VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

BASE PACK FOR X-COGNI

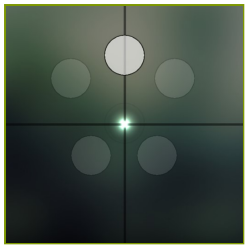
2021.4

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

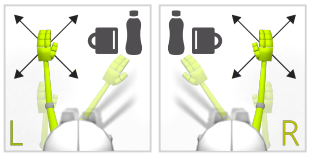


MOVEMENT TIME

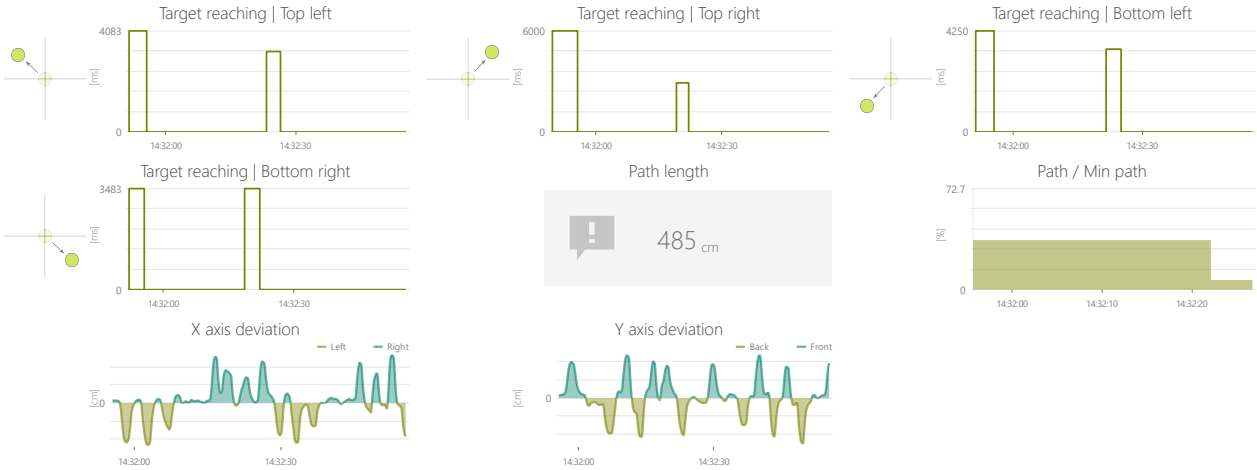
DYNAMIC TEST

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

- Show path
- Repetitions

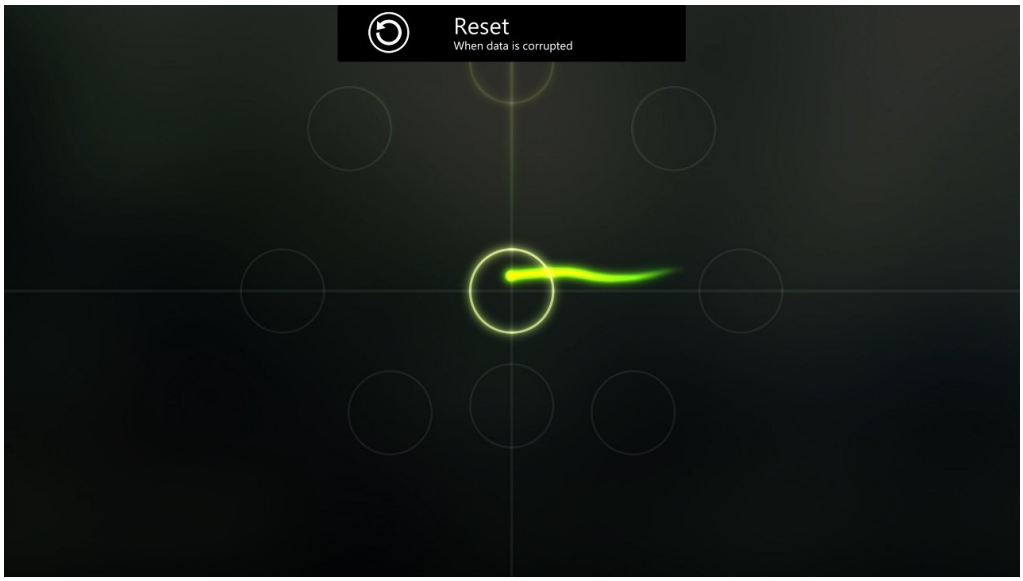
OBJECTIVES

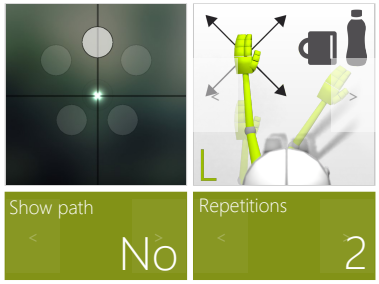
- Test the limits of balance and equilibrium
- Dynamics of planned movements

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



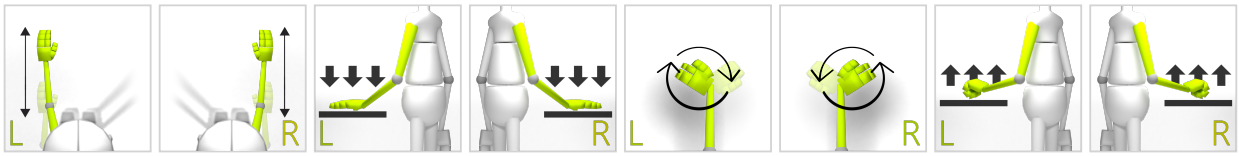


SPEED

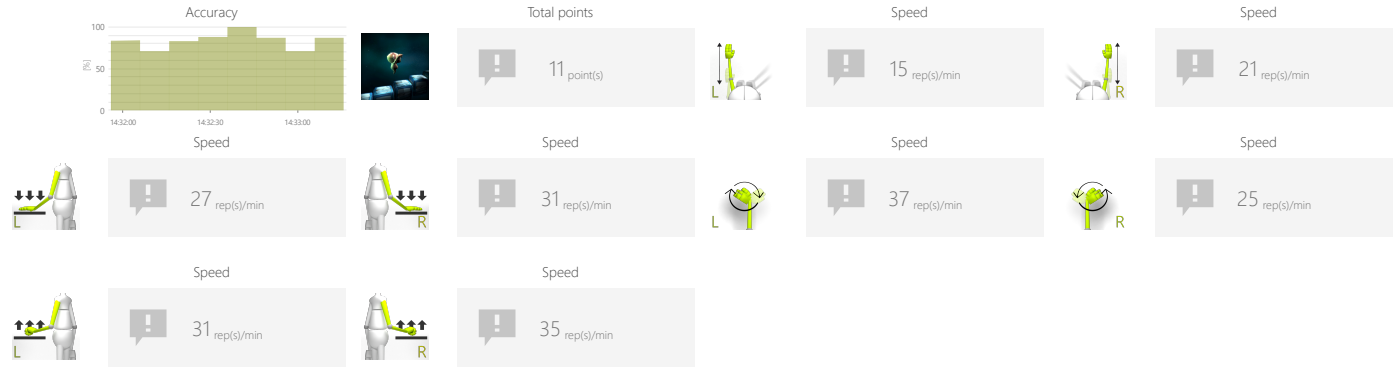
STAIRS

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
- Distance from edge
- Max time per floor
- Number of stairs
- Pause length

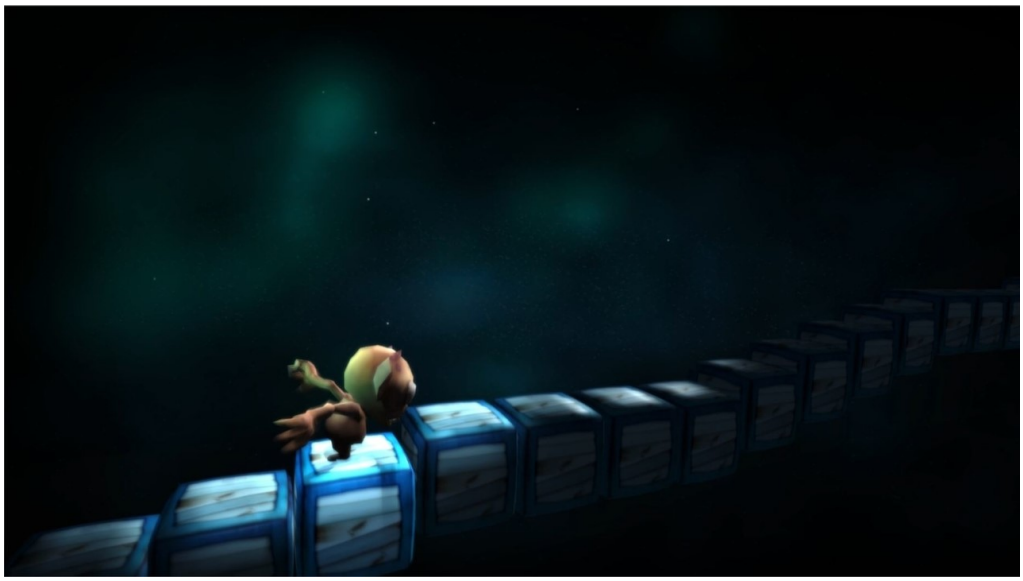
OBJECTIVES

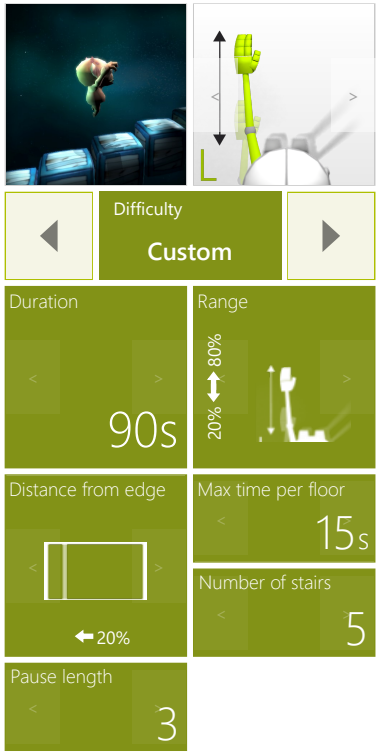
- Jumping
- Knees lifting
- Dynamics of planned movements

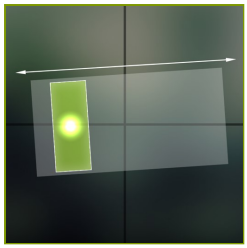
INSTRUCTION FOR PATIENT

Climb the stairs before they disappear

SAMPLE SETTINGS





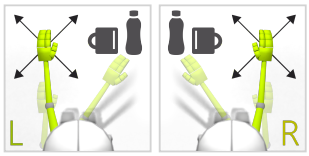


MOVEMENT PRECISION

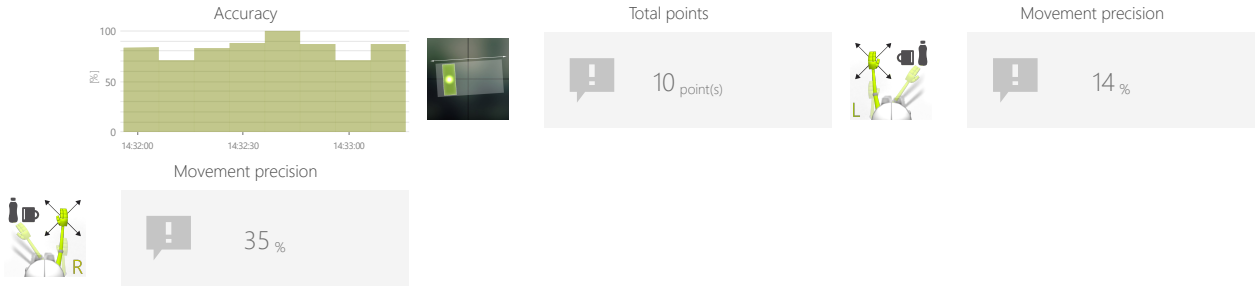
PENDULUM

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

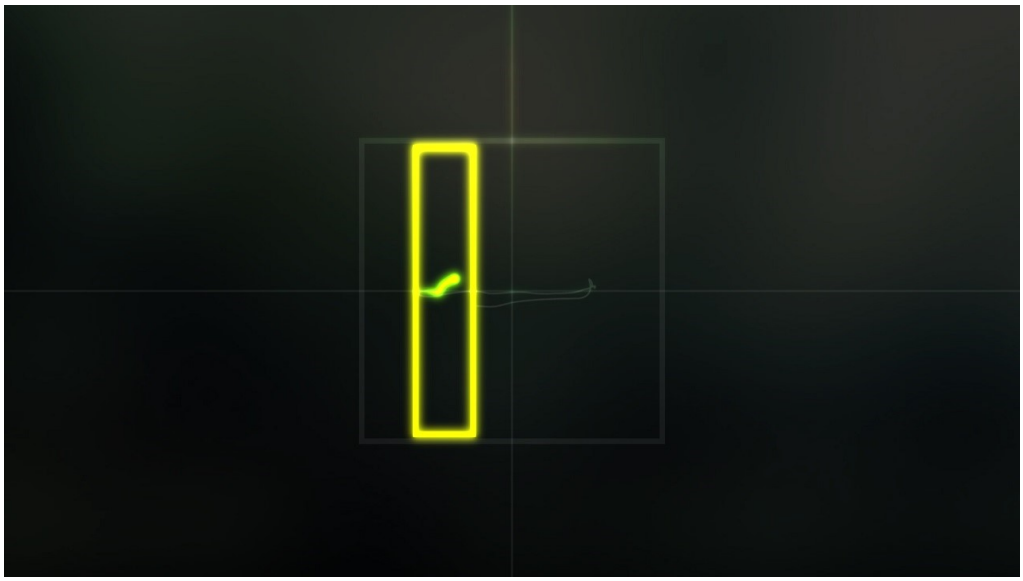
OBJECTIVES

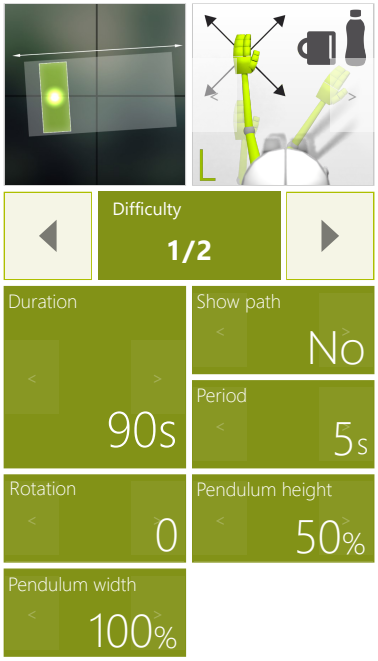
- 3D space movements reproduction
- Balance and equilibrium training
- Rhythmicity
- Activity in a given rhythm
- Movement precision

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



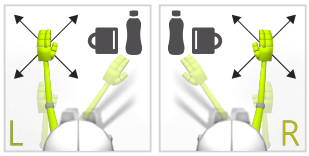


MOVEMENT PRECISION

TRACKING

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

CONTROL MODES



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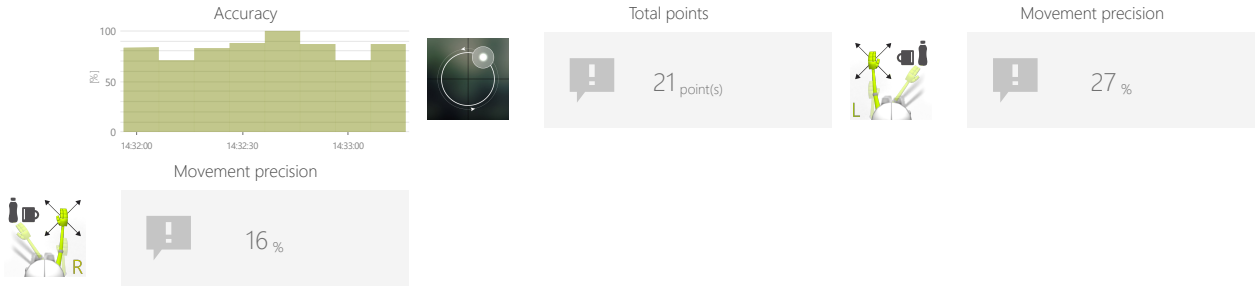


ADJUSTMENTS

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

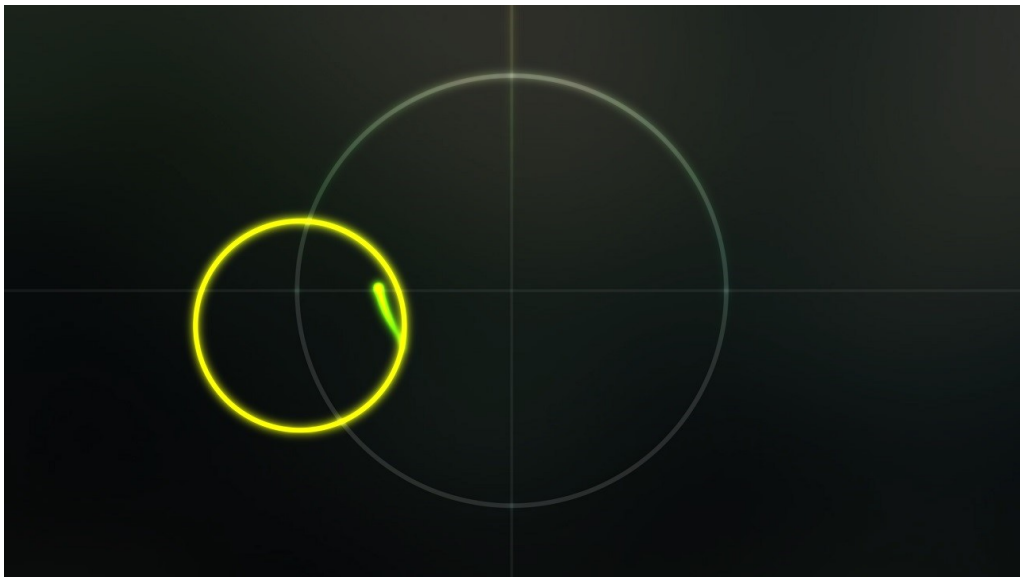
OBJECTIVES

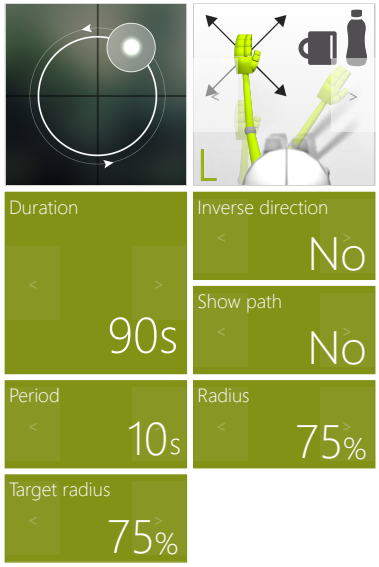
- 3D space movements reproduction
- Balance and equilibrium training
- Test the limits of balance and equilibrium

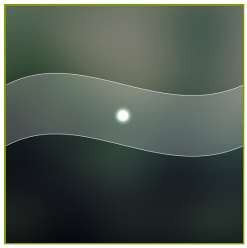
INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS





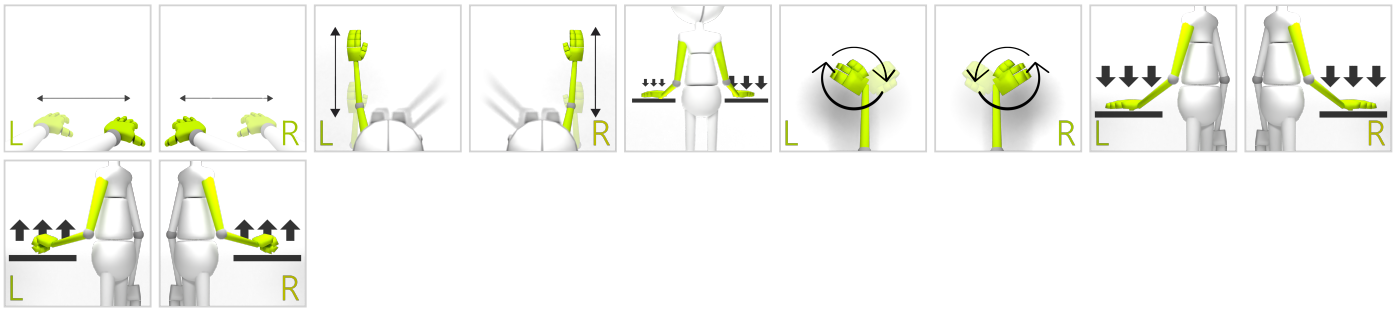


MOVEMENT PRECISION

GRAPH

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

CONTROL MODES



RESULTS

ADJUSTMENTS

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

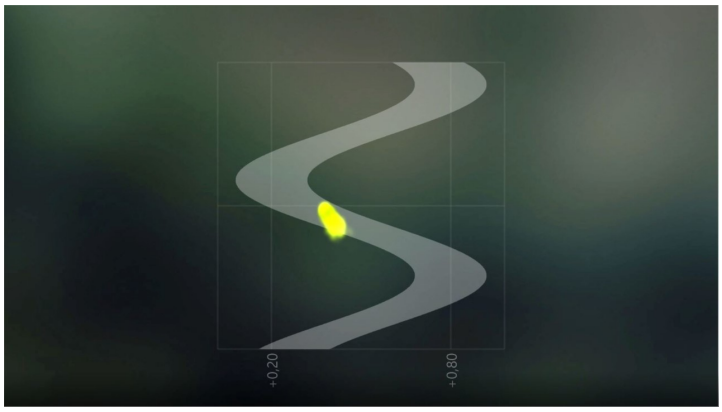
OBJECTIVES

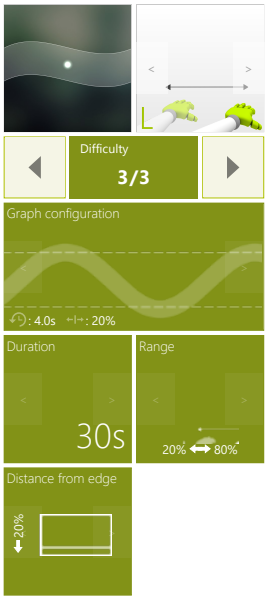
- Movement precision
- Activity in a given rhythm
- Repetitive movements
- Hands raising

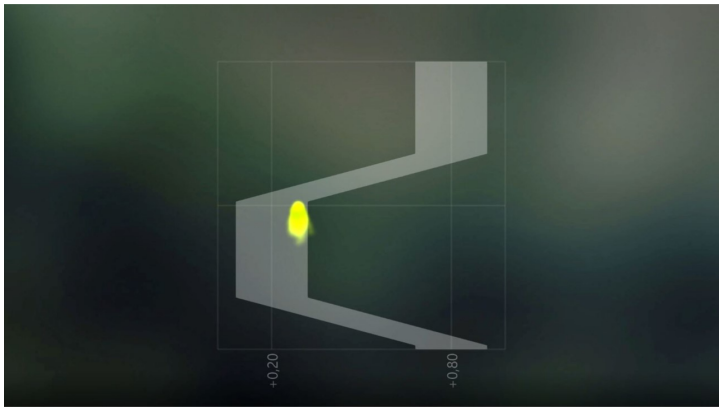
INSTRUCTION FOR PATIENT

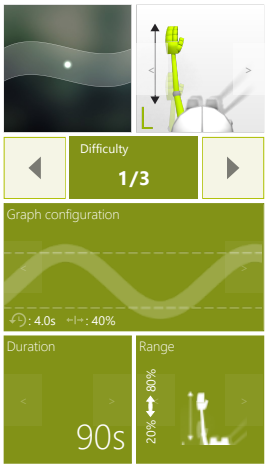
Try to stay within the borders

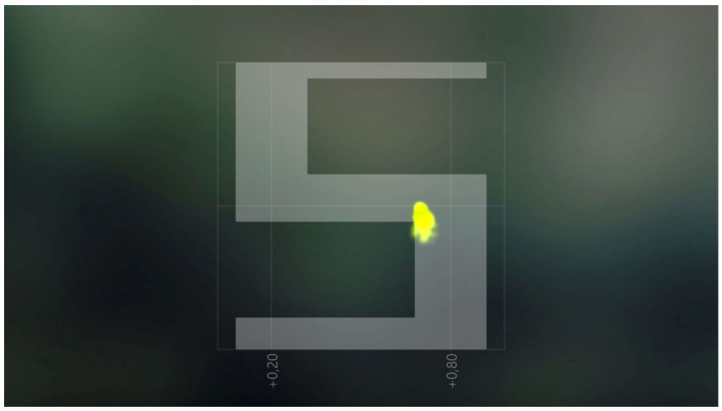
SAMPLE SETTINGS

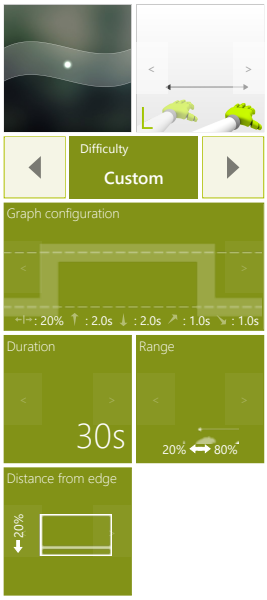


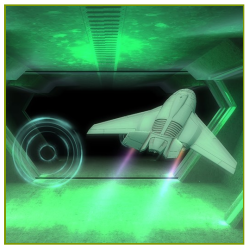










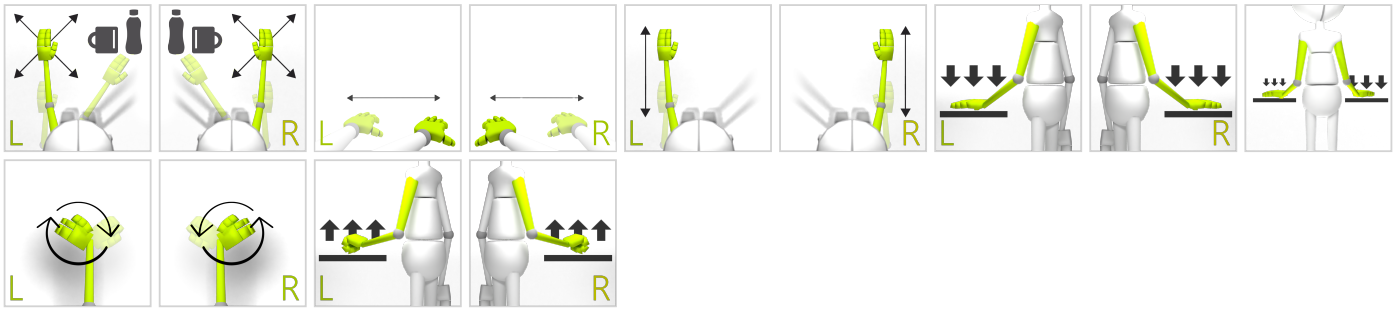


FUNCTIONAL MOVEMENTS

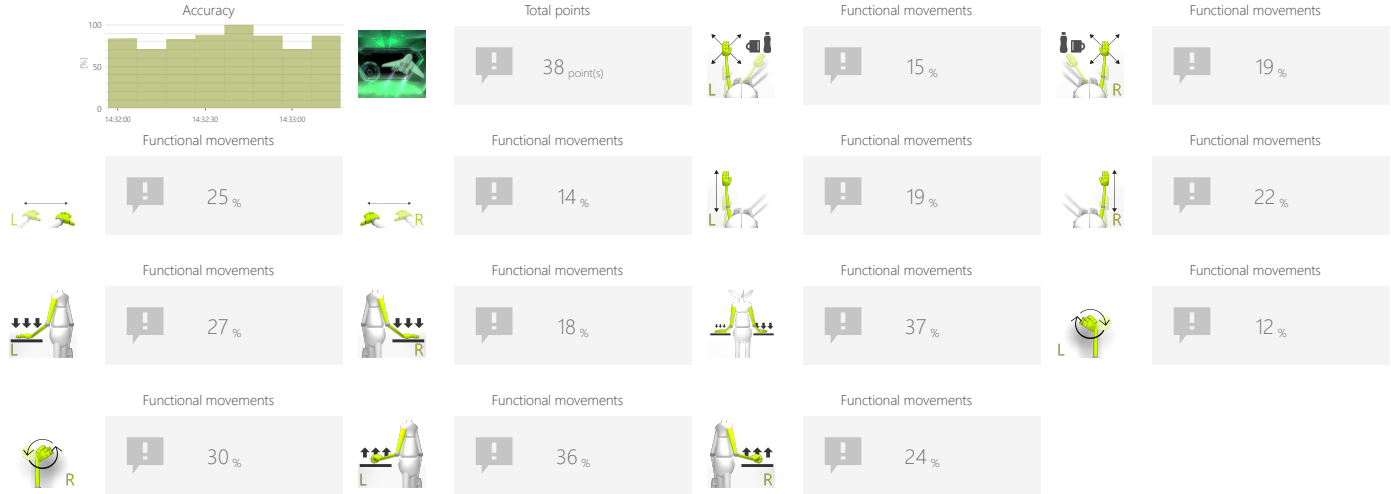
AIRPLANE

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Player speed

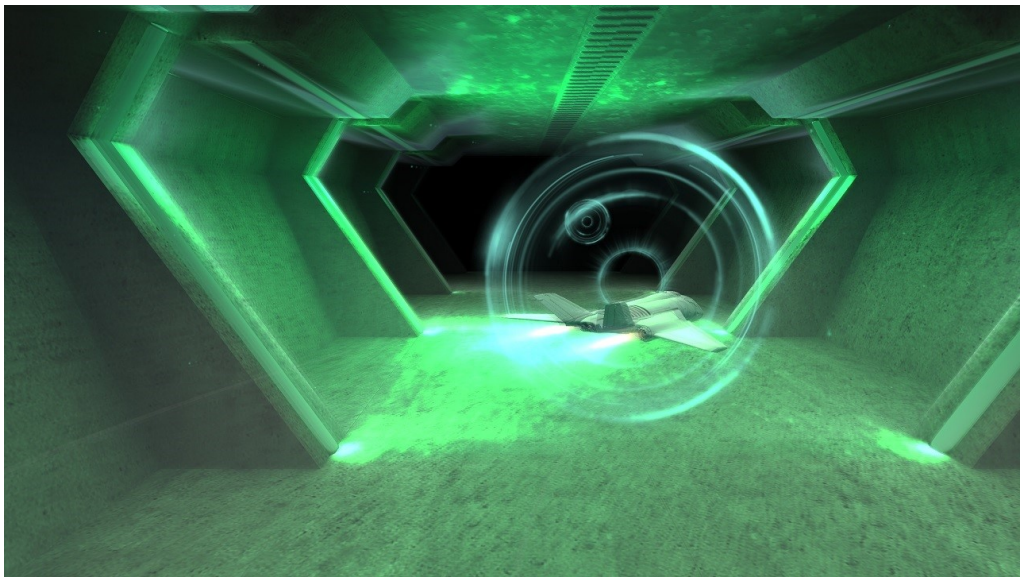
OBJECTIVES

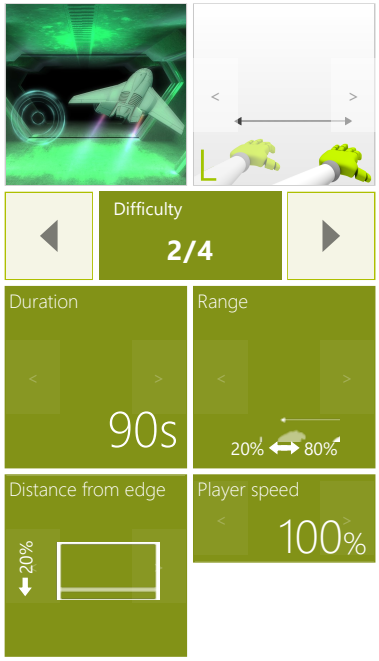
- Focusing
- Perceptivity
- Movement precision
- Predicting the trajectory of objects in 3D space
- Balance and equilibrium training

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



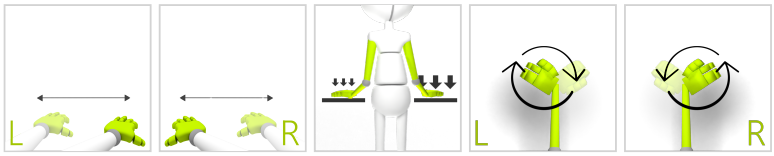


FUNCTIONAL MOVEMENTS

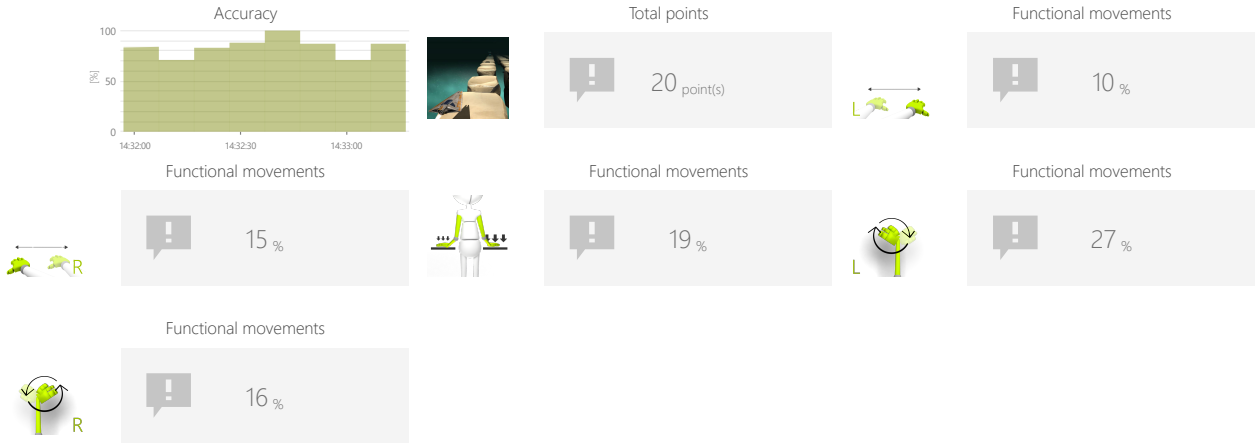
STONES

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Distance from edge
- Player speed

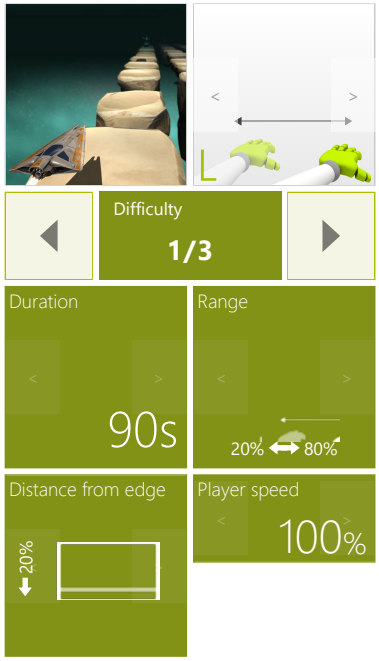
OBJECTIVES

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

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS

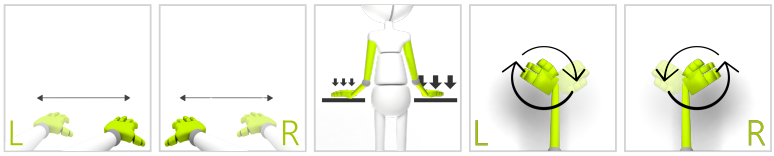


FUNCTIONAL MOVEMENTS

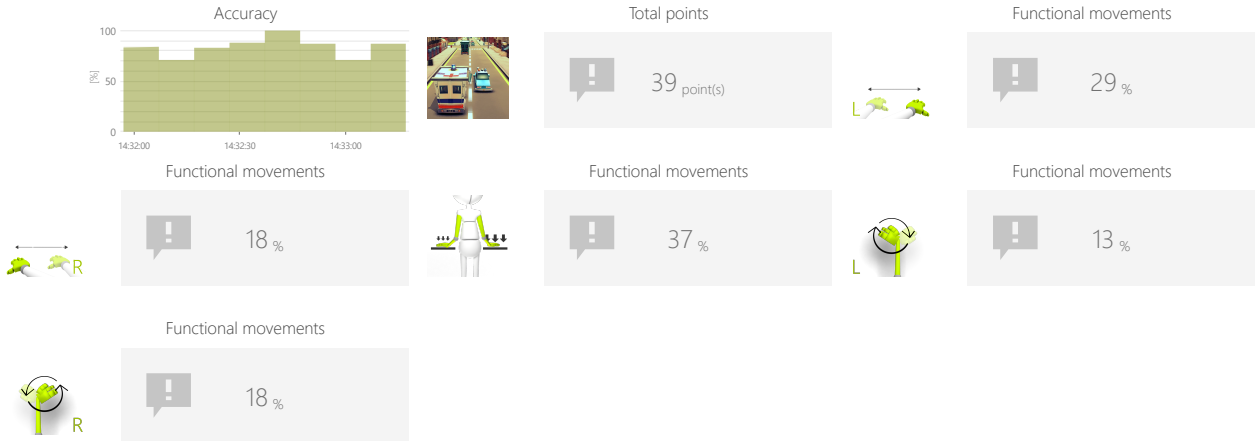
AMBULANCE

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 from edge
- Distance between cars
- Player speed

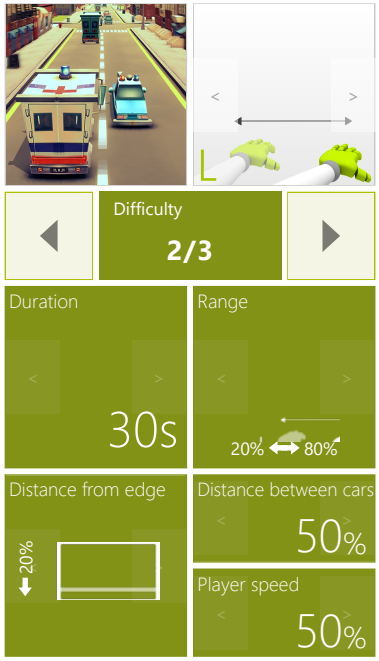
OBJECTIVES

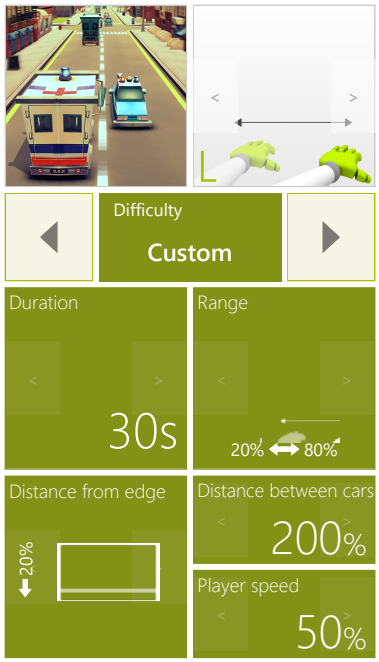
- Balance and equilibrium training
- Dynamics of planned movements
- Focusing
- Speed of decision making
- Visual motor coordination

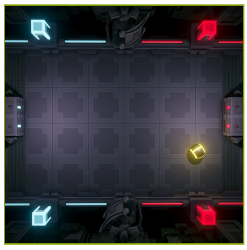
INSTRUCTION FOR PATIENT

Go as fast as you can and avoid hitting other cars

SAMPLE SETTINGS





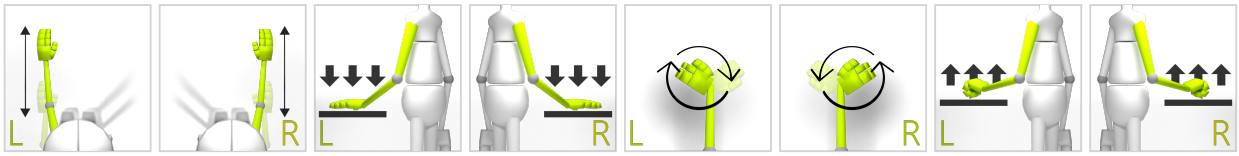


FUNCTIONAL MOVEMENTS

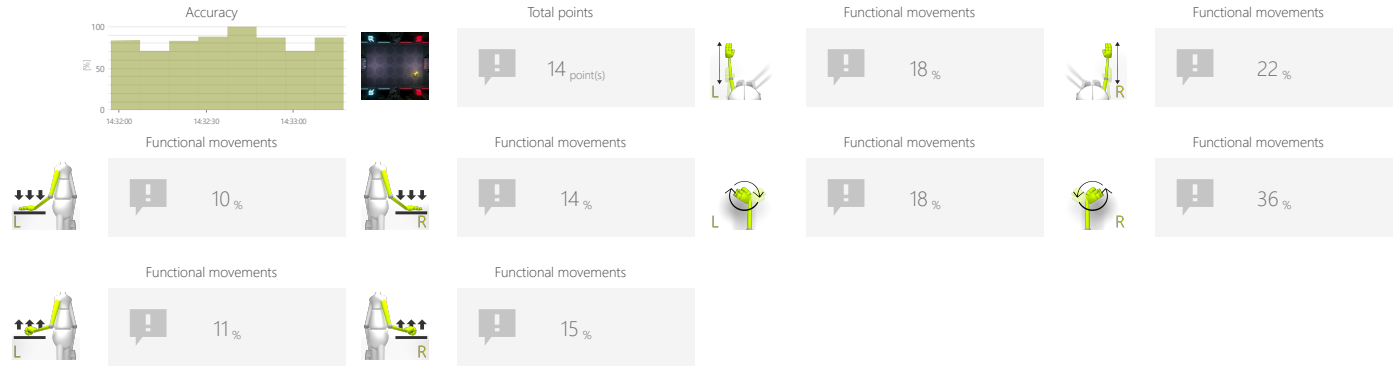
PONG

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
- Distance from edge
- Speed of objects

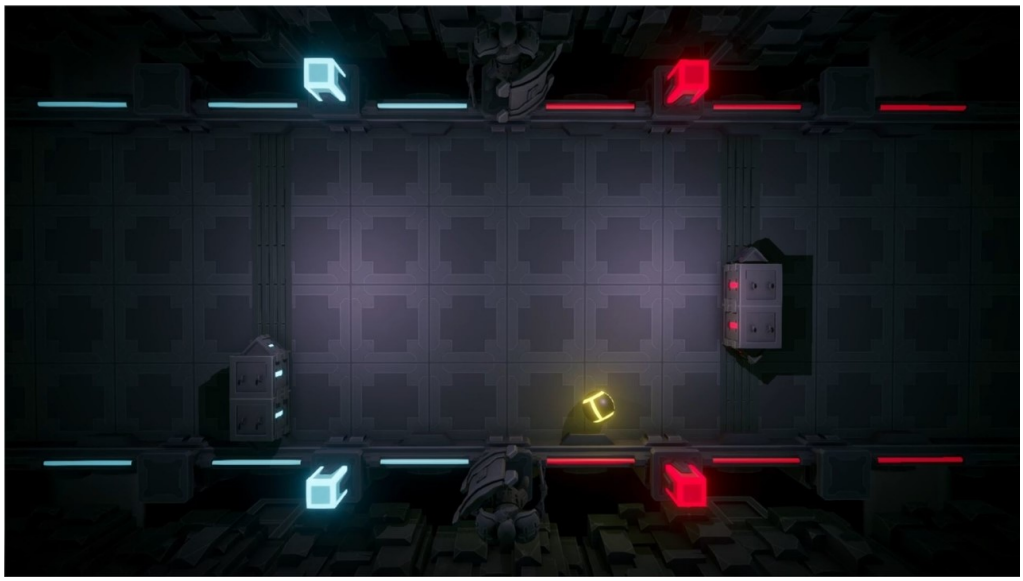
OBJECTIVES

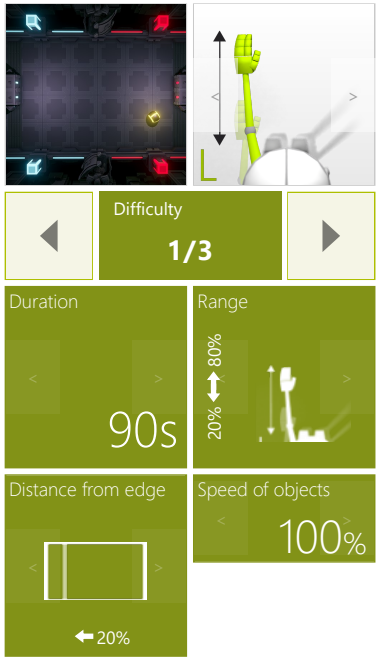
- Planned movements
- Focusing
- Predicting the trajectory of objects

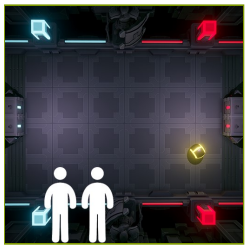
INSTRUCTION FOR PATIENT

Use the paddles to hit a ball back and forth

SAMPLE SETTINGS





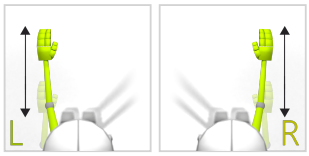


FUNCTIONAL MOVEMENTS

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



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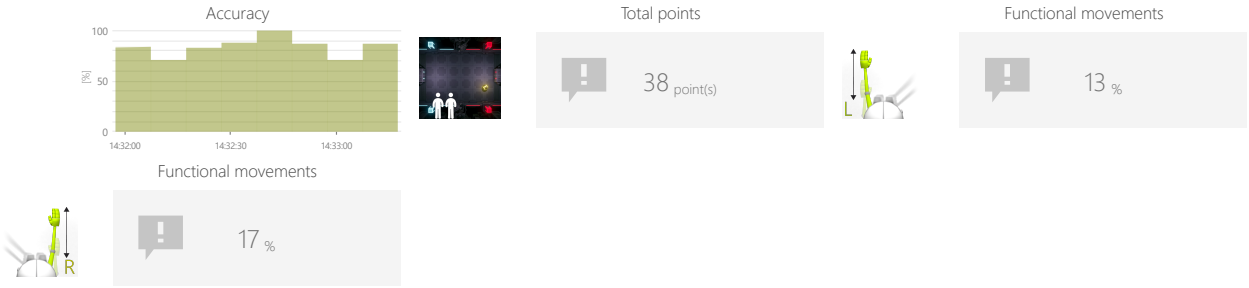


ADJUSTMENTS

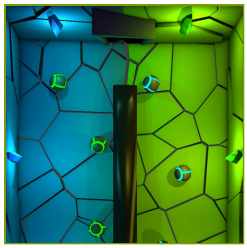
- Task duration
- Range
- Distance from edge
- Speed of objects

OBJECTIVES

- Planned movements
- Focusing
- Predicting the trajectory of objects

INSTRUCTION FOR PATIENT

Use the paddles to hit a ball back and forth

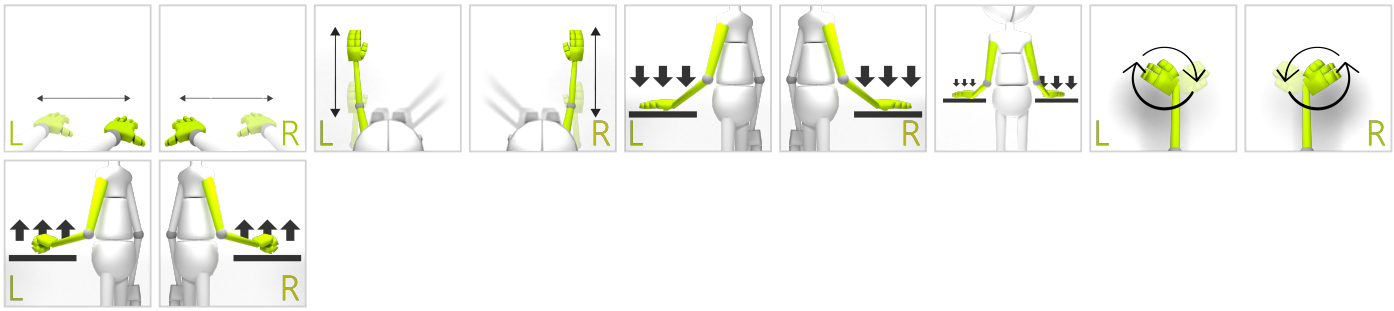


DIVIDED ATTENTION

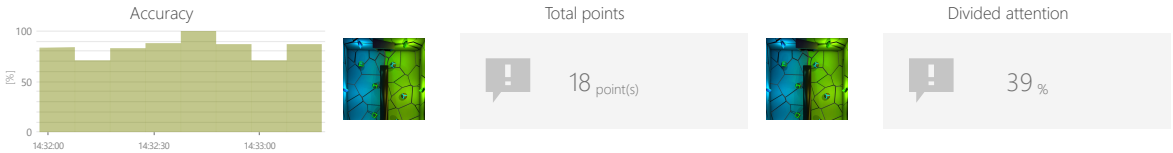
SORTER

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Distance from edge
- Number of objects
- Gap size
- Speed of objects

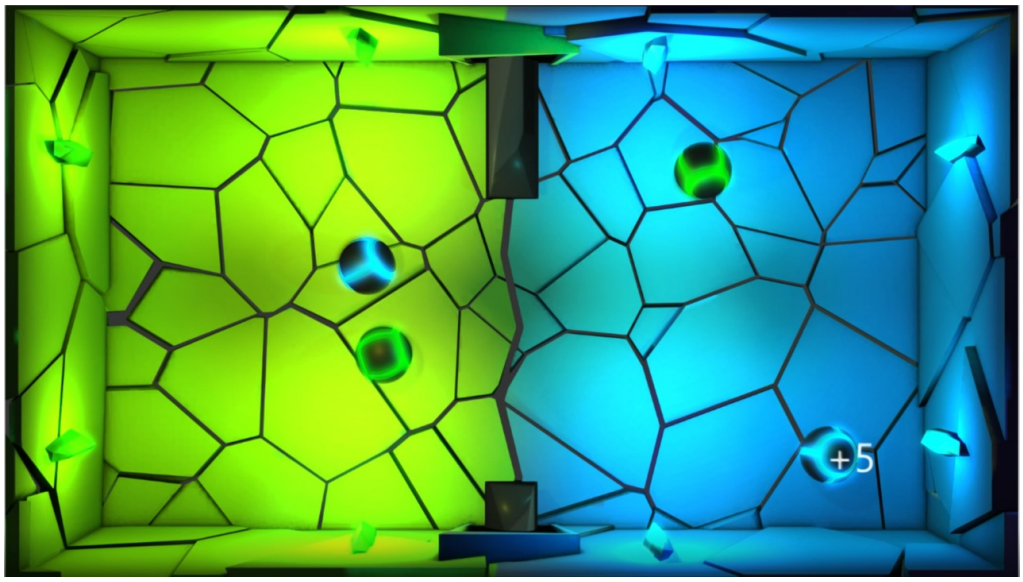
OBJECTIVES

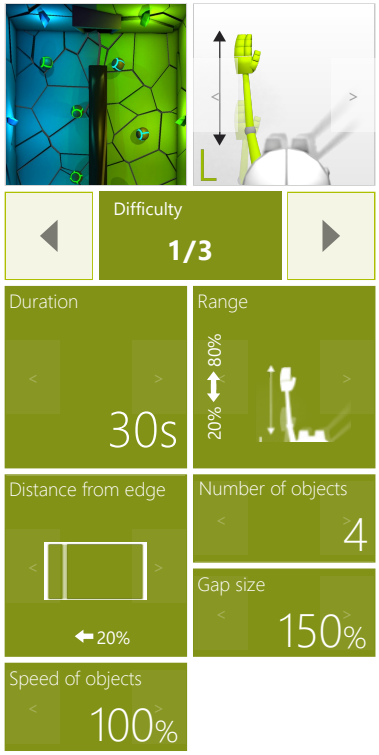
- Predicting the trajectory of objects
- Focusing
- Perceptivity
- Movement precision
- Exercise with or without support from healthy limb

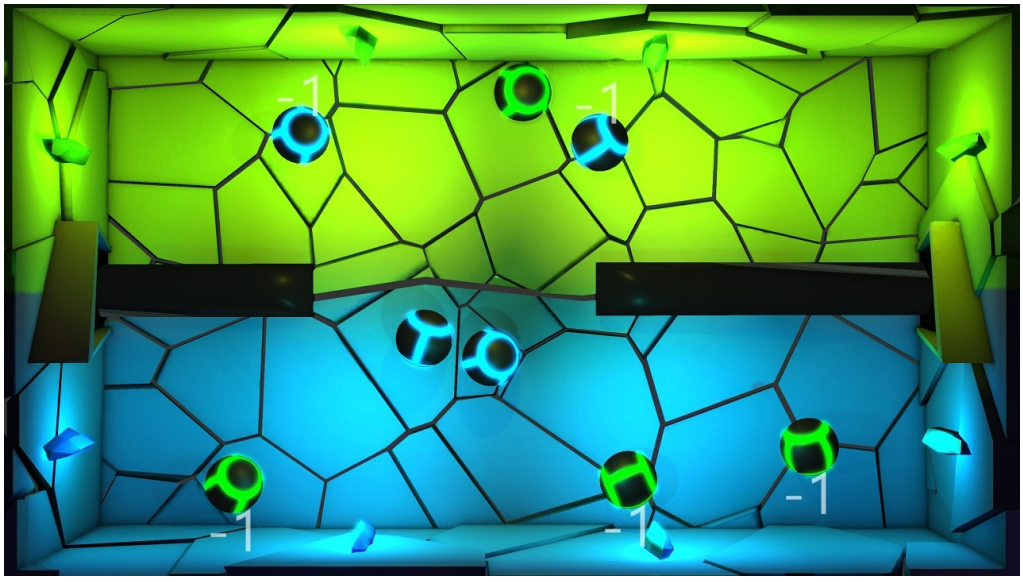
INSTRUCTION FOR PATIENT

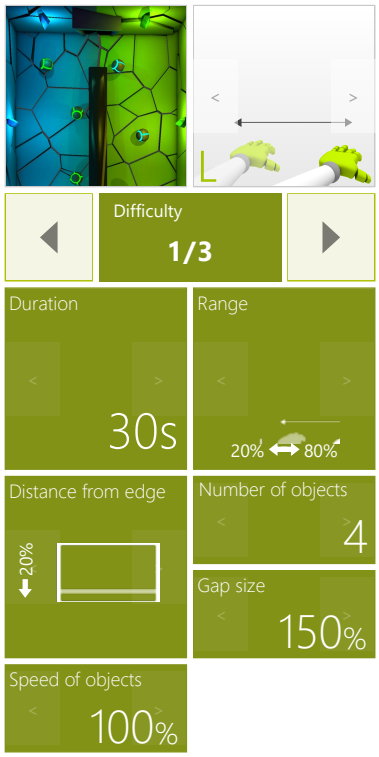
Pass or block the balls so that the blue balls are on the blue side and the green balls are on the green side of the screen.

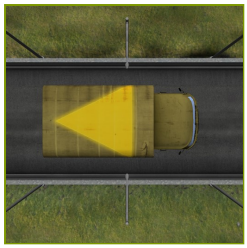
SAMPLE SETTINGS









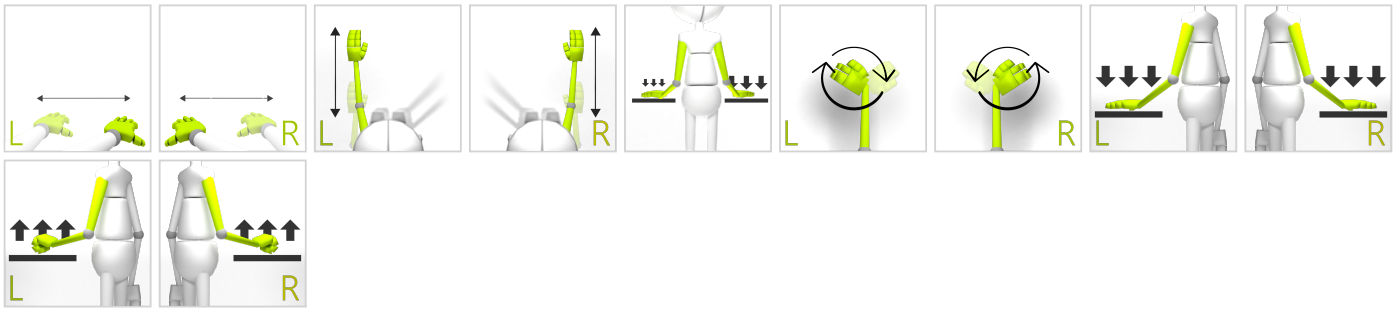


MEMORY

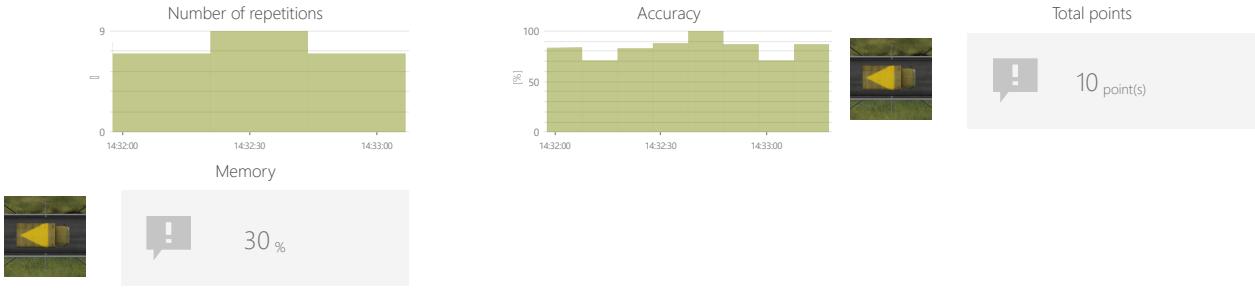
TRUCKS

Measure and train individual's skills to memorize information.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Range
- Distance from edge
- Variations

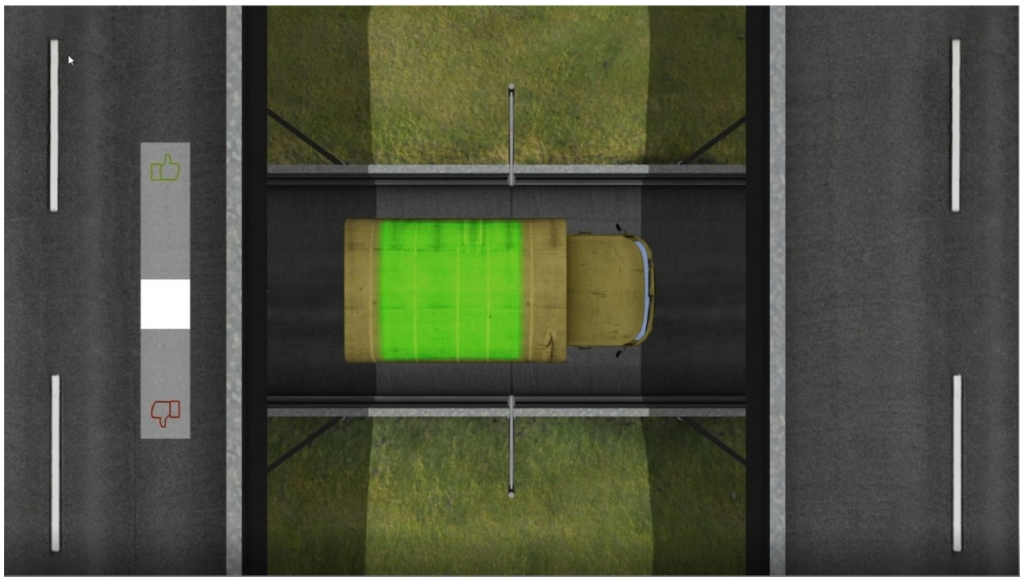
OBJECTIVES

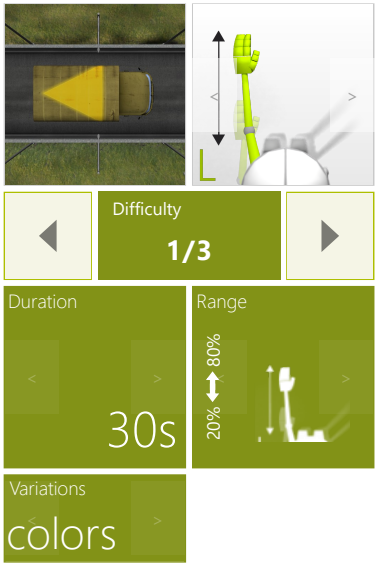
- Logical tasks
- Focusing
- Perceptivity

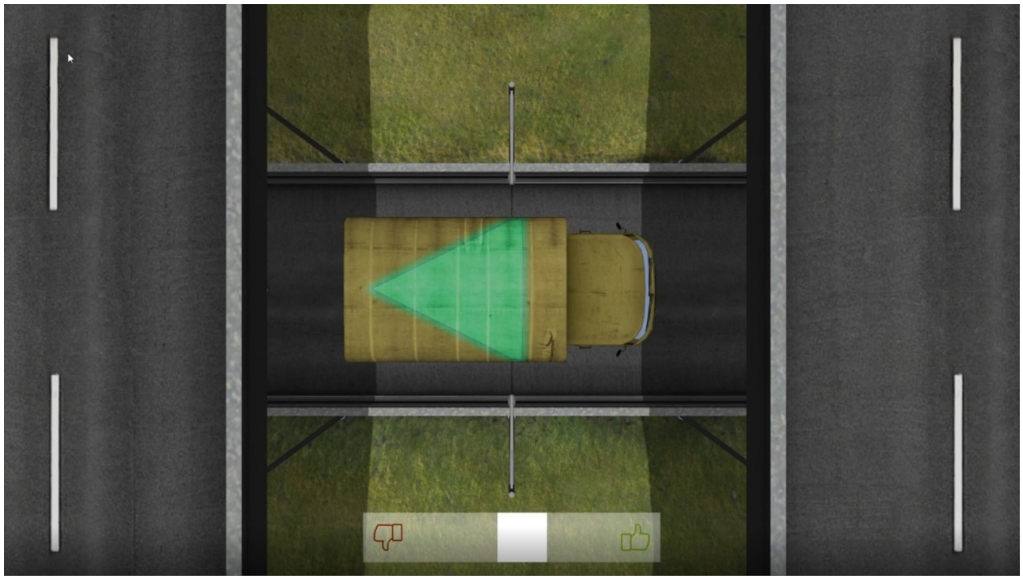
INSTRUCTION FOR PATIENT

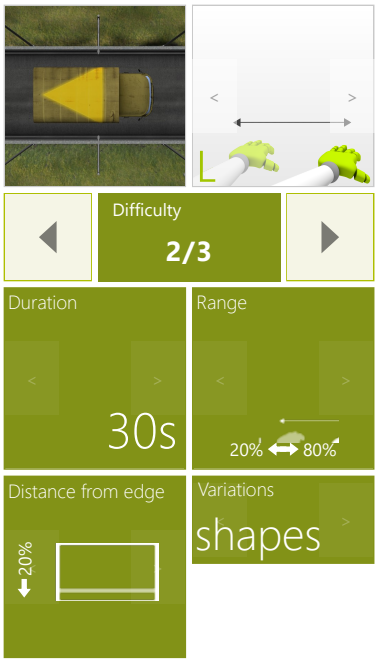
Remember the shape and/or its color on the roof of the car you see. Decide with thumbs up or down whether the next car has the same shape and/or color on the roof as the previous one.

SAMPLE SETTINGS









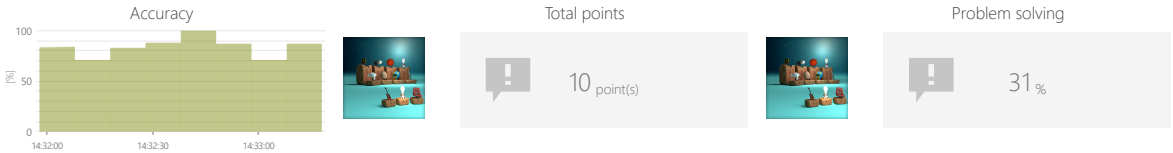
PROBLEM SOLVING

CLONES

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

CONTROL MODES

RESULTS



ADJUSTMENTS

- Task duration
- Time to complete action
- Range
- Distance from edge
- Number of pairs

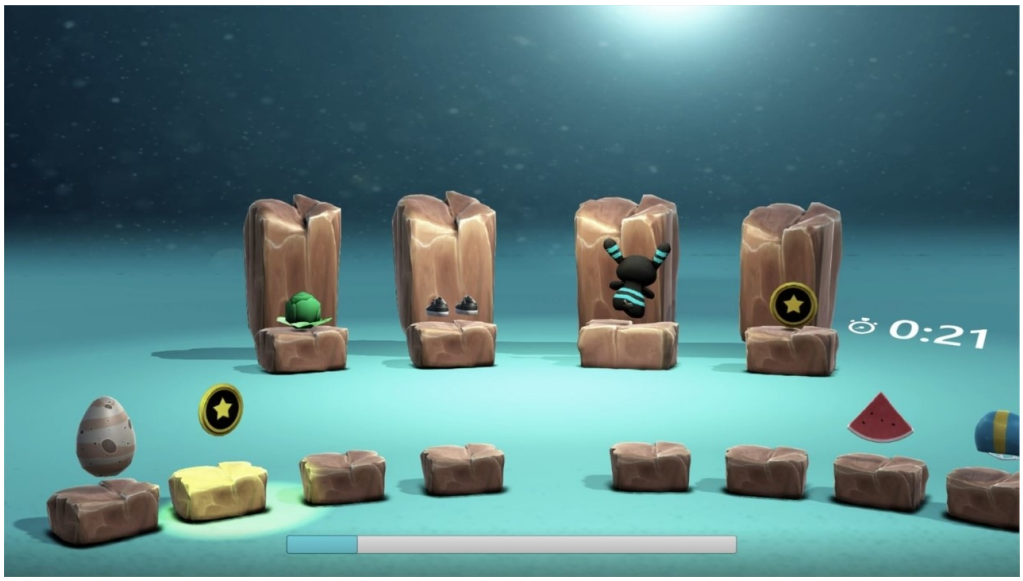
OBJECTIVES

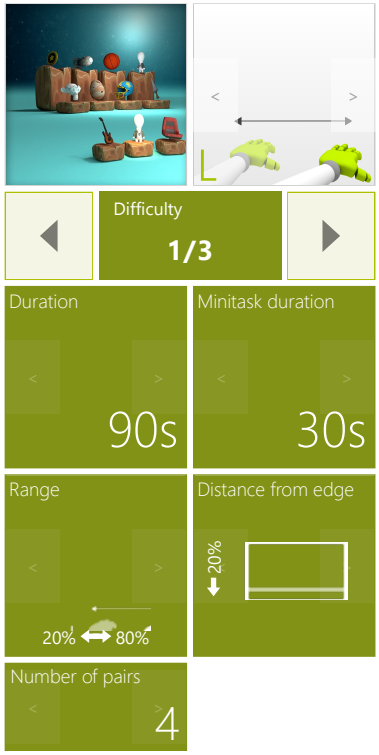
- Perceptivity
- Visual motor coordination
- Logical tasks

INSTRUCTION FOR PATIENT

Select the item which has a pair on the screen

SAMPLE SETTINGS





SPECIALIZED

BLOOD PRESSURE

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

CONTROL MODES

OBJECTIVES

- Monitor external parameters

INSTRUCTION FOR PATIENT

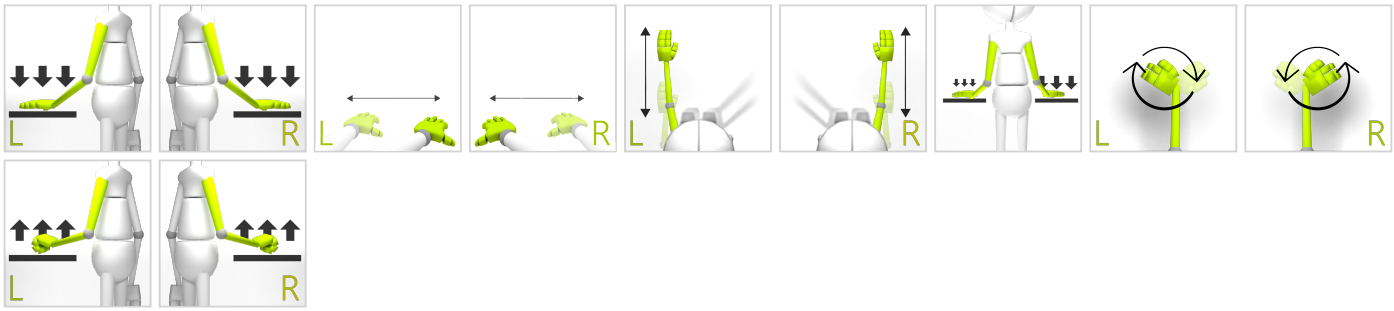
Measure yourself your blood pressure and type it in the result

SPECIALIZED

GONOGO TEST

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

CONTROL MODES



RESULTS

ADJUSTMENTS

- Range
- Distance from edge
- Required proper repetitions
- Hit if

OBJECTIVES

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

INSTRUCTION FOR PATIENT

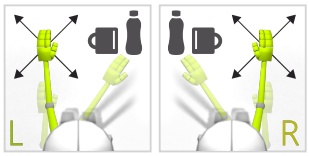
Hit the button when positive trigger appears

SPECIALIZED

PRECISION TEST

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

CONTROL MODES



OBJECTIVES

INSTRUCTION FOR PATIENT

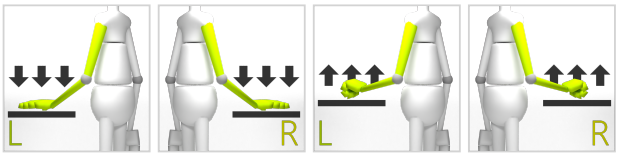
Draw a green heart over each white heart visible on the screen. Try to be very accurate

SPECIALIZED

X-COGNI STRENGTH TEST

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

CONTROL MODES



OBJECTIVES

INSTRUCTION FOR PATIENT

Press or pull each white circle visible on the screen. Use as much force as you can.