VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

BASE PACK FOR VECTIS

2025.1

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:

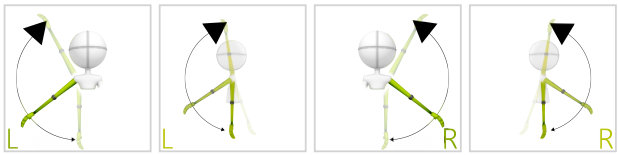
- Windows 10/11
- Intel Core i5 (8th gen or newer). Important: Avoid ultra-low-power versions (e.g., i5-8250U), as they may not meet performance requirements. Prefer standard or high-performance CPUs.
- Minimum: 8 GB RAM (16 GB or more recommended for optimal performance).

RANGE OF MOTION

ANGLES EVALUATION

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

CONTROL MODES

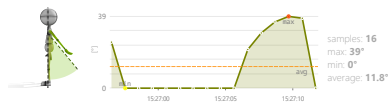


RESULTS

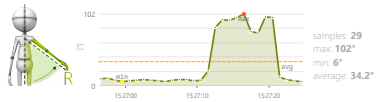
Angle | (L) arm | Abduction

Angle | (L) arm | Flexion

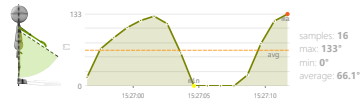
Angle | (L) arm | Extension



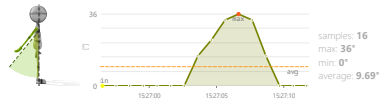
Angle | (R) arm | Abduction



Angle | (R) arm | Flexion



Angle | (R) arm | Extension



ADJUSTMENTS

- Time to complete action
- Resistance

OBJECTIVES

- Range of motion examination

INSTRUCTION FOR PATIENT

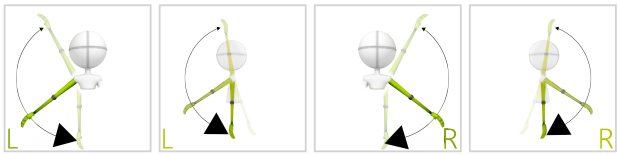
Try to achieve best result

SPEED

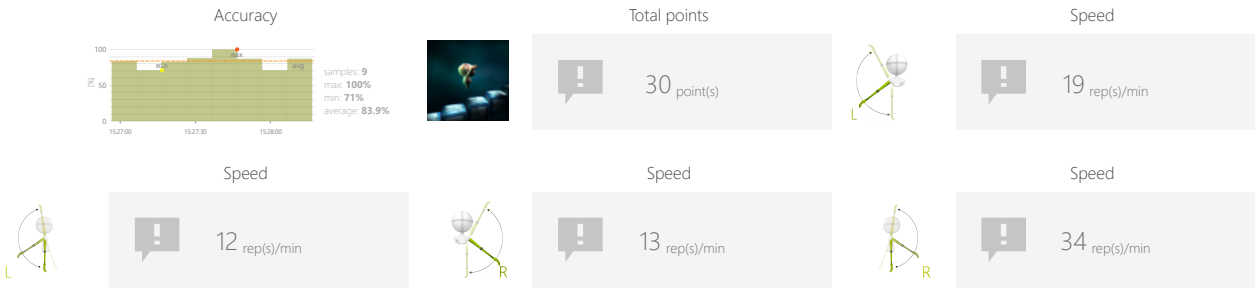
STAIRS

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

CONTROL MODES



RESULTS



ADJUSTMENTS

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

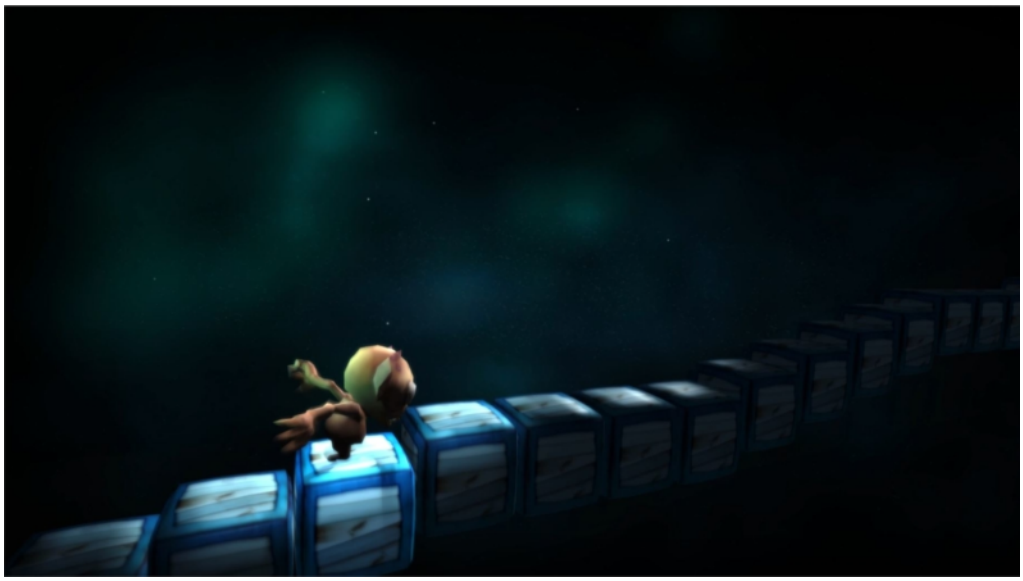
OBJECTIVES

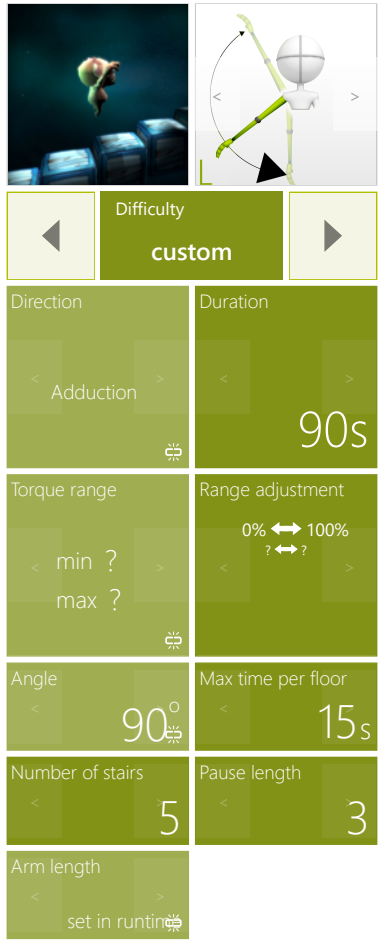
- Dynamics of planned movements

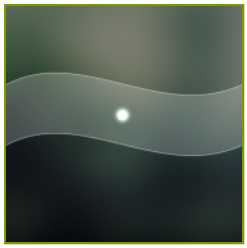
INSTRUCTION FOR PATIENT

Climb the stairs before they disappear.

SAMPLE SETTINGS





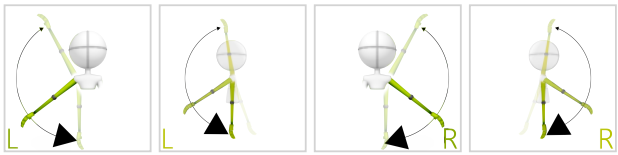


MOVEMENT PRECISION

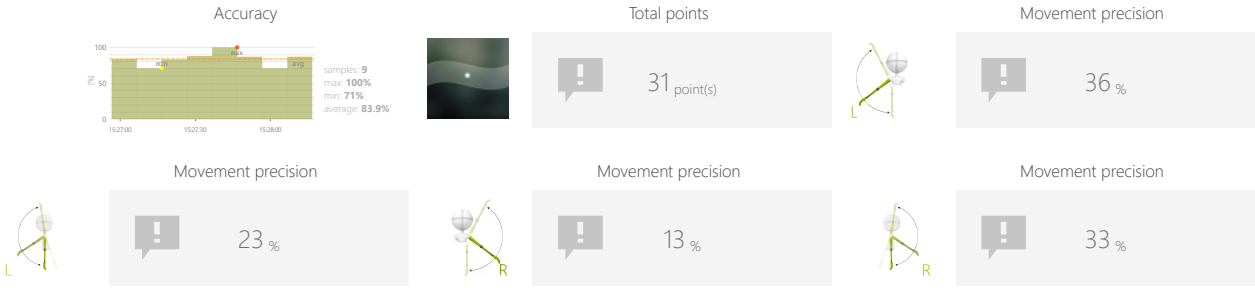
GRAPH

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
- Resistance

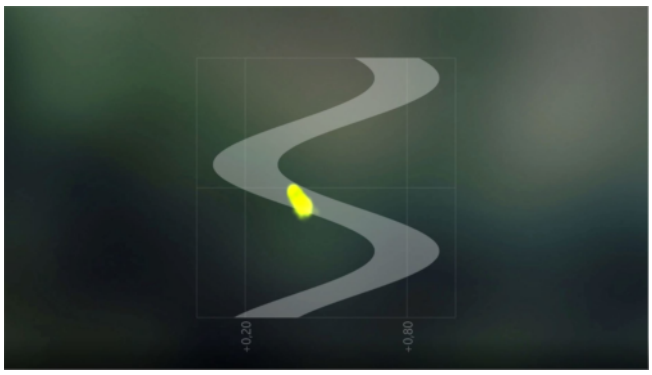
OBJECTIVES

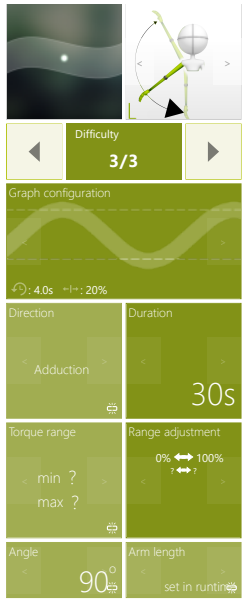
- Movement precision
- Activity in a given rhythm
- Repetitive movements

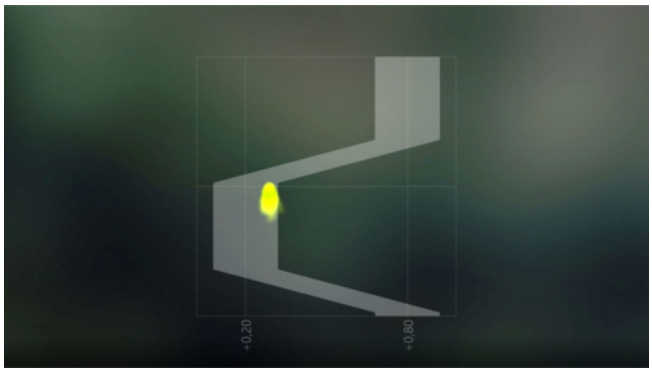
INSTRUCTION FOR PATIENT

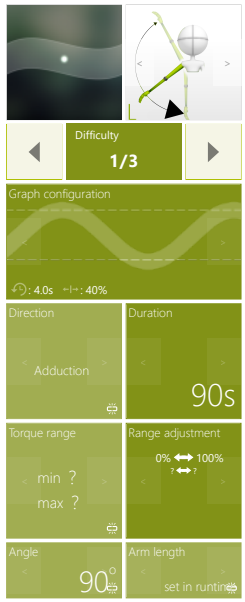
Try to stay within the borders.

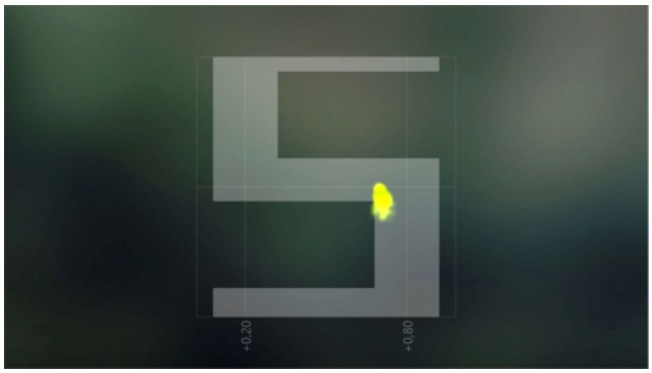
SAMPLE SETTINGS

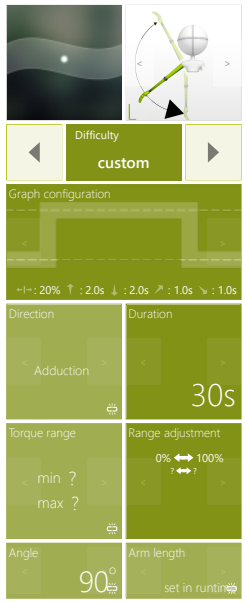


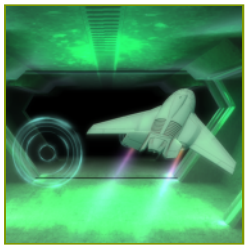










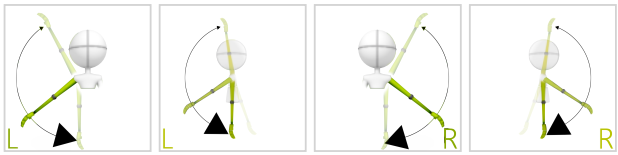


FUNCTIONAL MOVEMENTS

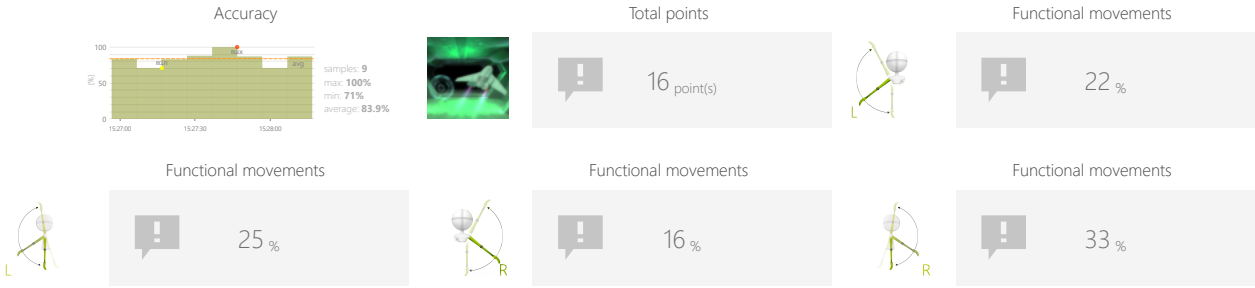
AIRPLANE

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

- Speed
- Task duration
- Resistance

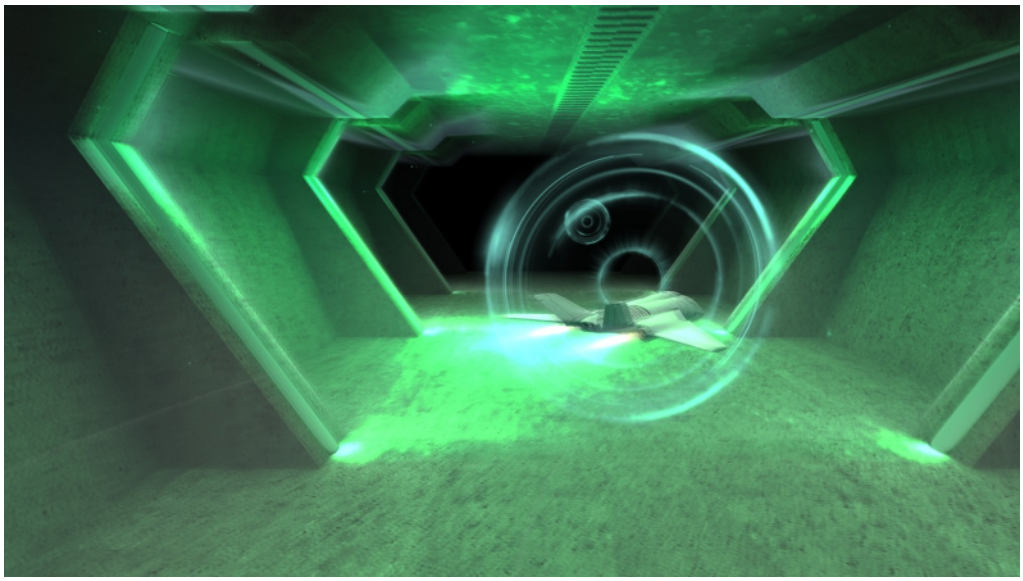
OBJECTIVES

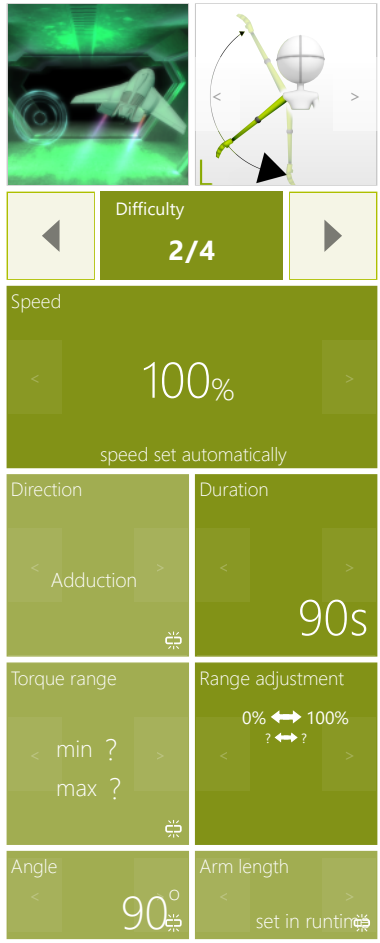
- Focusing
- Perceptivity
- Movement precision
- Predicting the trajectory of objects in 3D space

INSTRUCTION FOR PATIENT

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

SAMPLE SETTINGS



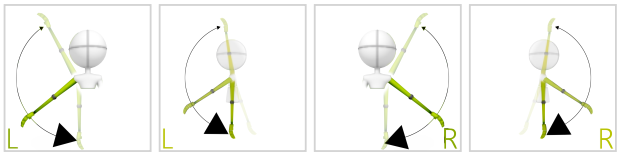


FUNCTIONAL MOVEMENTS

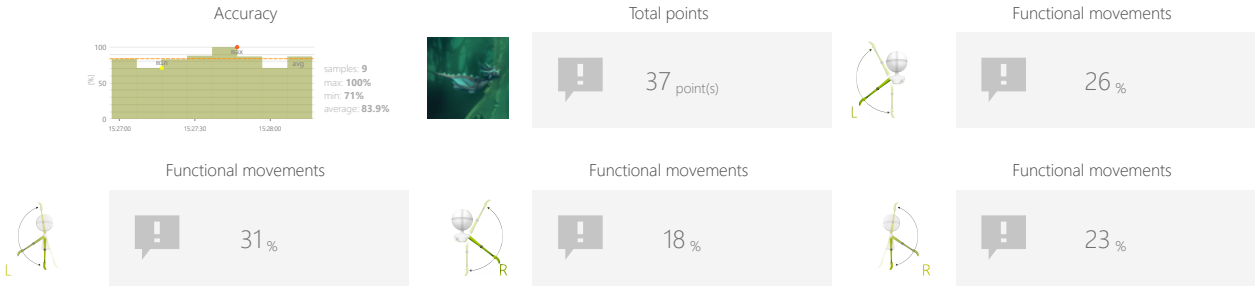
DRAGON

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
- Coins group size
- Distance between coins
- Gravity force
- Resistance

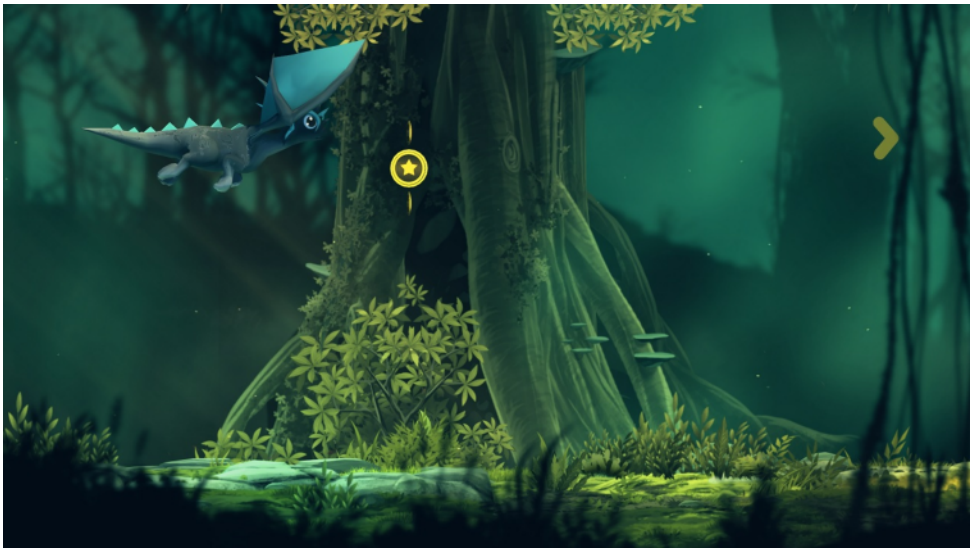
OBJECTIVES

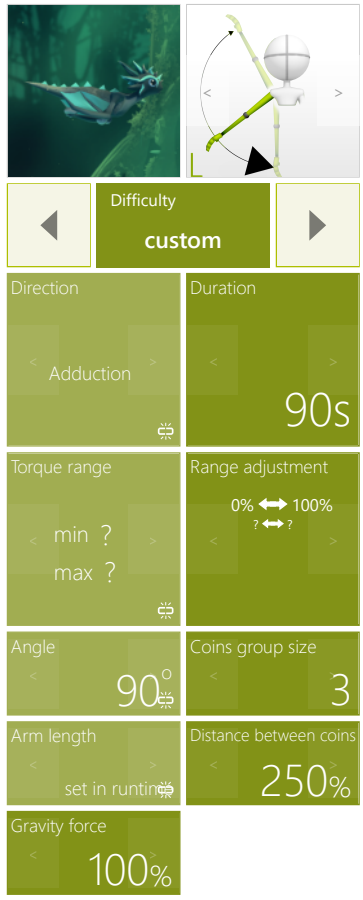
- Predicting the trajectory of objects
- Improve range of motion
- Visual motor coordination
- Muscle strengthening
- Planning and Strategy

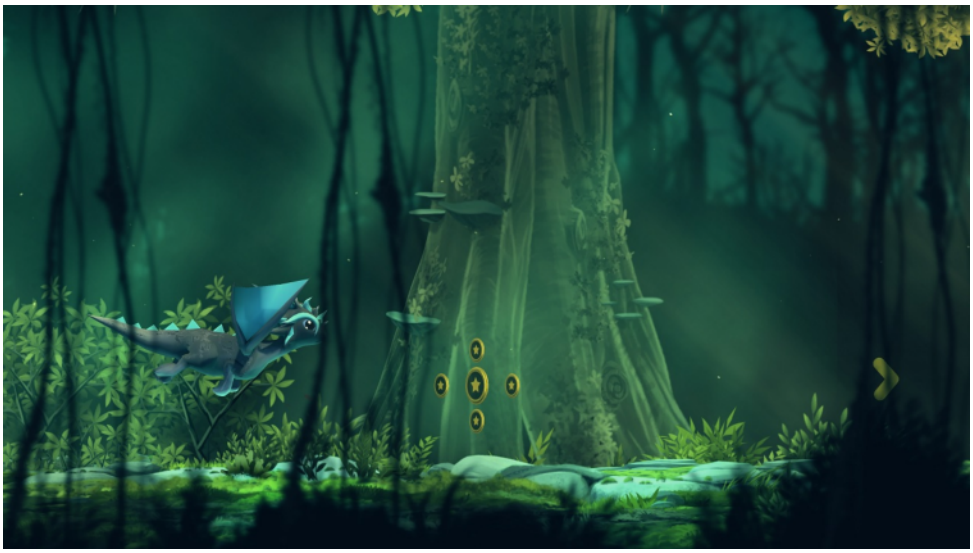
INSTRUCTION FOR PATIENT

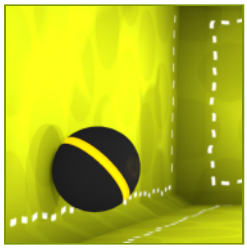
Fly and collect the coins.

SAMPLE SETTINGS







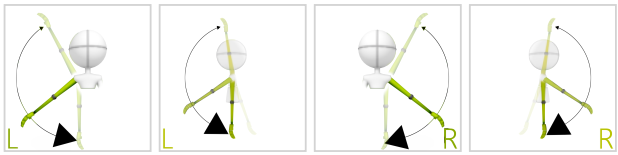


FUNCTIONAL MOVEMENTS

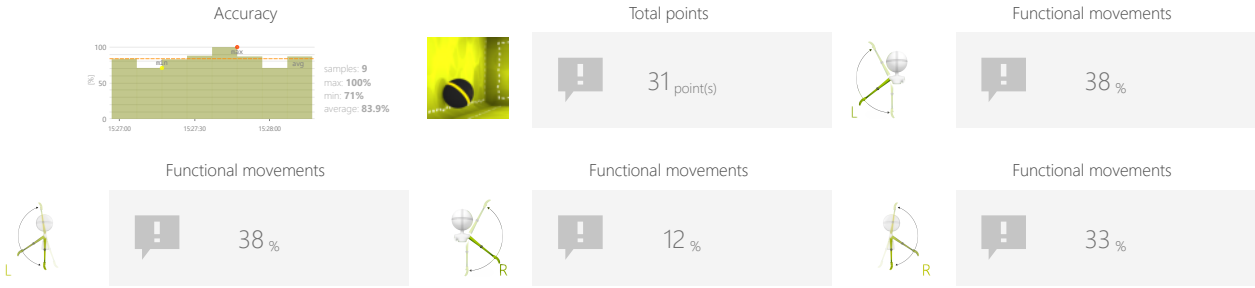
ARCANOID

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
- Reticle size
- Speed of objects
- Resistance

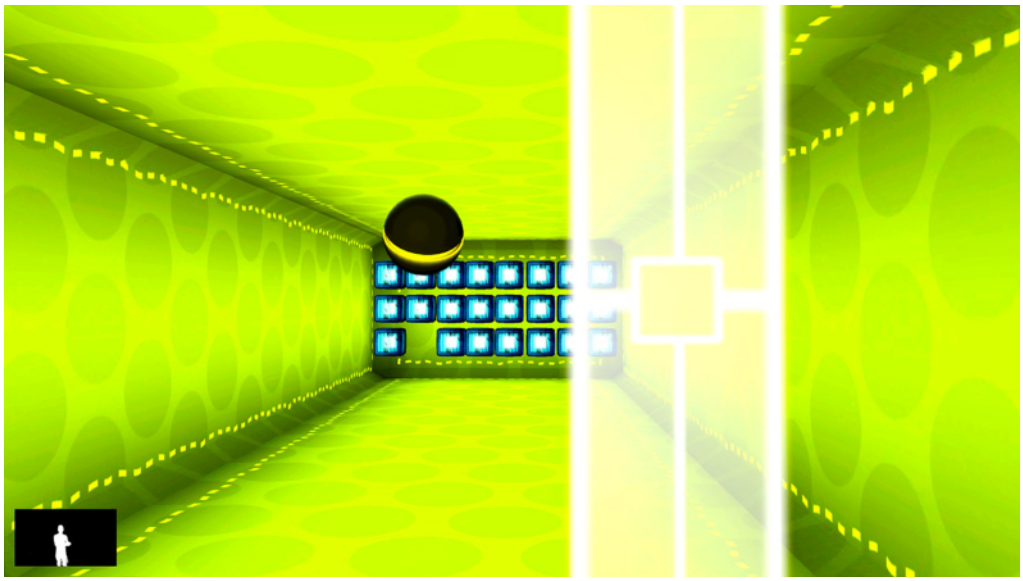
OBJECTIVES

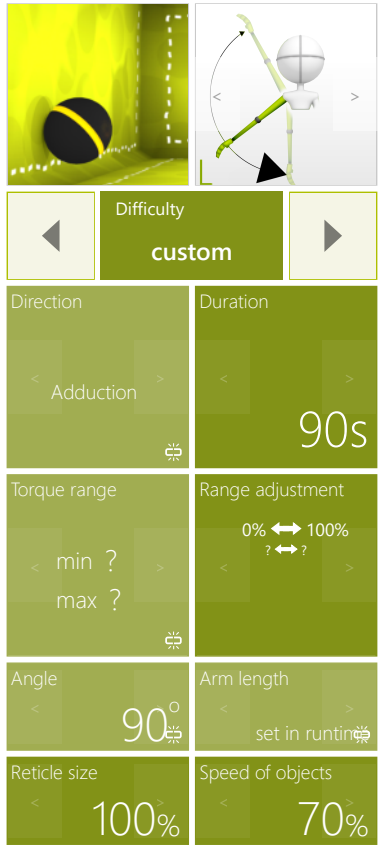
- Dynamics of planned movements
- Predicting the trajectory of objects in 3D space
- Visual motor coordination

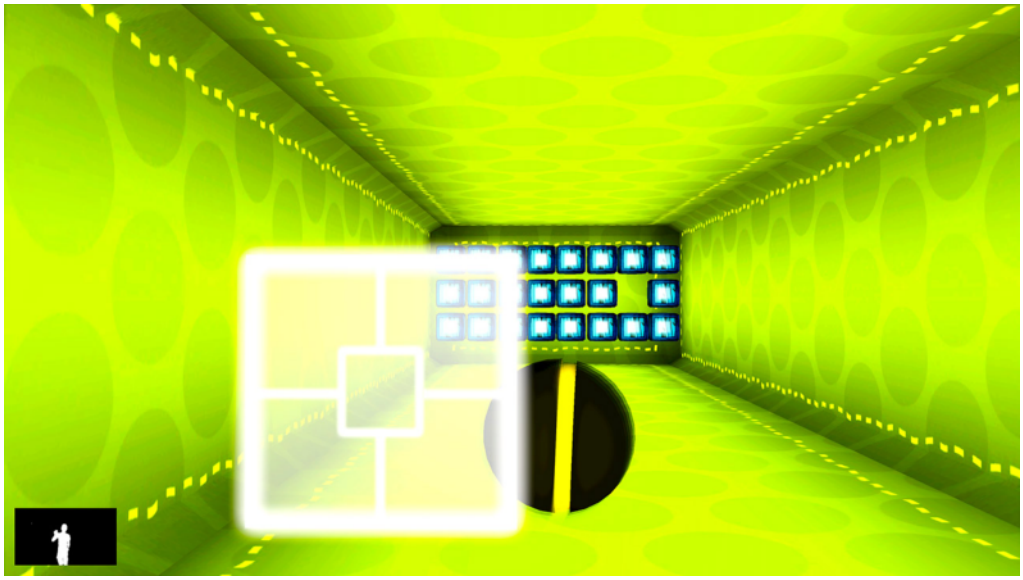
INSTRUCTION FOR PATIENT

Destroy as many boxes as you can.

SAMPLE SETTINGS





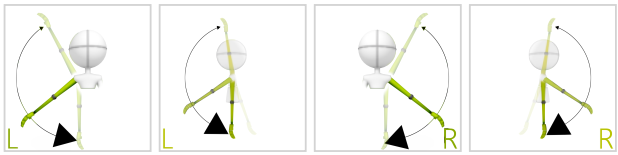


FUNCTIONAL MOVEMENTS

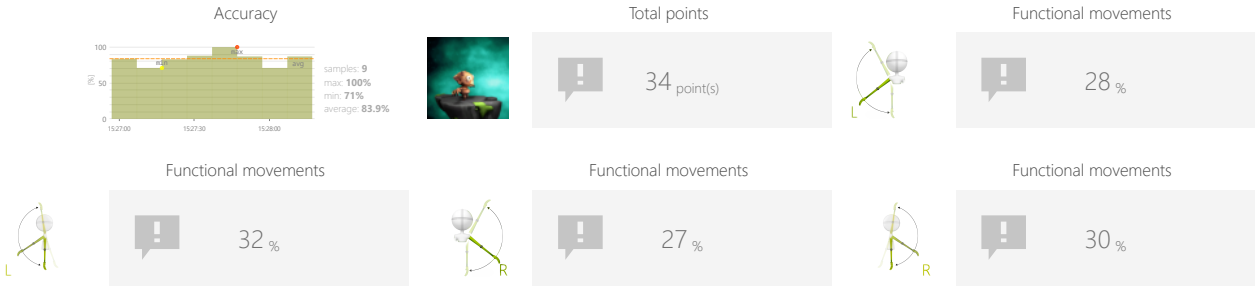
ROCKET JUMPING

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
- Resistance

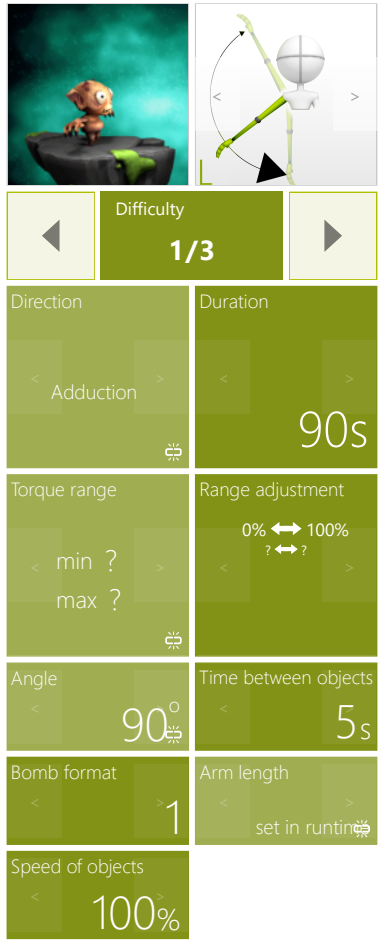
OBJECTIVES

- 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.

SAMPLE SETTINGS

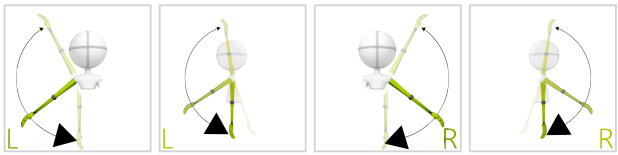


STRENGTH

STRENGTH TEST

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

CONTROL MODES



RESULTS

Torque | (L) arm | Abduction

26 Nm

Torque | (L) arm | Adduction

97 Nm

Torque | (L) arm | Flexion

59 Nm

Torque | (L) arm | Extension

67 Nm

Torque | (R) arm | Abduction

25 Nm

Torque | (R) arm | Adduction

102 Nm

Torque | (R) arm | Flexion

74 Nm

Torque | (R) arm | Extension

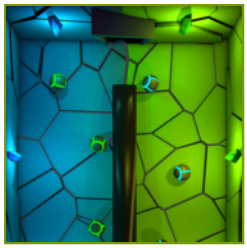
73 Nm

OBJECTIVES

- Strength examination
- Muscle strengthening

INSTRUCTION FOR PATIENT

Try to achieve best result

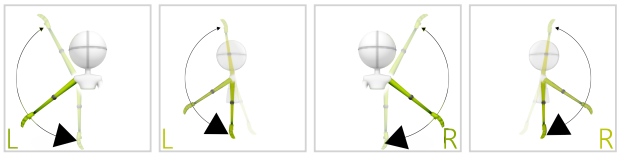


DIVIDED ATTENTION

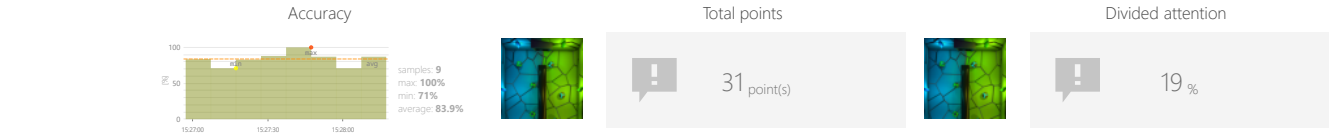
SORTER

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
- Number of objects
- Gap size
- Speed of objects
- Resistance

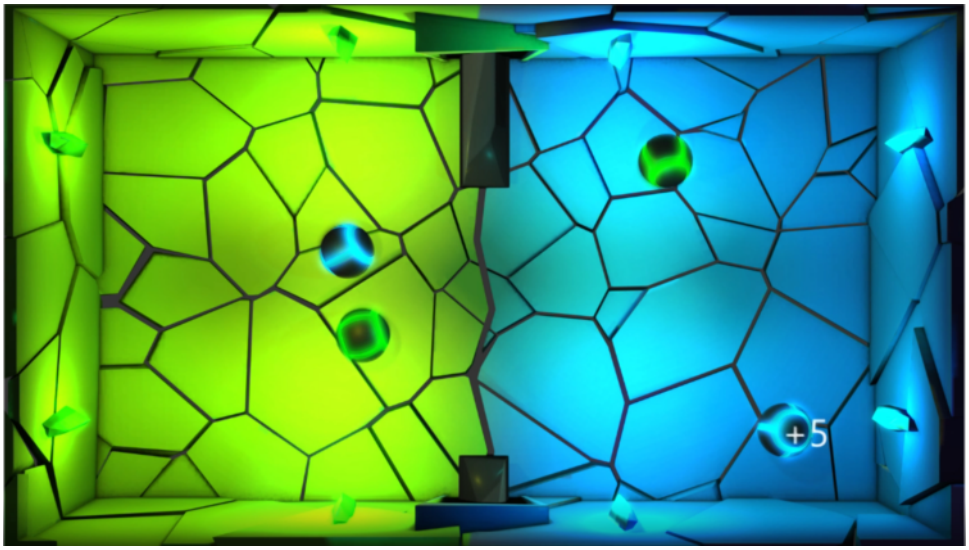
OBJECTIVES

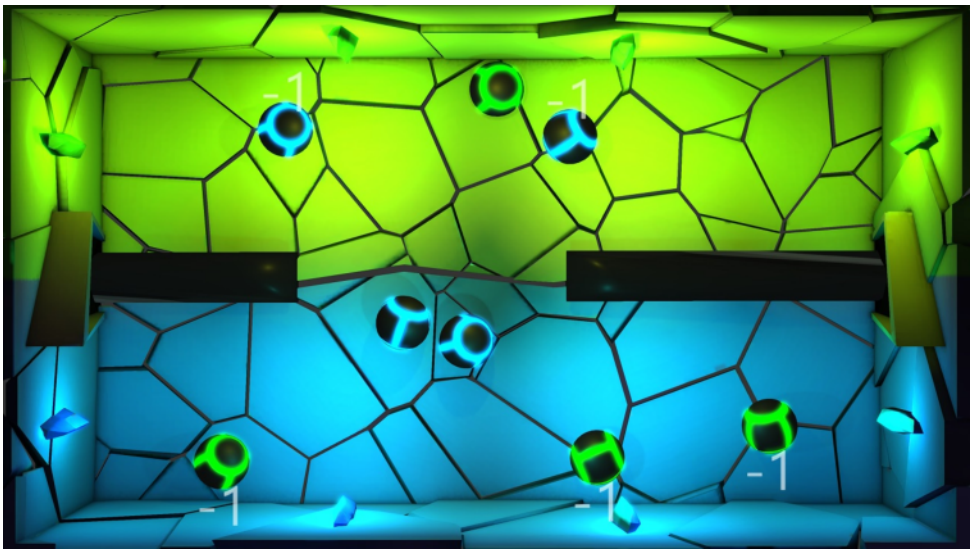
- Predicting the trajectory of objects
- Focusing
- Perceptivity
- Movement precision
- Exercise with or without support from healthy limb

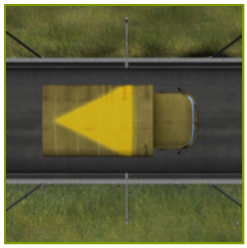
INSTRUCTION FOR PATIENT

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





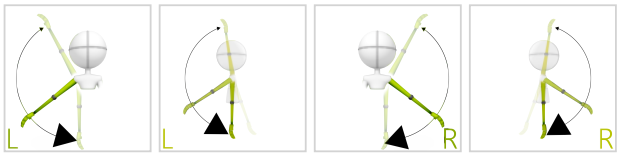


MEMORY

TRUCKS

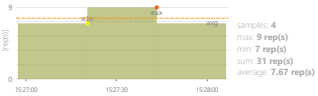
Measure and train individual's skills to memorize information.

CONTROL MODES

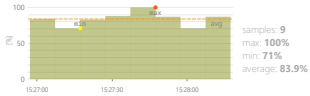


RESULTS

Number of repetitions



Accuracy



Total points

17 point(s)

Memory

39 %

ADJUSTMENTS

- Task duration
- Resistance
- Variations

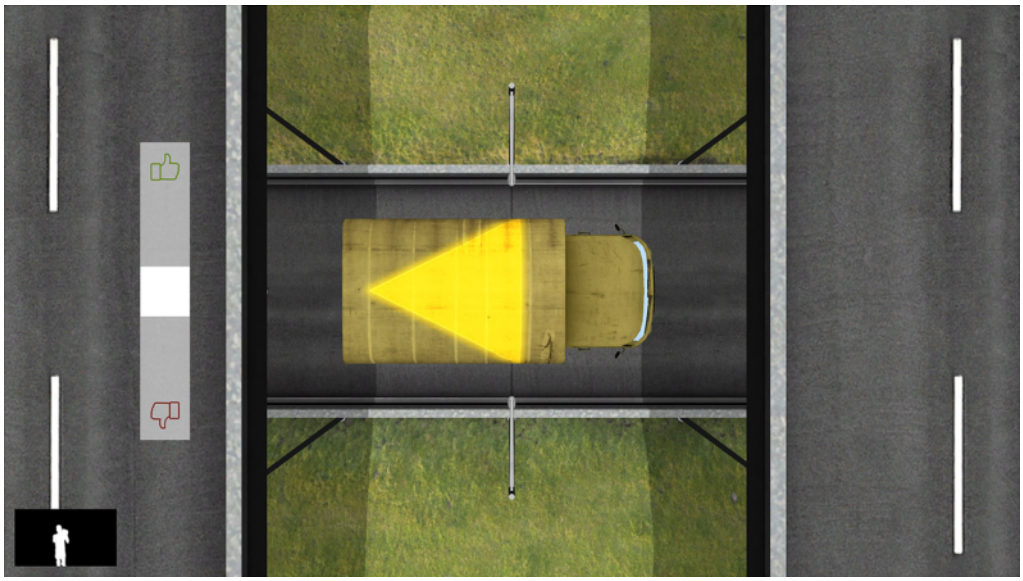
OBJECTIVES

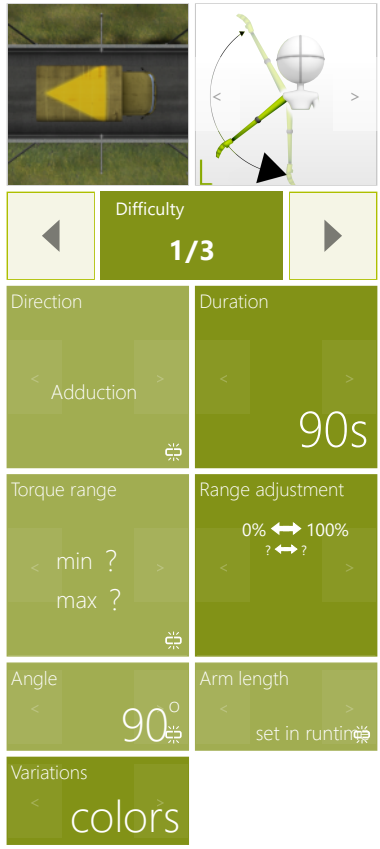
- Logical tasks
- Focusing
- Perceptivity

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





SPECIALIZED

BLOOD PRESSURE

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

CONTROL MODES

ADJUSTMENTS

- Resistance

OBJECTIVES

- Monitor external parameters

INSTRUCTION FOR PATIENT

Measure yourself your blood pressure and type it in the result.