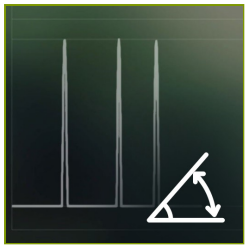
VAST.Rehab
REHABILITATION IN VIRTUAL REALITY

# BASE PACK FOR JUPITER

2025.1

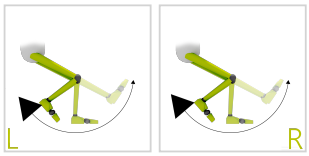


# RANGE OF MOTION

## ANGLES EVALUATION

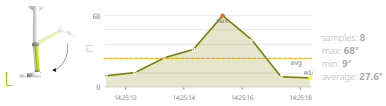
Measure and gently motivate to increase individual's range of motion in predefined movement patterns.

## CONTROL MODES

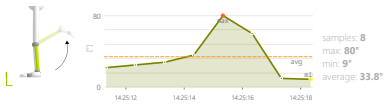



## RESULTS

Angle | (L) knee | Extension

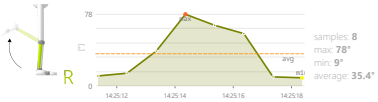



Angle | (L) knee | Flexion




Angle | (R) knee | Extension


Angle | (R) knee | Flexion




## ADJUSTMENTS

- Angular range
- Time to complete action
- Black Rubbers
- Arm length
- White Rubbers

## OBJECTIVES

- Range of motion examination

## INSTRUCTION FOR PATIENT

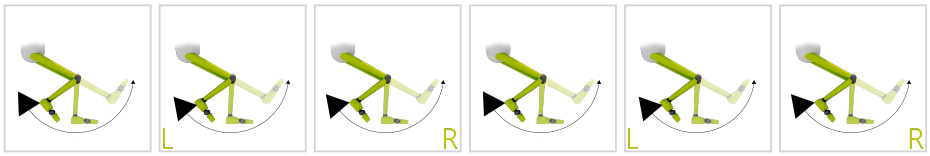
Try to achieve best result

# SPEED

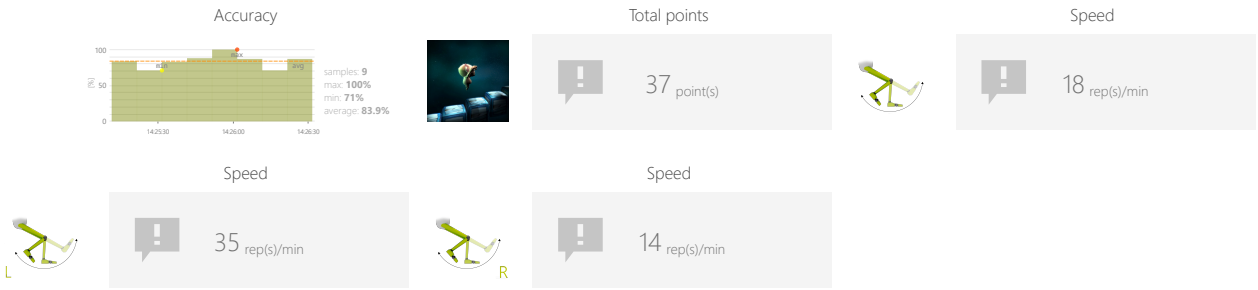
## STAIRS

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

## CONTROL MODES




## RESULTS




## ADJUSTMENTS

- Task duration
- Angular range
- Range adjustment
- Max time per floor
- Black Rubbers
- Arm length
- Number of stairs
- Pause length
- White Rubbers

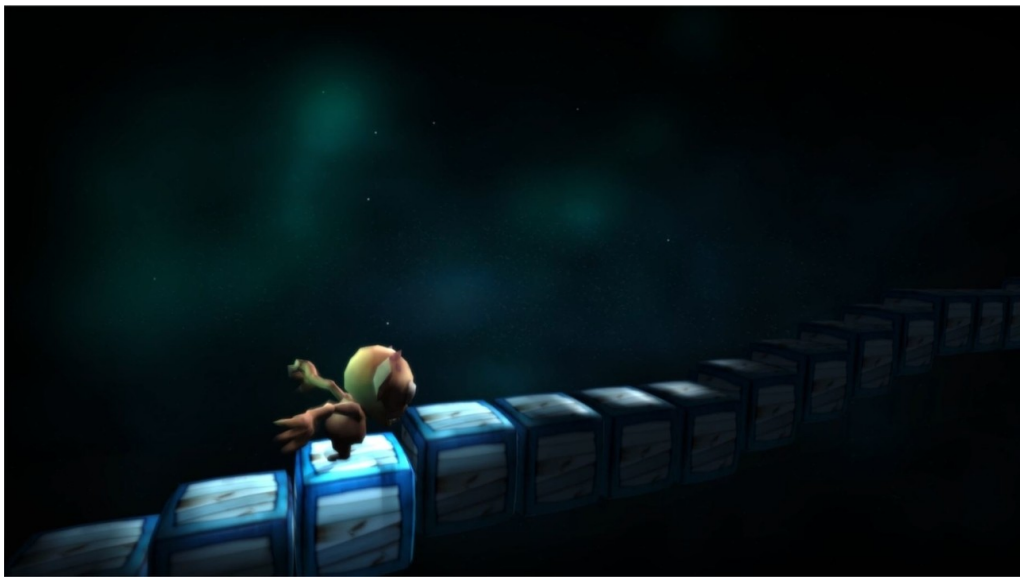
## OBJECTIVES

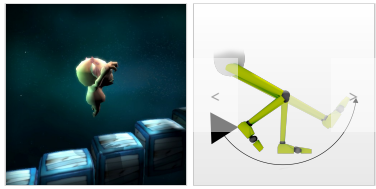
- Jumping
- Knees lifting
- Dynamics of planned movements

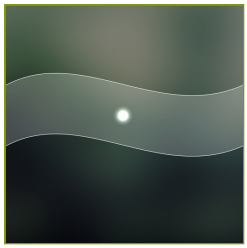
## INSTRUCTION FOR PATIENT

Climb the stairs before they disappear.

# SAMPLE SETTINGS





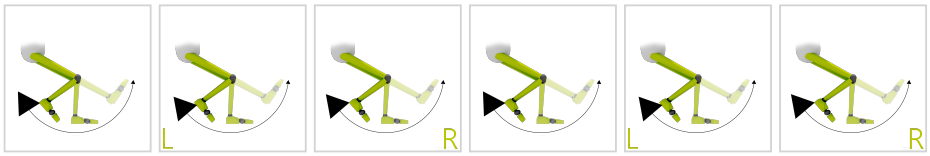


# MOVEMENT PRECISION

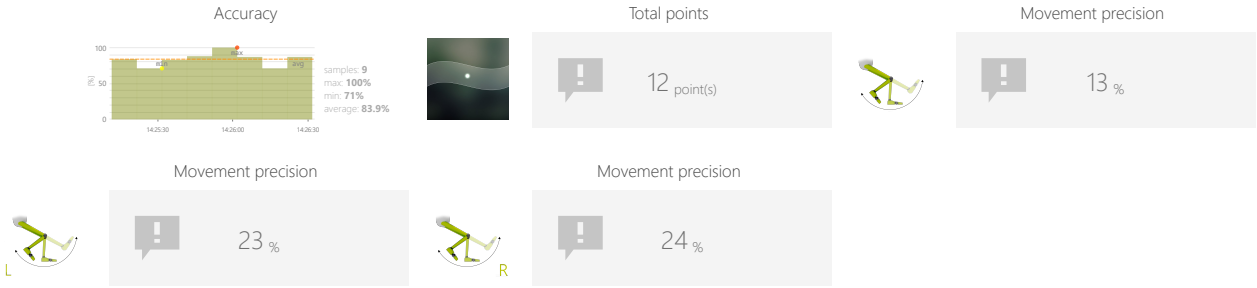
## GRAPH

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
- Angular range
- Range adjustment
- Black Rubbers
- Arm length
- White Rubbers

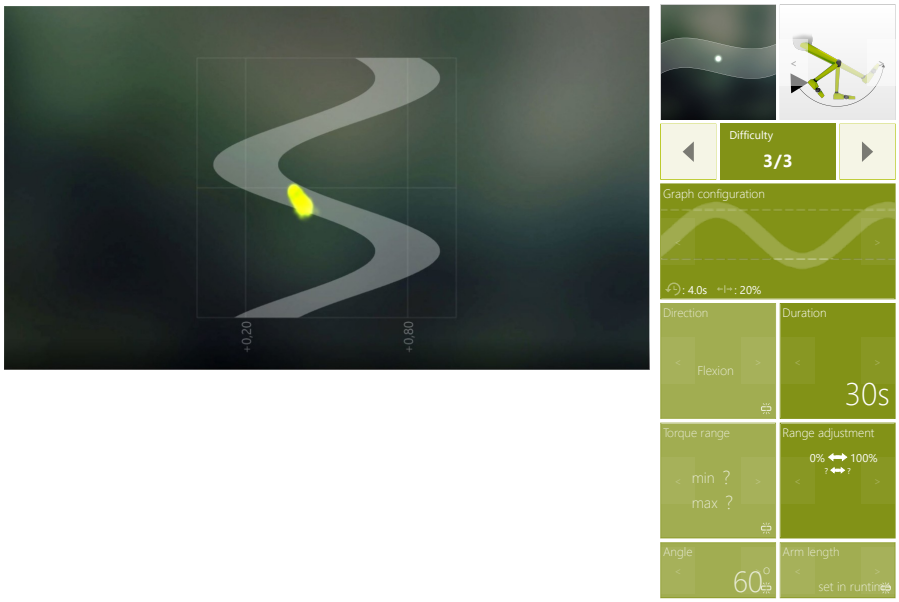
## OBJECTIVES

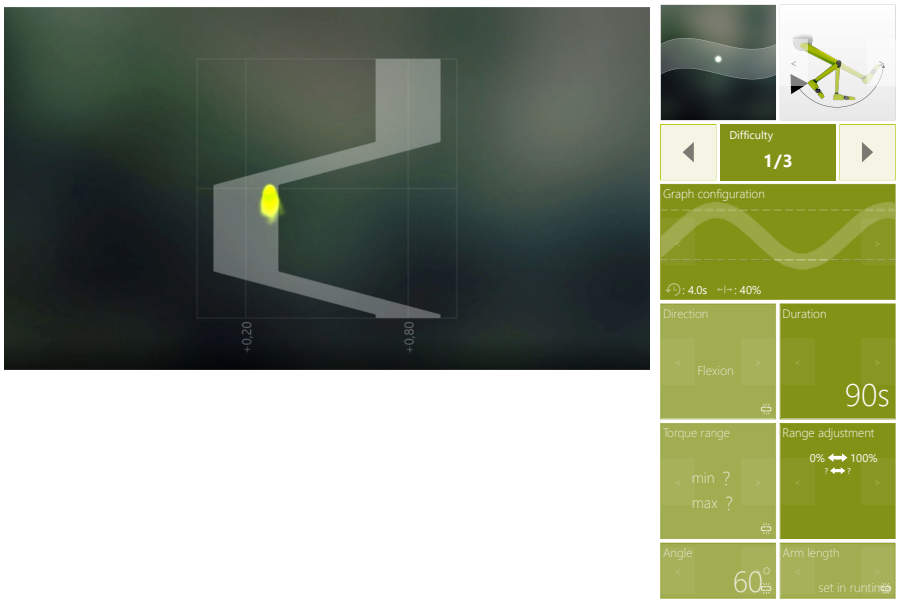
- Movement precision
- Activity in a given rhythm
- Repetitive movements
- Hands raising

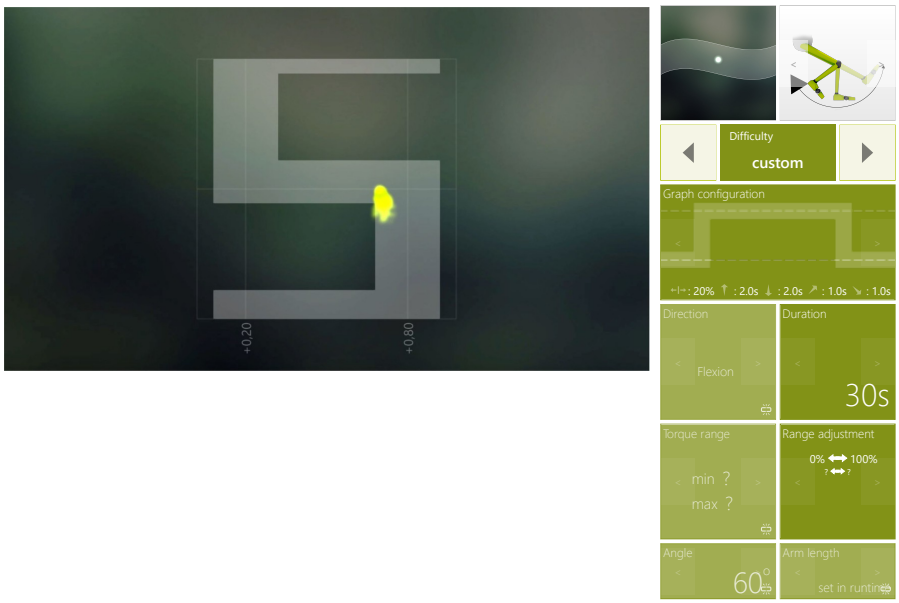
## INSTRUCTION FOR PATIENT

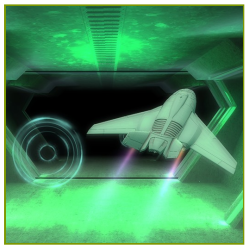
Try to stay within the borders.

## SAMPLE SETTINGS



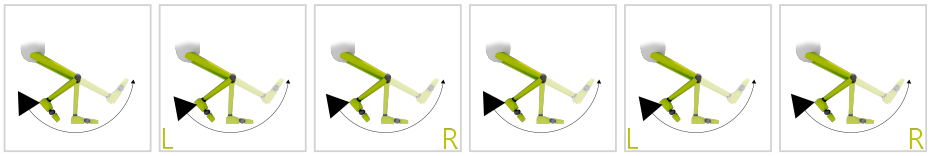


# FUNCTIONAL MOVEMENTS

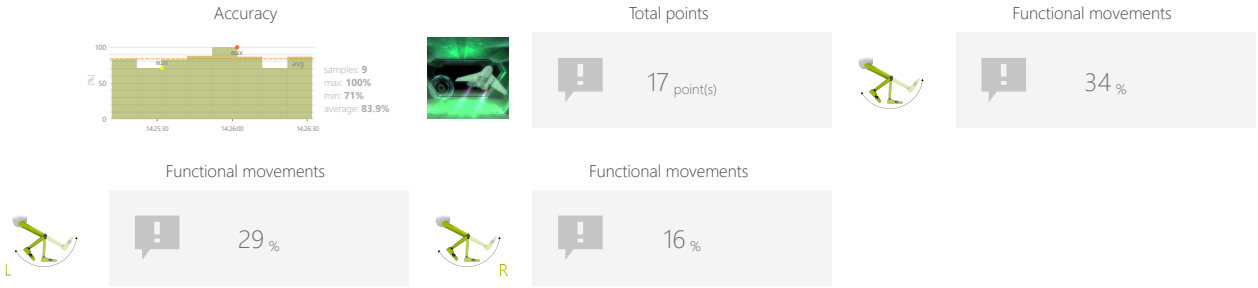
## AIRPLANE

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

- Speed
- Task duration
- Angular range
- Range adjustment
- Black Rubbers
- Arm length
- White Rubbers

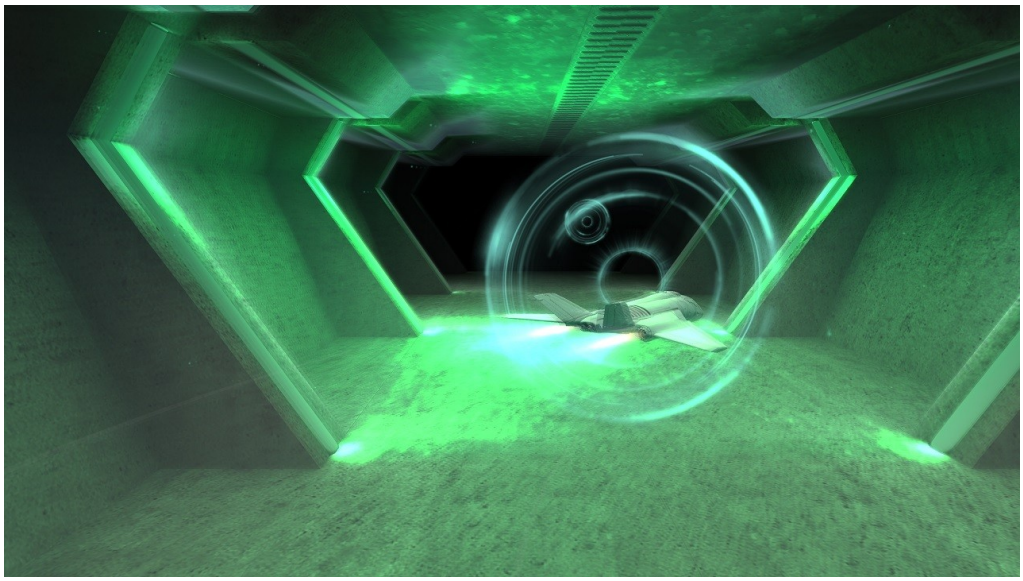
## OBJECTIVES

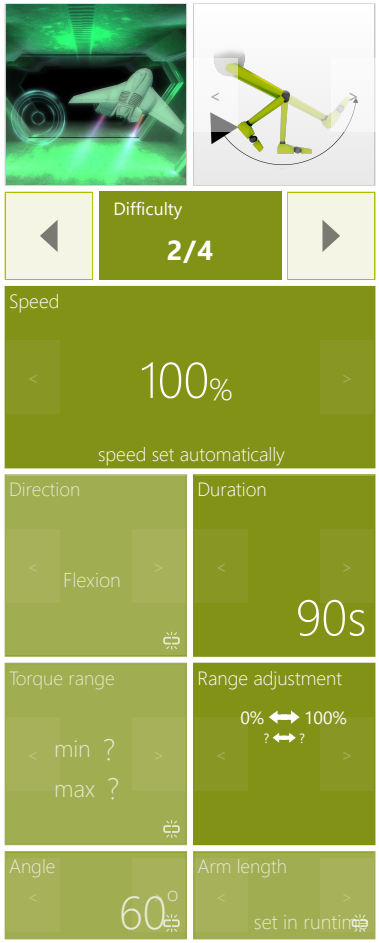
- Focusing
- Perceptivity
- Movement precision
- Predicting the trajectory of objects in 3D space
- Balance and equilibrium training

## INSTRUCTION FOR PATIENT

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

## SAMPLE SETTINGS



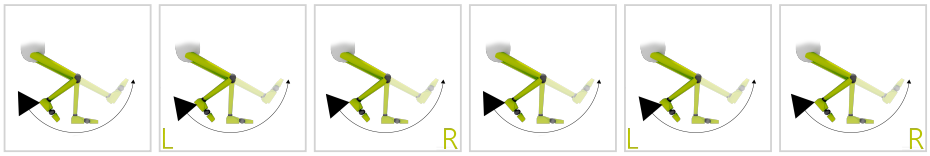


# FUNCTIONAL MOVEMENTS

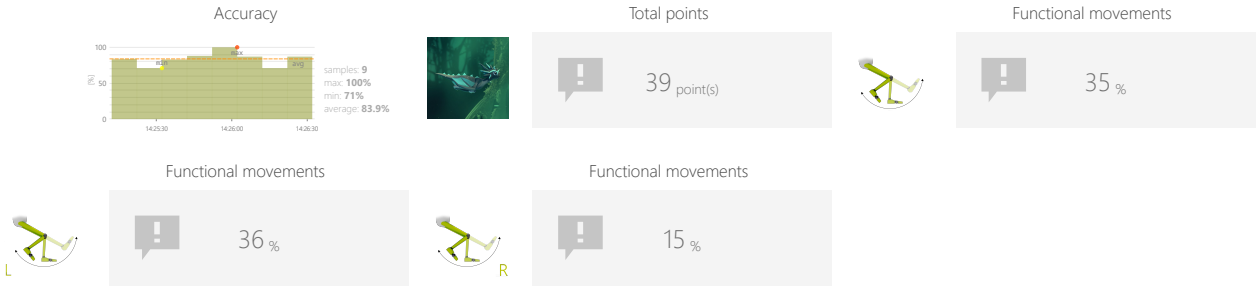
## DRAGON

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
- Angular range
- Range adjustment
- Black Rubbers
- Coins group size
- Arm length
- White Rubbers
- Distance between coins
- Gravity force

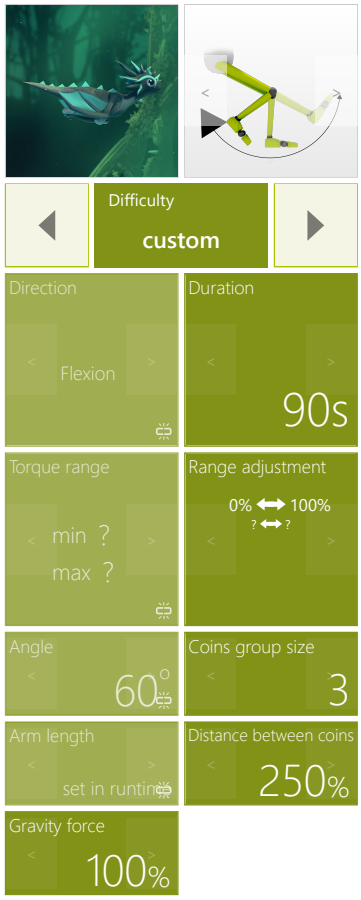
## OBJECTIVES

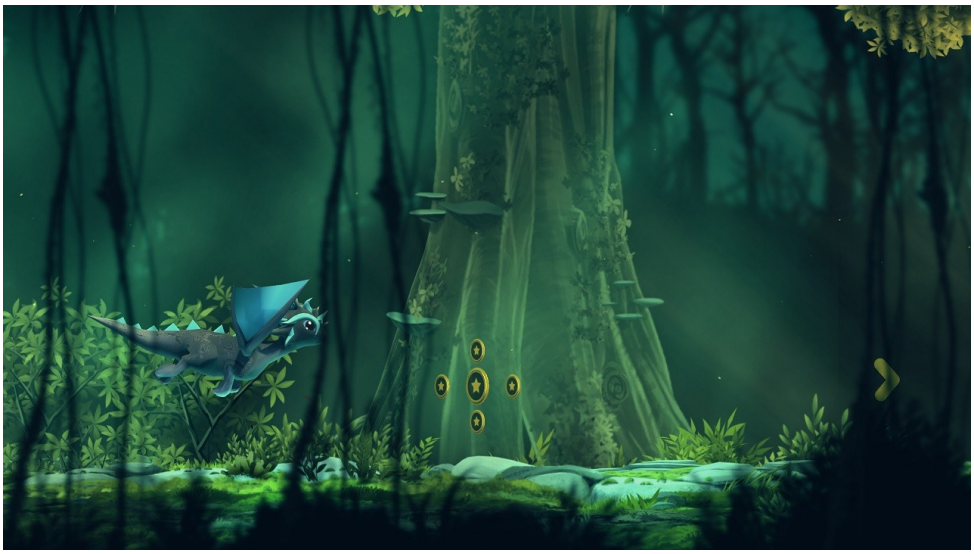
- Predicting the trajectory of objects
- Improve range of motion
- Visual motor coordination
- Muscle strengthening
- Planning and Strategy

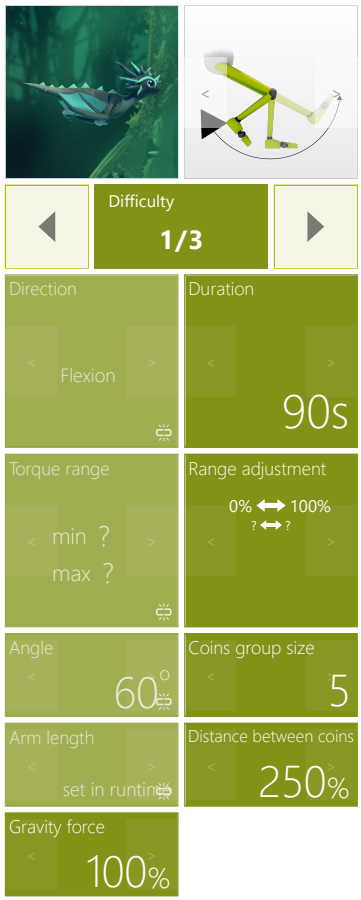
## INSTRUCTION FOR PATIENT

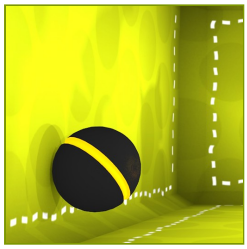
Fly and collect the coins.

## SAMPLE SETTINGS





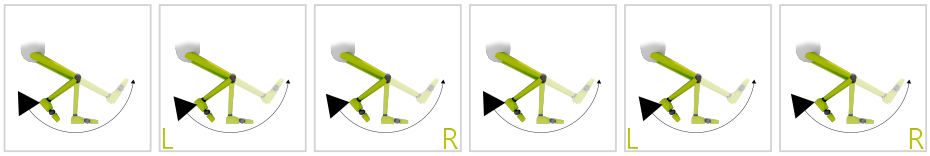


# FUNCTIONAL MOVEMENTS

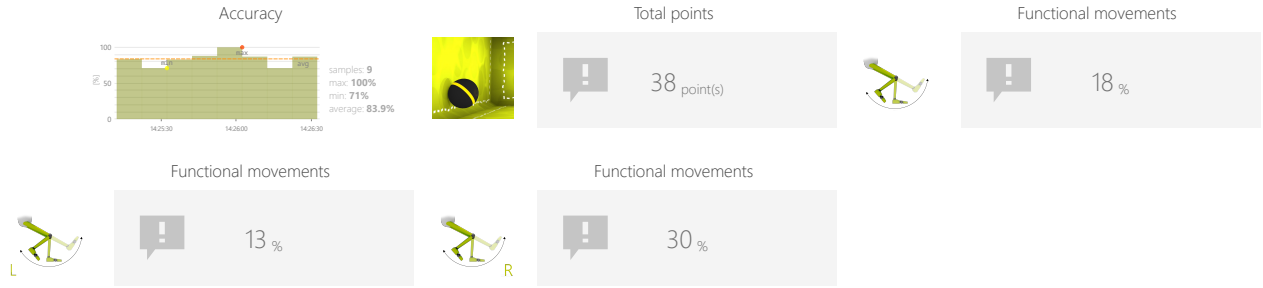
## ARCANOID

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
- Angular range
- Range adjustment
- Black Rubbers
- Arm length
- White Rubbers
- Reticle size
- Speed of objects

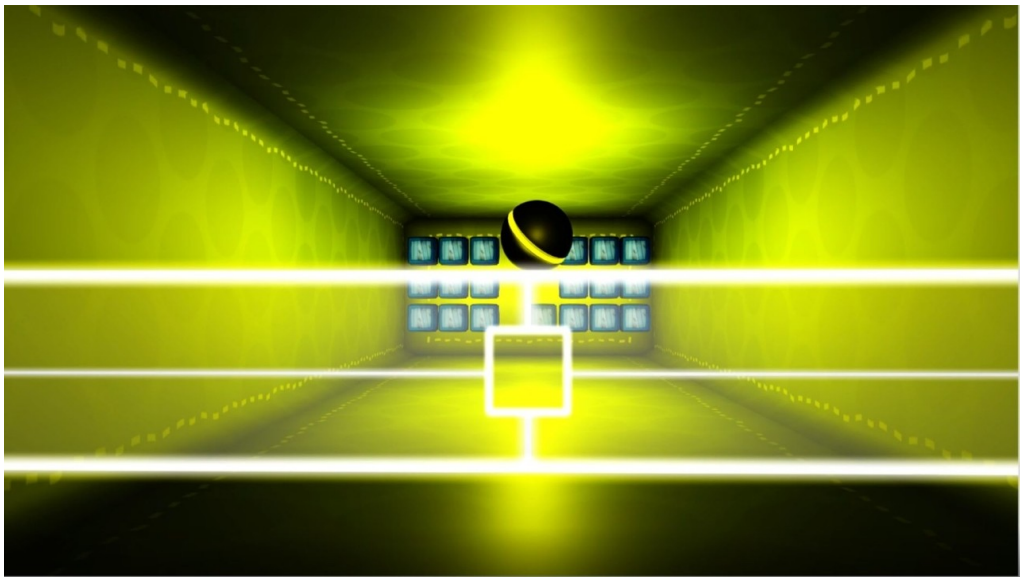
## OBJECTIVES

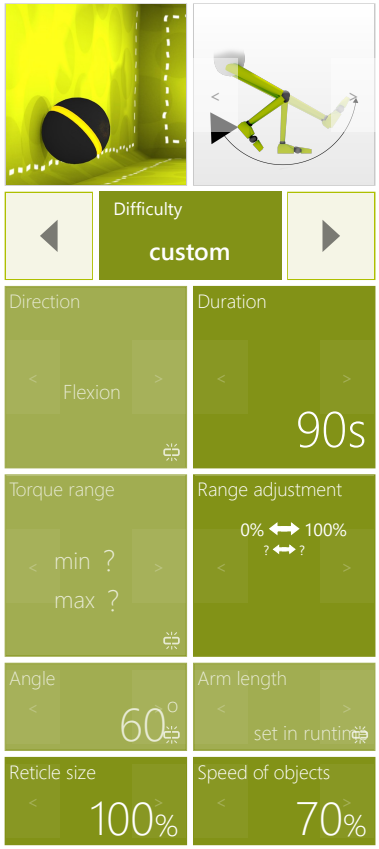
- Dynamics of planned movements
- Predicting the trajectory of objects in 3D space
- Visual motor coordination

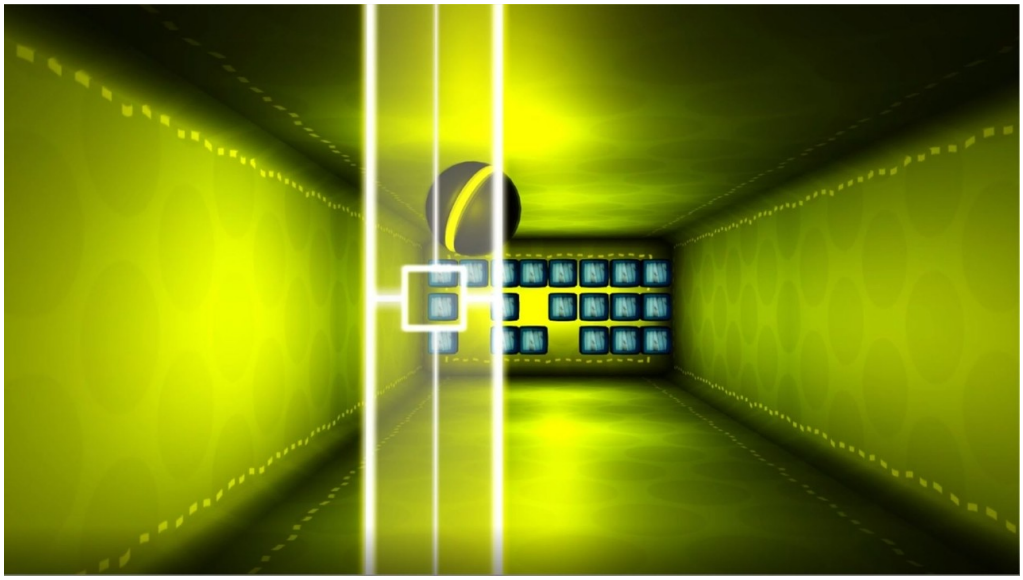
## INSTRUCTION FOR PATIENT

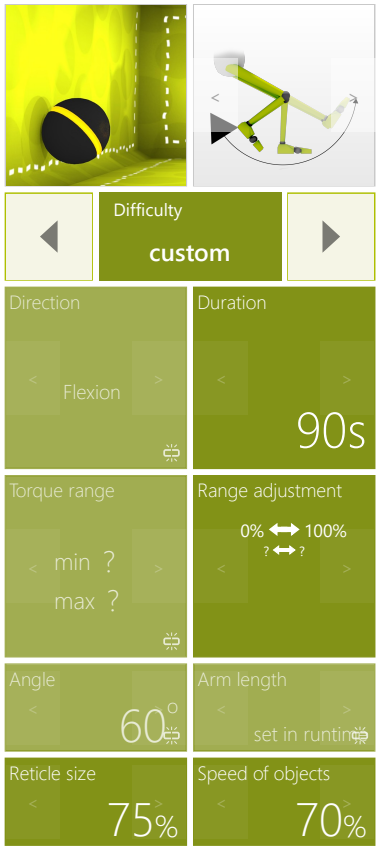
Destroy as many boxes as you can.

## SAMPLE SETTINGS





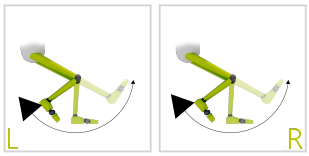


# STRENGTH

## STRENGTH TEST

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

## CONTROL MODES




## RESULTS

Torque | (L) knee | Flexion


42 Nm

Torque | (L) knee | Extension


133 Nm

Torque | (R) knee | Flexion


44 Nm

Torque | (R) knee | Extension

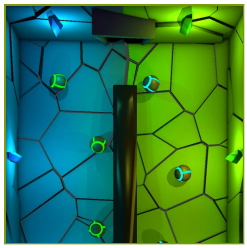

39 Nm

## OBJECTIVES

- Strength examination
- Muscle strengthening

## INSTRUCTION FOR PATIENT

Try to achieve best result

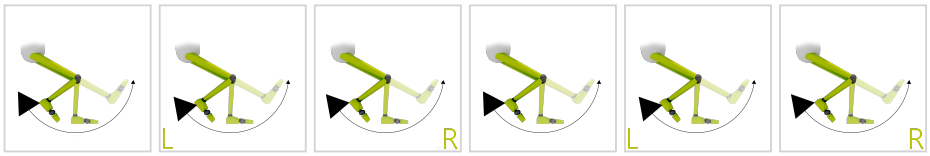


# DIVIDED ATTENTION

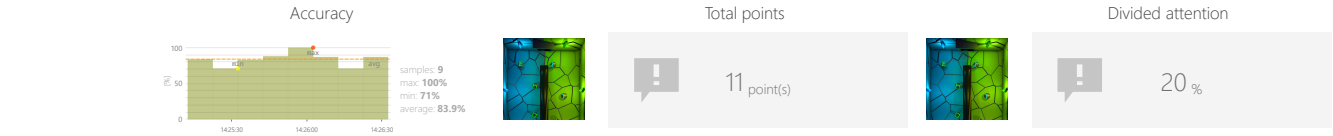
## SORTER

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
- Angular range
- Range adjustment
- Black Rubbers
- Arm length
- Number of objects
- White Rubbers
- Gap size
- Speed of objects

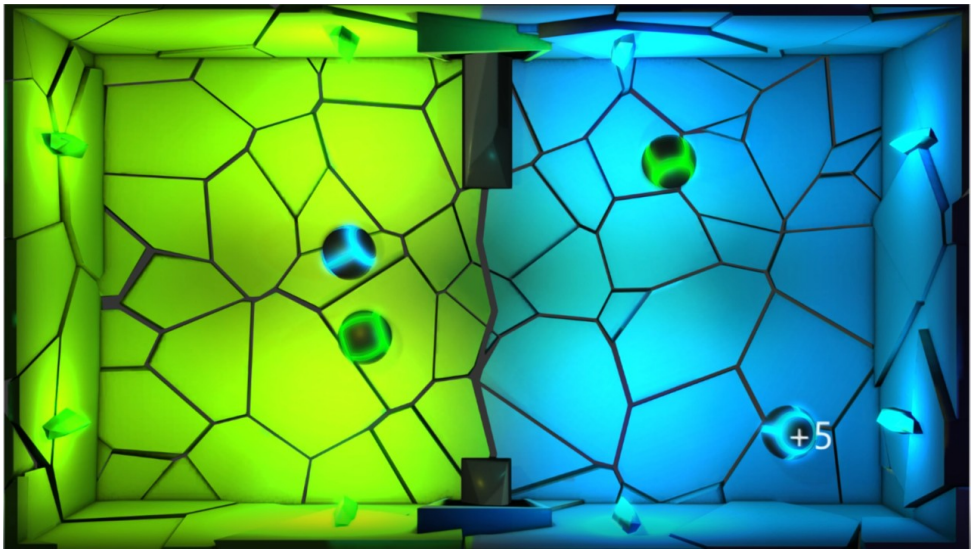
## OBJECTIVES

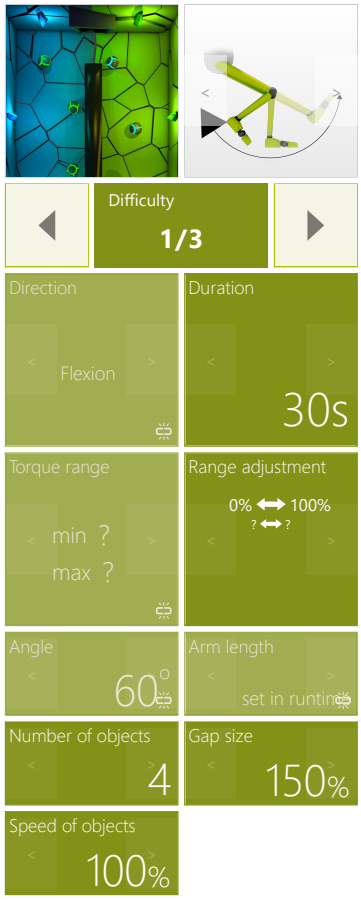
- Predicting the trajectory of objects
- Focusing
- Perceptivity
- Movement precision
- Exercise with or without support from healthy limb

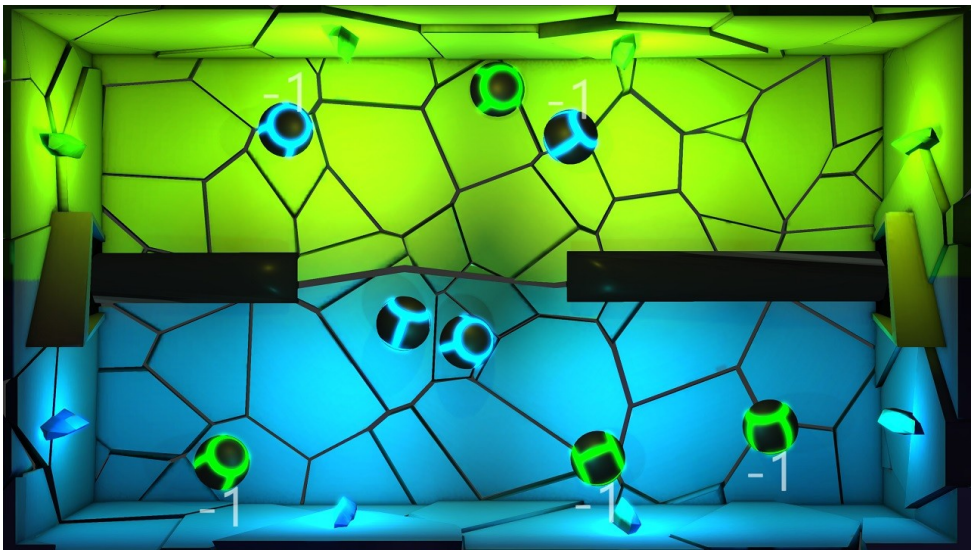
## INSTRUCTION FOR PATIENT

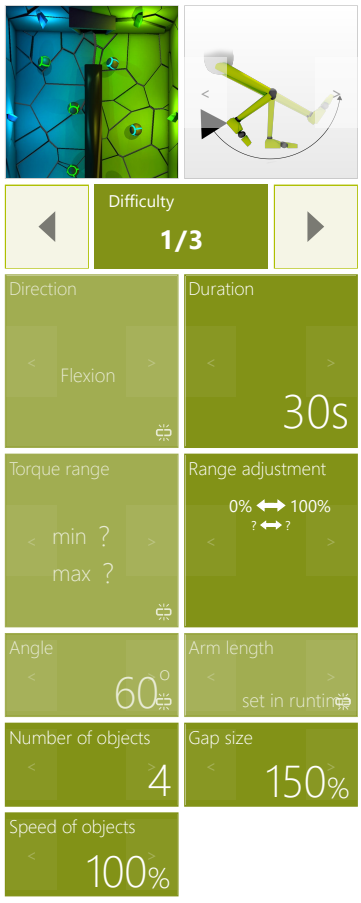
Pass or block the balls so that the blue balls are on the blue side and the green balls are on the green side of the screen.

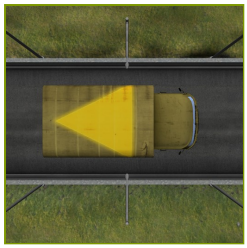
## SAMPLE SETTINGS



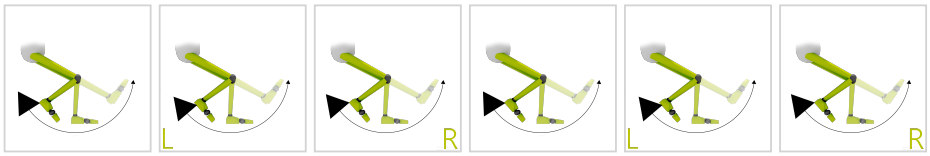


# MEMORY

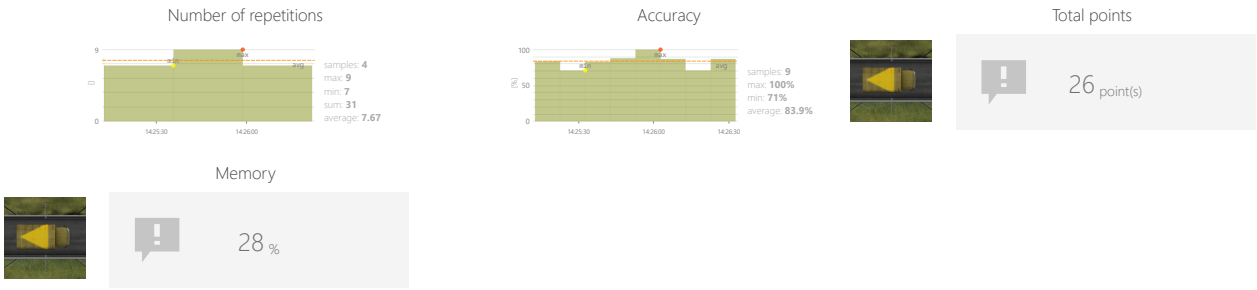
## TRUCKS

Measure and train individual's skills to memorize information.

## CONTROL MODES




## RESULTS




## ADJUSTMENTS

- Task duration
- Angular range
- Range adjustment
- Black Rubbers
- Arm length
- White Rubbers
- Variations

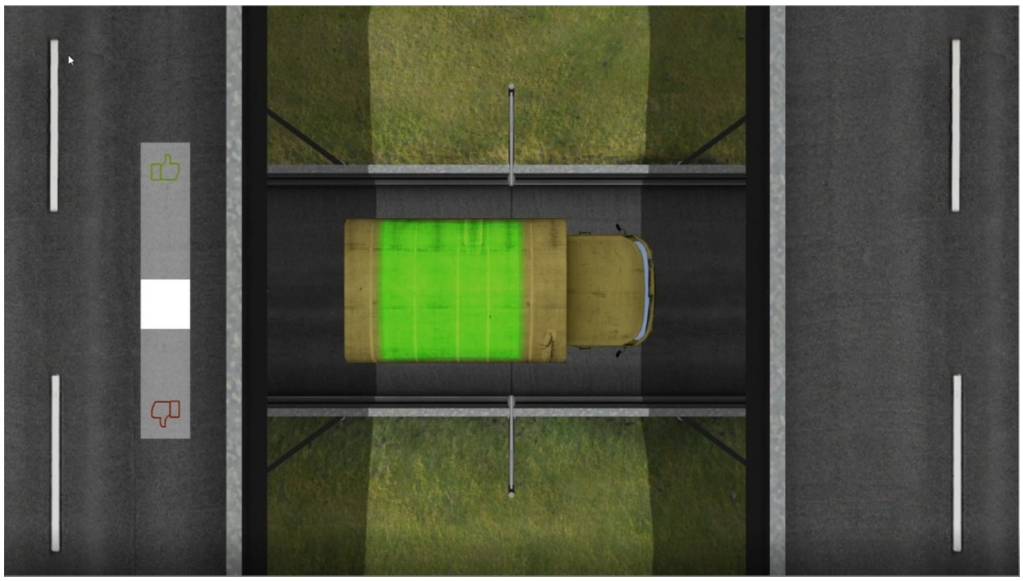
## OBJECTIVES

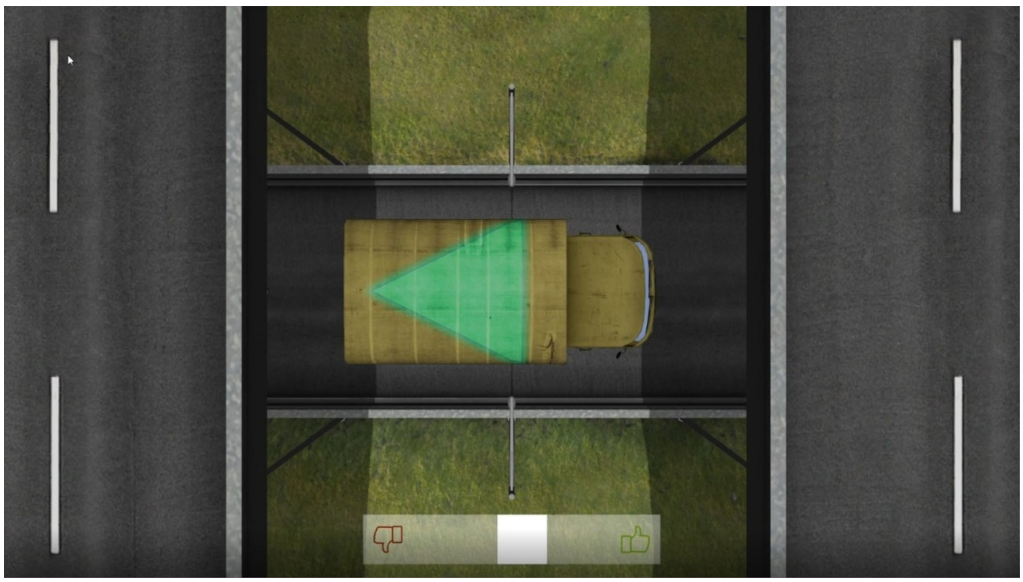
- Logical tasks
- Focusing
- Perceptivity

## 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

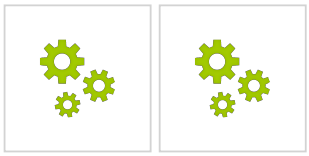



# SPECIALIZED
## BLOOD PRESSURE

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

## CONTROL MODES



## ADJUSTMENTS

- Angular range
- Range adjustment
- Black Rubbers
- Arm length
- White Rubbers

## OBJECTIVES

- Monitor external parameters

## INSTRUCTION FOR PATIENT

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