VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

BASE PACK FOR CAPRI

2021.4

Therapeutic tasks database 4

Range of motion 4

Speed 5

Movement precision 6

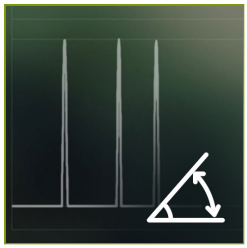
Functional movements 10

Divided attention 22

Memory 24

Problem solving 26

Specialized 30

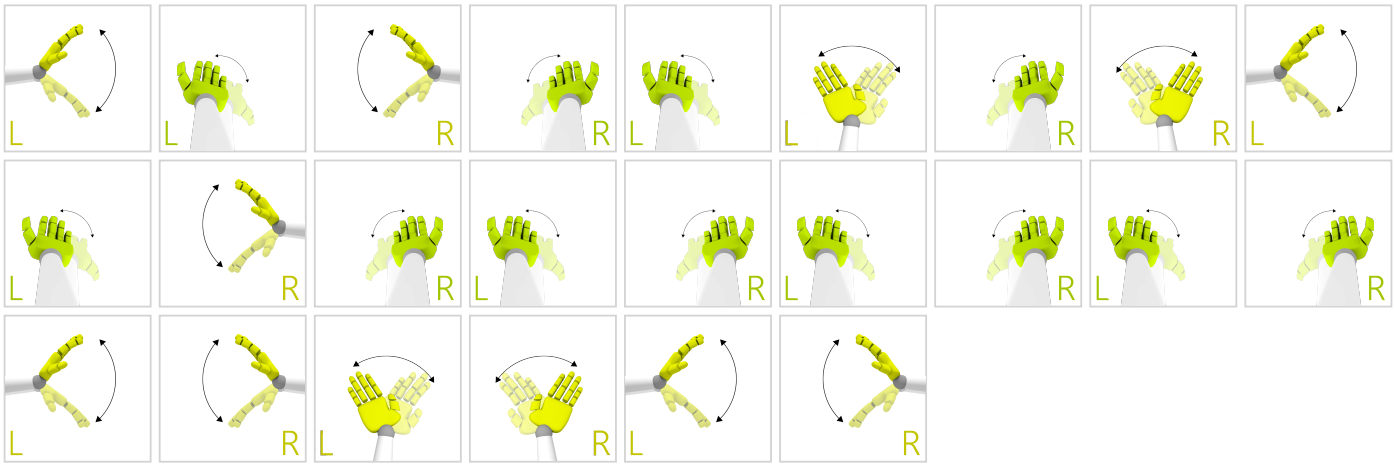


RANGE OF MOTION

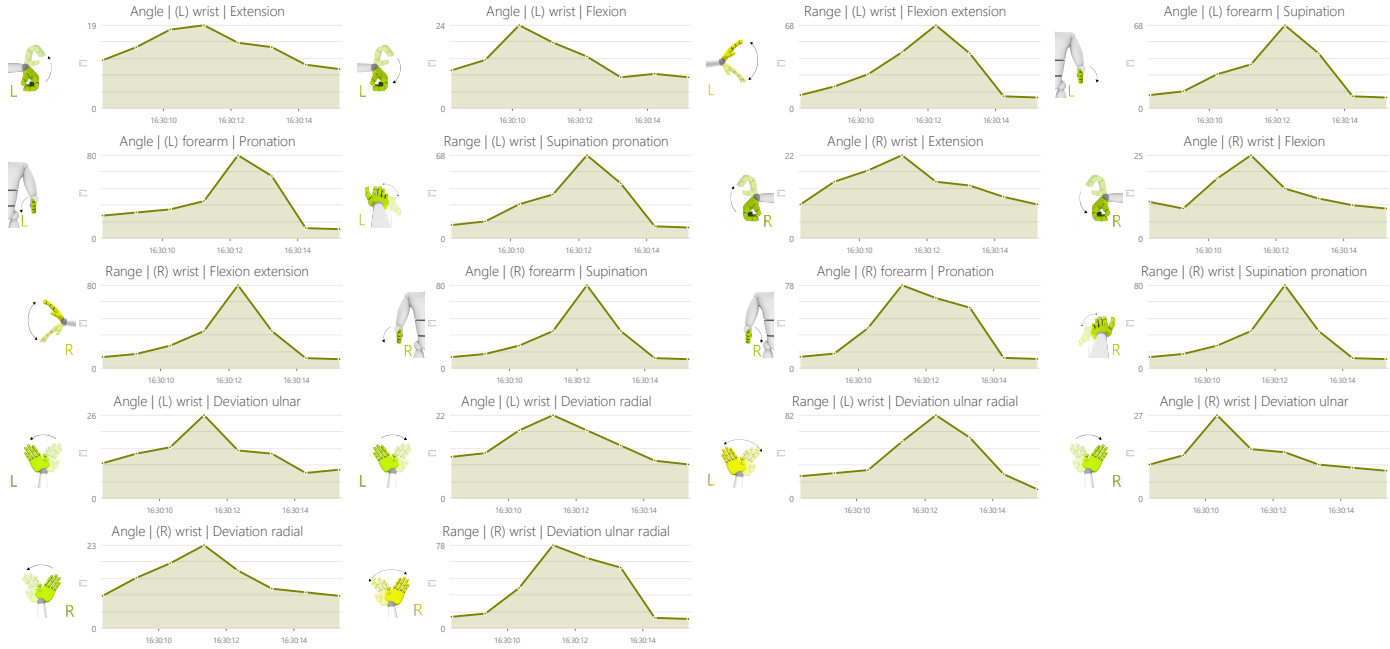
ANGLES EVALUATION

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Time to complete action

OBJECTIVES

- Range of motion examination

INSTRUCTION FOR PATIENT

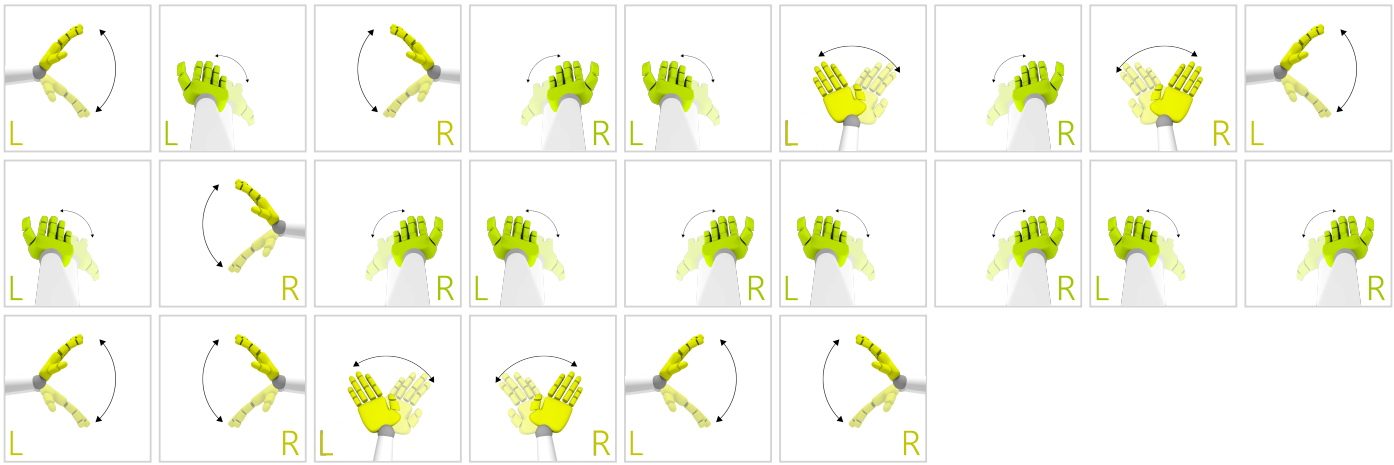
Try to achieve best result

SPEED

SPEED TEST

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

CONTROL MODES



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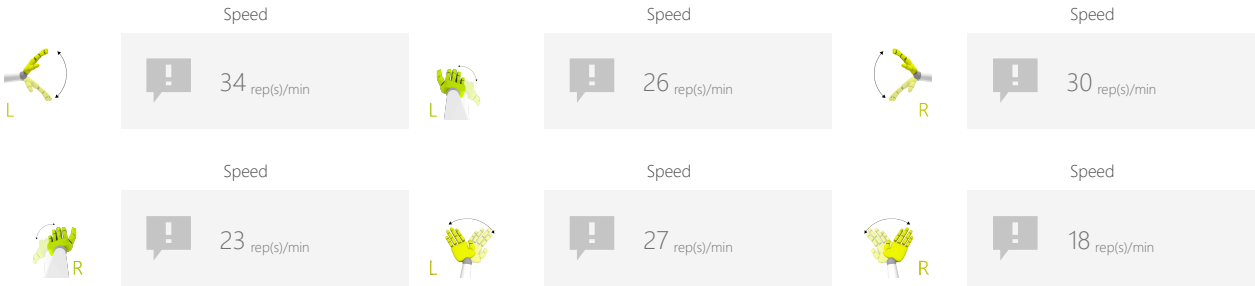


ADJUSTMENTS

- Range
- Time to complete action
- toAdd(ScalingRange)
- Base

OBJECTIVES

- Speed of movement
- Repetitive movements

INSTRUCTION FOR PATIENT

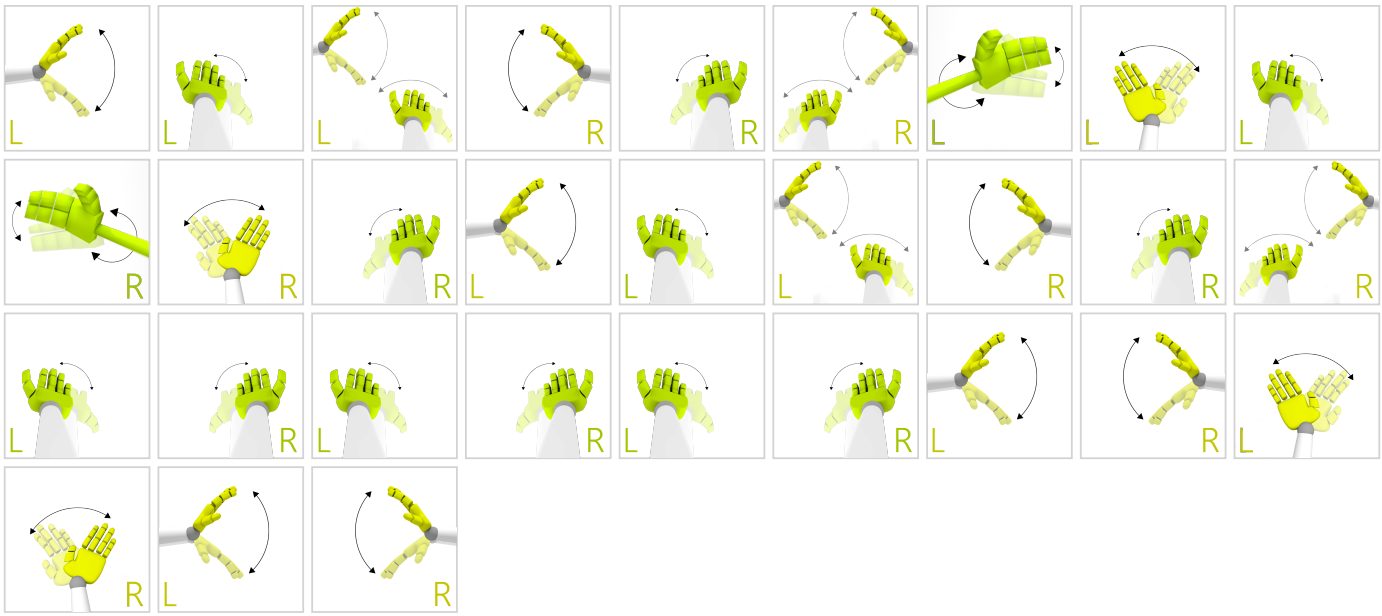
Perform the specified movement pattern as many times as possible

MOVEMENT PRECISION

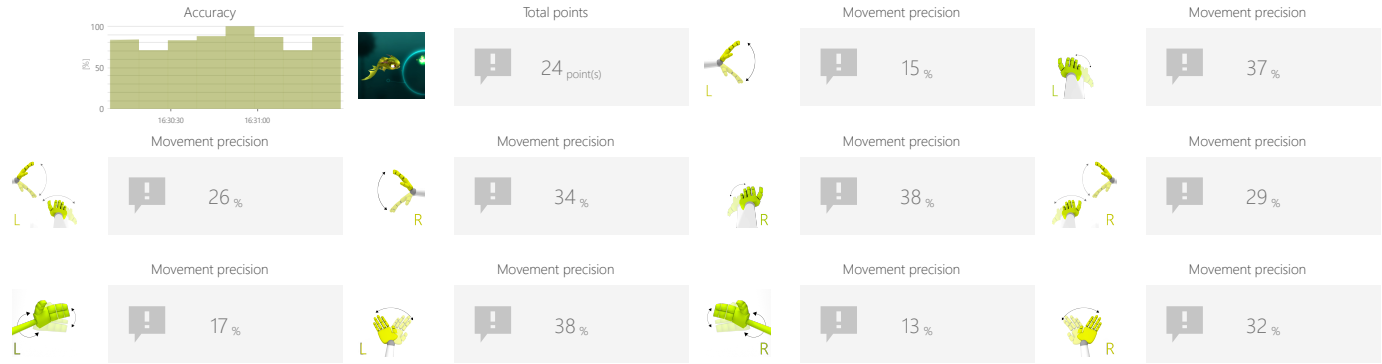
FISH

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Range
- Task duration
- Movement mode
- Route shape
- toAdd(ScalingRange)
- Speed of objects
- Base

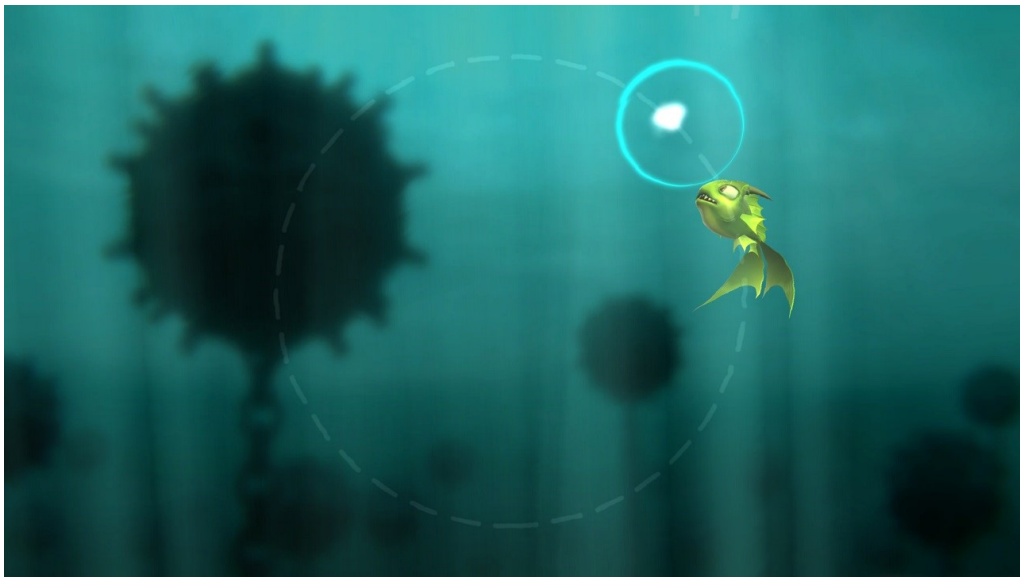
OBJECTIVES

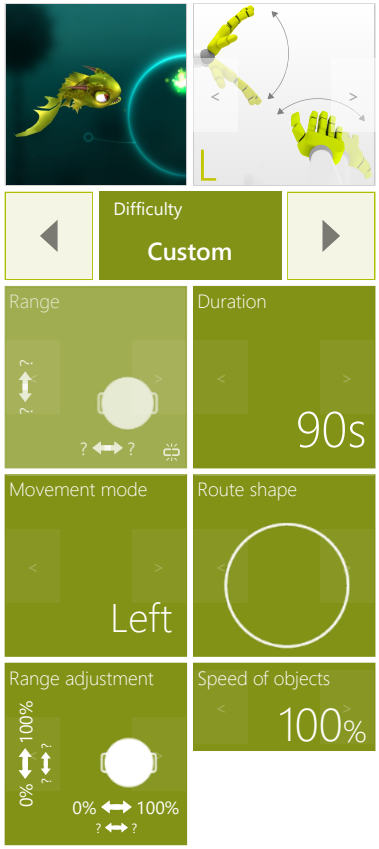
- 3D space movements reproduction
- Planned movements
- Muscle strengthening
- Movement precision
- Visual motor coordination

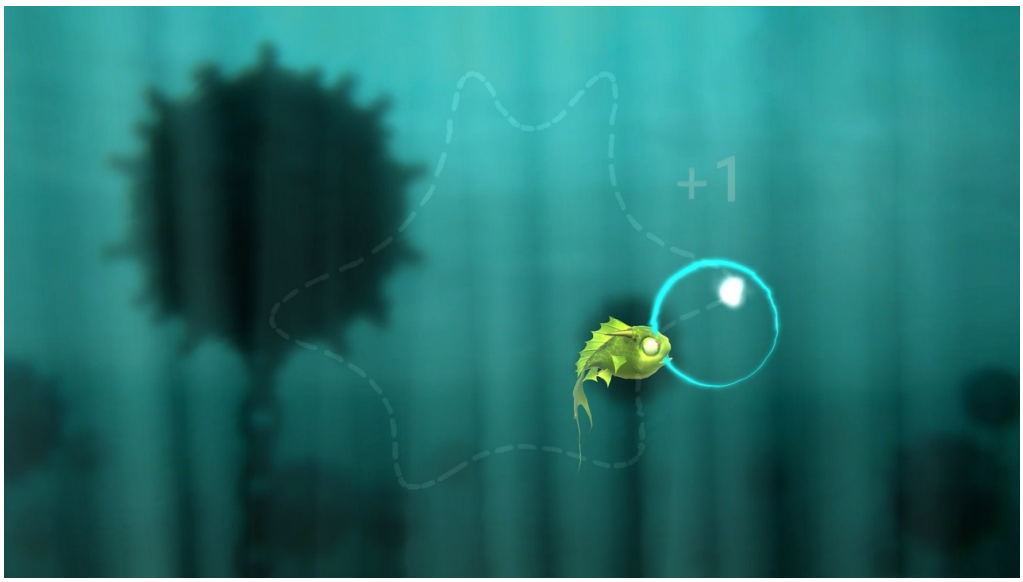
INSTRUCTION FOR PATIENT

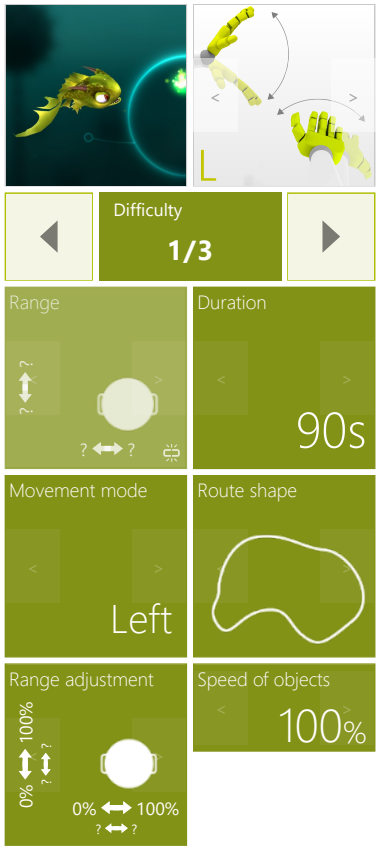
Move the blue circle to protect the sparks source from the fish. When the sparks source is inside the circle it is safe

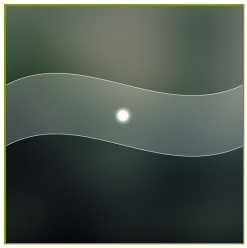
SAMPLE SETTINGS









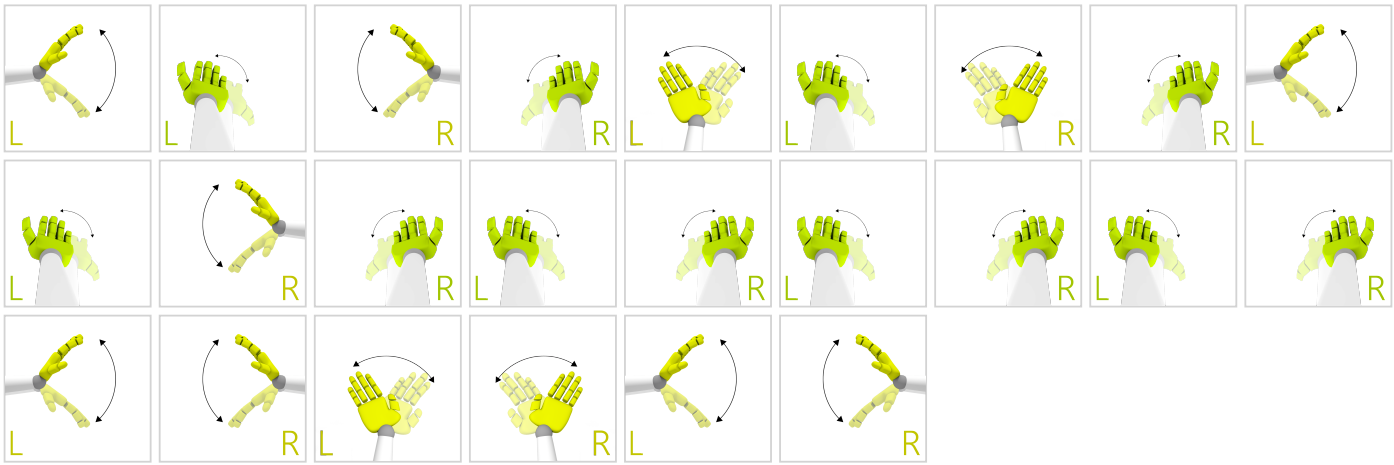


MOVEMENT PRECISION

GRAPH

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

CONTROL MODES



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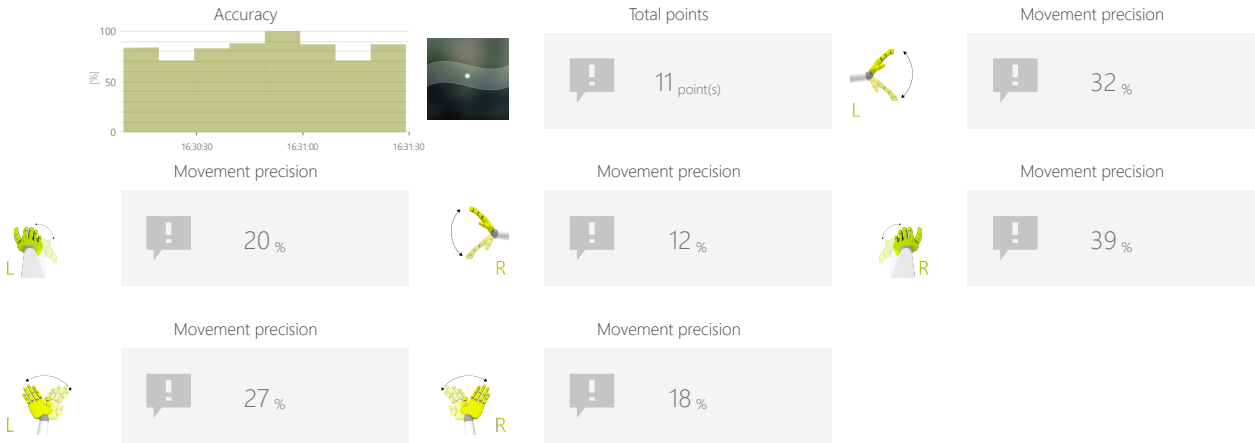


ADJUSTMENTS

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

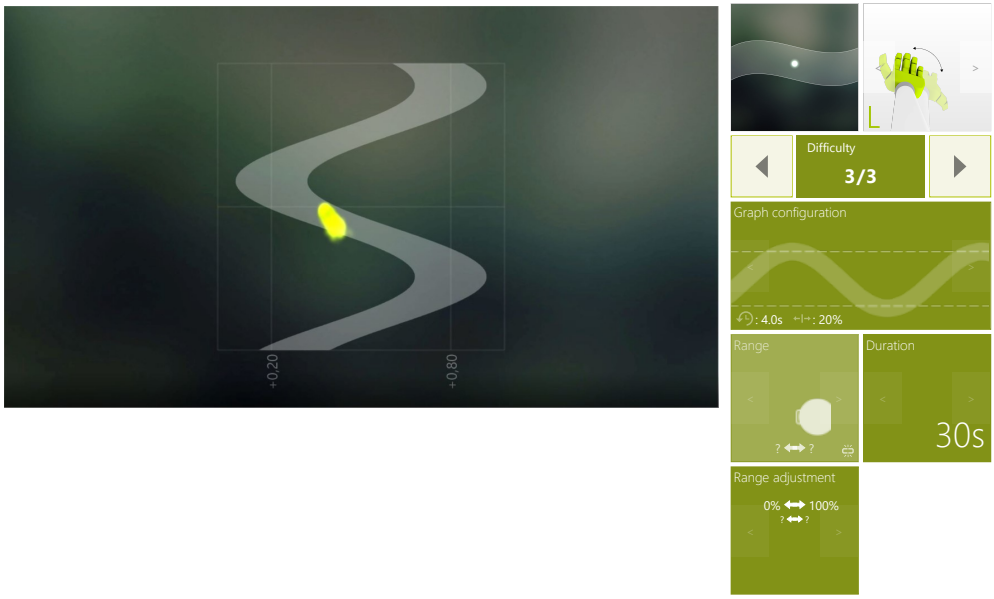
OBJECTIVES

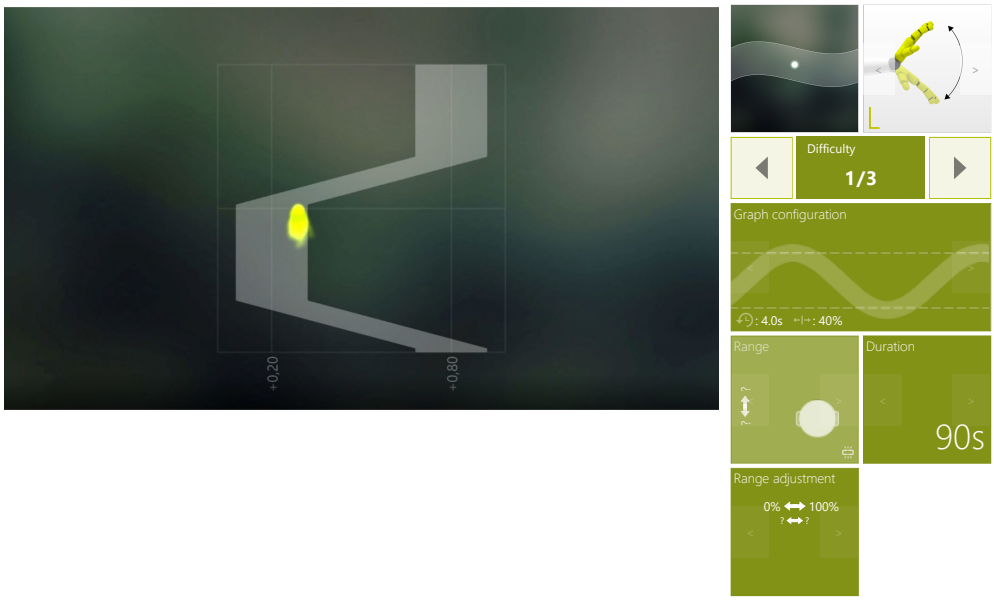
- Movement precision
- Activity in a given rhythm
- Repetitive movements
- Hands raising

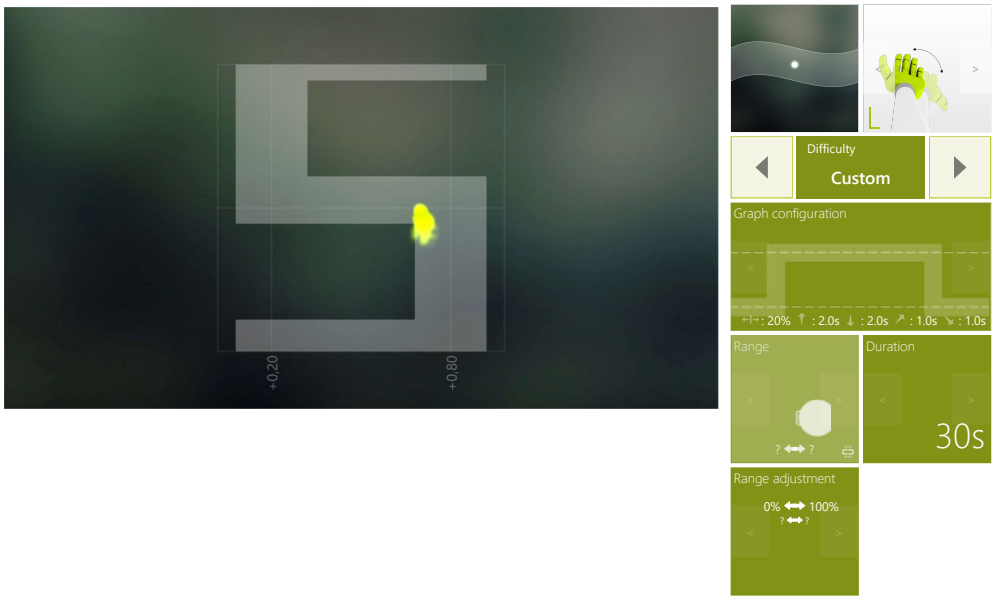
INSTRUCTION FOR PATIENT

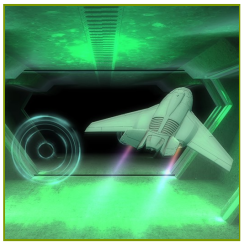
Try to stay within the borders

SAMPLE SETTINGS







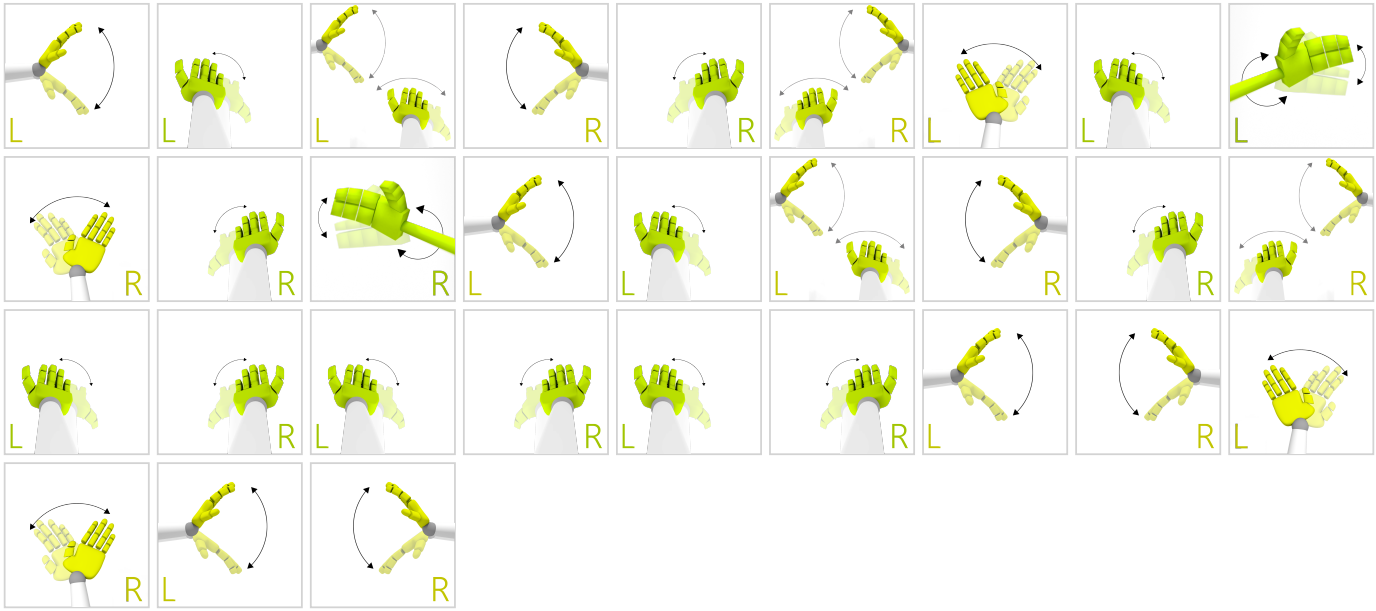


FUNCTIONAL MOVEMENTS

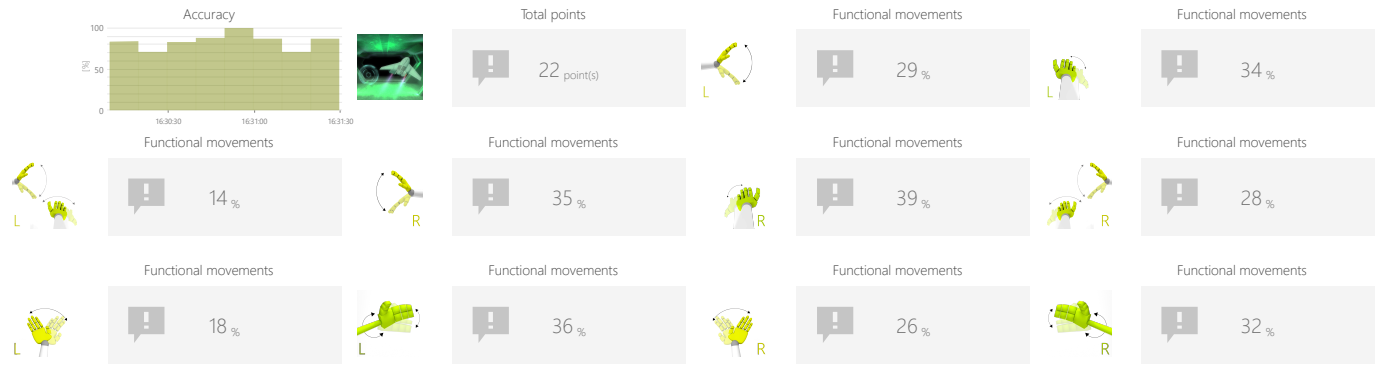
AIRPLANE

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

- Range
- Task duration
- toAdd(ScalingRange)
- Player speed
- Base

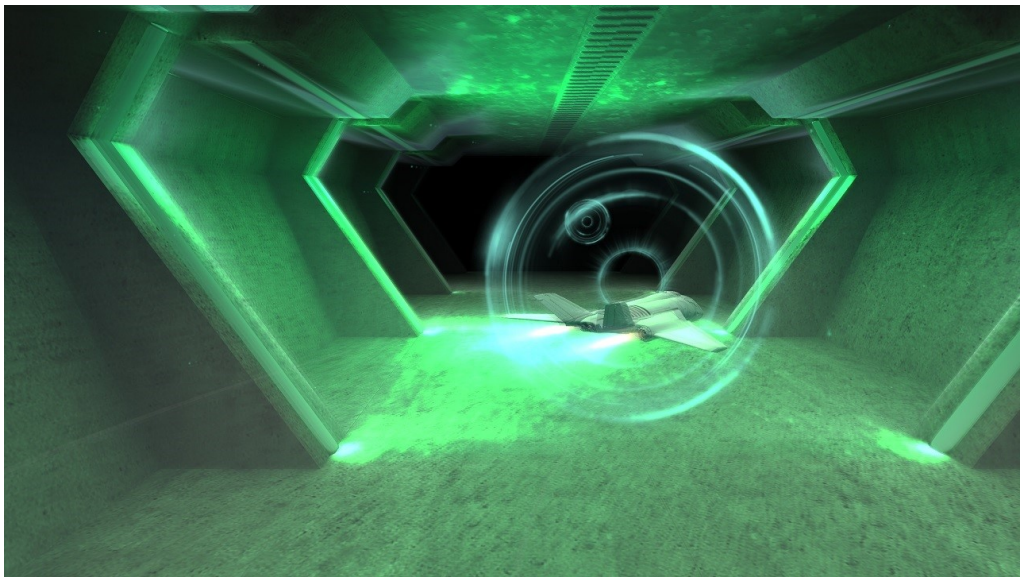
OBJECTIVES

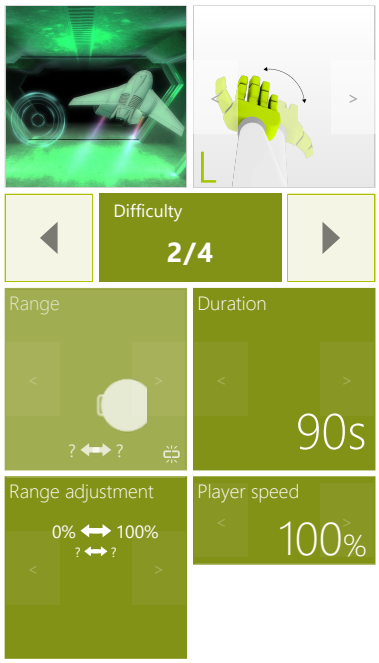
- Focusing
- Perceptivity
- Movement precision
- Predicting the trajectory of objects in 3D space
- Balance and equilibrium training

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



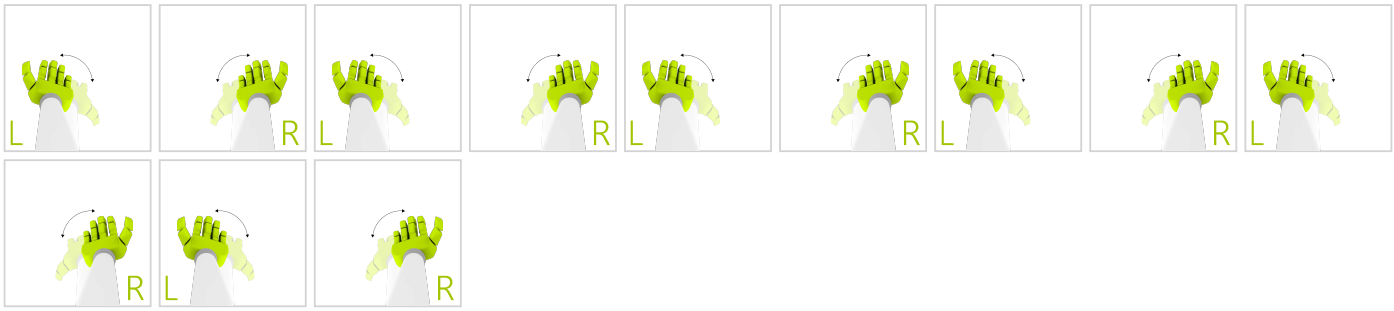


FUNCTIONAL MOVEMENTS

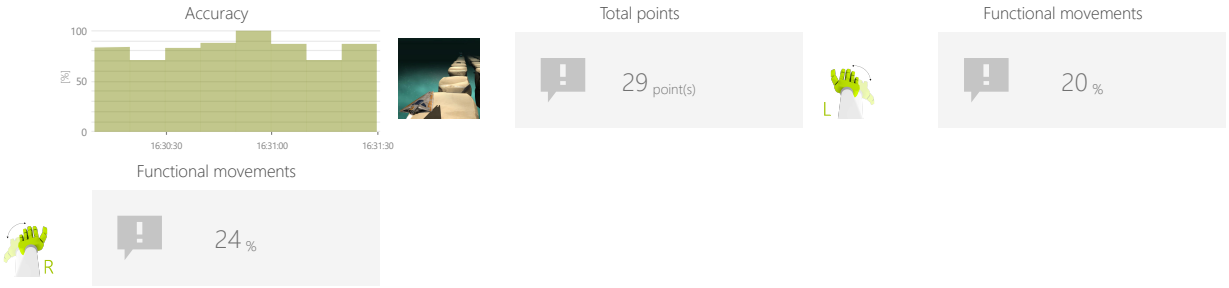
STONES

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



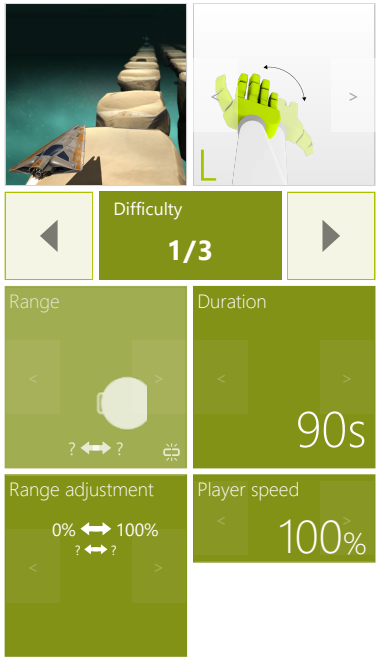
OBJECTIVES

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

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS

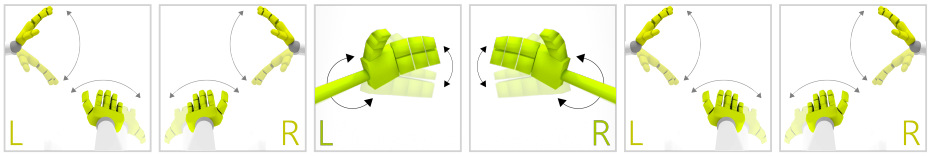


FUNCTIONAL MOVEMENTS

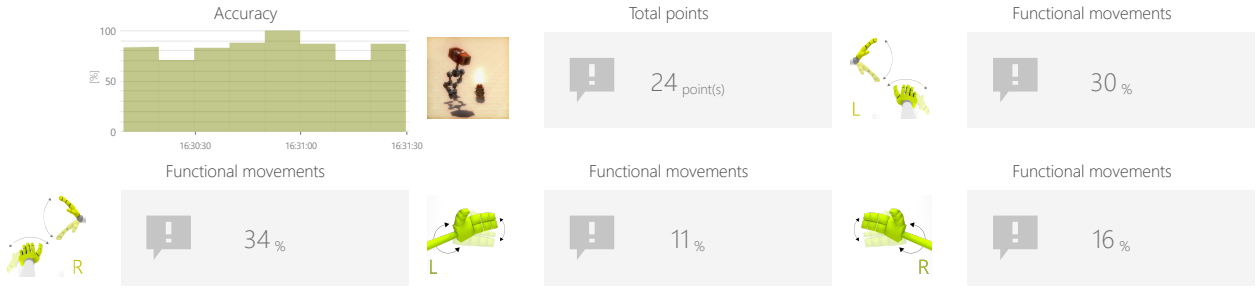
HAMMER

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

CONTROL MODES



RESULTS



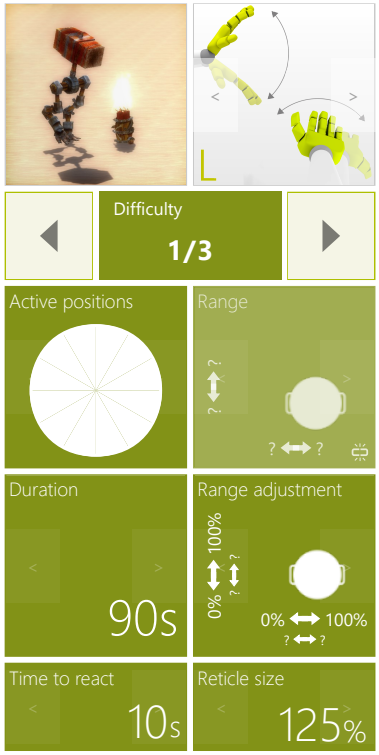
OBJECTIVES

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

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS

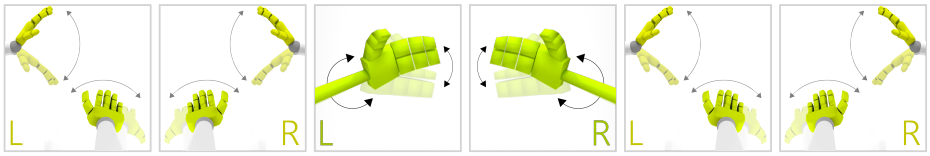


FUNCTIONAL MOVEMENTS

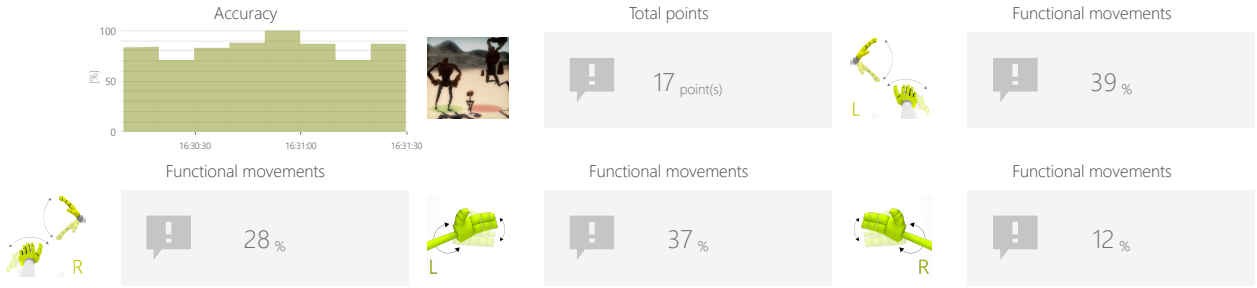
RUNAWAY

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

CONTROL MODES



RESULTS



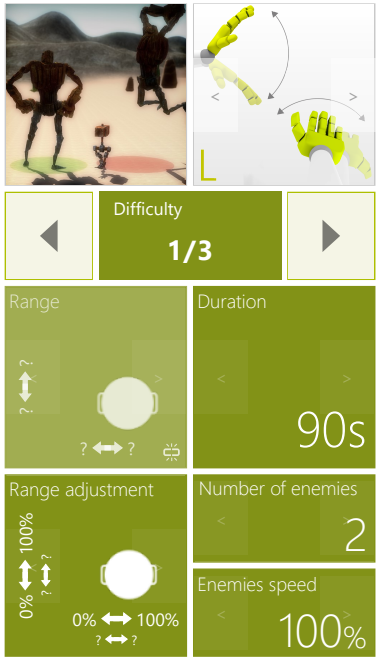
OBJECTIVES

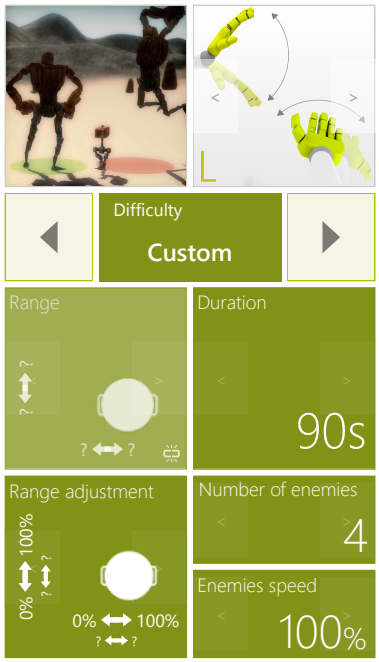
- Predicting the trajectory of objects in 3D space
- Response to negative visual stimuli
- Focusing
- Perceptivity
- Balance and equilibrium training

INSTRUCTION FOR PATIENT

Keep away from the big robots

SAMPLE SETTINGS



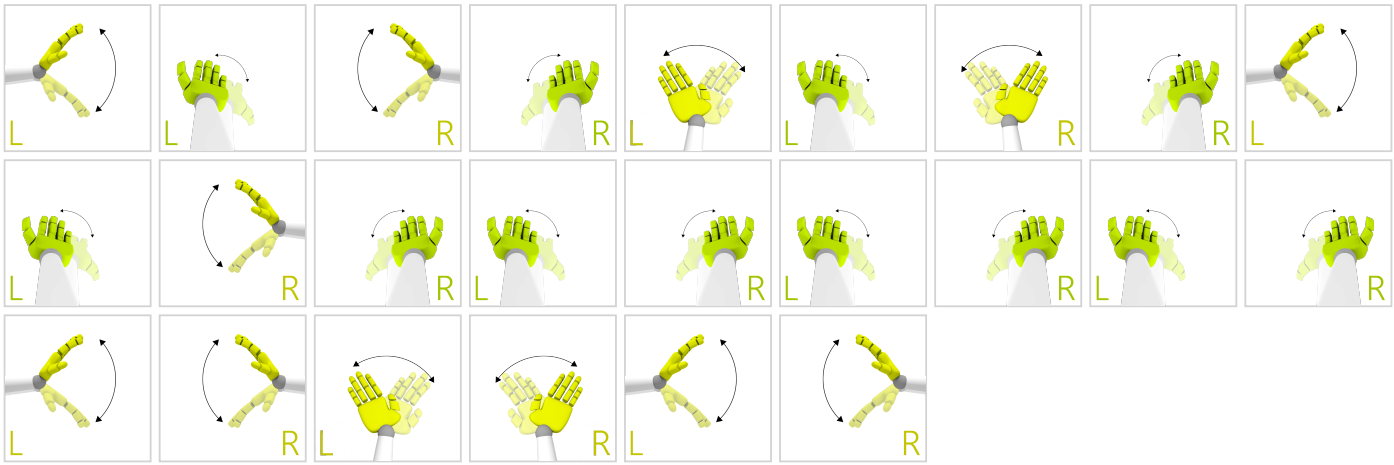


FUNCTIONAL MOVEMENTS

AUTOMATIC CANNON

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

CONTROL MODES



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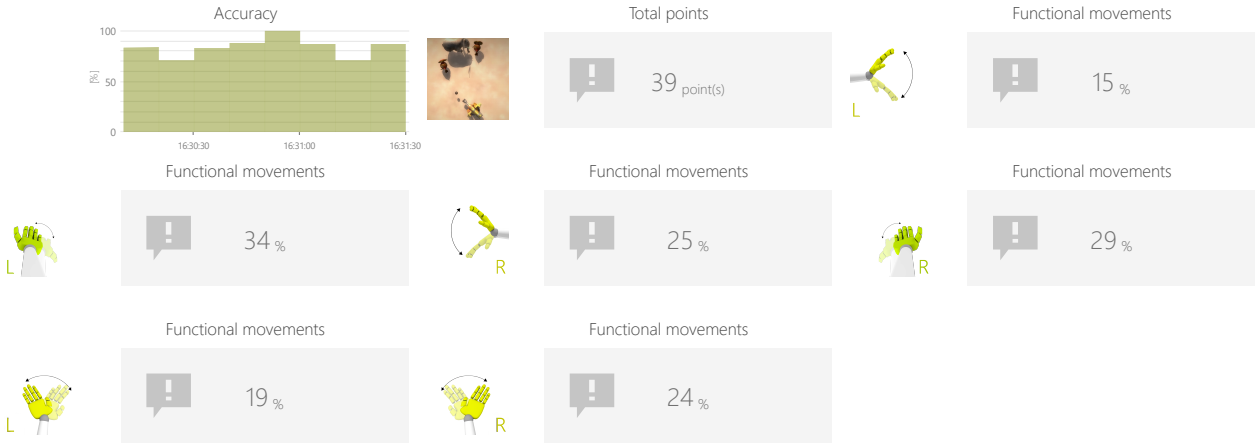


ADJUSTMENTS

- Range
- Task duration
- toAdd(ScalingRange)
- Enable distractors
- Time between cannonballs
- Time between enemies
- Enemies speed
- Base

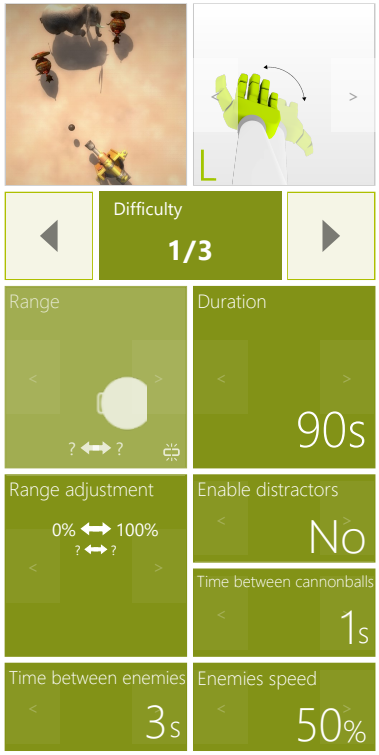
OBJECTIVES

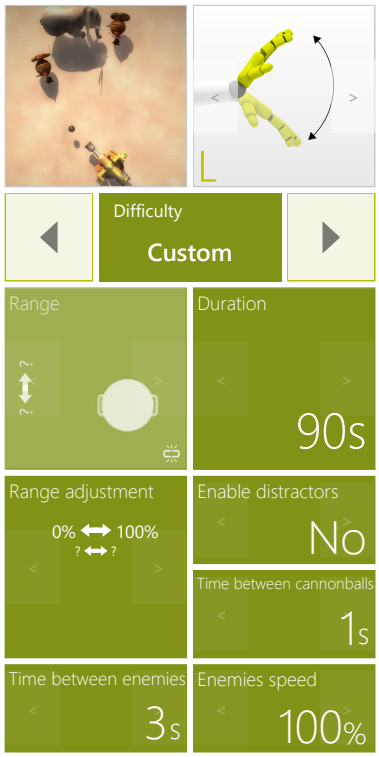
- Divided attention
- Spontaneous movements
- Arms swings
- Muscle strengthening

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



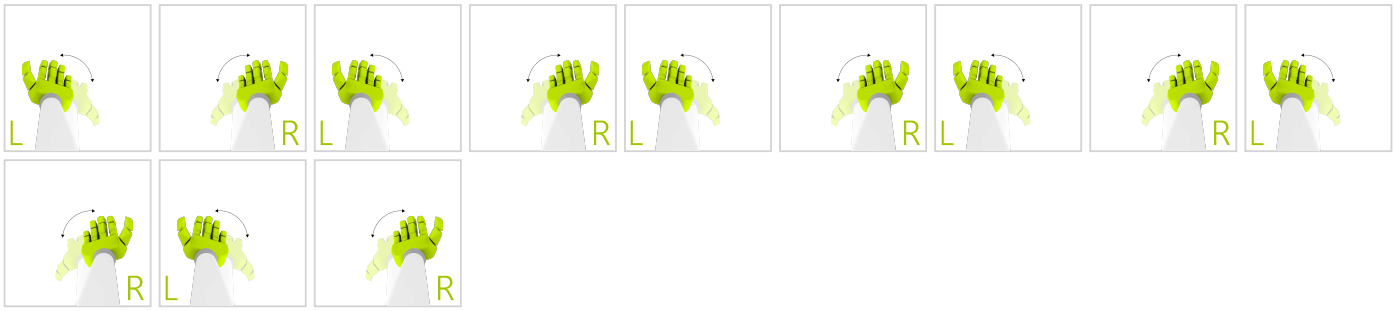


FUNCTIONAL MOVEMENTS

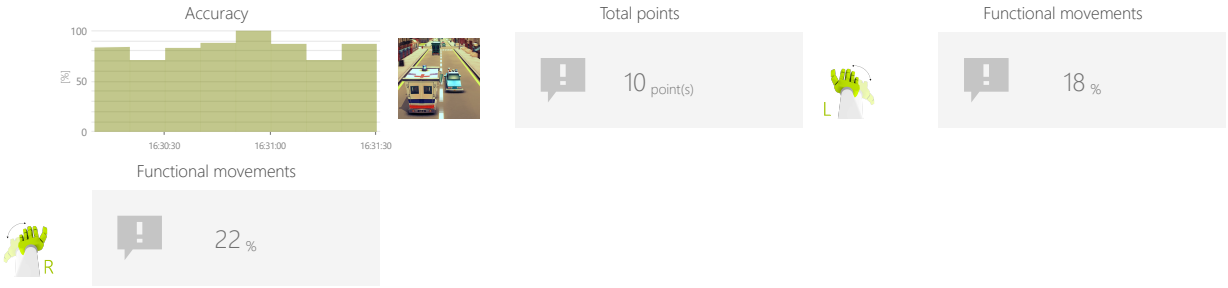
AMBULANCE

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

CONTROL MODES



RESULTS



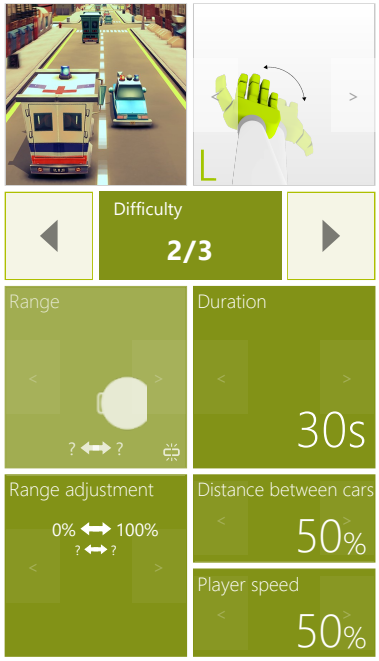
OBJECTIVES

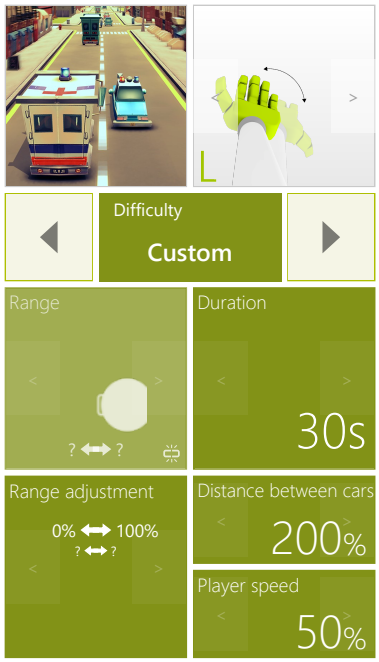
- Balance and equilibrium training
- Dynamics of planned movements
- Focusing
- Speed of decision making
- Visual motor coordination

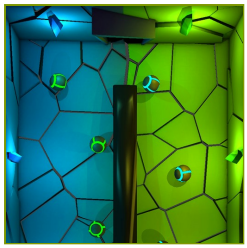
INSTRUCTION FOR PATIENT

Go as fast as you can and avoid hitting other cars

SAMPLE SETTINGS





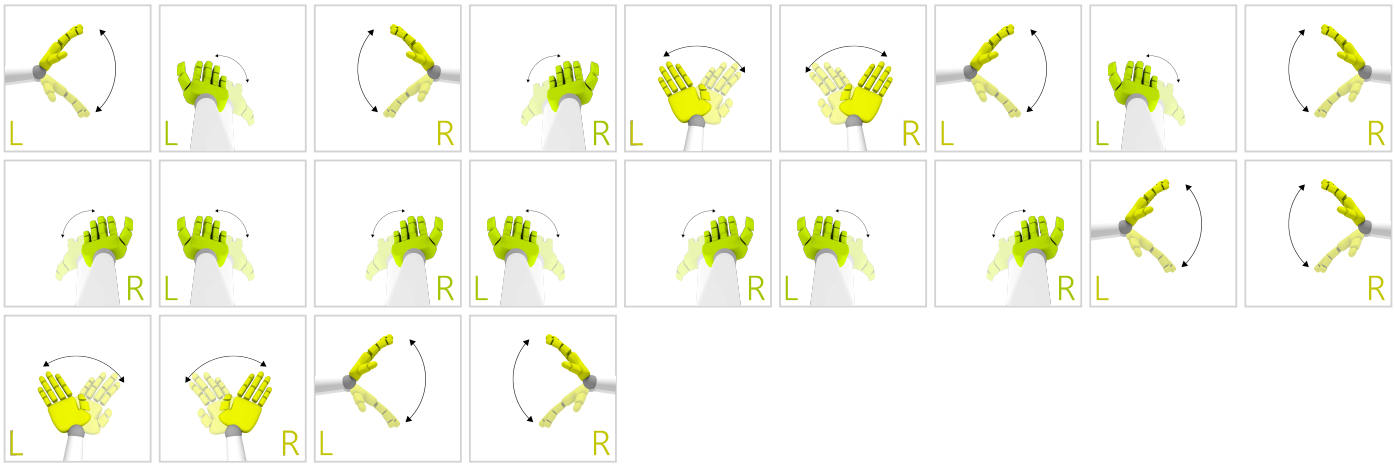


DIVIDED ATTENTION

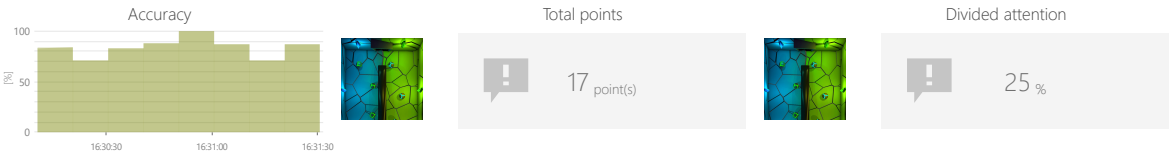
SORTER

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

CONTROL MODES



RESULTS



ADJUSTMENTS

- Range
- Task duration
- toAdd(ScalingRange)
- Number of objects
- Gap size
- Speed of objects
- Base

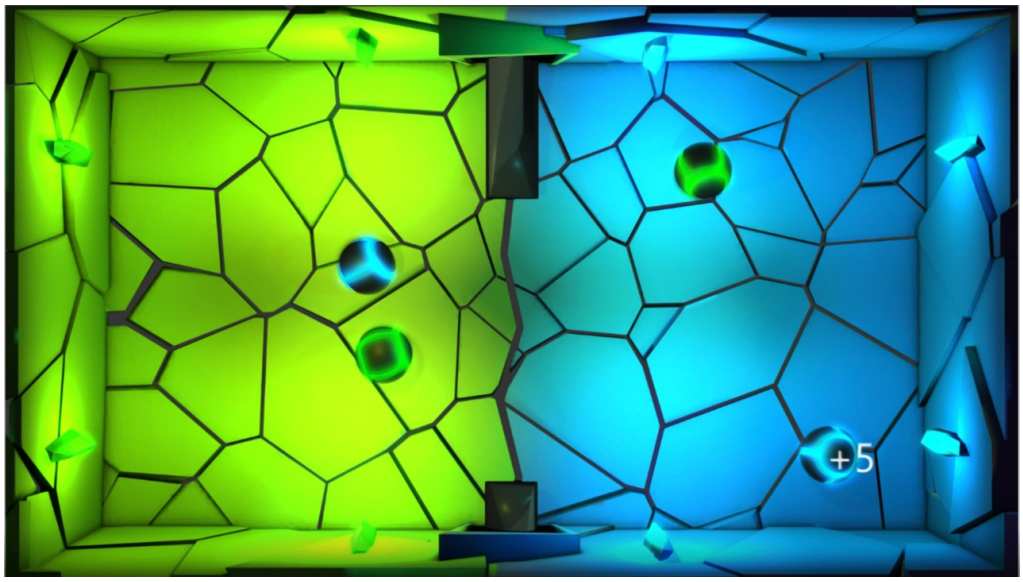
OBJECTIVES

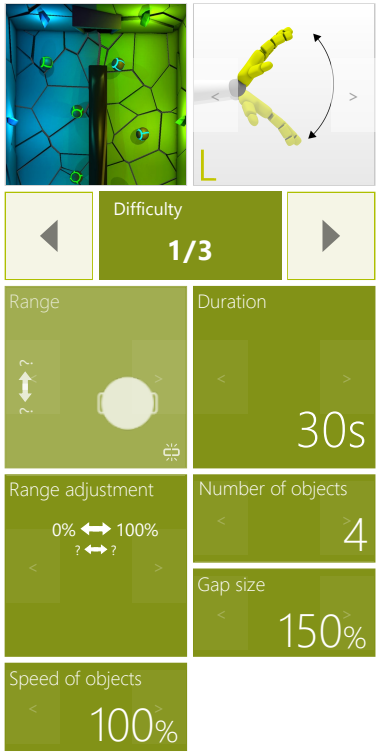
- Predicting the trajectory of objects
- Focusing
- Perceptivity
- Movement precision
- Exercise with or without support from healthy limb

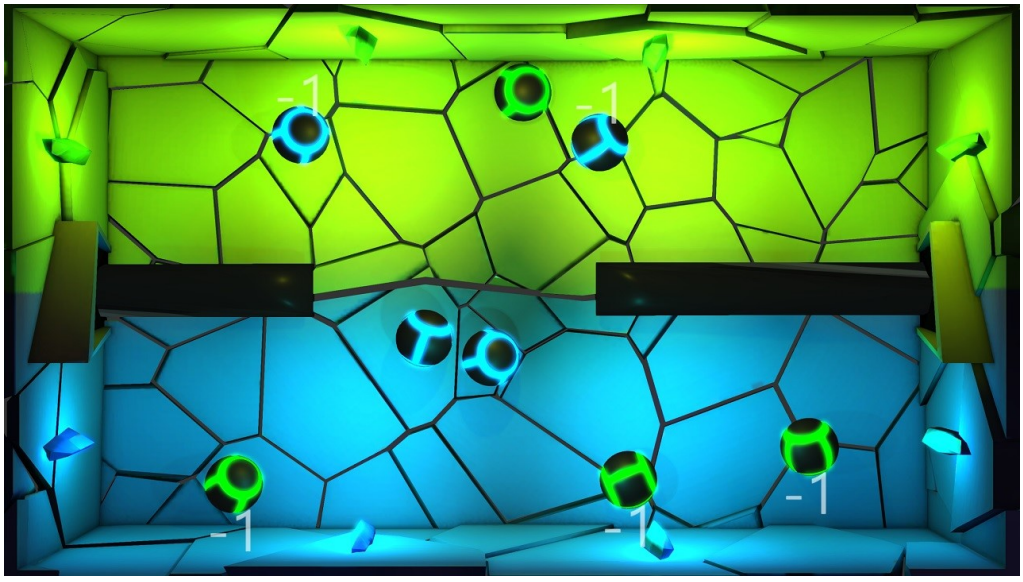
INSTRUCTION FOR PATIENT

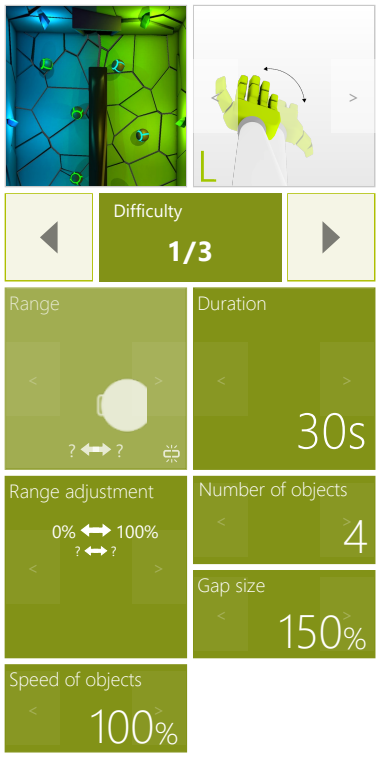
Pass or block the balls so that the blue balls are on the blue side and the green balls are on the green side of the screen.

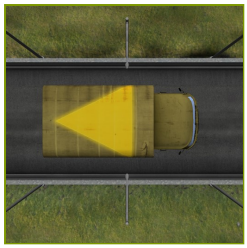
SAMPLE SETTINGS









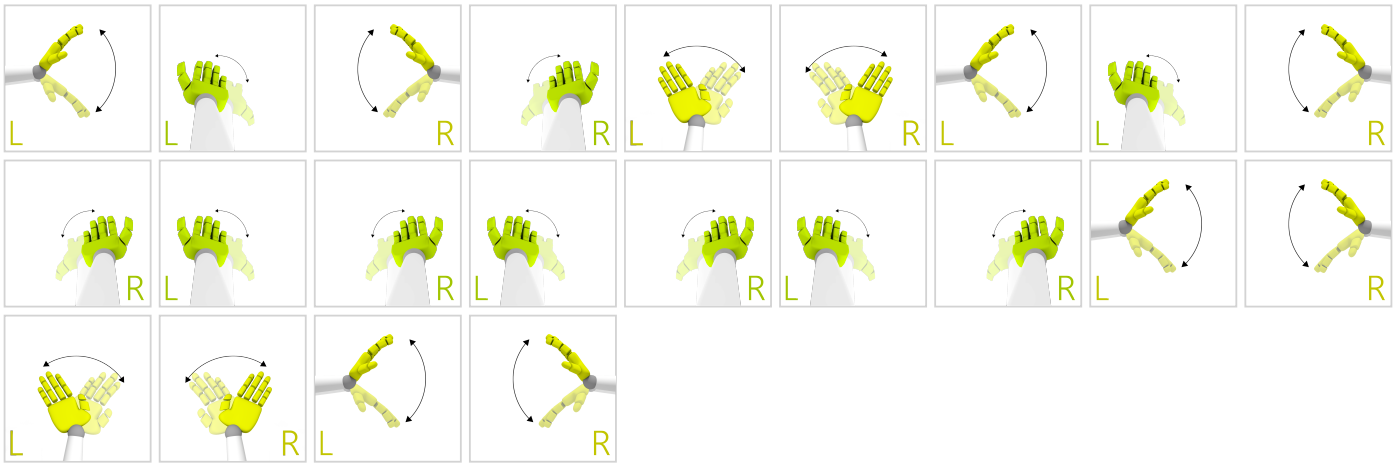


MEMORY

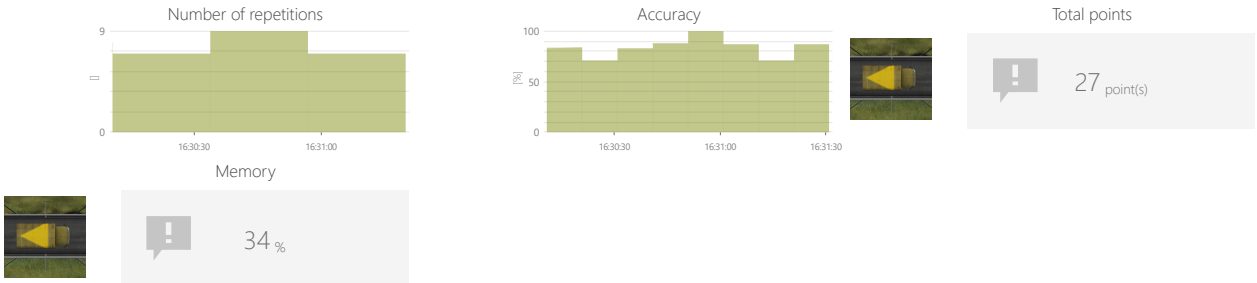
TRUCKS

Measure and train individual's skills to memorize information.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Range
- Task duration
- toAdd(ScalingRange)
- Base
- Variations

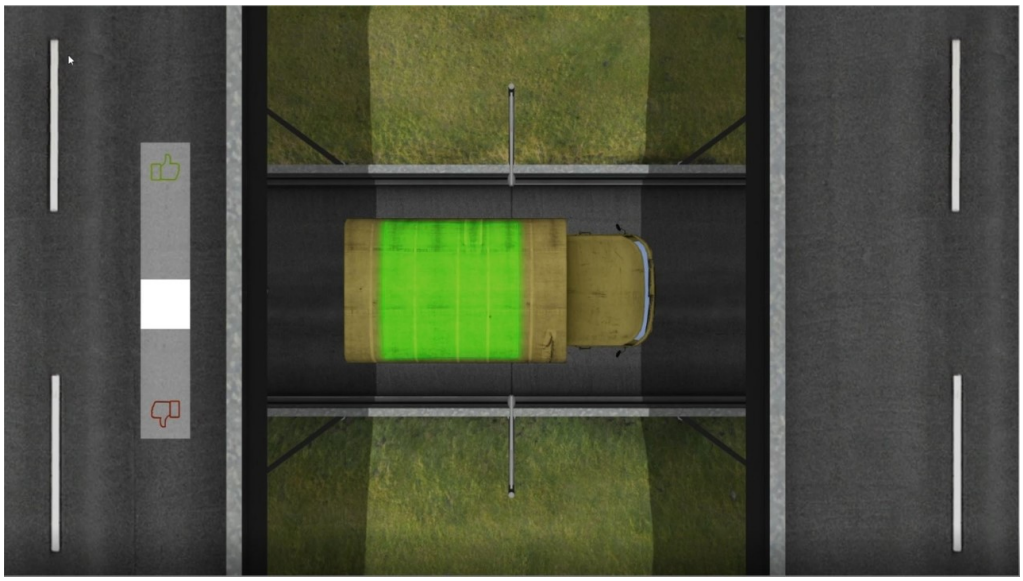
OBJECTIVES

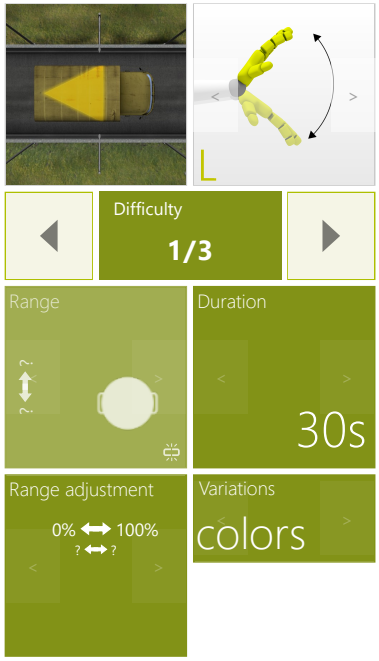
- Logical tasks
- Focusing
- Perceptivity

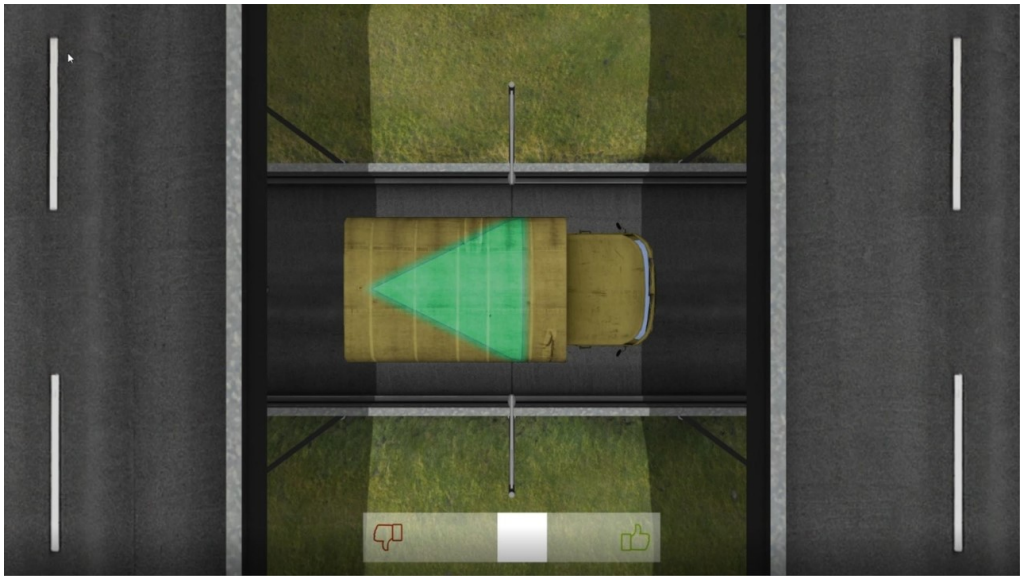
INSTRUCTION FOR PATIENT

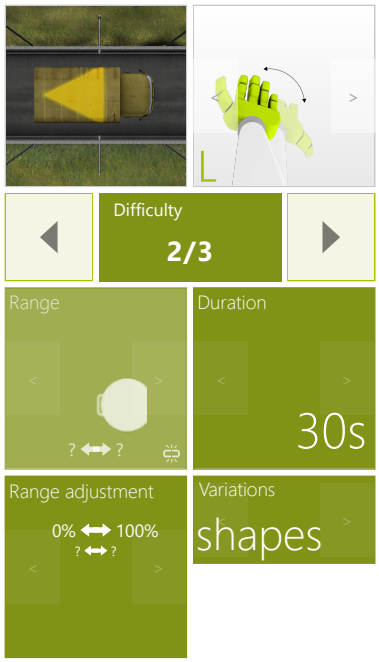
Remember the shape and/or its color on the roof of the car you see. Decide with thumbs up or down whether the next car has the same shape and/or color on the roof as the previous one.

SAMPLE SETTINGS







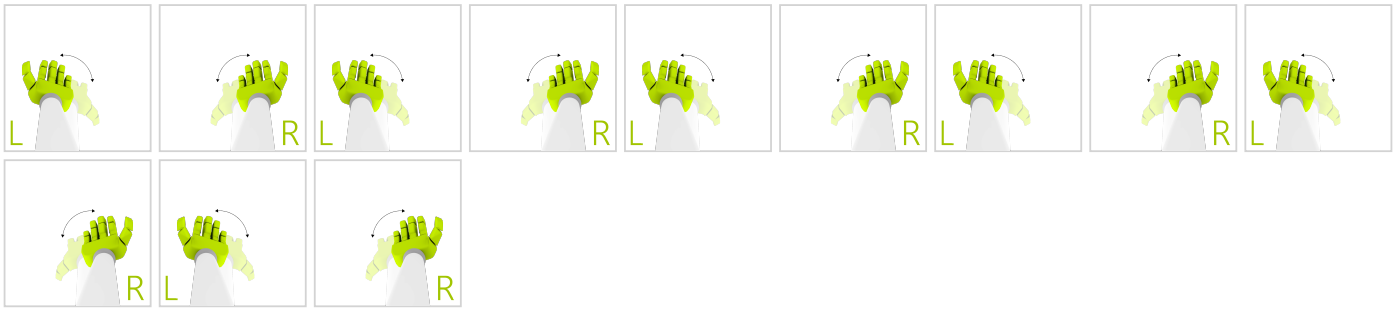


PROBLEM SOLVING

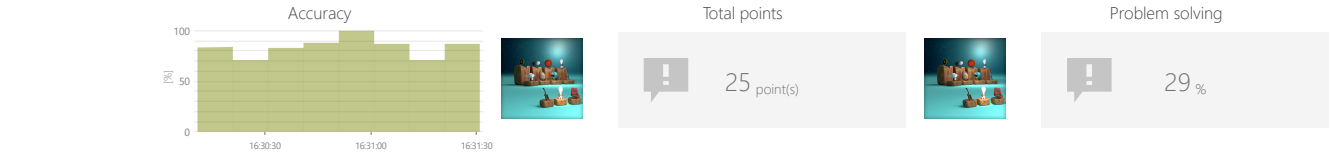
CLONES

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



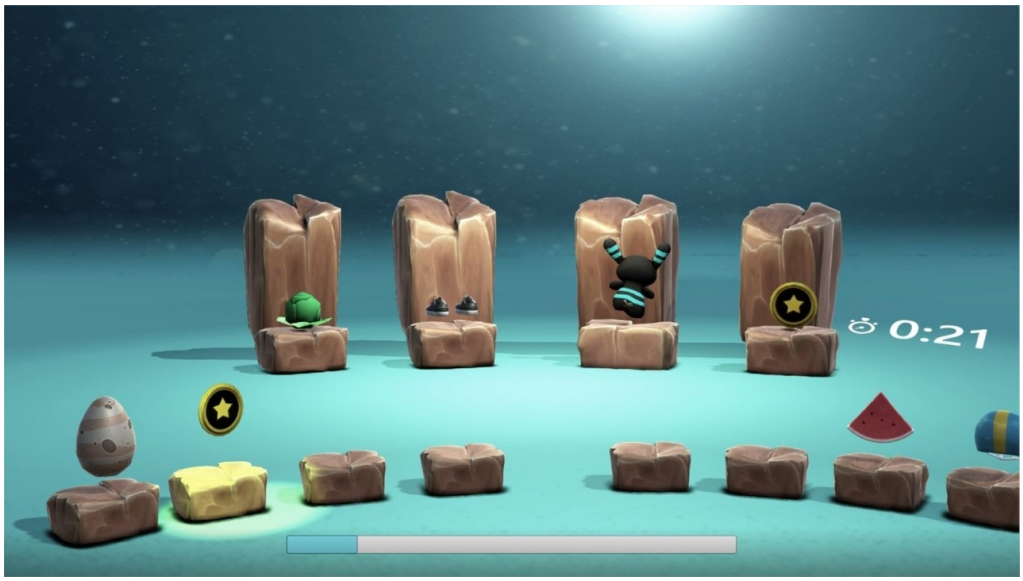
OBJECTIVES

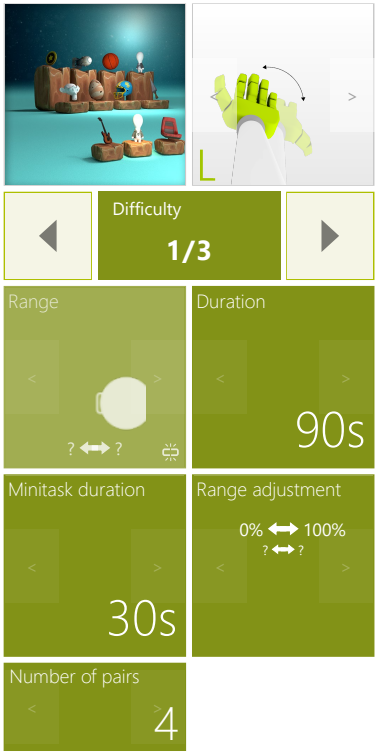
- Perceptivity
- Visual motor coordination
- Logical tasks

INSTRUCTION FOR PATIENT

Select the item which has a pair on the screen

SAMPLE SETTINGS



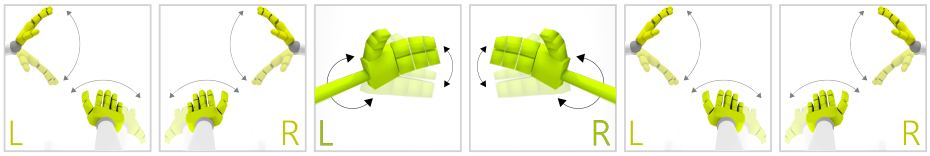


PROBLEM SOLVING

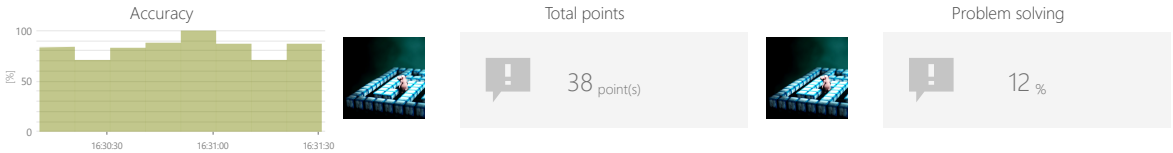
MAZE

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

CONTROL MODES



RESULTS



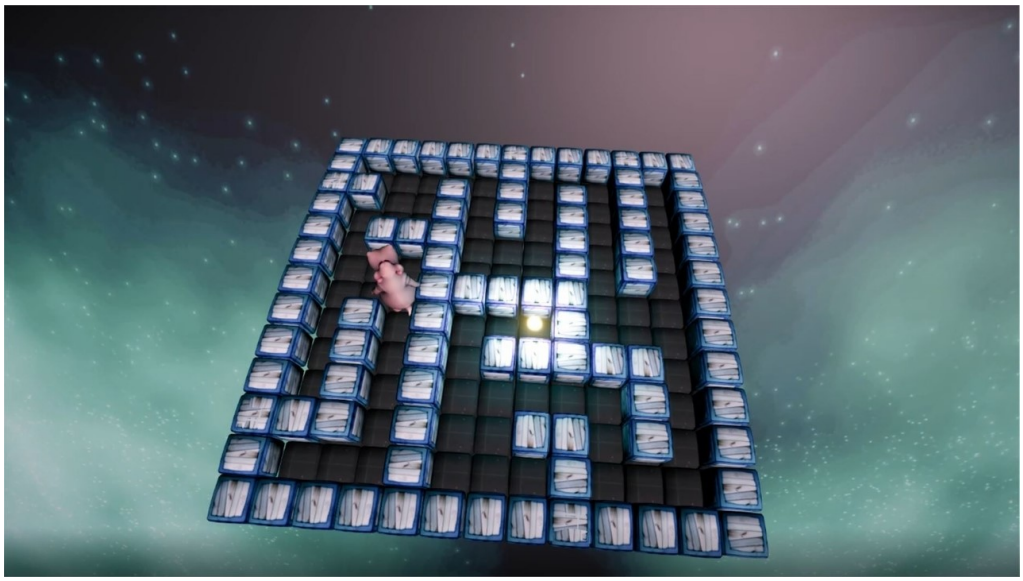
OBJECTIVES

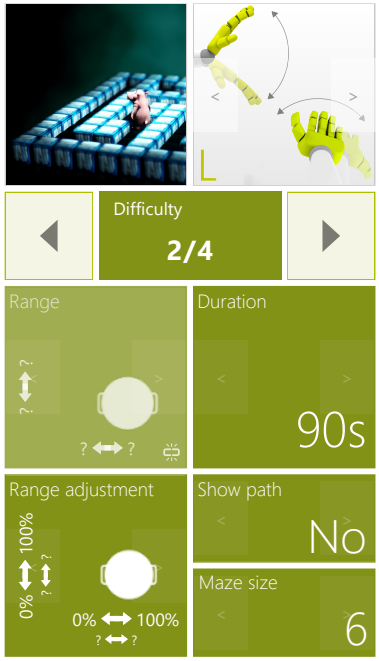
- Logical tasks
- Planned movements
- Planning and Strategy

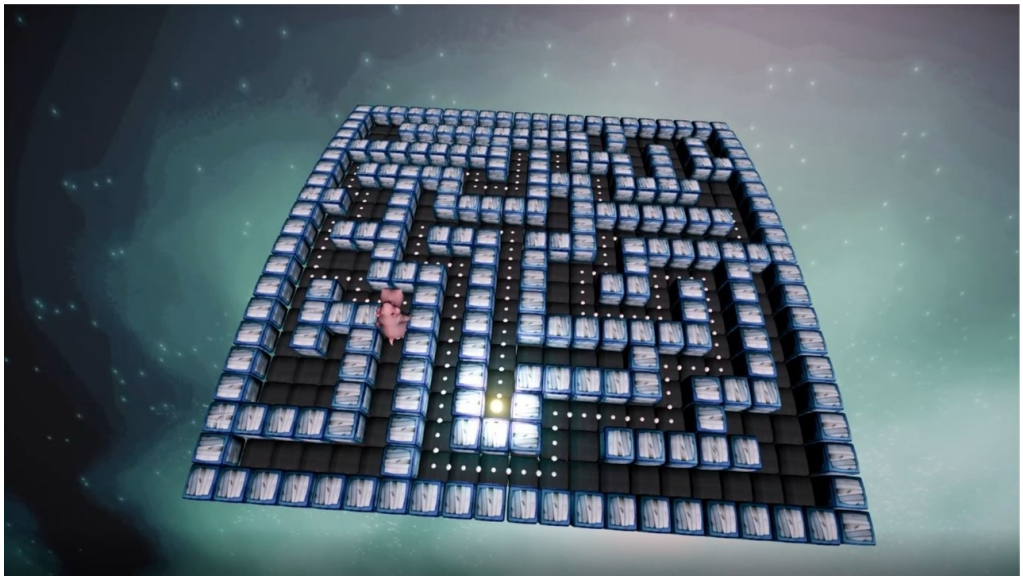
INSTRUCTION FOR PATIENT

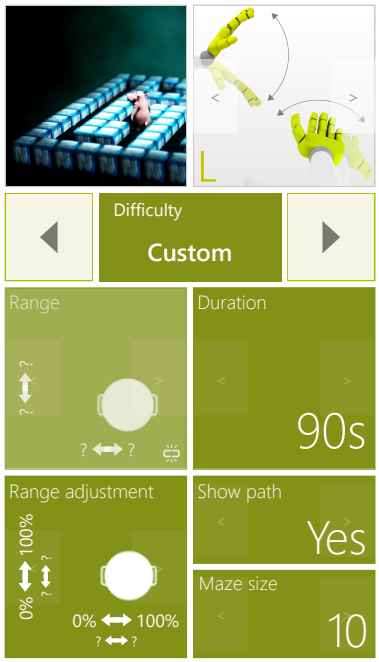
Lead the hippo through the maze to the glowing target.

SAMPLE SETTINGS







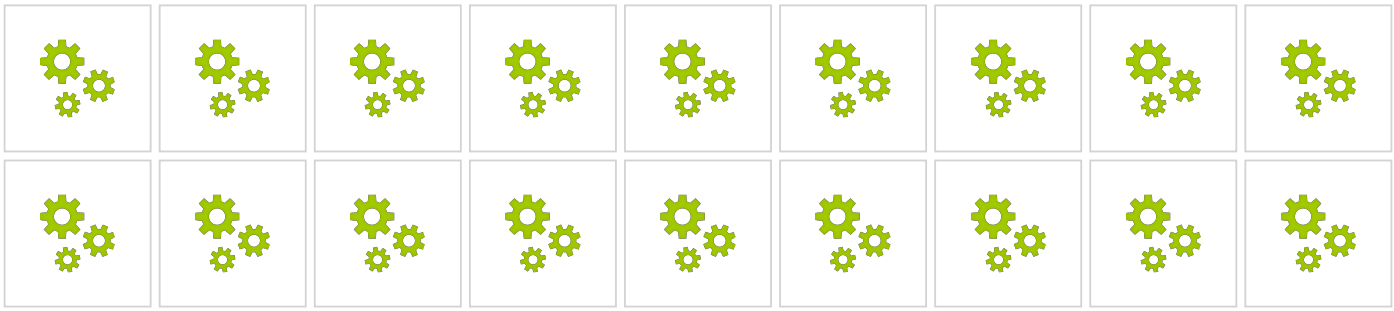


SPECIALIZED

BLOOD PRESSURE

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

CONTROL MODES



ADJUSTMENTS

- Range
- toAdd(ScalingRange)
- Base

OBJECTIVES

- Monitor external parameters

INSTRUCTION FOR PATIENT

Measure yourself your blood pressure and type it in the result