

MANUALEX PRO BASE BACK

2025.1

Hardware requirements	3
What is needed?	3
Therapeutic tasks database	5
Range of motion	5
Movement precision	7
Functional movements	11
Strength	27
Memory	28
Problem solving	30
Specialized	32

WHAT IS NEEDED?

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:

- Manualex Pro

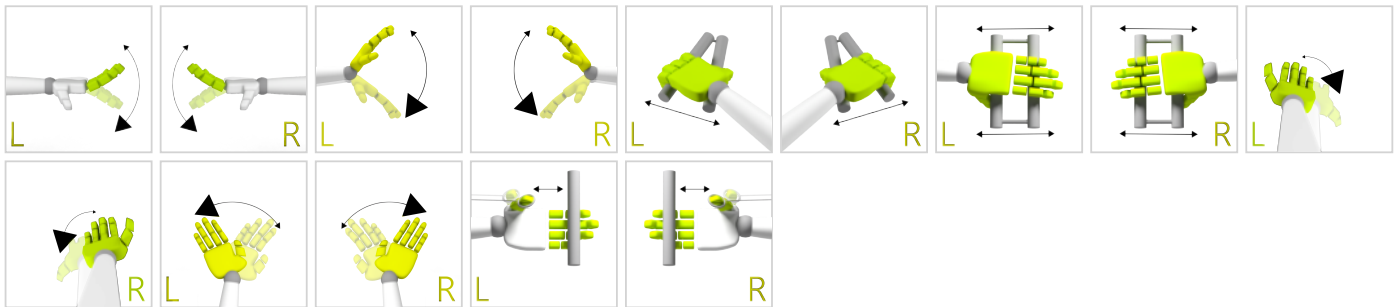


RANGE OF MOTION

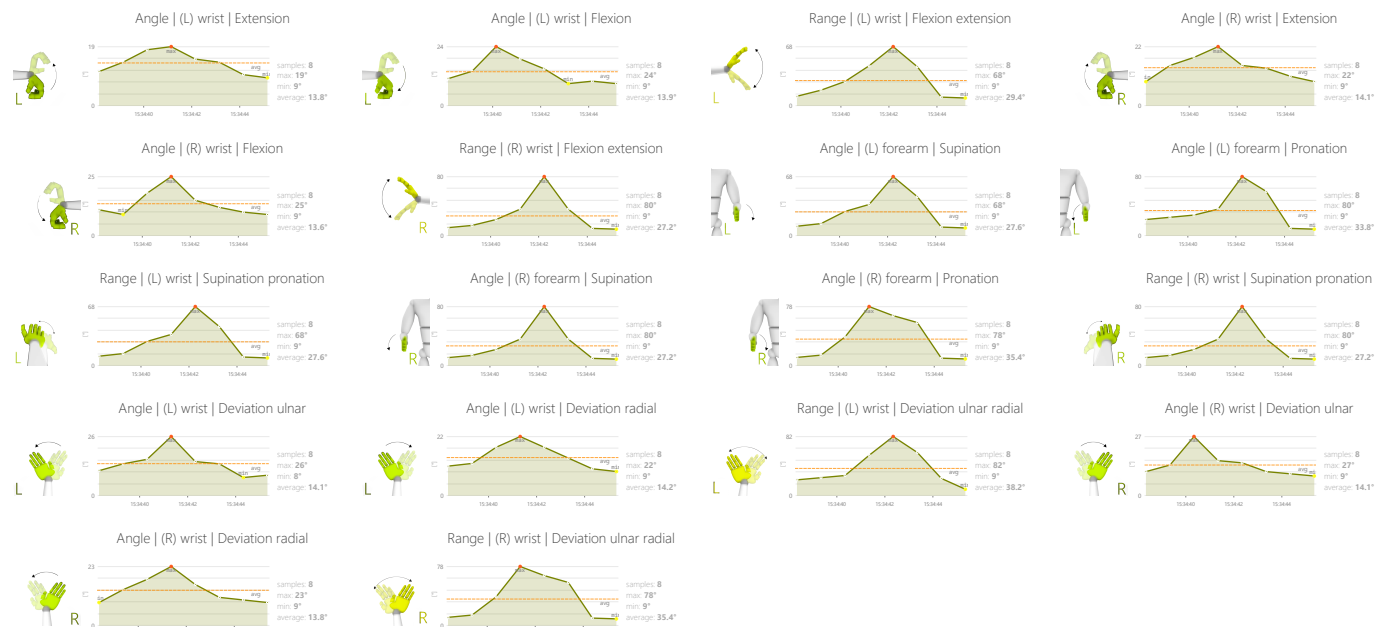
ANGLES EVALUATION

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

Try to achieve best result

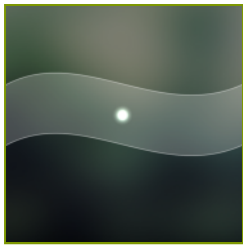


SAMPLE SETTINGS



The settings panel on the right side of the interface includes a visual representation of a hand and forearm with a green arc indicating the range of motion. Below this, there are three adjustable settings:

- Angular range:** A slider with a hand icon. The range is set from 'start 0°' to 'end -90°'.
- Minitask duration:** A slider set to '30s'.
- Resistance:** A slider set to '>1'.

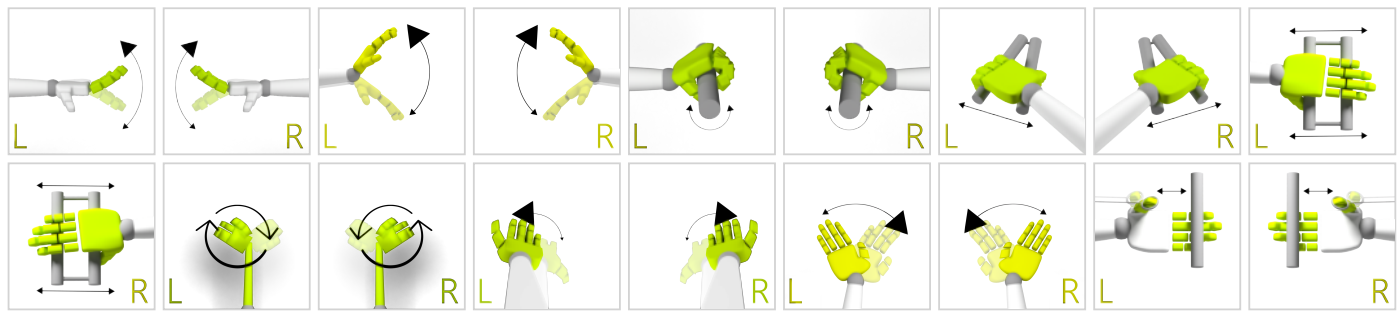


MOVEMENT PRECISION

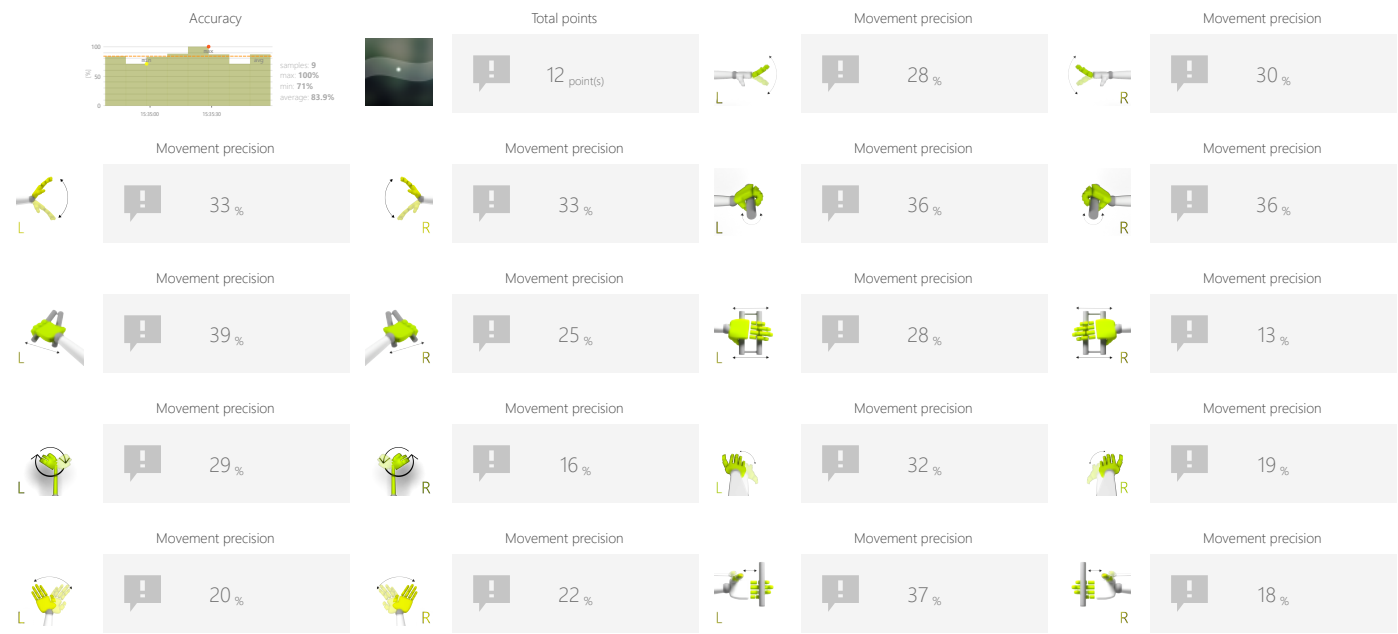
GRAPH

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

OBJECTIVES

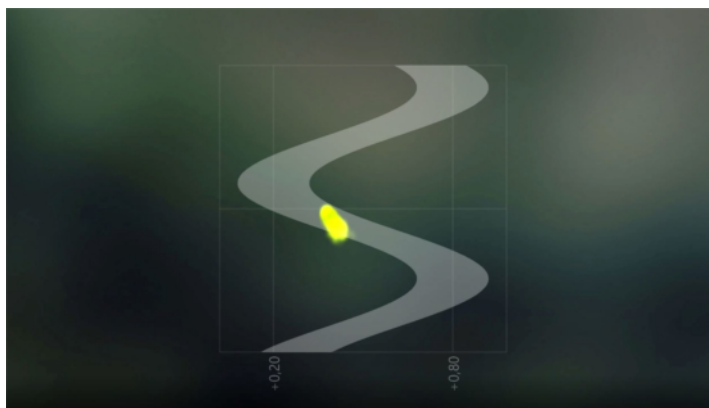
- Movement precision
- Activity in a given rhythm
- Repetitive movements

INSTRUCTION FOR PATIENT

Try to stay within the borders.



SAMPLE SETTINGS



Difficulty **3/3**

Graph configuration

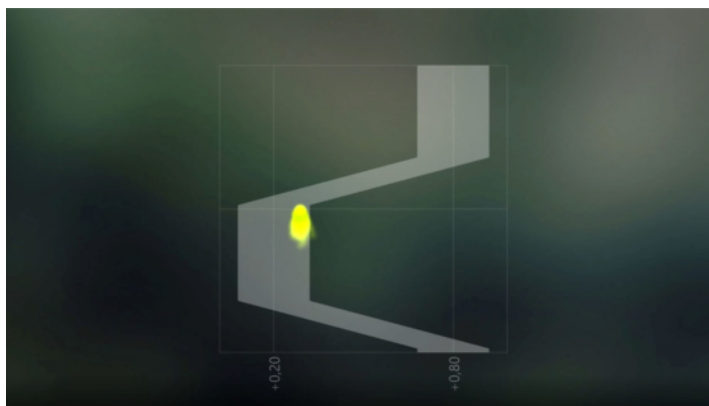
4.0s \pm 20%

Duration **30s**

Angular range

Range adjustment 0% \leftrightarrow 100%

Resistance **1**



Difficulty **1/3**

Graph configuration

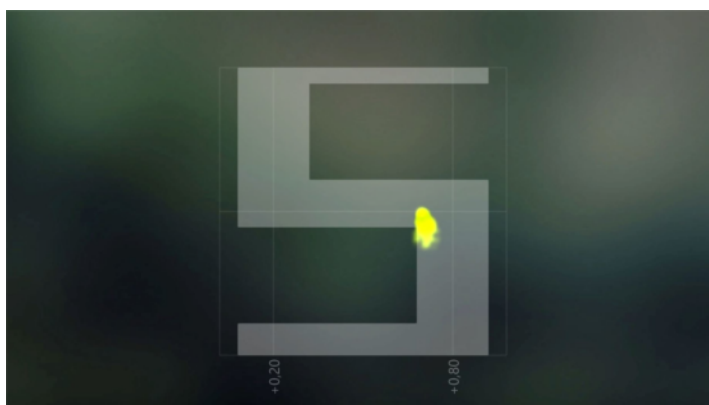
4.0s \pm 40%

Duration **90s**

Angular range

Range adjustment 0% \leftrightarrow 100%

Resistance **1**



Difficulty **custom**

Graph configuration

\pm 20% \uparrow 2.0s \downarrow 2.0s \nearrow 1.0s \nwarrow 1.0s

Duration **30s**

Angular range

Range adjustment 0% \leftrightarrow 100%

Resistance **1**

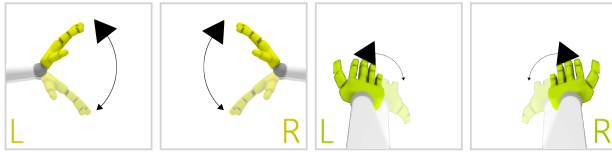


MOVEMENT PRECISION

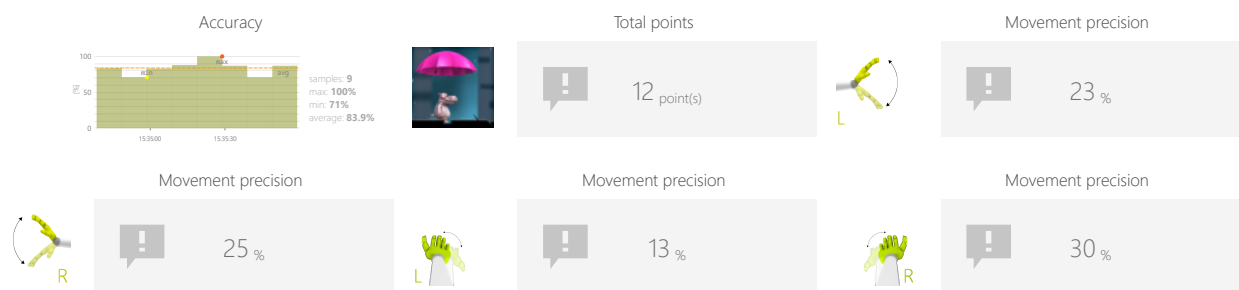
UMBRELLA

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

CONTROL MODES



RESULTS



OBJECTIVES

- Movement precision
- Visual motor coordination

INSTRUCTION FOR PATIENT

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



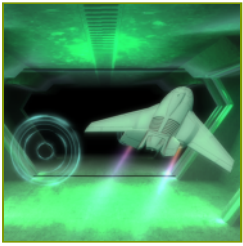
MOVEMENT PRECISION

UMBRELLA

SAMPLE SETTINGS



	Difficulty 1/3	
Duration 60s		Angular range start ? end ?
Path 8.0s		Range adjustment 0% ↔ 100% ? ↔ ?
Resistance 1		Umbrella size 150%

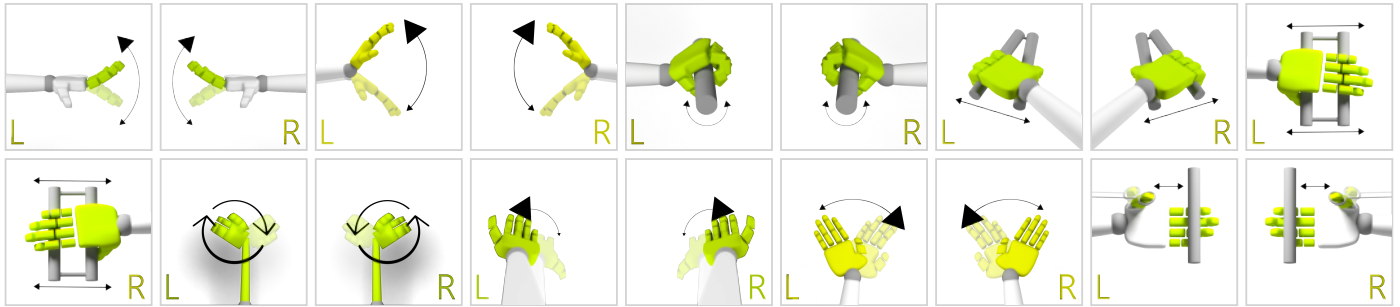


FUNCTIONAL MOVEMENTS

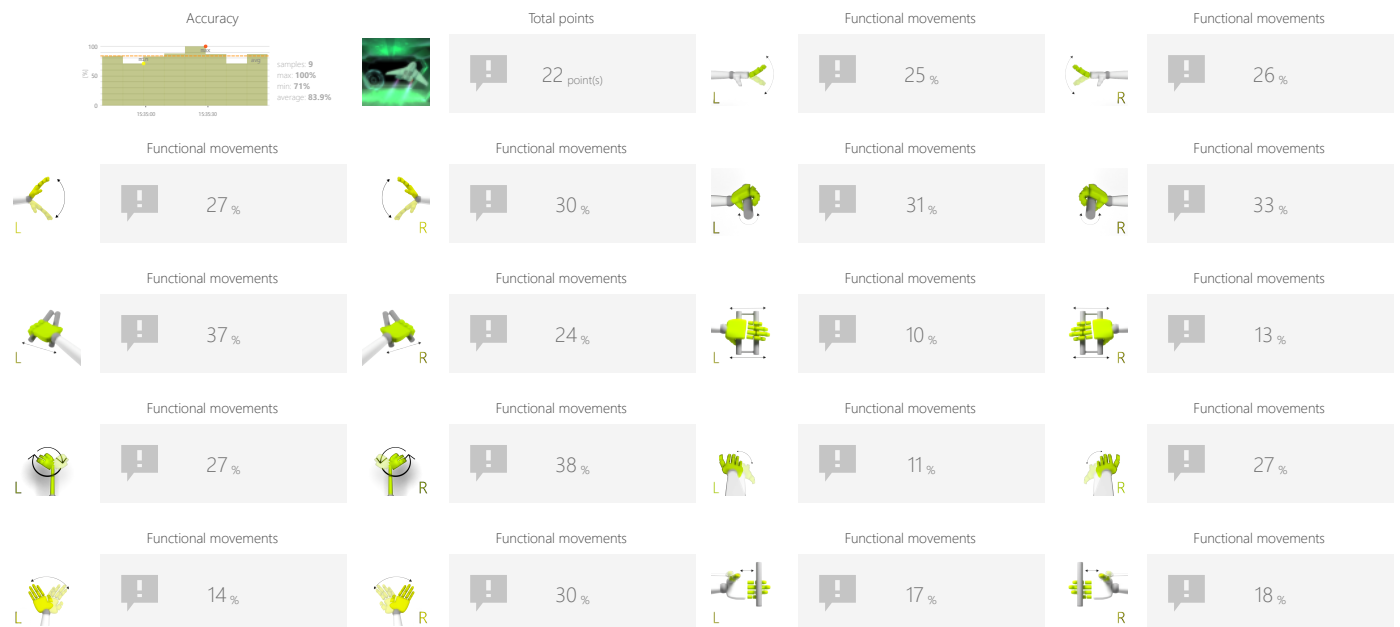
AIRPLANE

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

- Speed
- Task duration

OBJECTIVES

- Focusing
- Perceptivity
- Movement precision
- Predicting the trajectory of objects in 3D space

INSTRUCTION FOR PATIENT

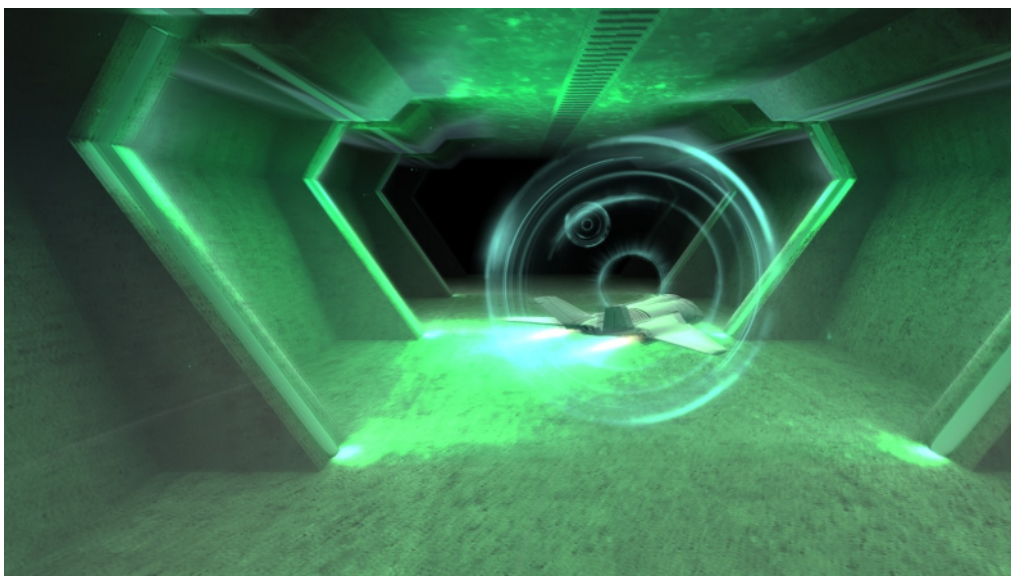
Make the airplane fly through the circles. The closer to the center it flies the more points you get.

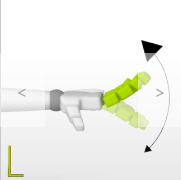
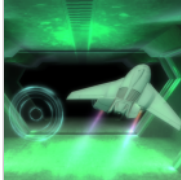


FUNCTIONAL MOVEMENTS

AIRPLANE

SAMPLE SETTINGS





◀

Difficulty

▶

2/4

Speed


< 100% >


speed set automatically

Duration

< 90s >

Angular range

<  >

start ? end ? 

Range adjustment

0% ↔ 100%

? ↔ ?

< >

Resistance

< 1 >

1

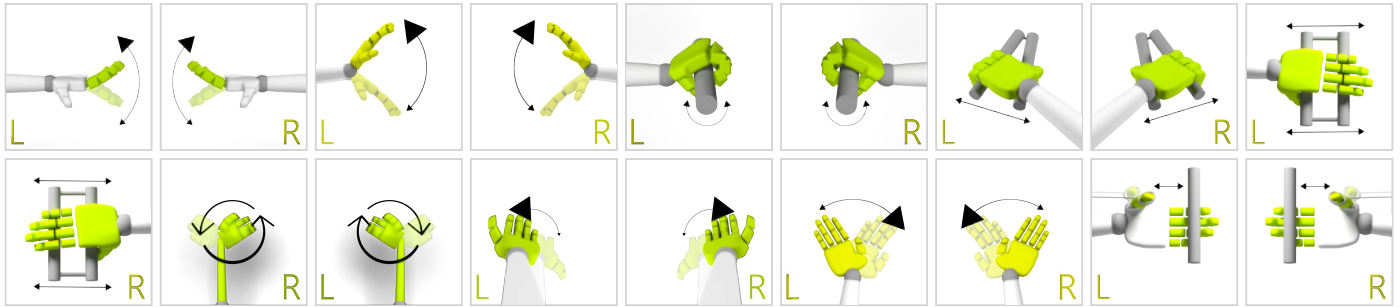


FUNCTIONAL MOVEMENTS

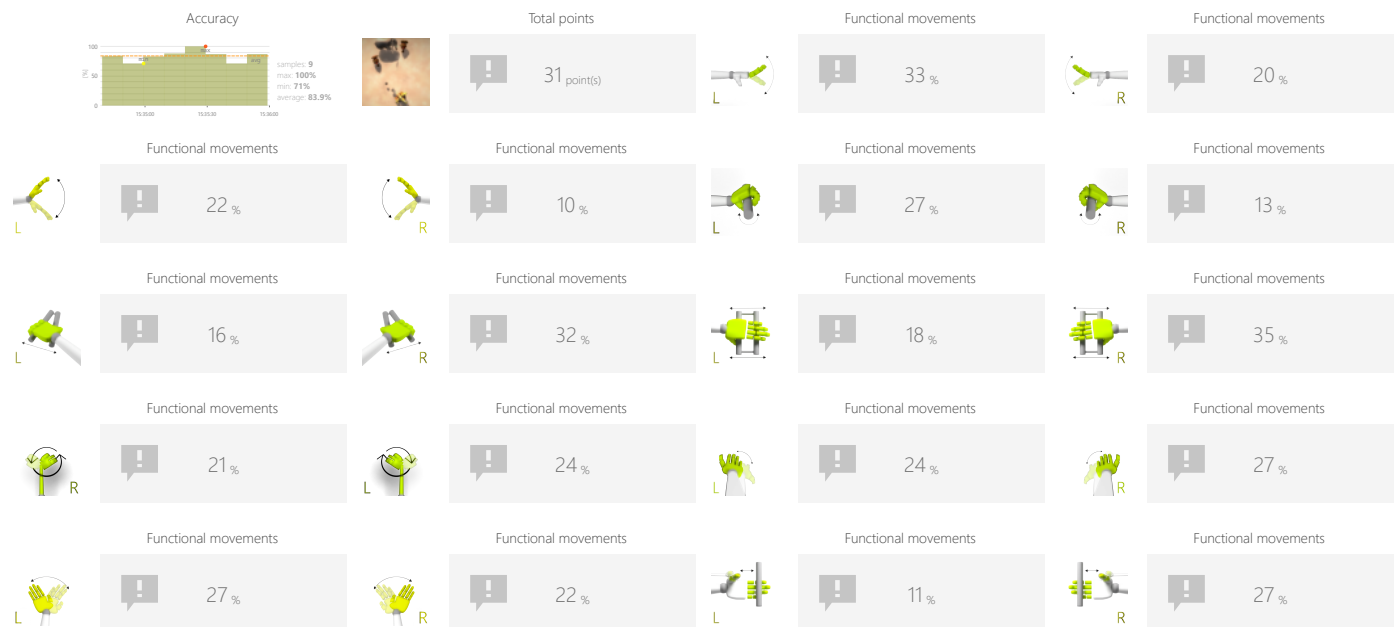
AUTOMATIC CANNON

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
- Enable distractors
- Time between cannonballs
- Time between enemies
- Enemies speed

OBJECTIVES

- Divided attention
- Spontaneous movements
- Predicting the trajectory of objects

INSTRUCTION FOR PATIENT

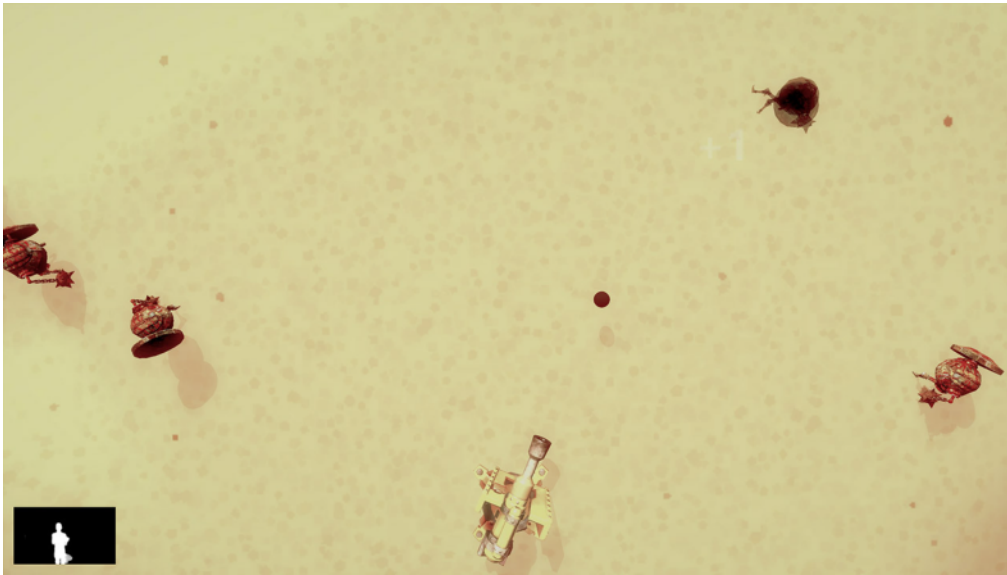
Control cannon(s) to destroy robots, but avoid hitting the elephant!

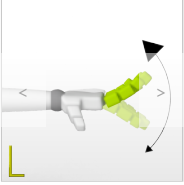



FUNCTIONAL MOVEMENTS

AUTOMATIC CANNON

SAMPLE SETTINGS





◀ Difficulty 1/3 ▶

Duration 90s

Angular range

Range adjustment 0% ↔ 100%
? ↔ ?

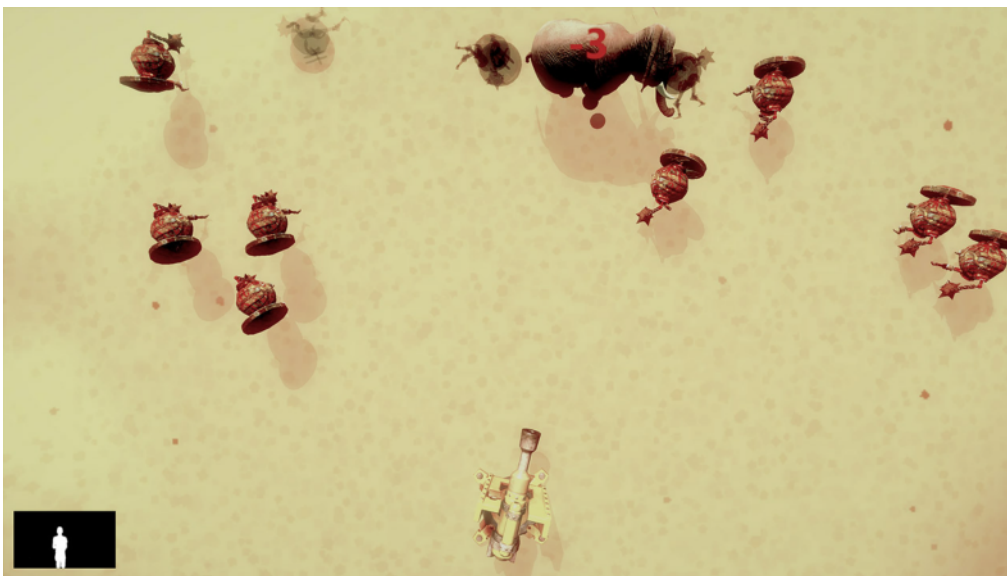
Enable distractors No

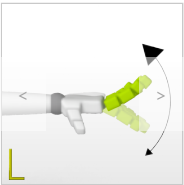

Time between cannonballs 1s

Time between enemies 3s

Resistance 1

Enemies speed 50%





◀ Difficulty custom ▶

Duration 90s

Angular range

Range adjustment 0% ↔ 100%
? ↔ ?

Enable distractors Yes

Time between cannonballs 1s

Time between enemies 3s

Resistance 1

Enemies speed 50%

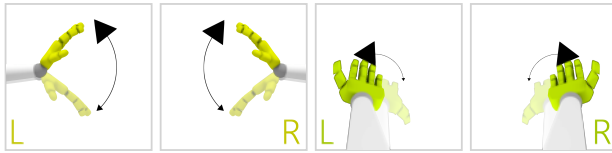


FUNCTIONAL MOVEMENTS

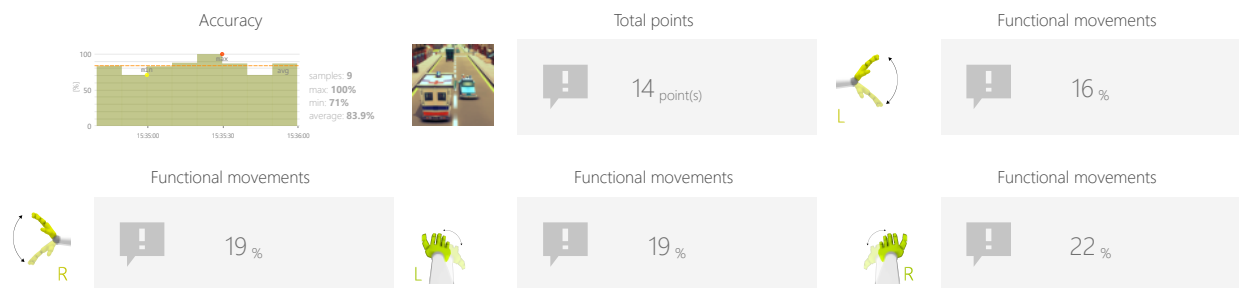
AMBULANCE

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

- Dynamics of planned movements
- Focusing
- Speed of decision making
- Visual motor coordination

INSTRUCTION FOR PATIENT

Go as fast as you can and avoid hitting other cars.

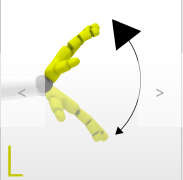



FUNCTIONAL MOVEMENTS

AMBULANCE

SAMPLE SETTINGS





◀

Difficulty

▶

2/3

Speed

< 50% >

speed set automatically

Duration

< 90s >

Angular range

< start ? end ? >

Range adjustment

0% ↔ 100%
? ↔ ?

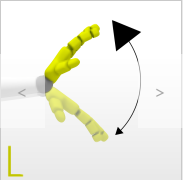

Resistance

< 1 >

Distance between cars

< 50% >





◀

Difficulty

▶

custom

Speed

< 50% >

speed set automatically

Duration

< 90s >

Angular range

< start ? end ? >

Range adjustment

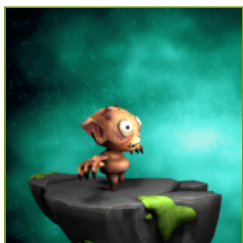
0% ↔ 100%
? ↔ ?

Resistance

< 1 >

Distance between cars

< 200% >

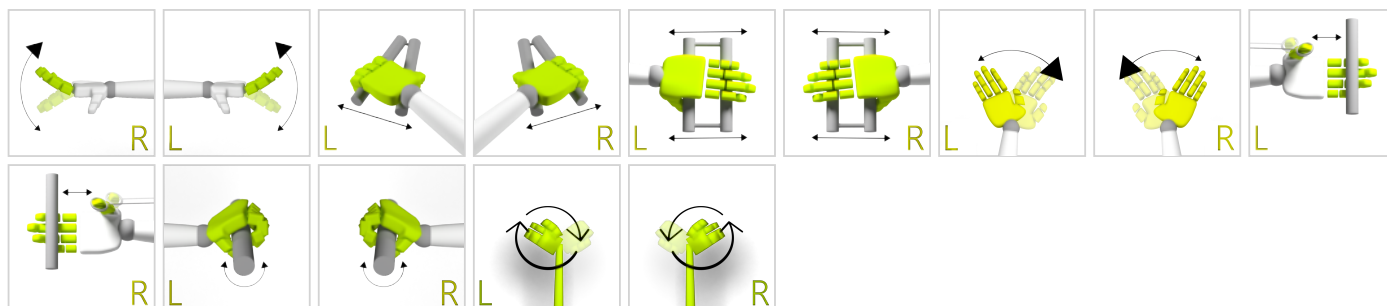


FUNCTIONAL MOVEMENTS

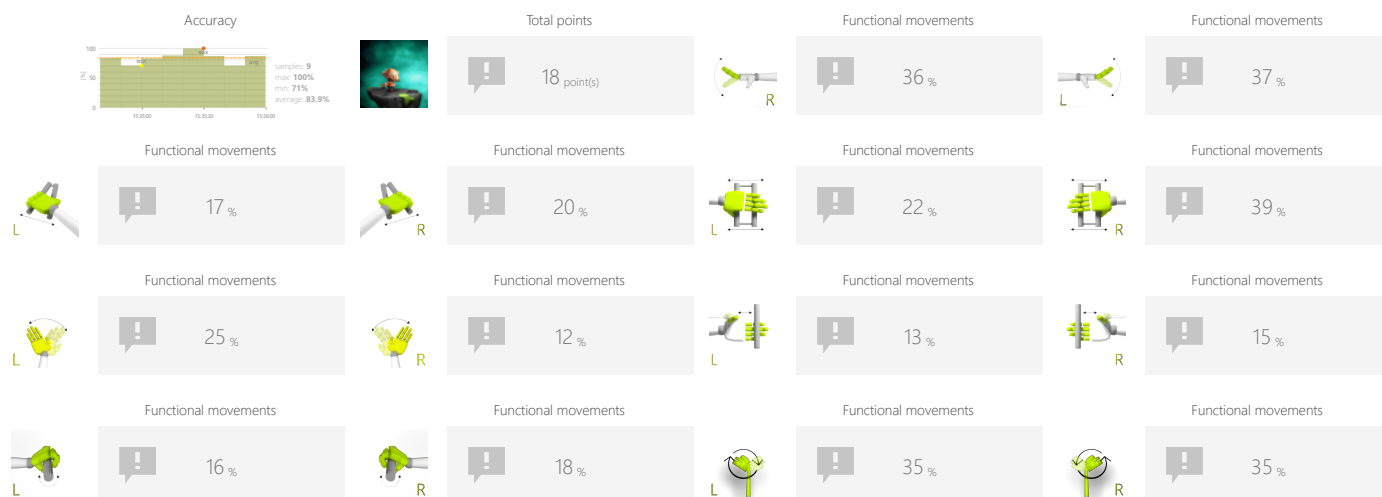
ROCKET JUMPING

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
- 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.



FUNCTIONAL MOVEMENTS

ROCKET JUMPING

SAMPLE SETTINGS



◀	Difficulty 1/3	▶
Duration 90s		Angular range start ? end ?
Range adjustment 0% ↔ 100% ? ↔ ?		Range 0% ↔ 100%
Time between objects 5s		Bomb format 1
Resistance >1		Speed of objects 100%

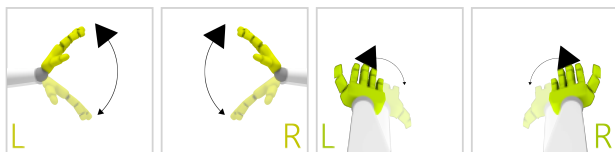


FUNCTIONAL MOVEMENTS

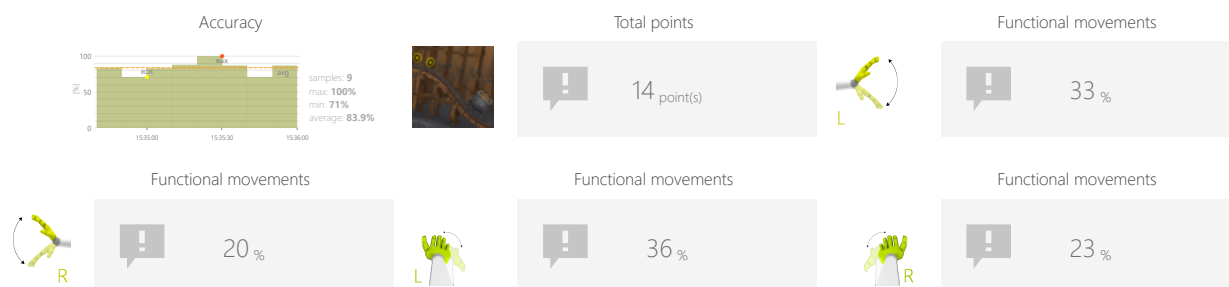
RAILS

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



OBJECTIVES

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

INSTRUCTION FOR PATIENT

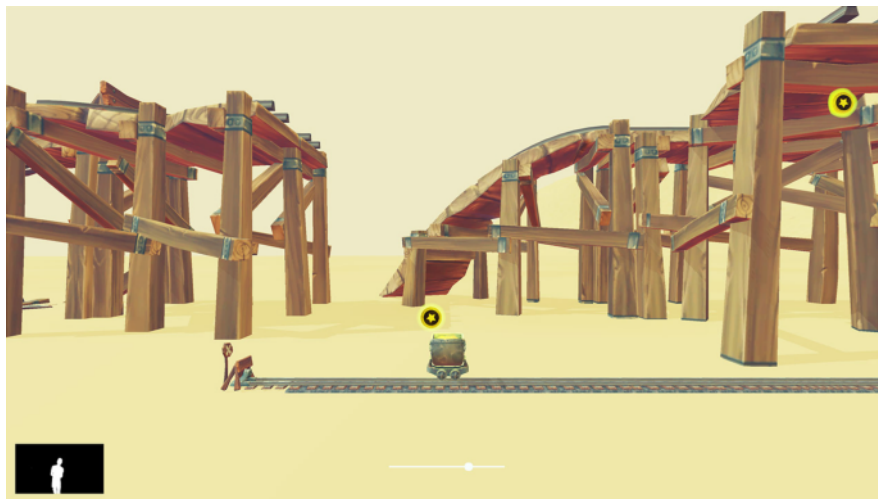
Control the trolley to collect the coins.



FUNCTIONAL MOVEMENTS

RAILS

SAMPLE SETTINGS



Difficulty

1/3

Speed

< 100% >

speed set automatically

Duration

< 90s >

Angular range

< >

start ? end ?

Range adjustment

0% ↔ 100%

Route shape

< >

Enable derailling

< No >

Enable obstacles

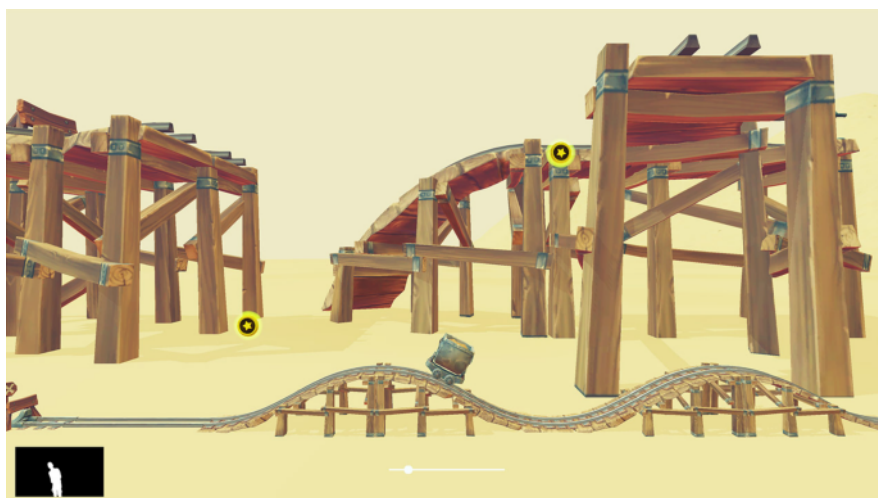
< No >

Time between objects

< 5s >

Resistance

< 1 >



Difficulty

custom

Speed

< 100% >

speed set automatically

Duration

< 90s >

Angular range

< >

start ? end ?

Range adjustment

0% ↔ 100%

Route shape

< >

Enable derailling

< No >

Enable obstacles

< No >

Time between objects

< 5s >

Resistance

< 1 >

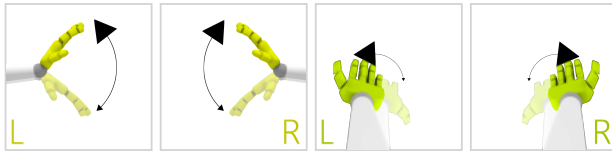


FUNCTIONAL MOVEMENTS

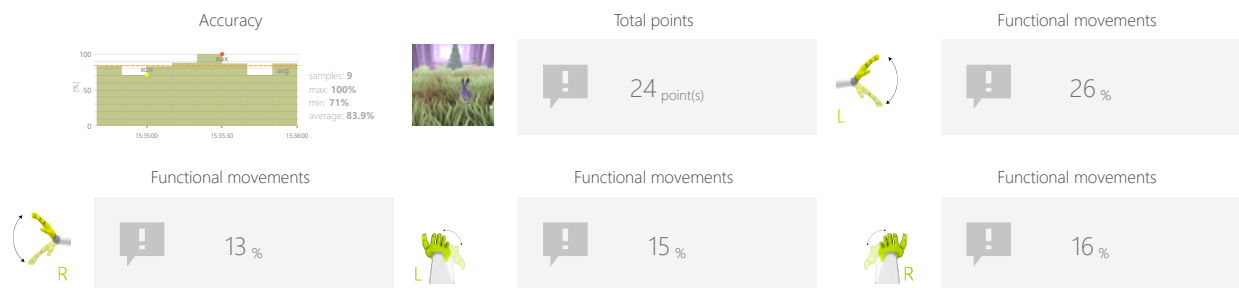
FOREST RUNNER

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



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.

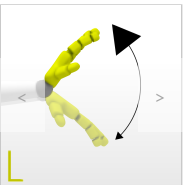



FUNCTIONAL MOVEMENTS

FOREST RUNNER

SAMPLE SETTINGS





◀

Difficulty

▶

1/2

<

Speed

>

150%

speed set automatically

<

Duration

>

90s

Angular range

start ? end ?

↺

<

Range adjustment

>

0% ↔ 100%

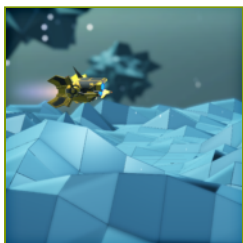
? ↔ ?

<

Resistance

>

1

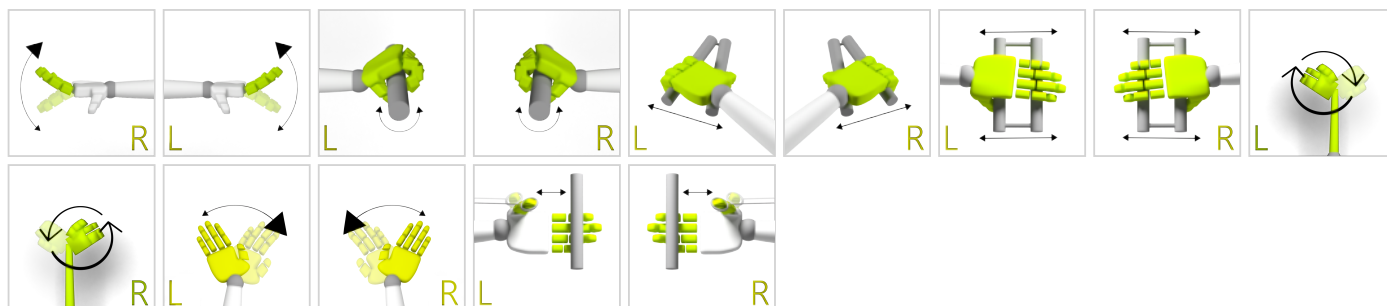


FUNCTIONAL MOVEMENTS

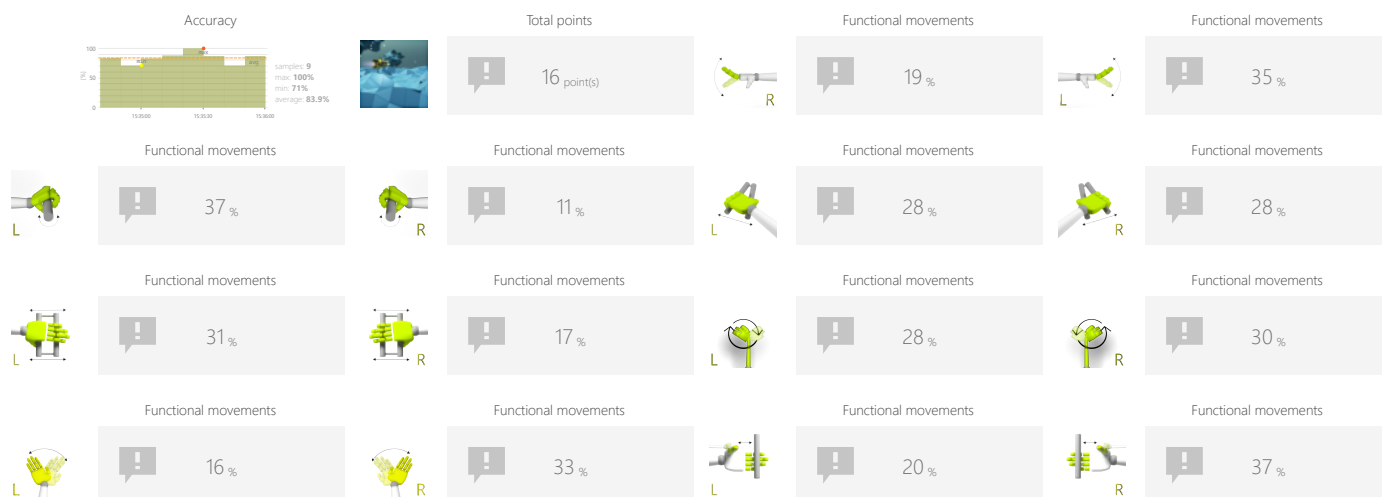
GEOMETRY FLIER

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

- Speed
- Task duration

OBJECTIVES

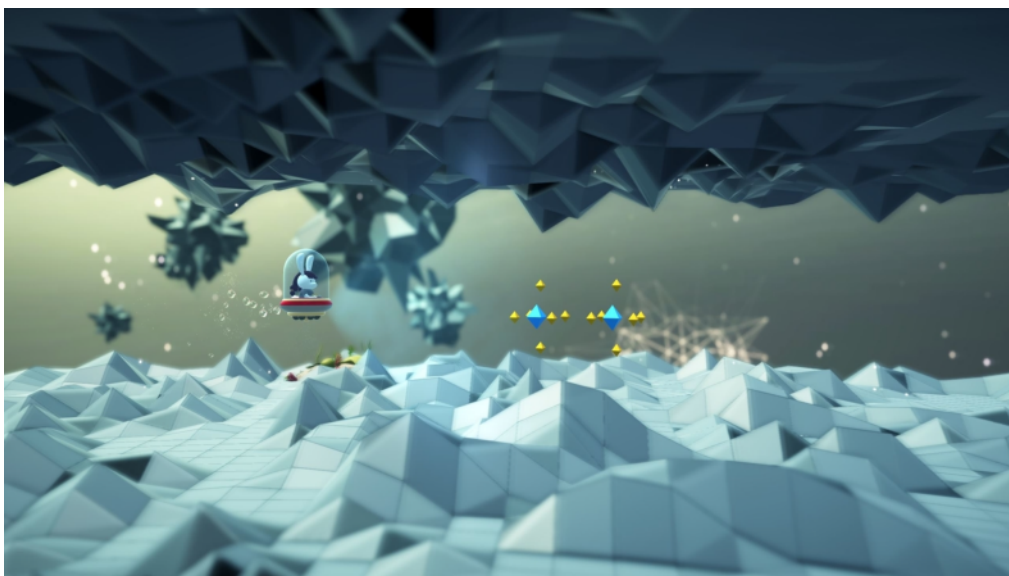
- Dynamics of planned movements
- Activity in a given rhythm
- Visual motor coordination

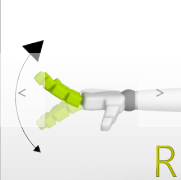

INSTRUCTION FOR PATIENT

Control the vehicle to avoid the obstacles.



SAMPLE SETTINGS





◀

Difficulty

▶

1/3

Speed

< 100% >

speed set automatically

Duration

< 90s >

Angular range

start ? end ?

Range adjustment

0% ↔ 100%

Range

0% ↔ 100%

Resistance

< > 1

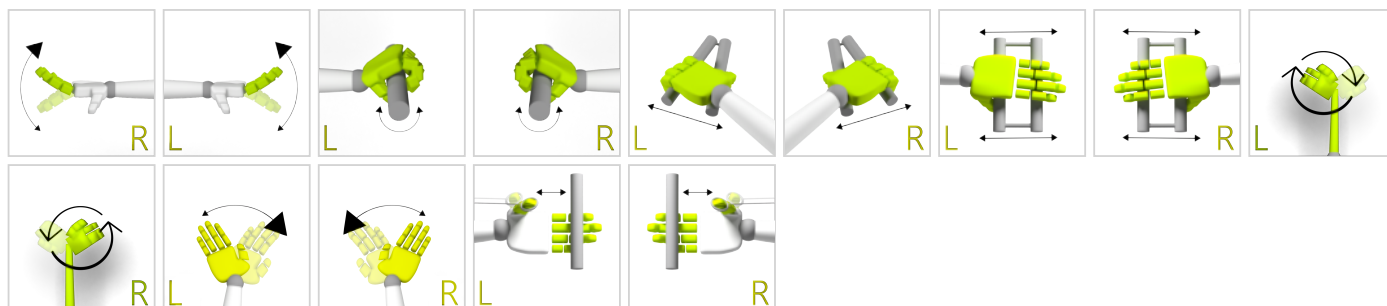


FUNCTIONAL MOVEMENTS

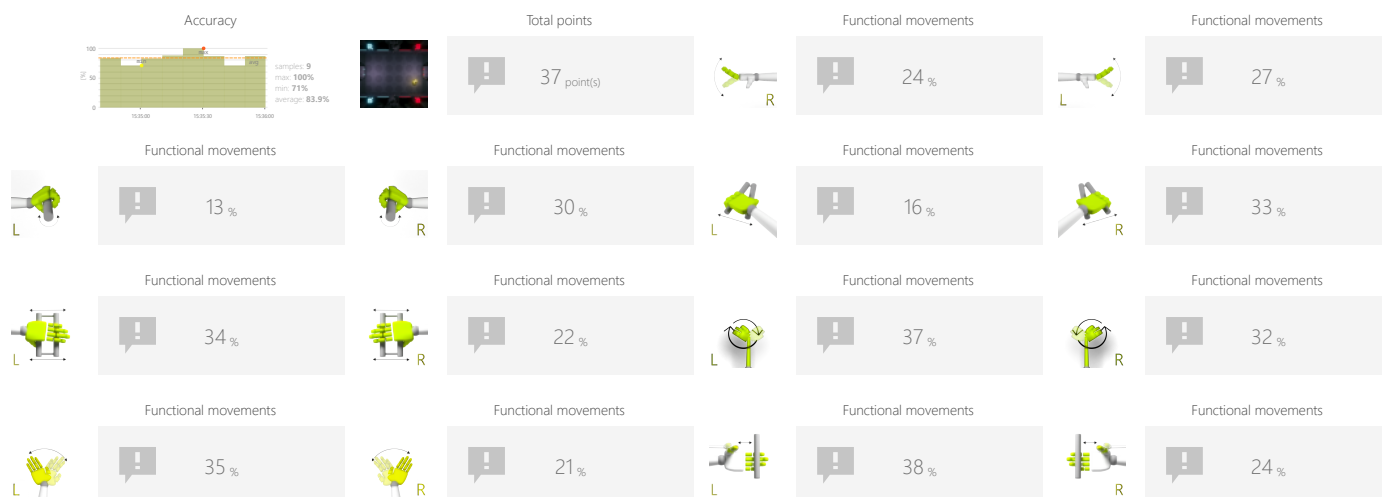
PONG

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
- Speed of objects

OBJECTIVES

- Planned movements
- Focusing
- Predicting the trajectory of objects

INSTRUCTION FOR PATIENT

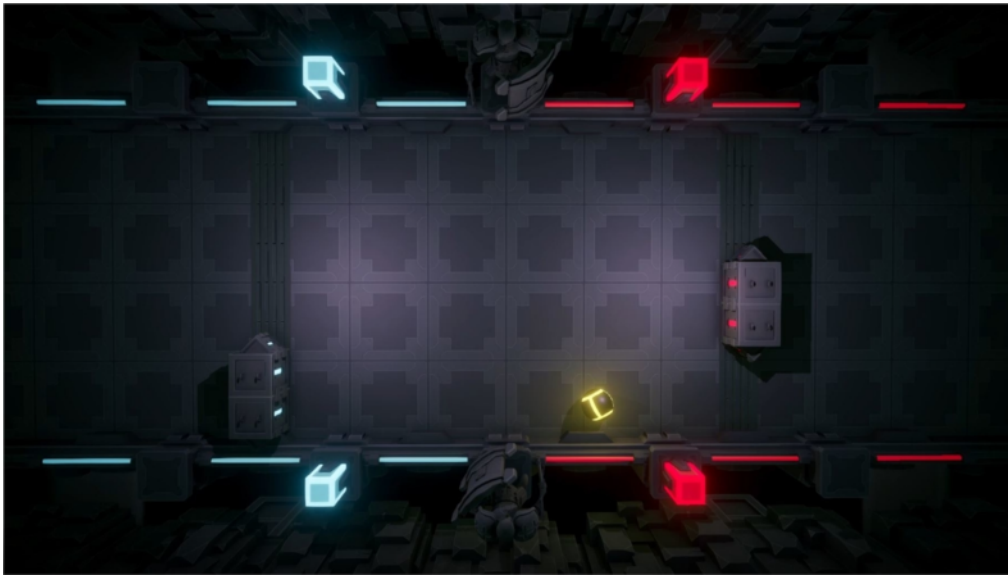
Use the paddles to hit a ball back and forth.

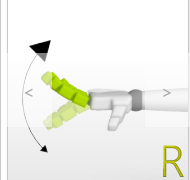



FUNCTIONAL MOVEMENTS

PONG

SAMPLE SETTINGS





◀

Difficulty
1/3

▶

Duration

< 90s >

Angular range

start ? end ?

Range adjustment

0% ↔ 100%
? ↔ ?

Range

0% ↔ 100%

Resistance

< 1 >

Speed of objects

< 100% >

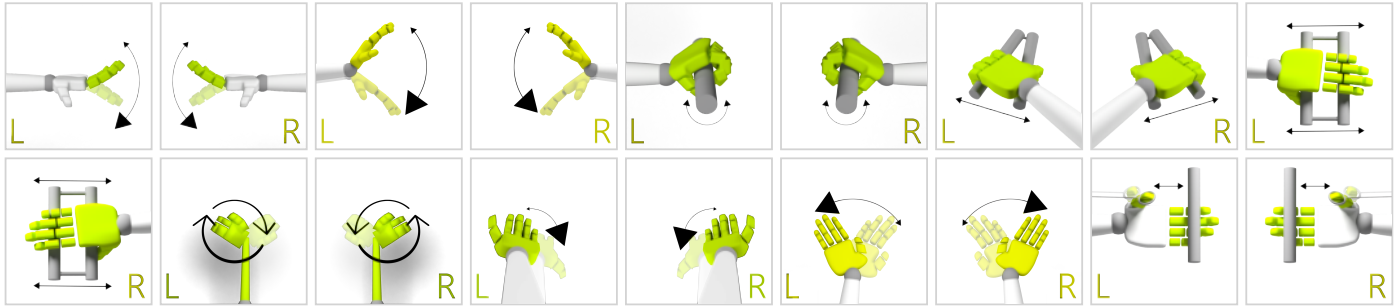


STRENGTH

STRENGTH TEST

Measure and gently motivate to increase individual's force while performing predefined movement patterns.

CONTROL MODES



ADJUSTMENTS

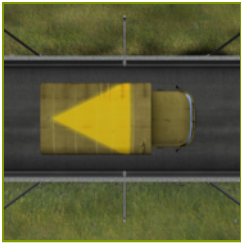
- Time to complete action

OBJECTIVES

- Strength examination
- Muscle strengthening

INSTRUCTION FOR PATIENT

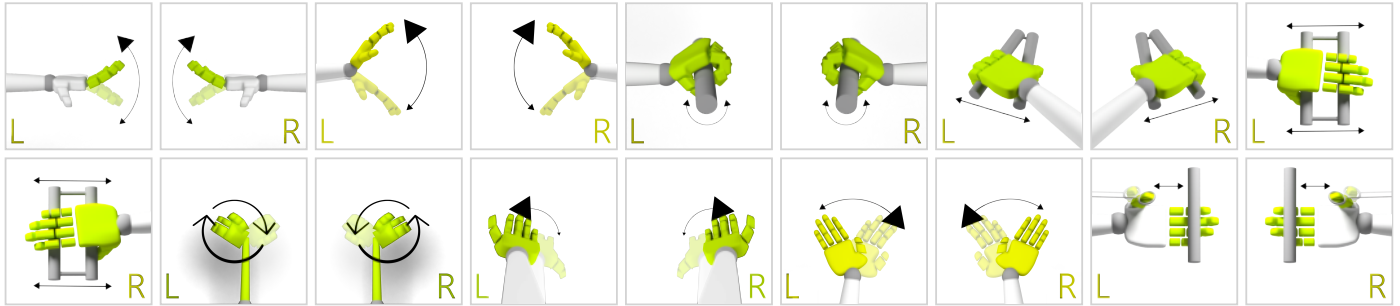
Try to achieve best result



MEMORY TRUCKS

Measure and train individual's skills to memorize information.

CONTROL MODES



RESULTS



ADJUSTMENTS

- Task duration
- Variations

OBJECTIVES

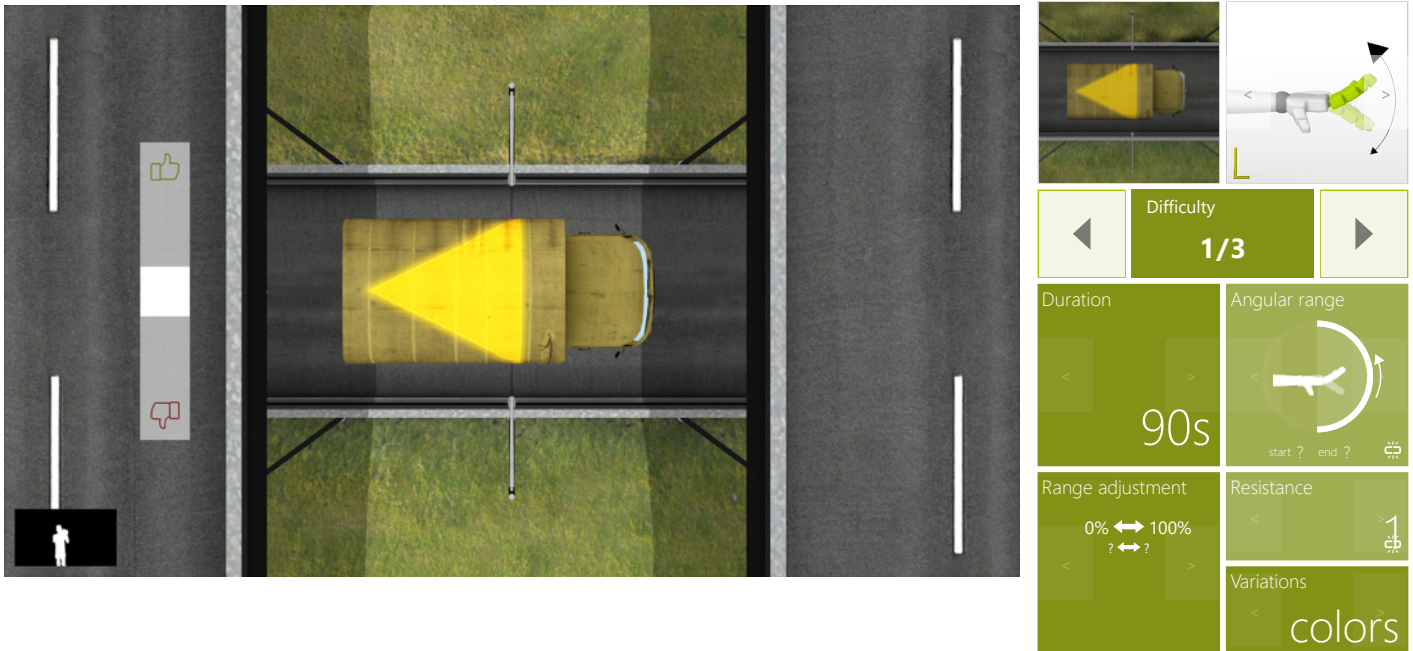
- Logical tasks
- Focusing
- Perceptivity

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



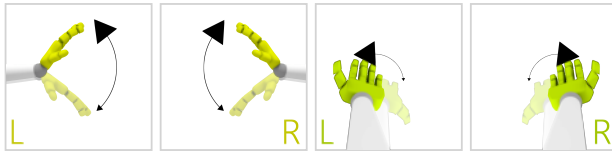


PROBLEM SOLVING

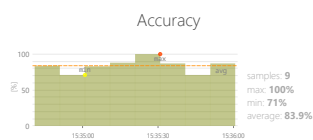
CLONES

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.

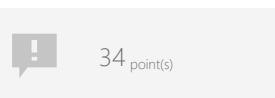
CONTROL MODES



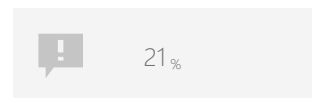
RESULTS



Total points



Problem solving



OBJECTIVES

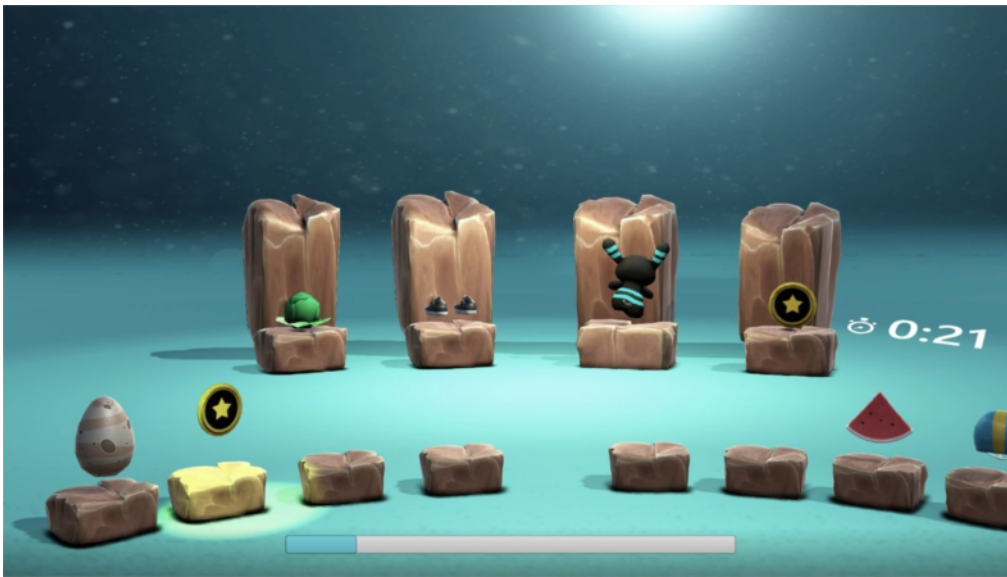
- Perceptivity
- Visual motor coordination
- Logical tasks

INSTRUCTION FOR PATIENT

Select the item which has a pair on the screen.



SAMPLE SETTINGS



	Difficulty 1/3	
Duration 90s		Angular range
Minitask duration 30s		Range adjustment 0% ↔ 100% ? ↔ ?
Number of pairs 4		Resistance 1