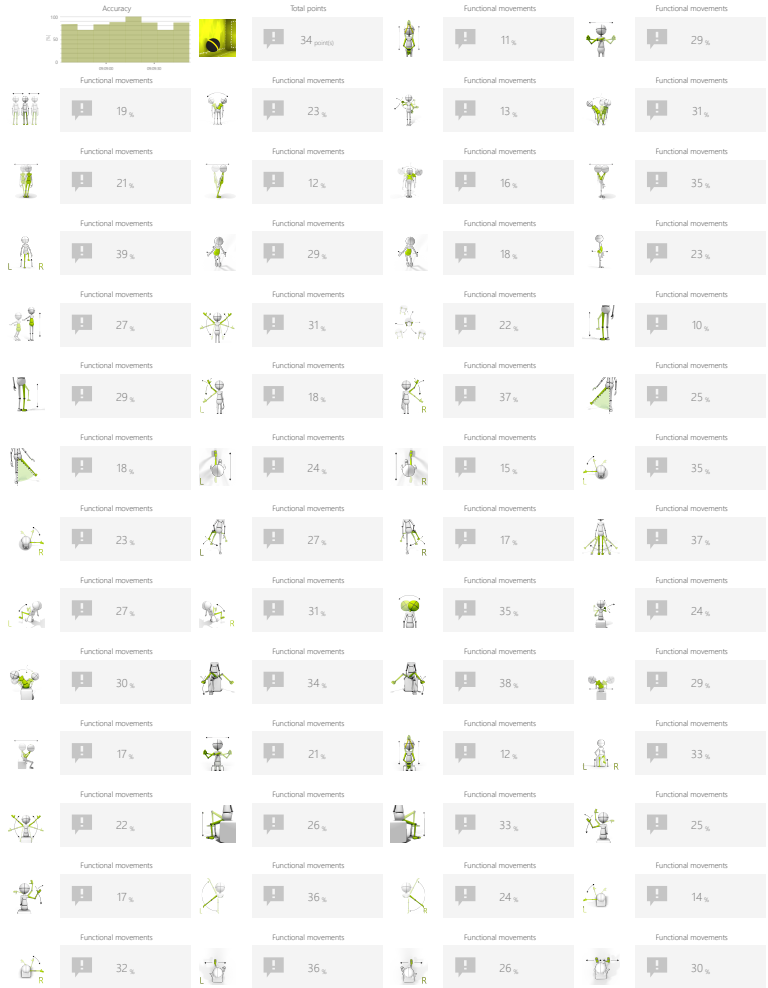
ARCANOID

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

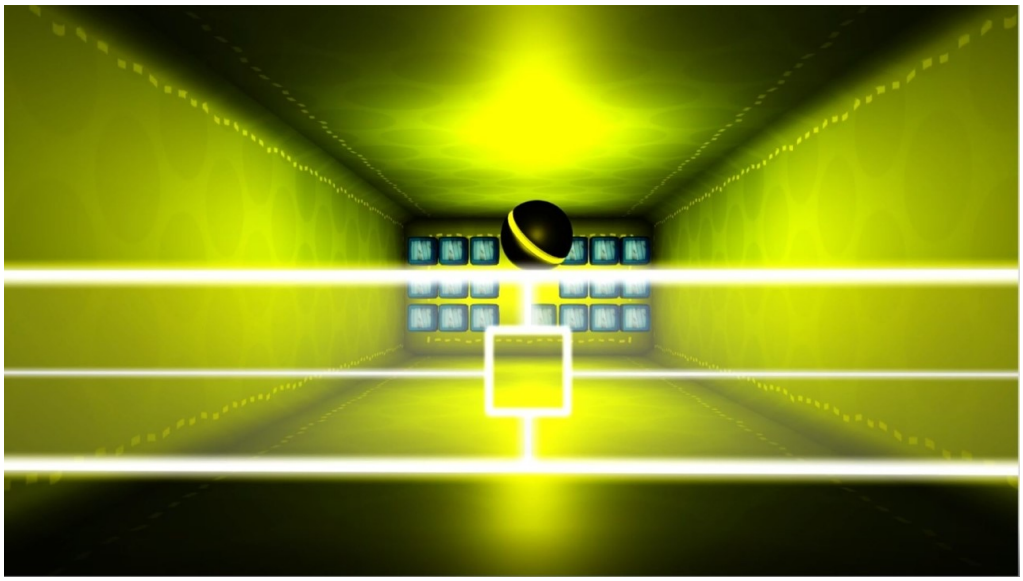
- Dynamics of planned movements
- Predicting the trajectory of objects in 3D space
- Visual motor coordination

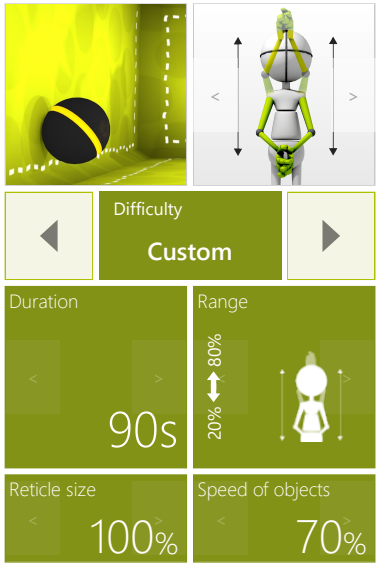
INSTRUCTION FOR PATIENT

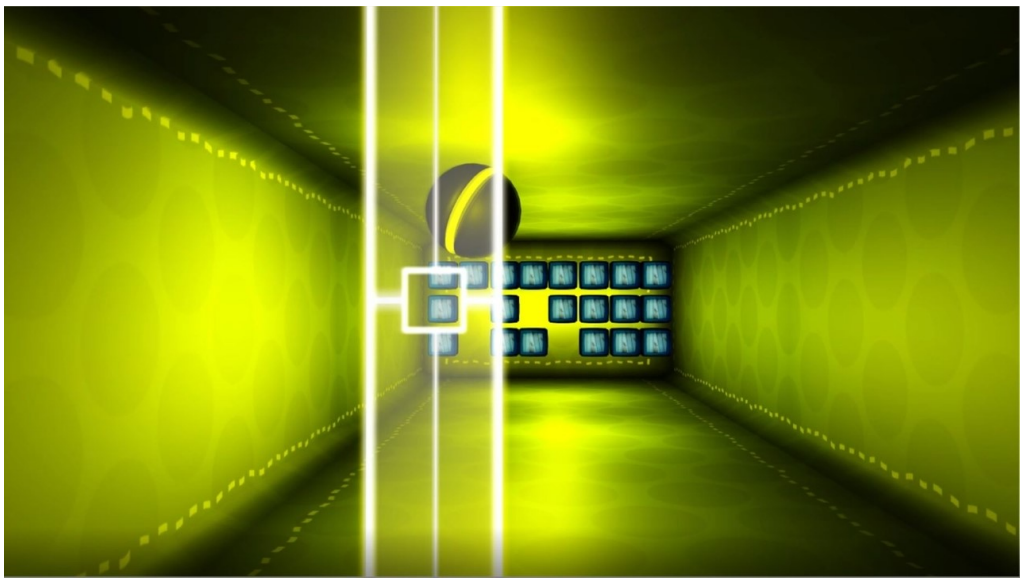
Destroy as many boxes as you can

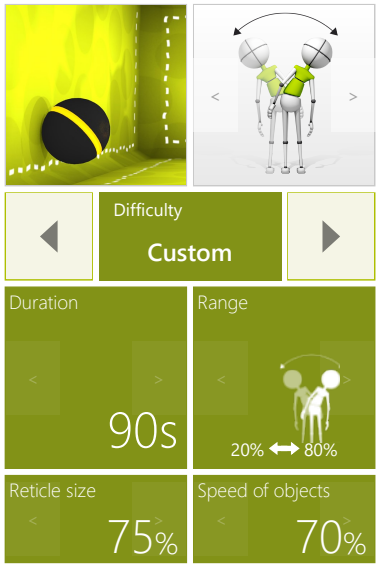
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS









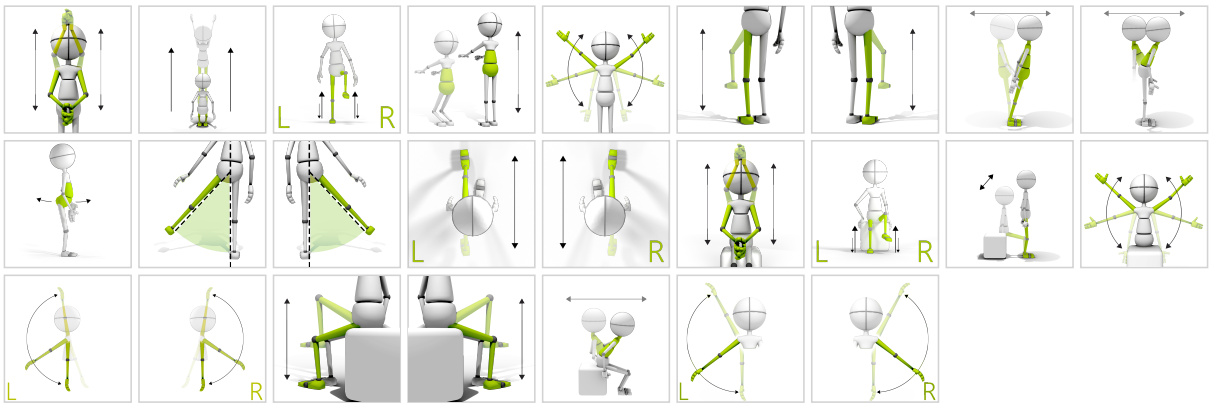
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

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

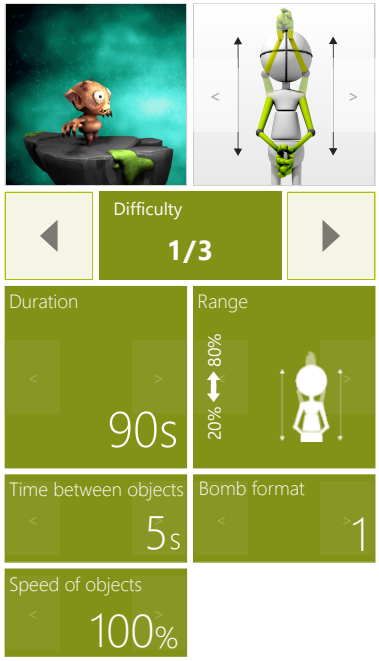
- Spontaneous movements
- Dynamic responses to emerging moving targets
- Predicting the trajectory of objects

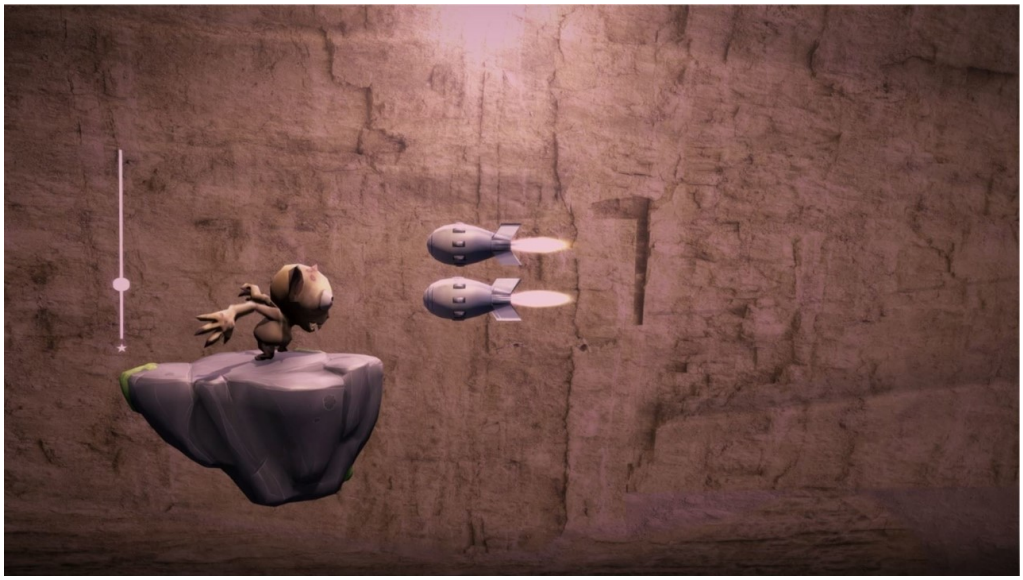
INSTRUCTION FOR PATIENT

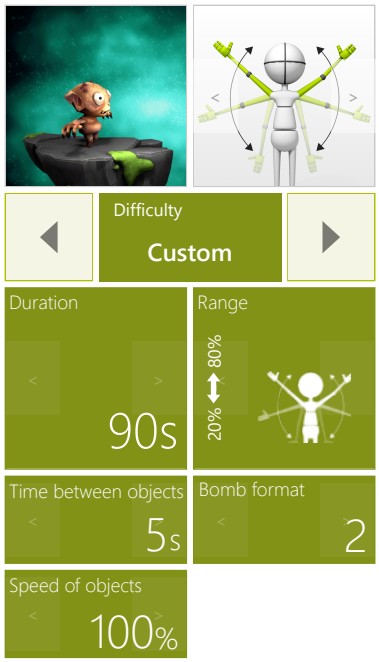
Help the creature jump over incoming rockets and avoid being hit.

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





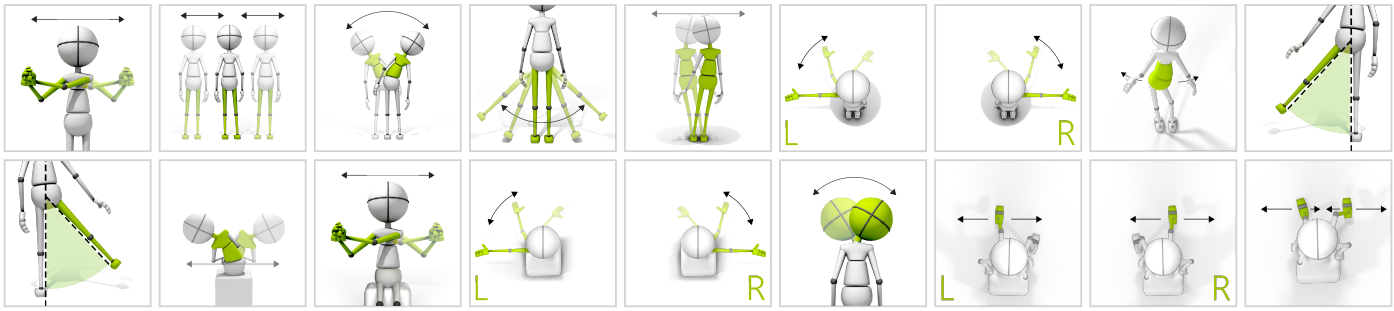


FUNCTIONAL MOVEMENTS

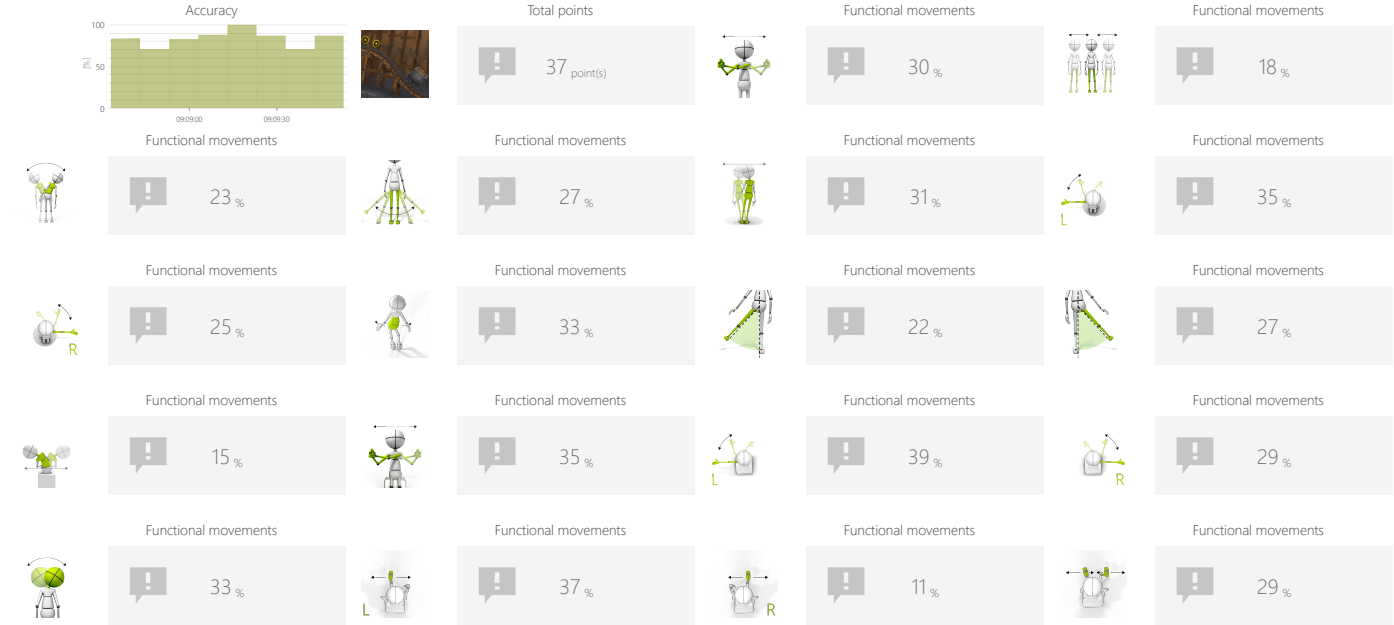
RAILS

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

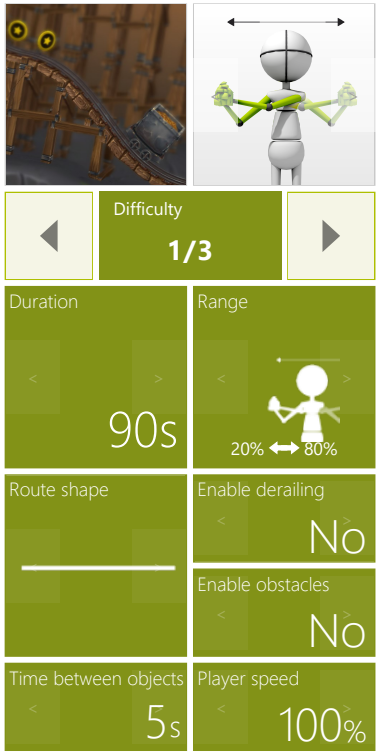
- Dynamic responses to emerging moving targets
- Predicting the trajectory of objects
- Visual motor coordination

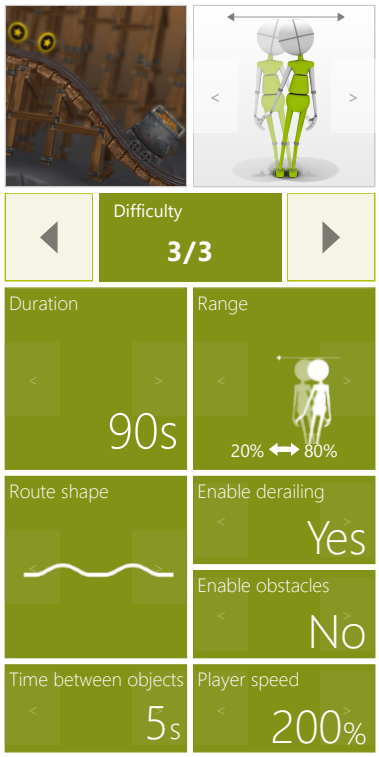
INSTRUCTION FOR PATIENT

Tilt the world to let the trolley collect the coins

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



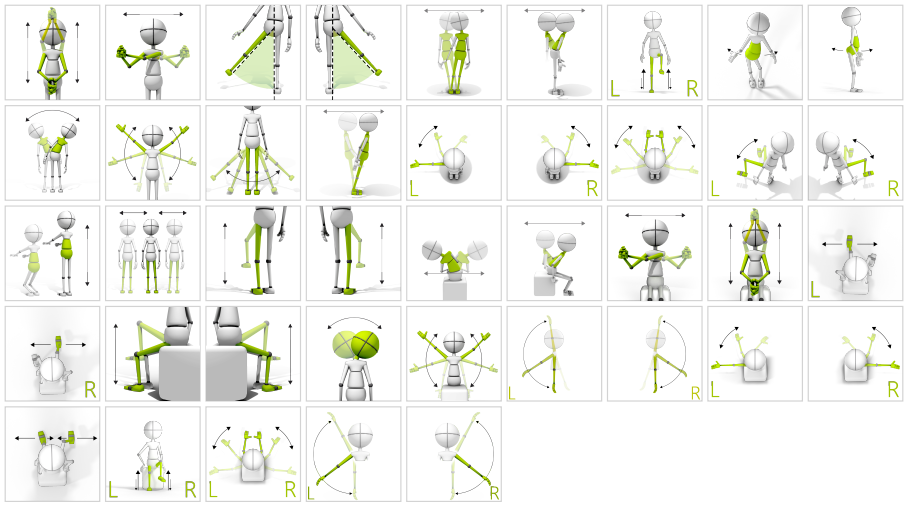


FUNCTIONAL MOVEMENTS

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

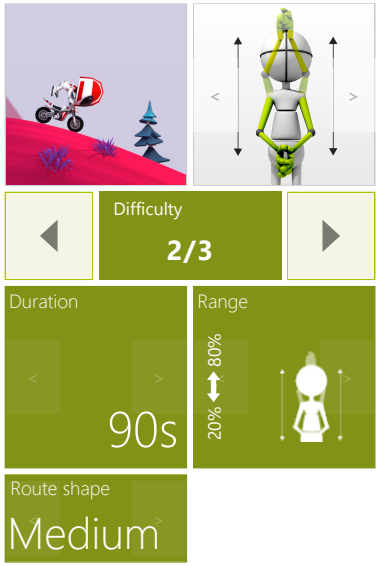
- Dynamics of planned movements
- Planning and Strategy

INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS

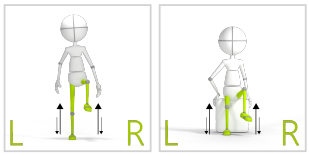


FUNCTIONAL MOVEMENTS

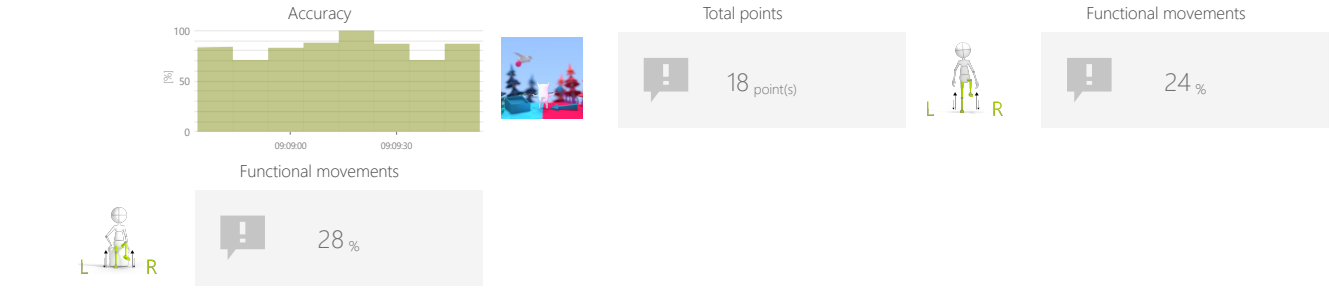
WALKER

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range

OBJECTIVES

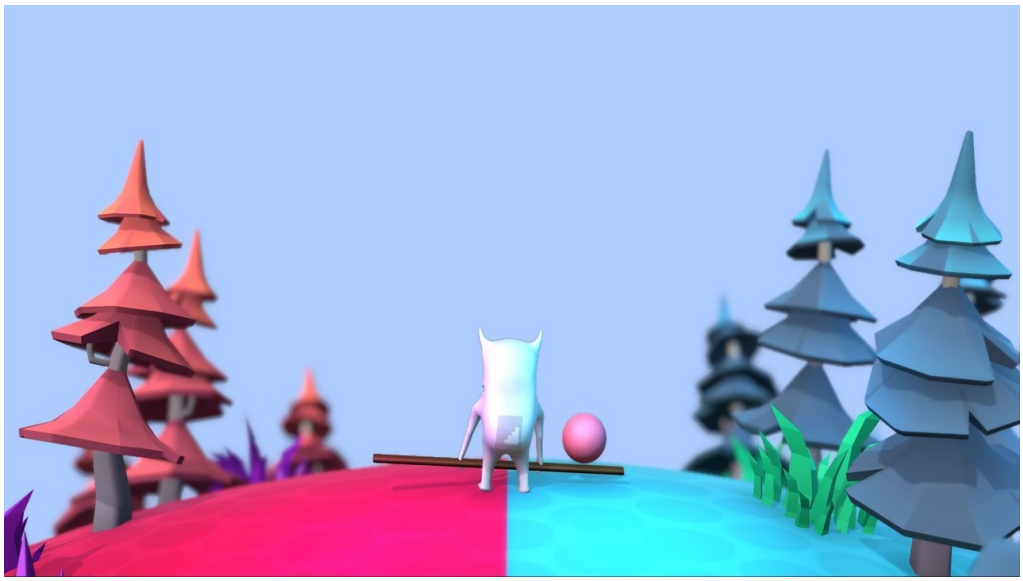
- Planned movements
- Knees lifting
- Balance and equilibrium training
- Repetitive movements

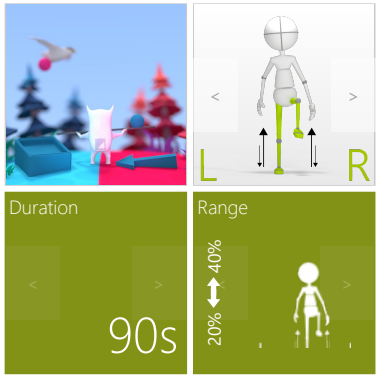
INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



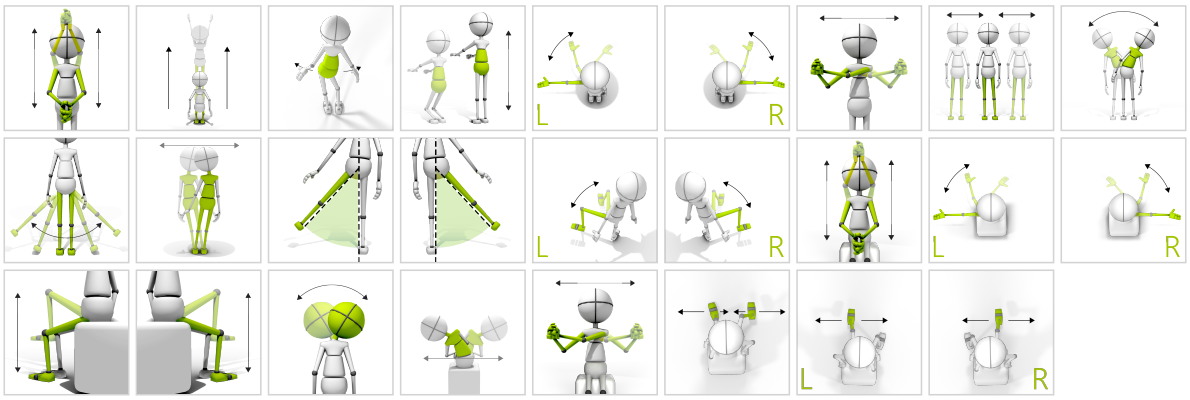


FUNCTIONAL MOVEMENTS

FOREST RUNNER

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

CONTROL MODES



RESULTS

ADJUSTMENTS

- Task duration
- Range
- Turning

OBJECTIVES

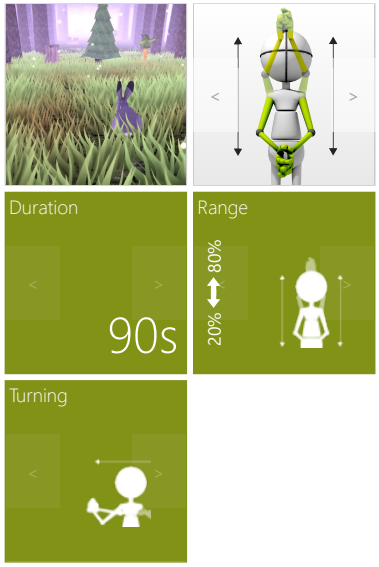
- Dynamics of planned movements
- Focusing
- Planned movements
- Speed of movement

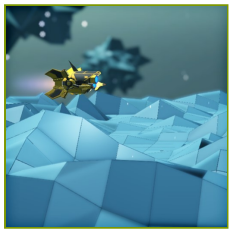
INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



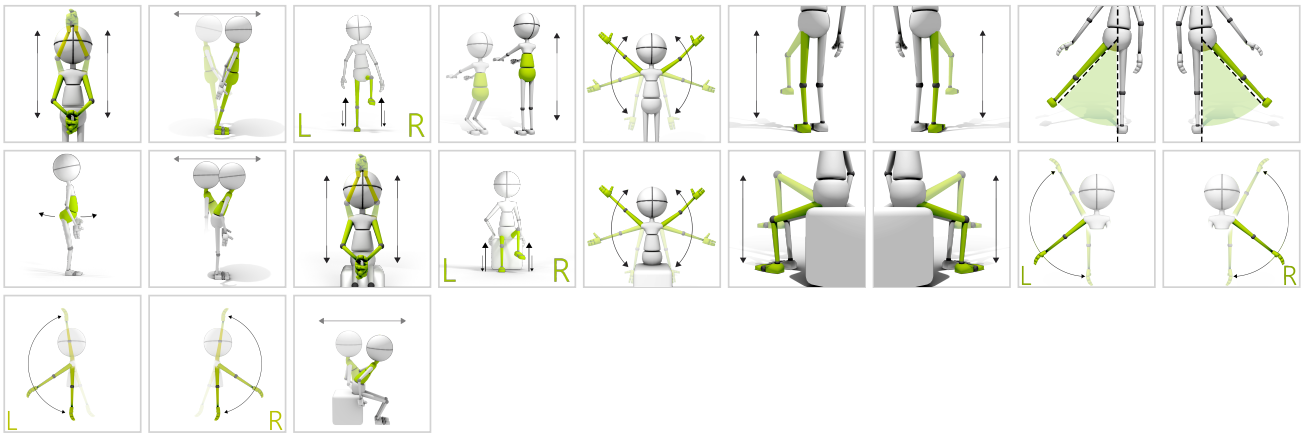


FUNCTIONAL MOVEMENTS

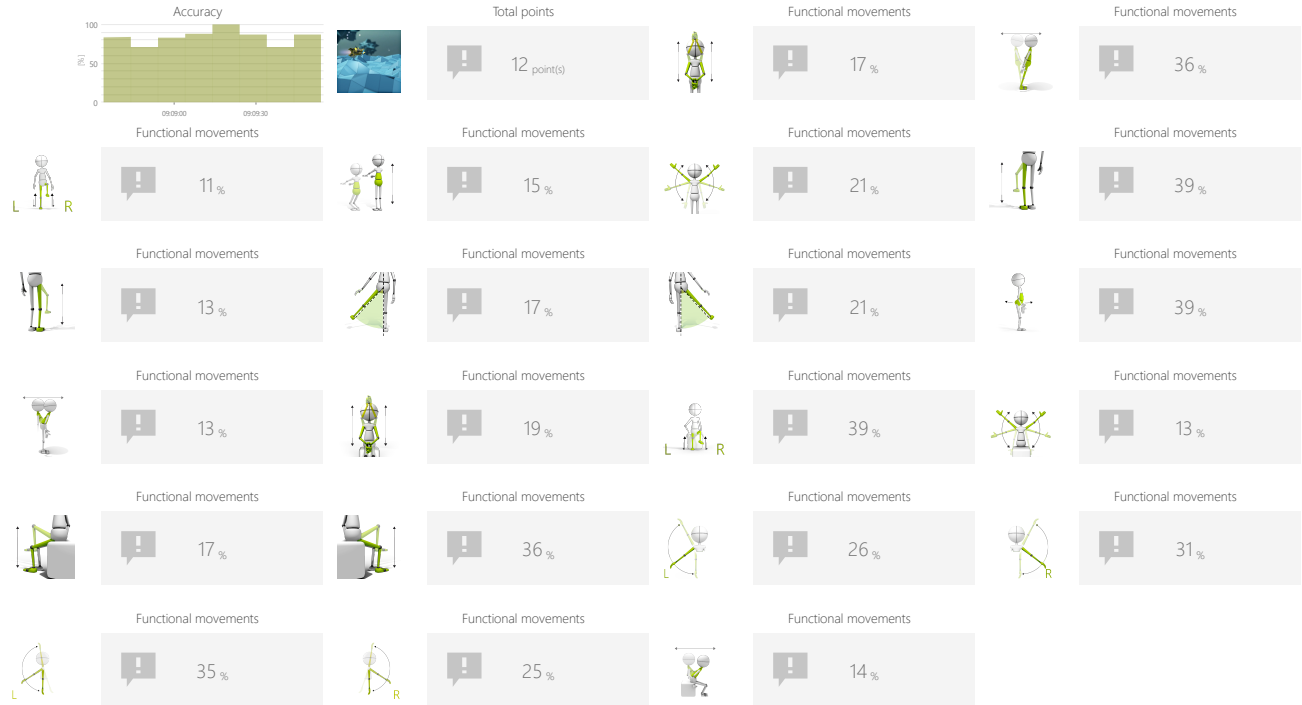
GEOMETRY FLIER

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

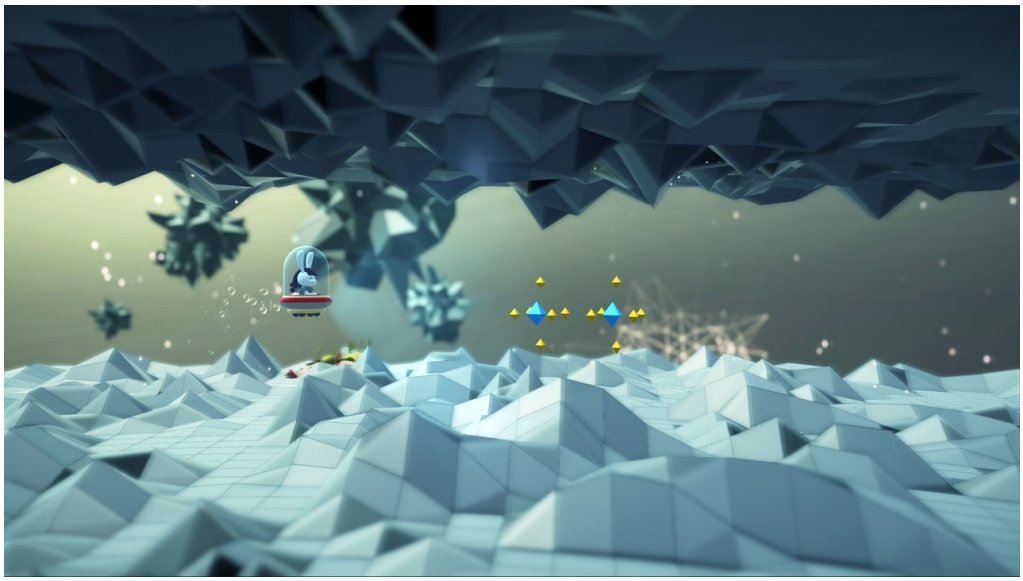
- Dynamics of planned movements
- Activity in a given rhythm
- Visual motor coordination

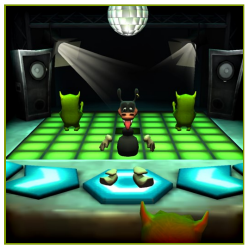
INSTRUCTION FOR PATIENT

Control the vehicle to avoid the obstacles

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





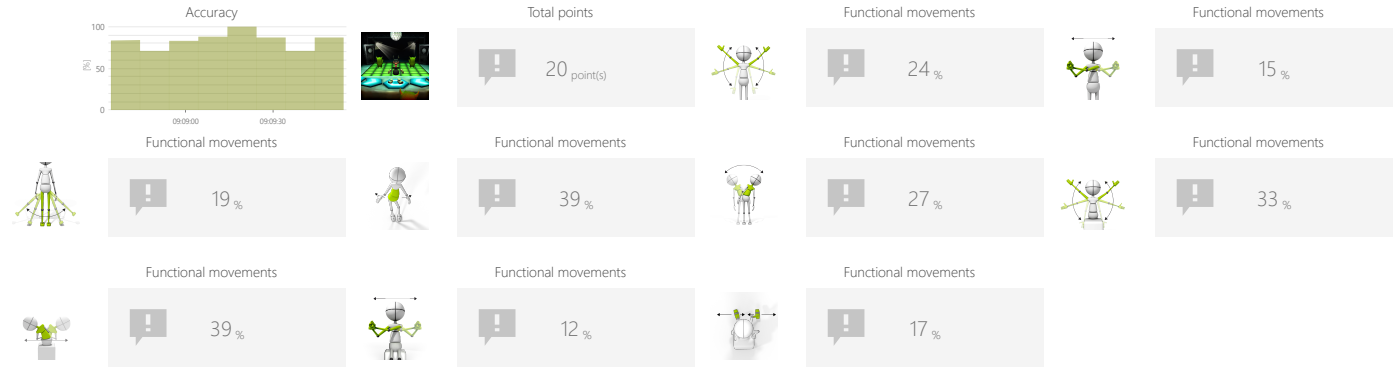
FUNCTIONAL MOVEMENTS

DANCEMAN

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

CONTROL MODES

RESULTS



ADJUSTMENTS

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

OBJECTIVES

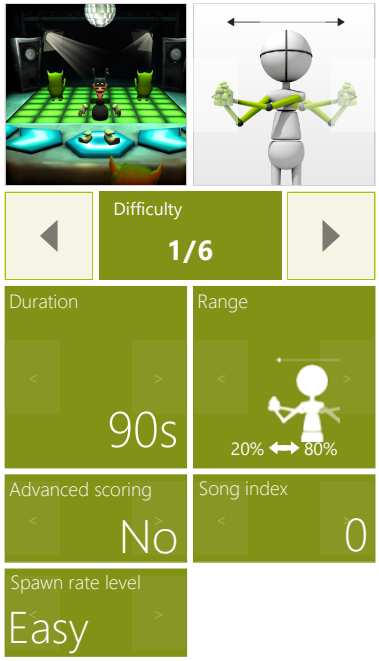
- Activity in a given rhythm
- Spontaneous movements
- Visual motor coordination

INSTRUCTION FOR PATIENT

Hit the green characters when they come close

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



FUNCTIONAL MOVEMENTS

CANS MULTIPLAYER

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

CONTROL MODES

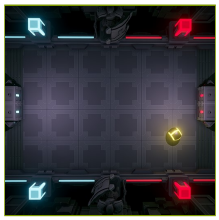
RESULTS

OBJECTIVES

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

INSTRUCTION FOR PATIENT

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

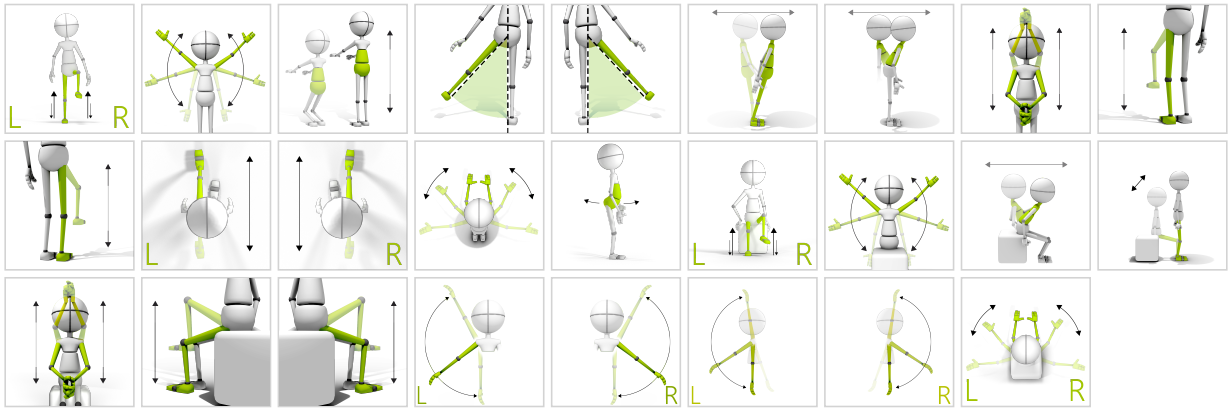


FUNCTIONAL MOVEMENTS

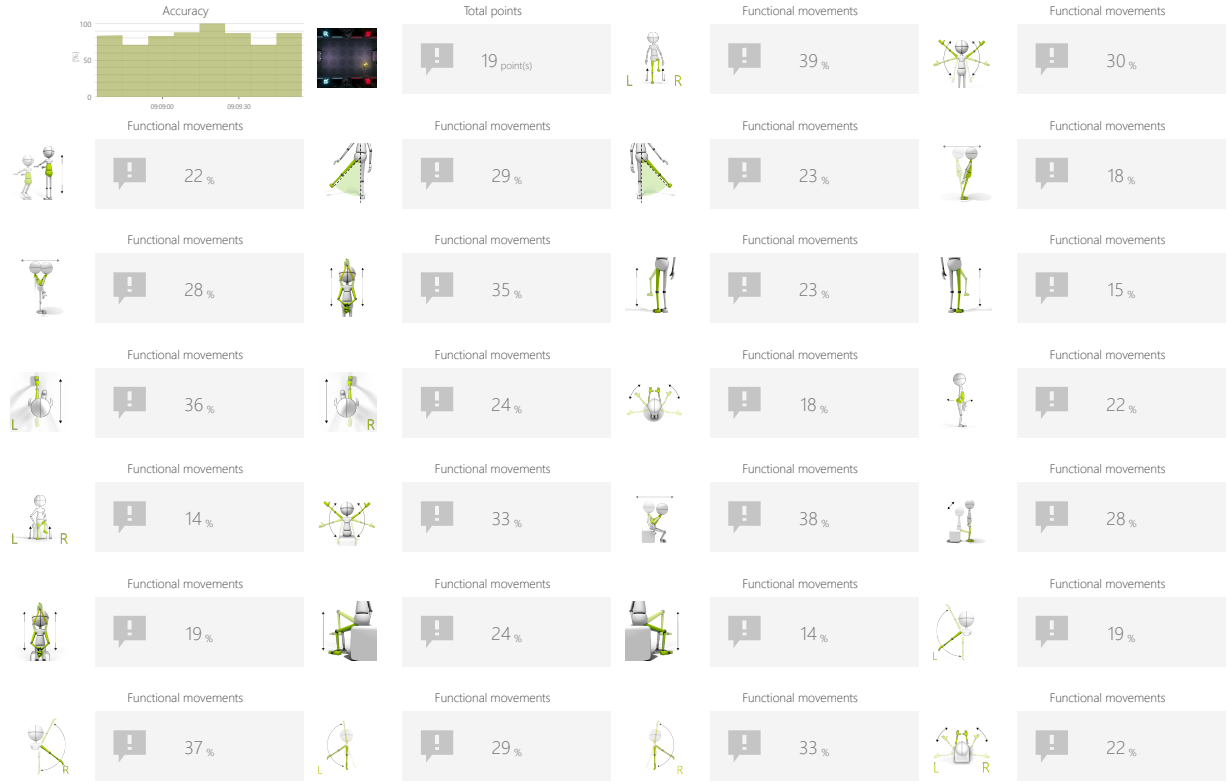
PONG

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Speed of objects

OBJECTIVES

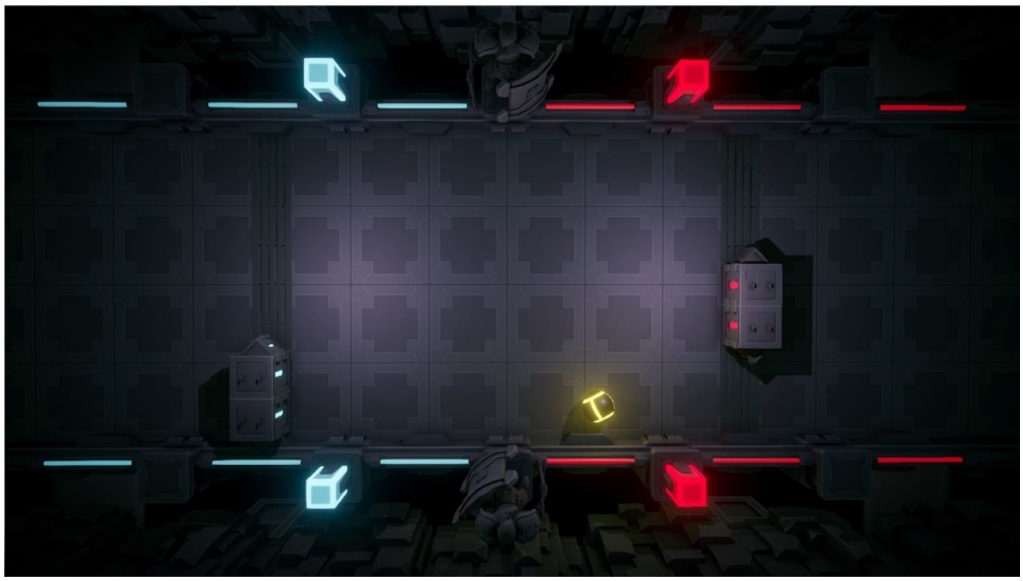
- Planned movements
- Focusing
- Predicting the trajectory of objects

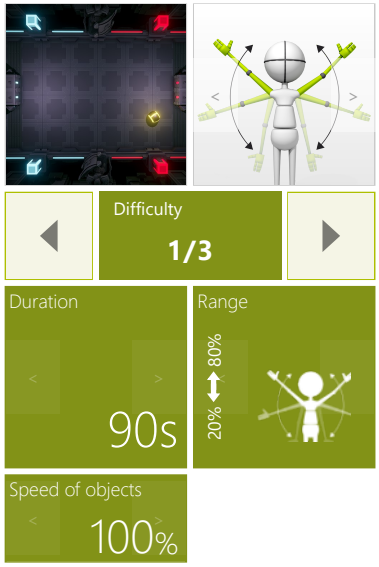
INSTRUCTION FOR PATIENT

Use the paddles to hit a ball back and forth

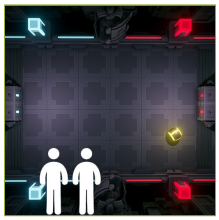
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

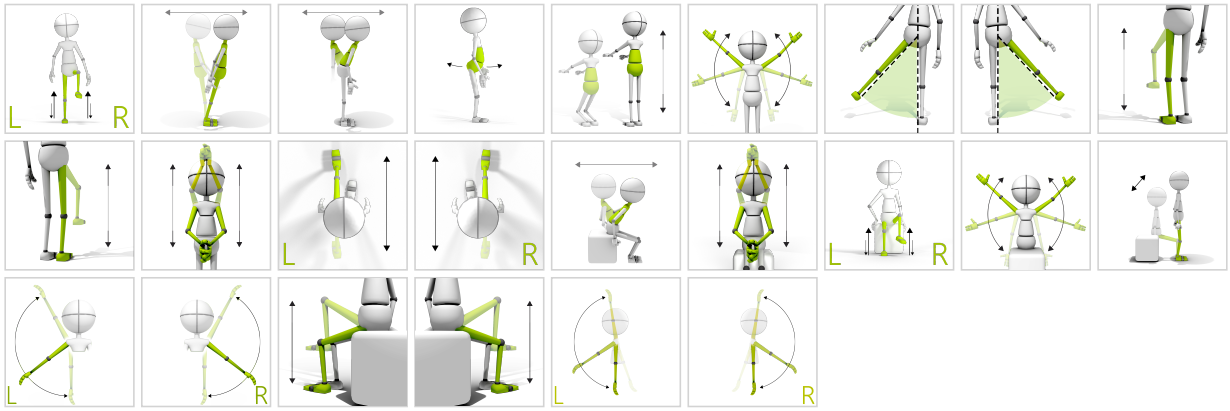


FUNCTIONAL MOVEMENTS

PONG

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

CONTROL MODES



RESULTS

ADJUSTMENTS

- Task duration
- Range
- Speed of objects

OBJECTIVES

- Planned movements
- Focusing
- Predicting the trajectory of objects

INSTRUCTION FOR PATIENT

Use the paddles to hit a ball back and forth

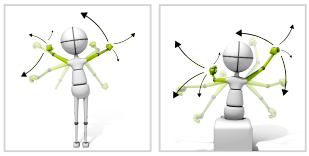
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

FUNCTIONAL MOVEMENTS

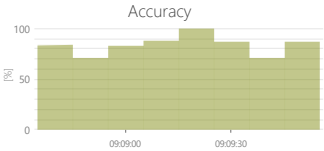
SORTER: LEGACY MULTIPLAYER

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

CONTROL MODES



RESULTS



Total points

21 point(s)

Functional movements

27 %

Functional movements

34 %

ADJUSTMENTS

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

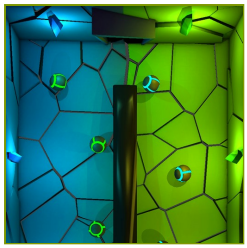
OBJECTIVES

- 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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

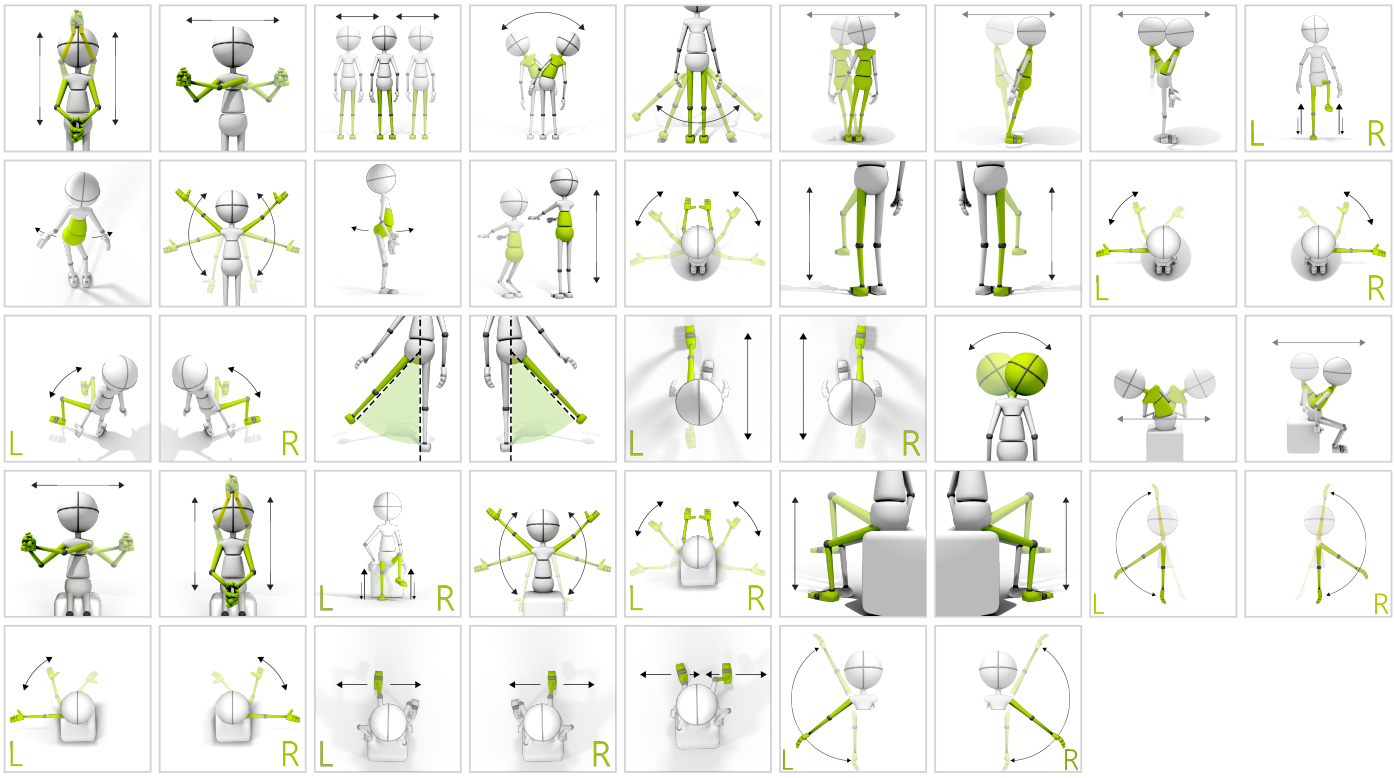


DIVIDED ATTENTION

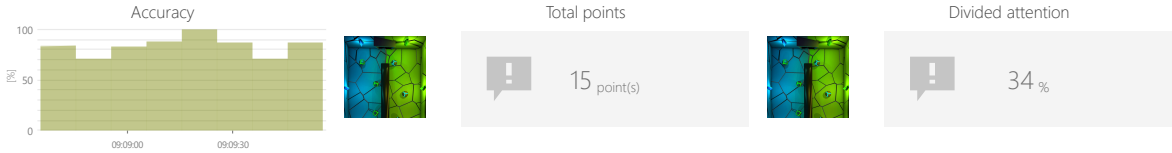
SORTER

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

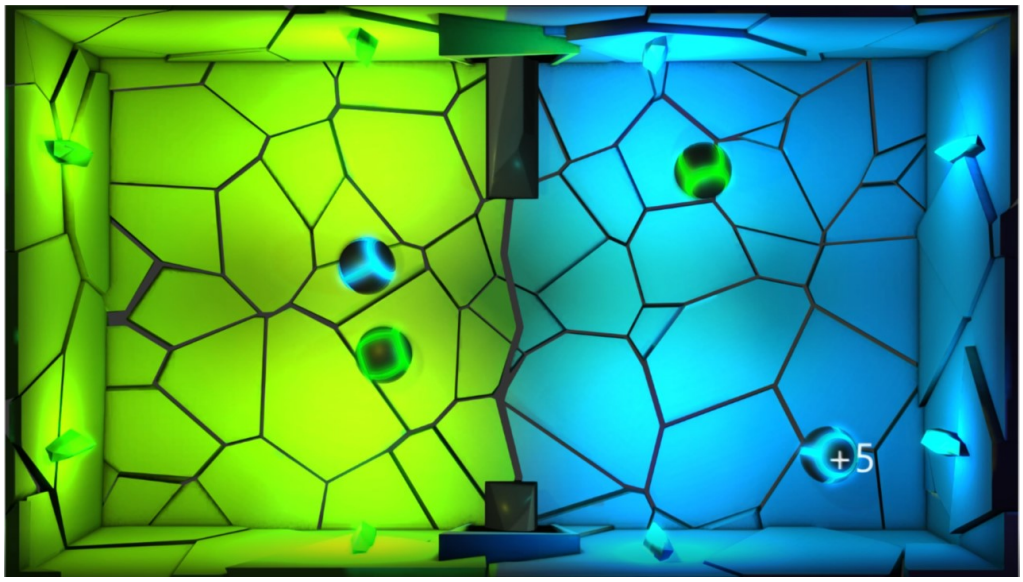
- Predicting the trajectory of objects
- Focusing
- Perceptivity
- Movement precision
- Exercise with or without support from healthy limb

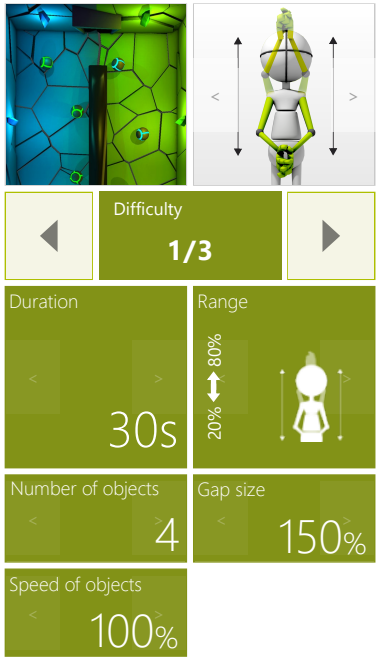
INSTRUCTION FOR PATIENT

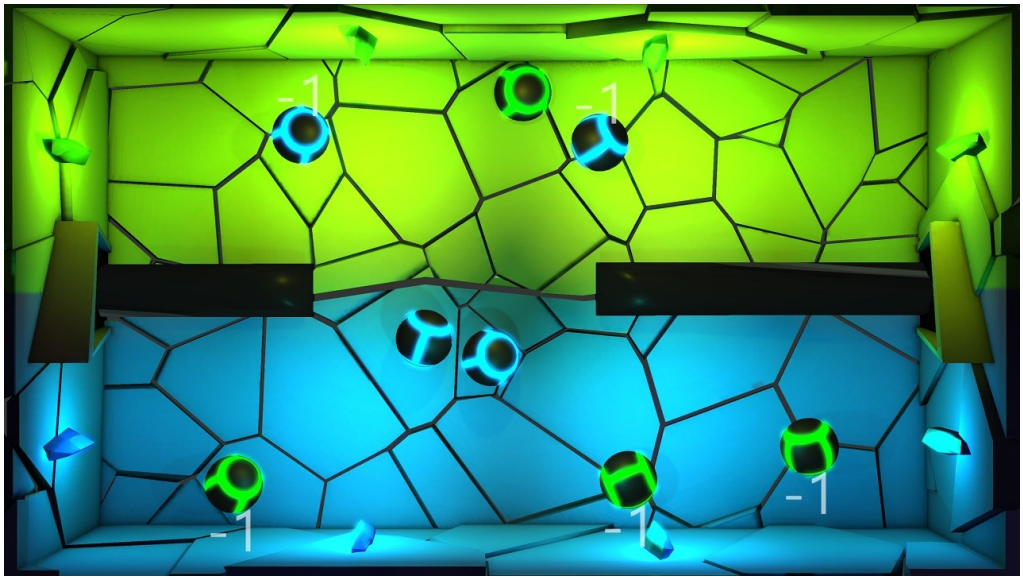
Pass or block the balls so that the blue balls are on the blue side and the green balls are on the green side of the screen.

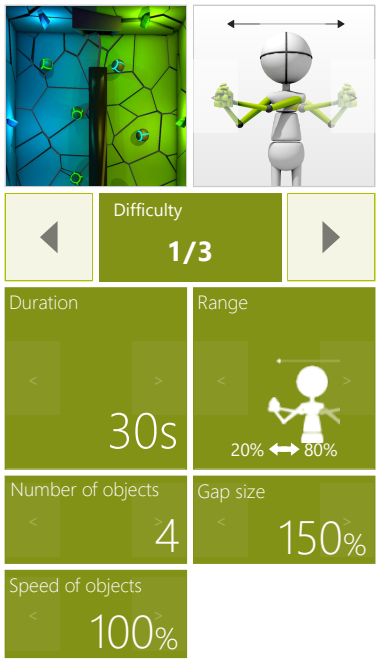
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

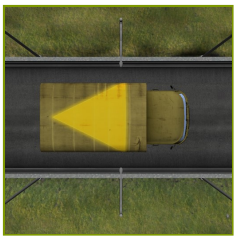
SAMPLE SETTINGS









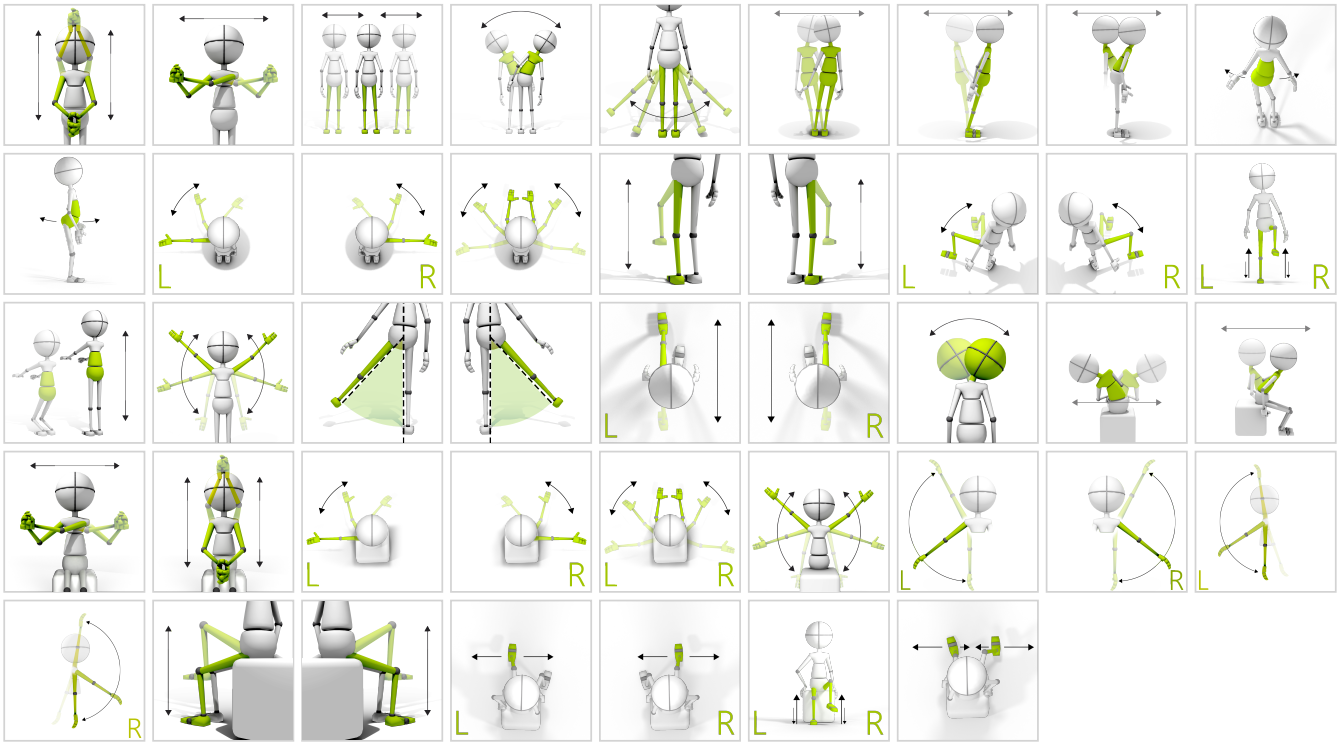


MEMORY

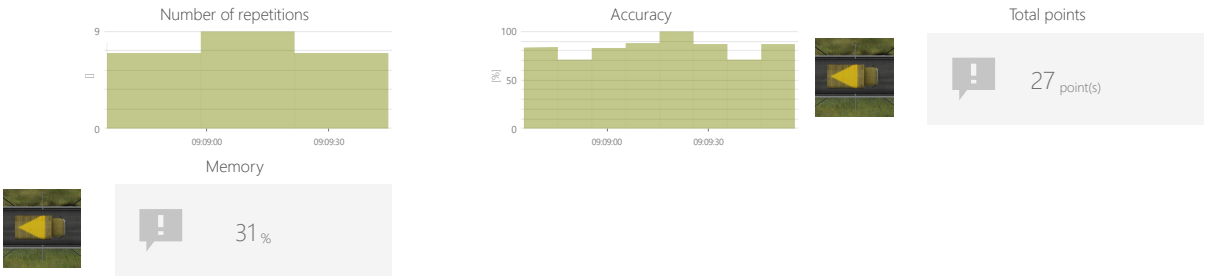
TRUCKS

Measure and train individual's skills to memorize information.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Variations

OBJECTIVES

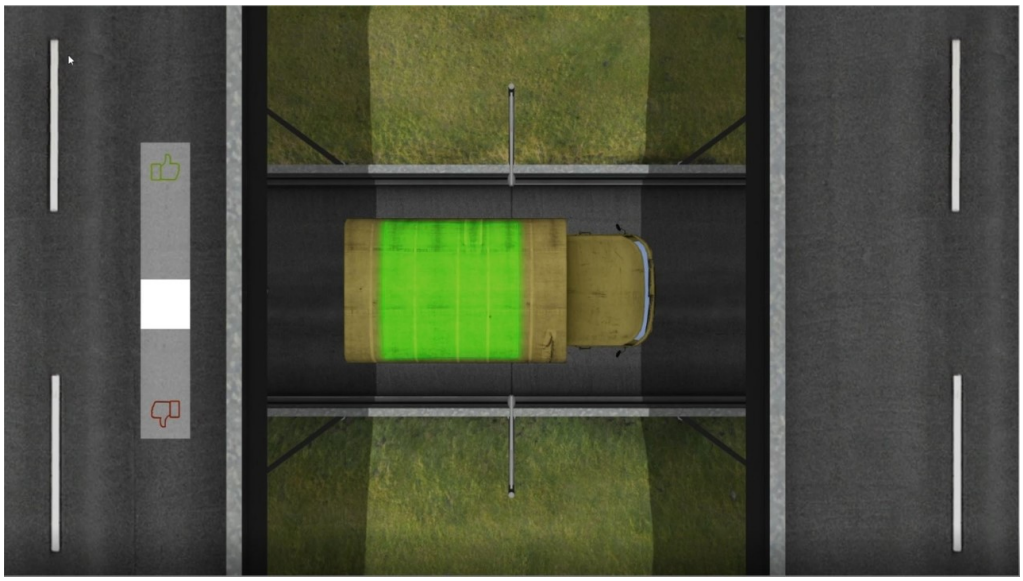
- Logical tasks
- Focusing
- Perceptivity

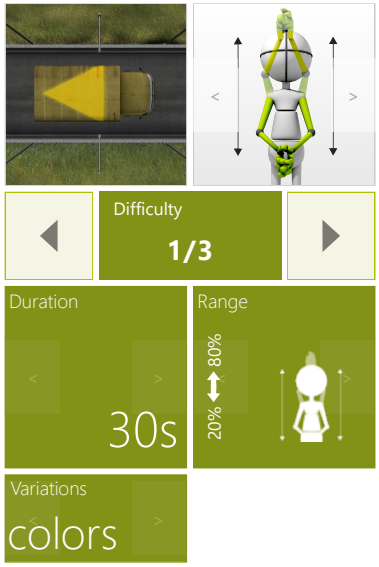
INSTRUCTION FOR PATIENT

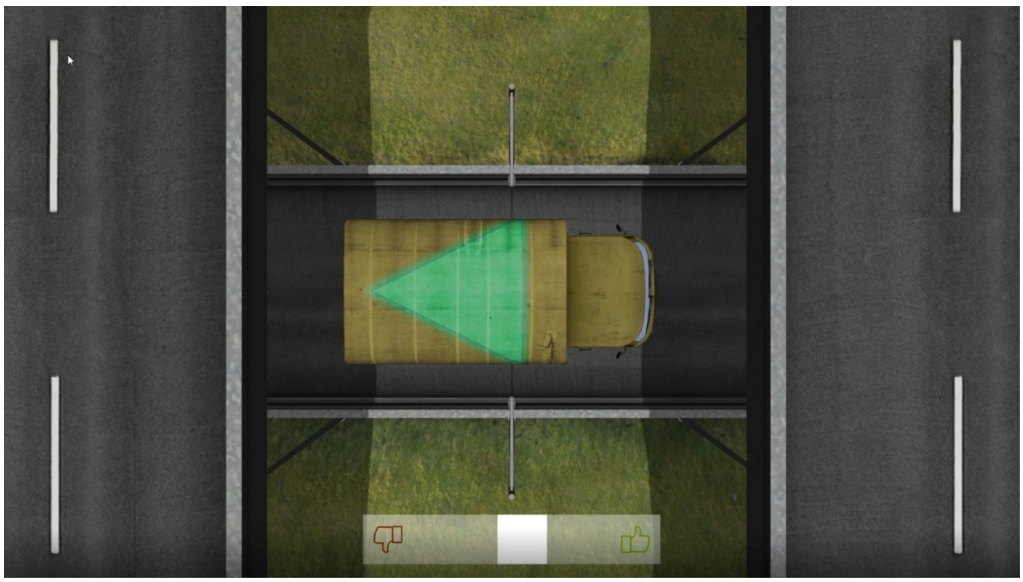
Remember the shape and/or its color on the roof of the car you see. Decide with thumbs up or down whether the next car has the same shape and/or color on the roof as the previous one.

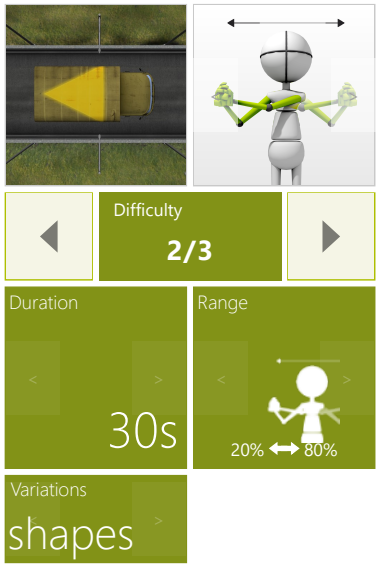
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS









VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

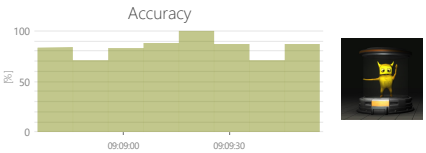
MEMORY

POSE REPEATER

Measure and train individual's skills to memorize information.

CONTROL MODES


RESULTS



Total points

36 point(s)

Memory

28 %

ADJUSTMENTS

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

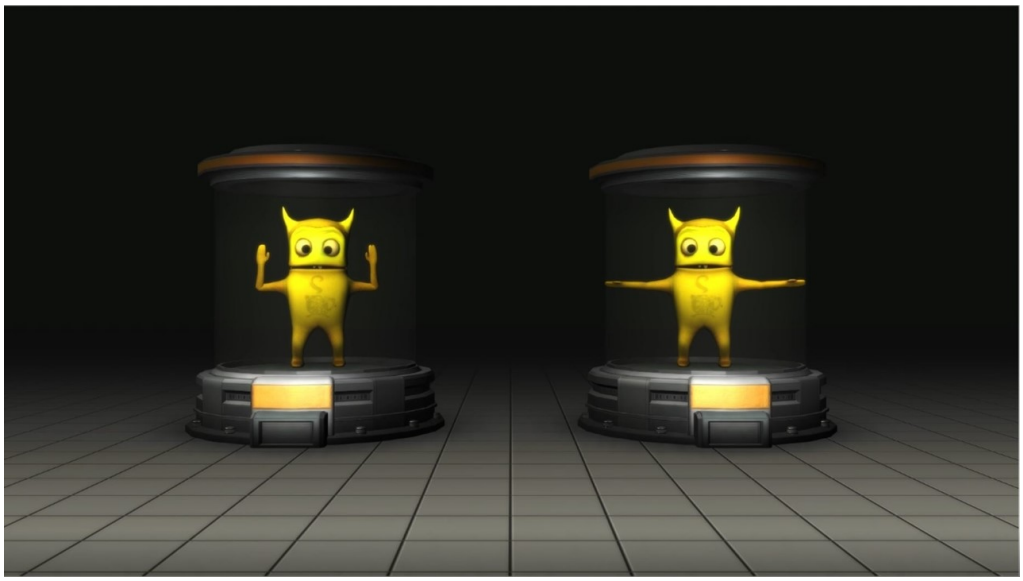
OBJECTIVES

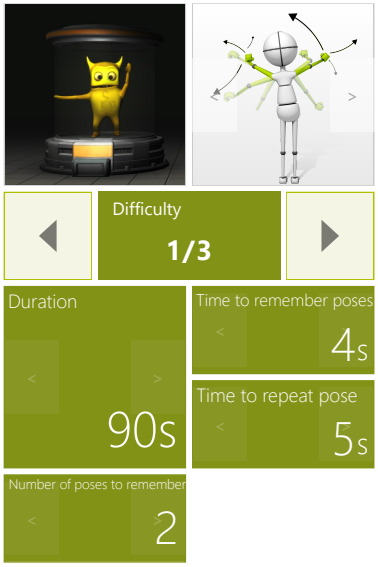
- Memory training
- 3D space movements reproduction
- Focusing
- Speed of decision making

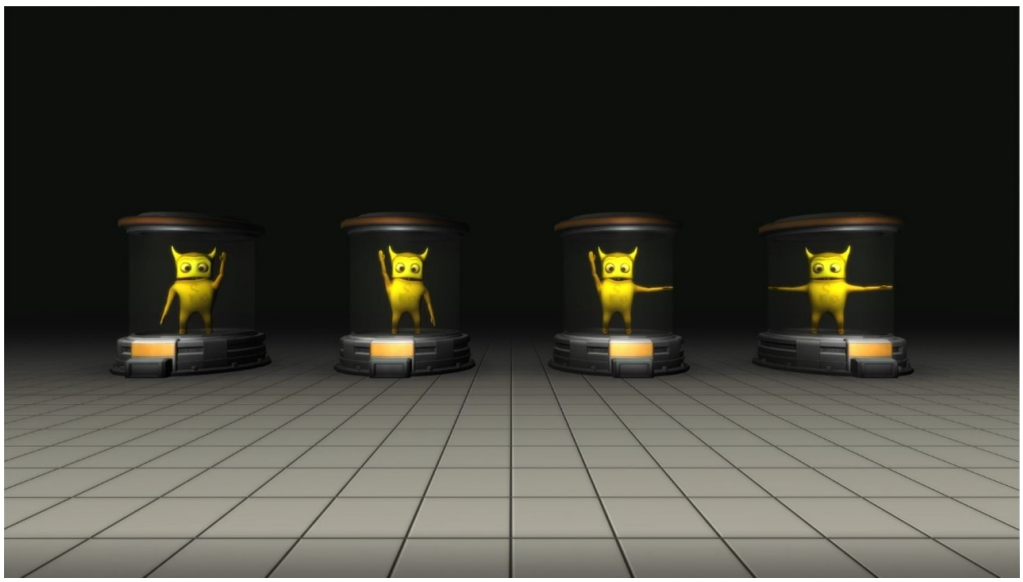
INSTRUCTION FOR PATIENT

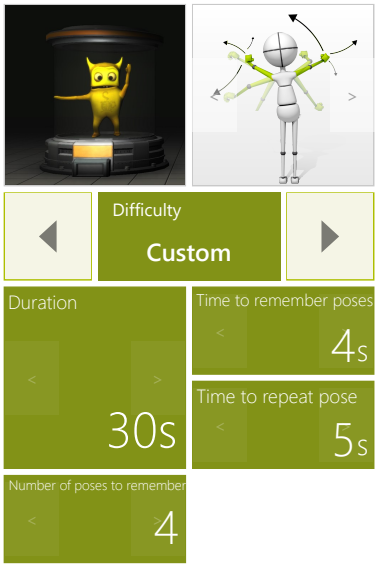
Remember poses presented by yellow creatures and then try to repeat selected pose based on what you managed to remember

SAMPLE SETTINGS







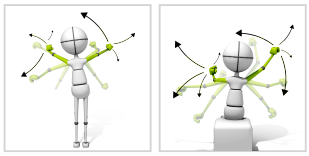


PROBLEM SOLVING

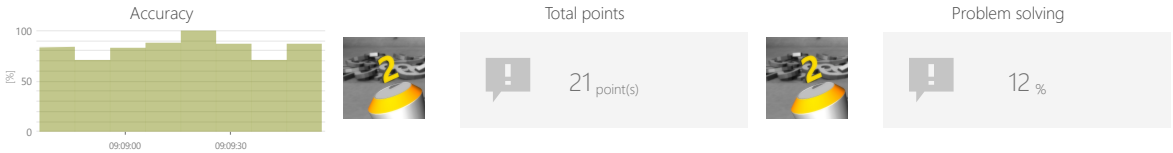
MATH

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

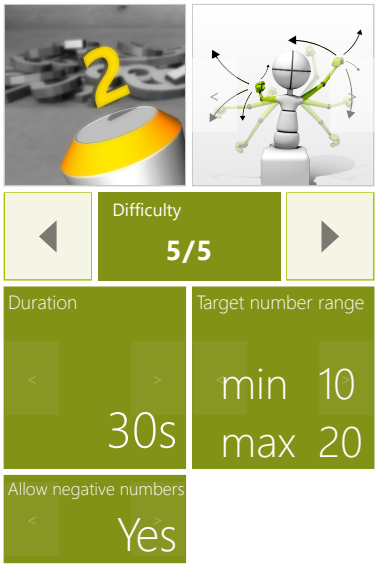
- Logical tasks
- Arms swings

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



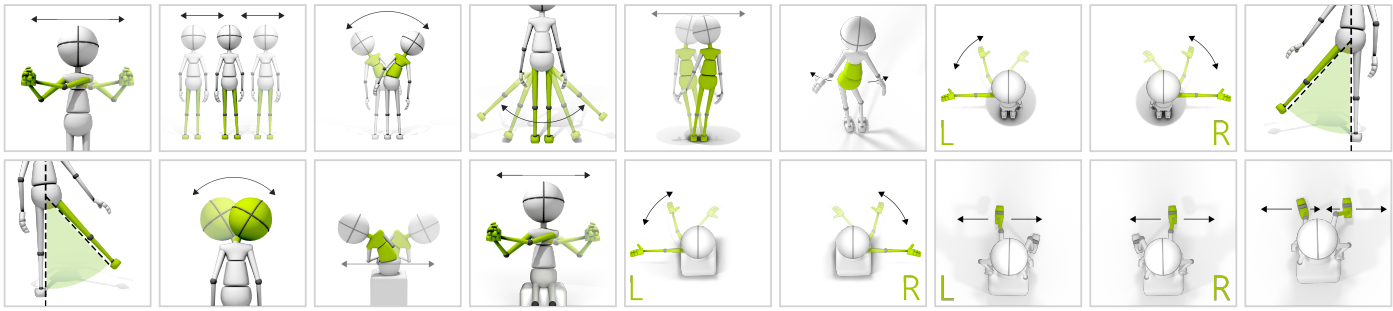
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

PROBLEM SOLVING

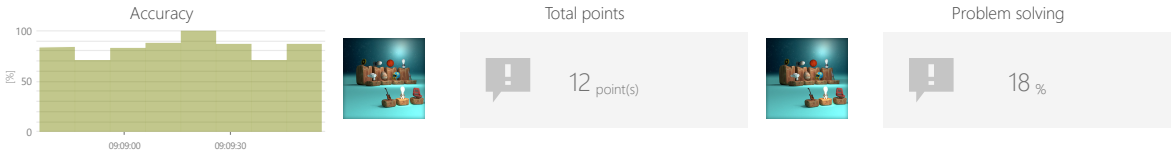
CLONES

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

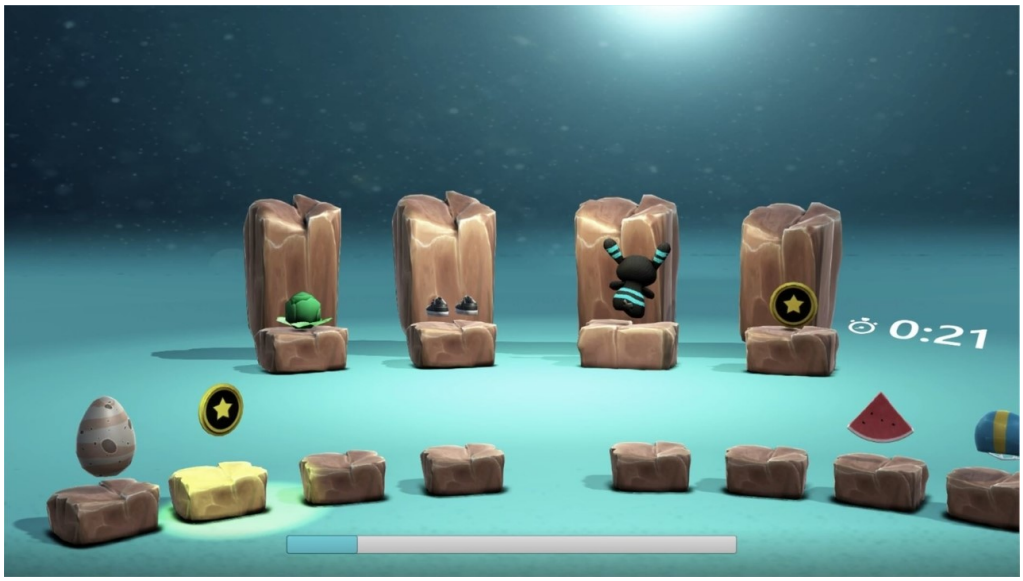
- Perceptivity
- Visual motor coordination
- Logical tasks

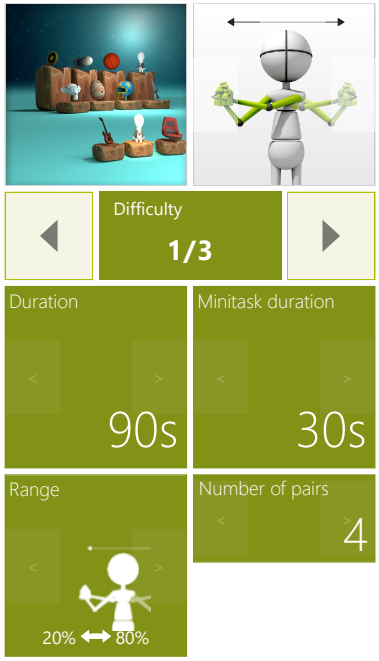
INSTRUCTION FOR PATIENT

Select the item which has a pair on the screen

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS



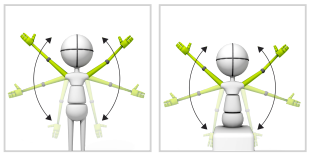


PROBLEM SOLVING

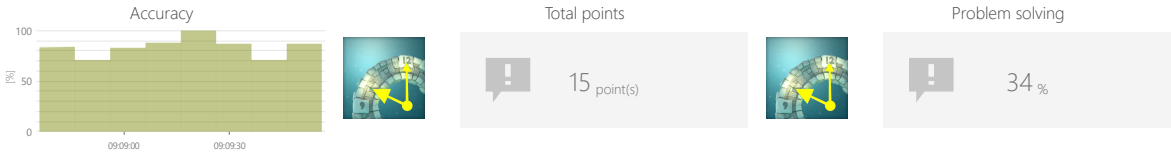
CLOCK

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Time to complete action
-

OBJECTIVES

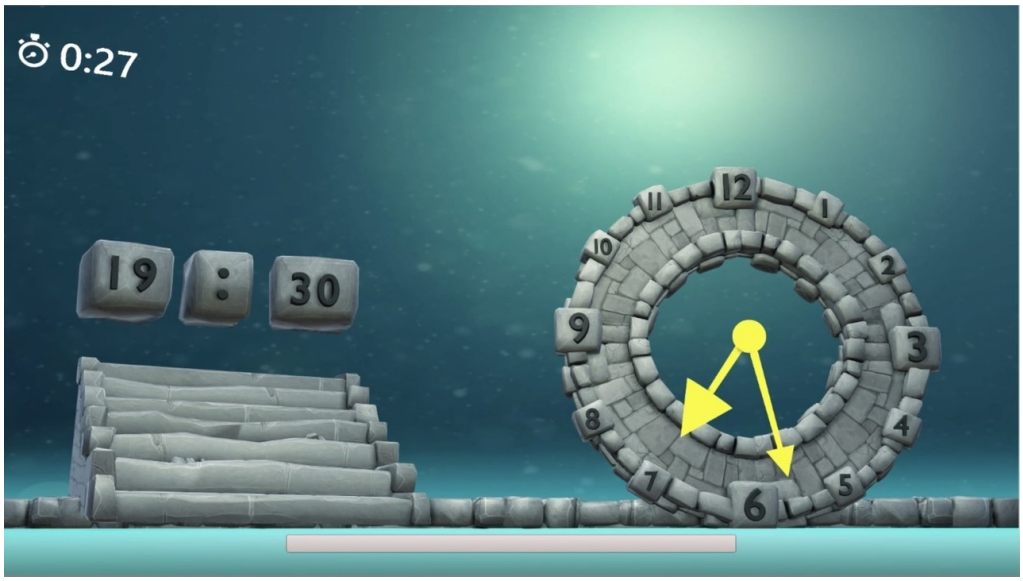
- Speed of decision making
- Visual motor coordination
- Logical tasks

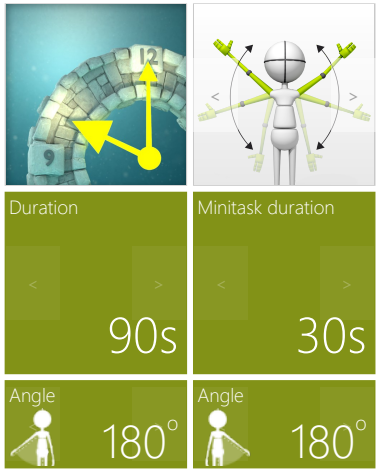
INSTRUCTION FOR PATIENT

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

VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS





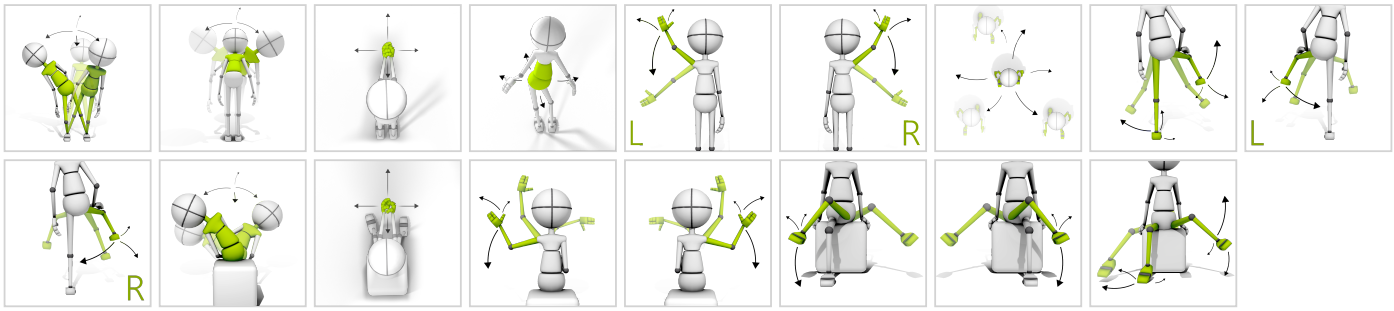
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

PROBLEM SOLVING

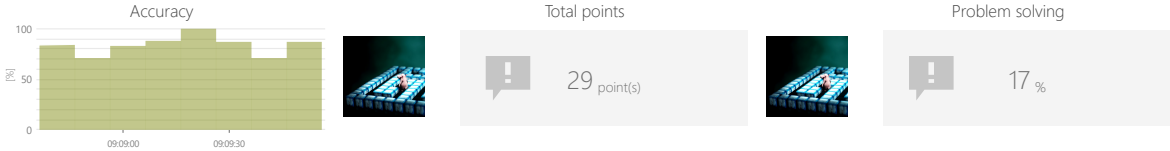
MAZE

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

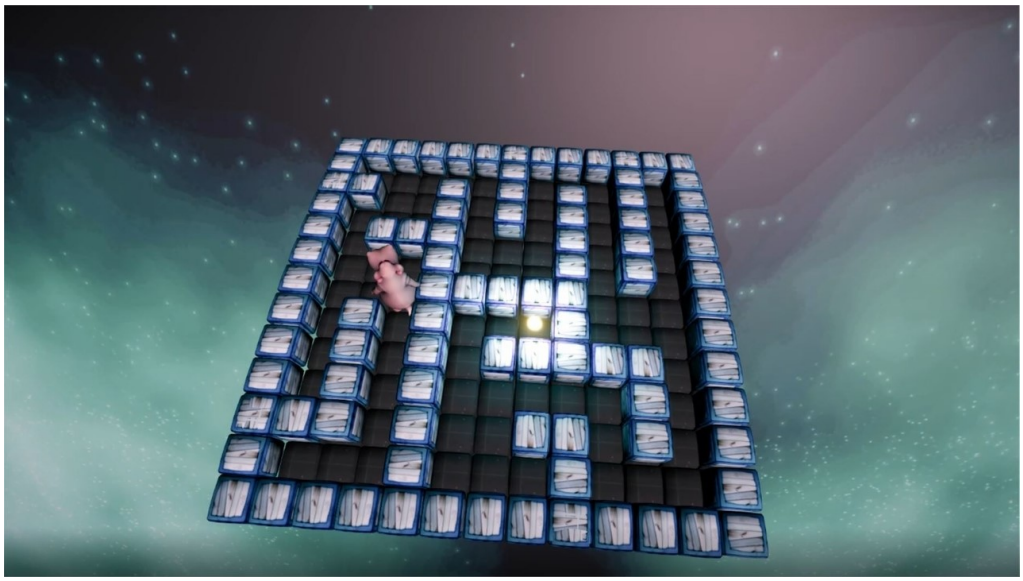
- Logical tasks
- Planned movements
- Planning and Strategy

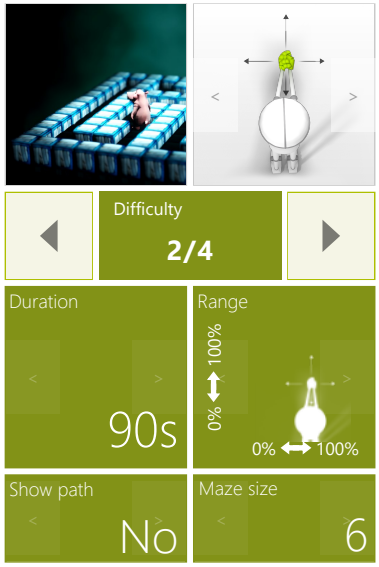
INSTRUCTION FOR PATIENT

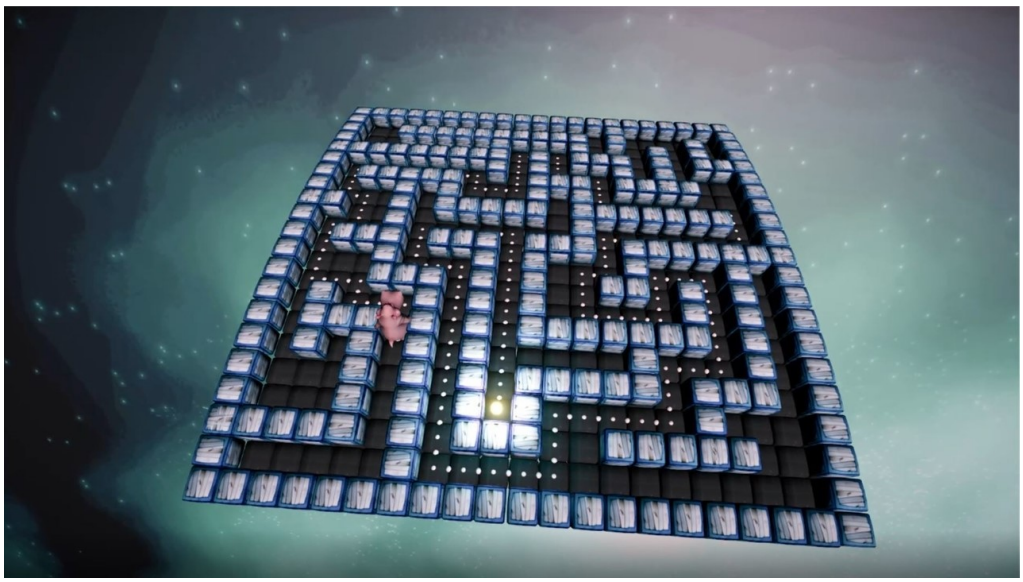
Lead the hippo through the maze to the glowing target.

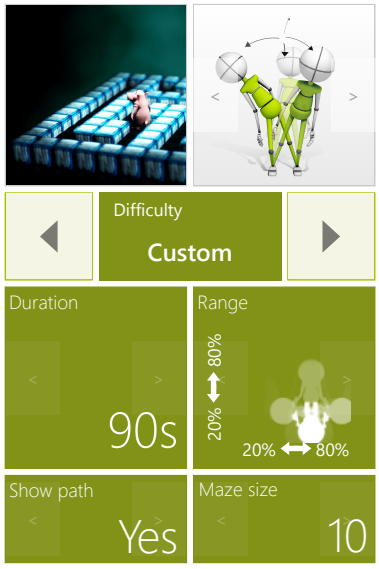
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SAMPLE SETTINGS









VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

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

ROMBERG TEST

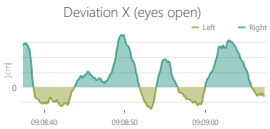
SPECIALIZED

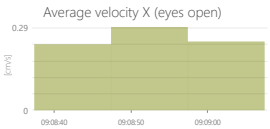
ROMBERG TEST

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

CONTROL MODES

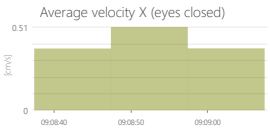
RESULTS





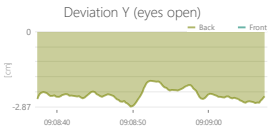
Area (eyes open)

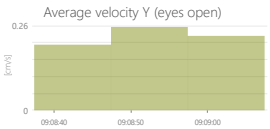
0.84 cm^2



Area (eyes closed)

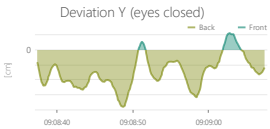
5.35 cm^2

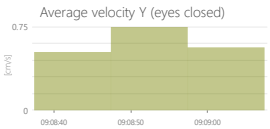




Length (eyes open)

11.4 cm





Length (eyes closed)

24.9 cm

Area (eyes closed / eyes open)

0.16

Length (eyes closed / eyes open)

0.46

ADJUSTMENTS

- Time to complete action
- Show feedback

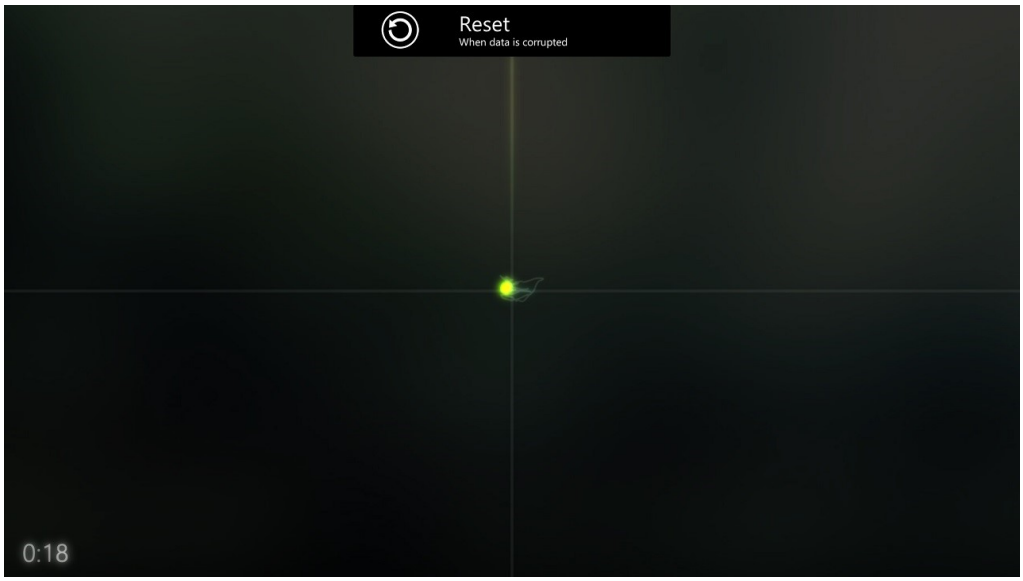
OBJECTIVES

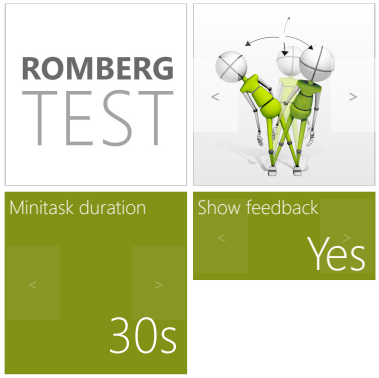
- Assesses static standing balance

INSTRUCTION FOR PATIENT

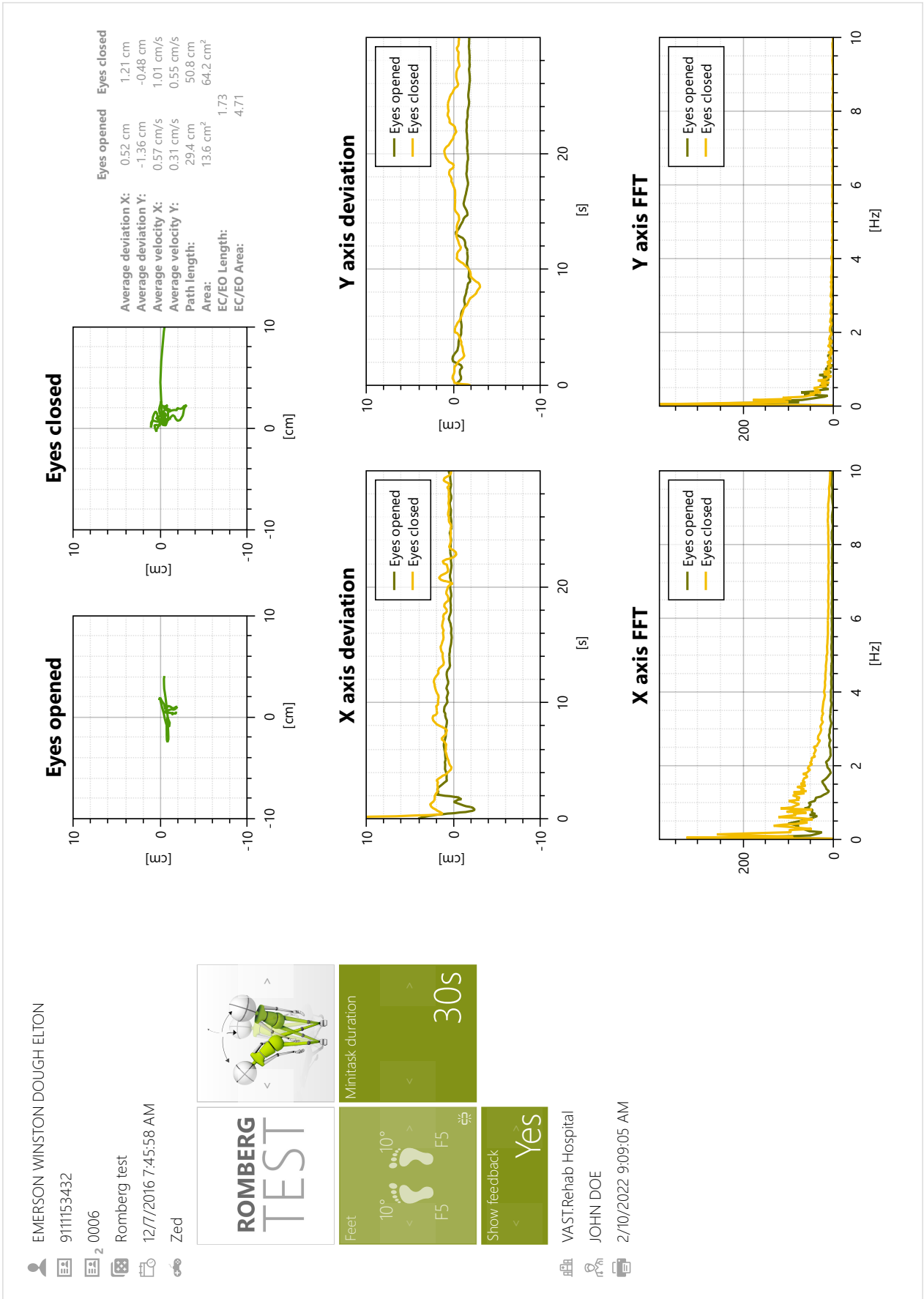
Romberg test. Try to stand as steadily as you can. First with eyes open, then with eyes closed

SAMPLE SETTINGS





SAMPLE REPORTS



SPECIALIZED

STABILITY TEST

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

CONTROL MODES

RESULTS

ADJUSTMENTS

- Time to complete action
- Show feedback
- Radius

OBJECTIVES

- Relaxation
- Postural stability

INSTRUCTION FOR PATIENT

Keep your body balanced

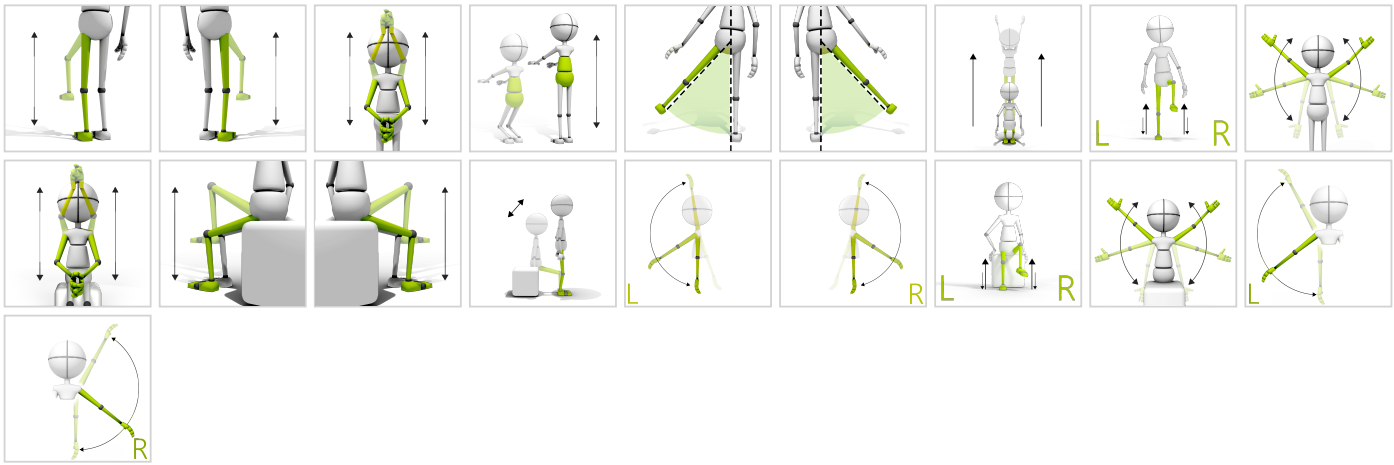
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

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

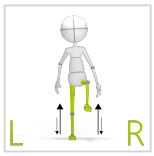
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

SPECIALIZED

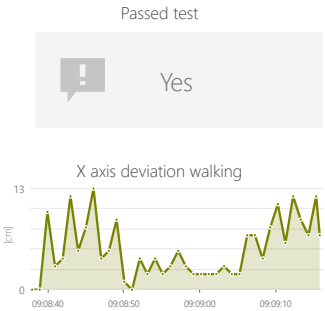
FUKUDA TEST

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

CONTROL MODES



RESULTS



OBJECTIVES

- Vestibular disorders diagnosis

INSTRUCTION FOR PATIENT

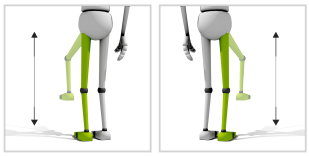
Take 50 steps in place with the eyes closed with arms outstretched at 90°

SPECIALIZED

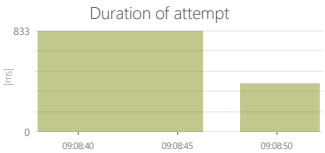
SINGLE LEG STANCE TEST

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Time to complete action

OBJECTIVES

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

INSTRUCTION FOR PATIENT

Try to keep your body balanced while performing single leg stance