

# Physiotherapy & Rehabilitation



**EzyGain VR**



**ezyGain**  
One step closer to autonomy



# ezyGain VR & AR

**The most advanced, versatile, and user-friendly  
VR and AR kit for functional rehabilitation**

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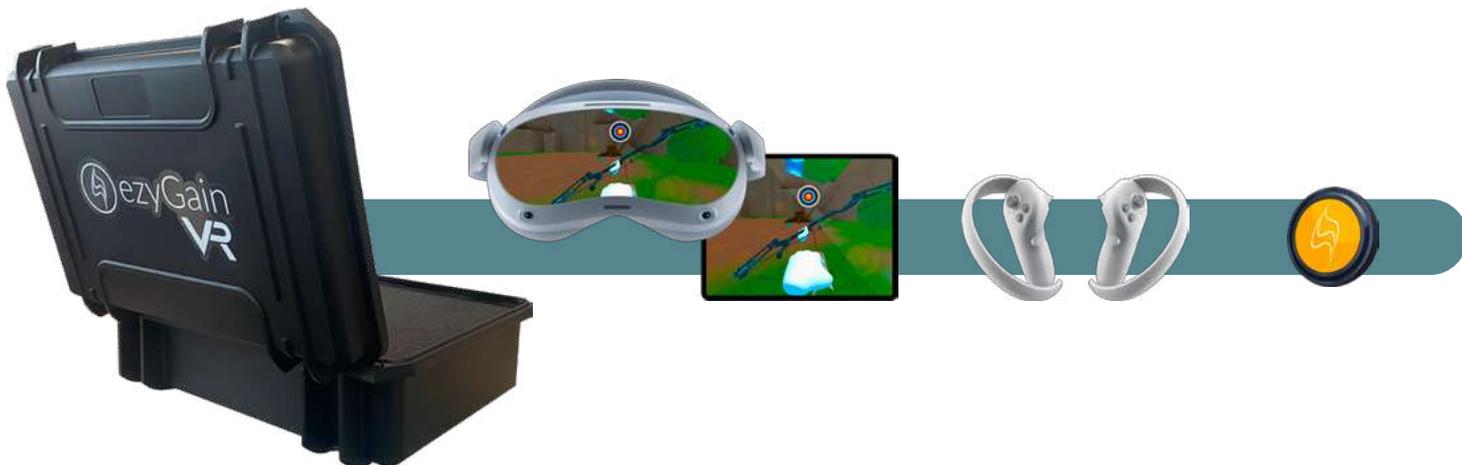


# Summary

<b>The EzyGain VR/AR Kit</b> .....	<b>p.3</b>
<b>The CycloSense Sensor</b> .....	<b>p.6</b>
<b>3D Landscapes and Exercises</b> .....	<b>p.11</b>
<b>Upper limbs exercises</b> .....	<b>p.16</b>
<b>Relaxation and Pain Reduction Environments</b> .....	<b>p.21</b>
<b>Facing Camera Exercises</b> .....	<b>p.22</b>
<b>Science and Research</b> .....	<b>p.24</b>



## The EzyGain VR/AR kit



**The EzyGain VR/AR kit is a medical device designed for rehabilitation, pain reduction, and relaxation.**

It offers a variety of engaging and diverse activities tailored for children, adults, and seniors. Its applications are numerous, including neurology, traumatology, orthopedics, anxiety and pain management, geriatrics and fall prevention, pediatric rehabilitation, and more.

Highly mobile, the kit can be used both at home and in healthcare facilities.

Virtual reality (VR) and augmented reality (AR) are innovative tools in rehabilitation, providing immersive and stimulating environments for patients. They enable the safe reproduction of daily movements, promoting both motor and cognitive recovery.

VR and AR enhance patient engagement through interactive and gamified exercises. They allow for precise progress tracking and the adaptation of exercises to meet individual needs. Finally, they help reduce pain and anxiety by diverting the patient's attention during sessions.

***”All the benefits of virtual reality  
and augmented reality in one!***

## The EzyGain VR /AR kit stands out from other solutions on the market with four key advantages:

- No need for a WiFi connection - Say goodbye to connectivity issues and long installation times.
- Seamless integration with a wide range of rehabilitation equipment. The kit can be combined with pedal trainers, treadmills, upper and lower limb robotics, and more. This allows you to breathe new life into existing equipment in your rehabilitation center!
- Diverse digital supports: While the VR headset is central, it's not the only tool! The «Facing Camera» exercises on the tablet and pedal-based activities further expand the range of engaging exercises available to patients.
- The inclusion of augmented reality exercises, which allow the patient to maintain visual contact with the outside world and to use their real environment for the exercises.

## The kit includes:

- A next-generation virtual reality headset + two controllers, currently the Pico 4 Ultra,
- A large-format, latest-generation iPad, currently the iPad Air 13-inch,
- A CycloSense motion sensor (by EzyGain),
- A tripod,
- Chargers and a user manual.

## What is the difference between Augmented Reality and Virtual Reality?

AR (Augmented Reality) overlays digital elements onto the real world, while VR (Virtual Reality) immerses users in a fully virtual environment. **EzyGain integrates both AR and VR technologies to enhance rehabilitation by overlaying digital guidance in the real world and creating immersive therapy environments, allowing users to choose between AR or full VR when an exercise supports both options.**



*This catalog does not replace the user manual, which must be read before using the product.*



## The CycloSense sensor

## CycloSense-Only Exercises



These exercises require only the CycloSense sensor and the tablet. Simply attach the sensor to the pedal crank of any bike, pedal trainer, or ergocycle, and digitize the user experience.

CycloSense provides diverse landscapes, cognitive games, and detailed performance tracking, making rehabilitation sessions more engaging and interactive.

### Explore Over 30 Diverse Landscapes



*From nature to urban settings!*



*...and more!*

The faster you pedal, the faster you move! These landscapes are regularly updated to keep the experience fresh for users. You can also add your own landscapes! Simply record a beautiful walk with your phone and upload it to the app.

# Our 2D exercises

## Interval training



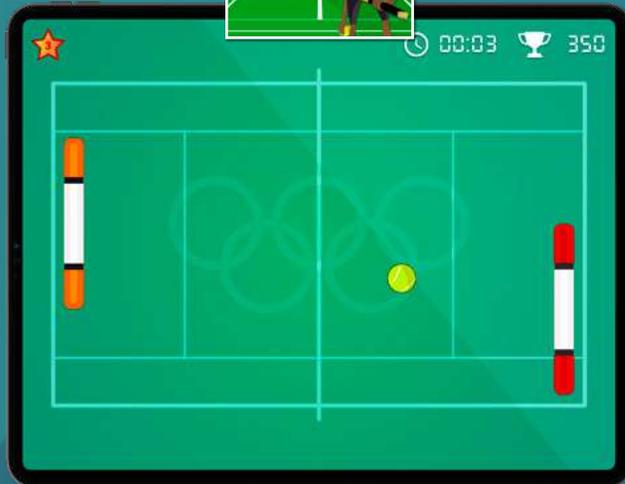
The interval training exercise alternates between intense effort and recovery phases, optimizing endurance and cardiovascular capacity. It helps burn more calories in less time, stimulates muscle growth, and enhances recovery through a prolonged post-workout effect.

Track your progress with detailed performance reports.

**#Endurance #Cardio #MuscleStrength**

## Coordination of the lower limbs

Pong



Yoro



The CycloSense video games offer two different control modes:

- Speed-based control - Adjust your pedaling speed to interact with the game.
- Direction-based control - Change pedaling direction to influence gameplay.

This allows for fun and engaging interval training, while also enhancing coordination and quick decision-making. These exercises boost patient engagement and motivation, transforming what is typically a monotonous task into an interactive experience.

***#Coordination #Cardio #MuscleStrength***

# Coordination of lower and upper limbs + head

## Infinity Road



Move forward more or less quickly depending on your pedaling speed, collect the coins, and avoid traps by shifting sideways either by tilting your head or raising the correct hand. This comprehensive exercise engages the patient in dual-tasking and involves the whole body.

***#Endurance #Cardio #Coordination***



## **3D Landscapes and Exercises**

## Integrating VR with Motion-Based Rehabilitation Devices



For these exercises, you will need the VR headset, the tablet, and the CycloSense motion sensor (except for partner devices: the [Innowalk Pro](#) and the [Kinevia](#)).

As the technological flagship of the EzyGain VR Kit's exercise portfolio, combining VR with movement-based devices represents a true revolution in motor rehabilitation.

Use these programs with lower limb robotics, End Effector devices, pedal trainers and bikes, treadmills, or even exoskeletons.

## EzyGain's Cutting-Edge R&D for Enhanced Rehabilitation

EzyGain is continuously investing in intensive R&D to develop a wide range of virtual 3D environments and video-based experiences, specially designed with doctors and rehabilitation specialists to boost patient recovery.

Integrating a high-intensity cognitive task into motor therapy creates a highly reinforced dual-task approach.

Beyond significantly increasing motivation for all types of patients and extending walking or pedaling time, these exercises are particularly beneficial for patients with cognitive impairments, spatial disorientation, and neurological conditions, such as visual and auditory hemineglect.



## Experience 360° Immersive Landscapes



*... and more!*

Enjoy a selection of stunning and diverse environments, carefully filmed and chosen for their unique qualities and the immersive scenarios they create for patients—such as crowds, open space on the left or right side, and more.

Patients naturally engage in cervical and ocular movement exercises without even realizing it, transforming therapy into a stimulating 360° virtual journey!

New landscapes are regularly added to the library.

***#Observation #Culture #Travel #Immersion***

## 3D Landscapes: A New Level of Immersion



These landscapes are not filmed videos, but fully 3D-generated environments, designed and developed like real video games.

Creating such detailed, animated, and interactive worlds within a standalone VR headset (not tethered to a PC) is a true technological feat. This is the ongoing challenge for EzyGain's developers: keeping patients motivated with high-quality graphics and carefully designed actions that serve ambitious therapeutic goals, such as:

- Spatial orientation
- Hemineglect correction
- 360° observation exercises
- Simultaneous upper limb engagement

**This innovation brings a new dimension to rehabilitation, making therapy more engaging and effective.**

# 3D Landscapes: A New Level of Immersion

## Forest walk



**#Observation #Hemineglect #CervicalMobility**

Step into a beautiful and mysterious forest and collect mushrooms using only your gaze. The mushrooms can be placed on the left, right, or both sides of the path, depending on the patient's needs.

This environment is calm and soothing, providing a relaxing yet stimulating experience.

## City walk



**#Observation #Hemineglect #CervicalMobility  
#SpatialOrientation**

Immerse yourself in a bustling city where you'll encounter locals and navigate through various missions, such as delivering mail or choosing directions.

This experience provides high cognitive stimulation, with a rich and dynamic environment full of information to process.

## VR and AR exercises using only the headset



For these exercises, you will need the VR headset and the tablet. Designed to **strengthen the upper limbs, improve balance, reduce fall risk, and manage pain and anxiety**, this diverse exercise category is regularly updated.

For all upper limb exercises, you can customize the target zones within the virtual space to focus on specific areas.



**For some exercises, you can play them in AR instead of VR!**

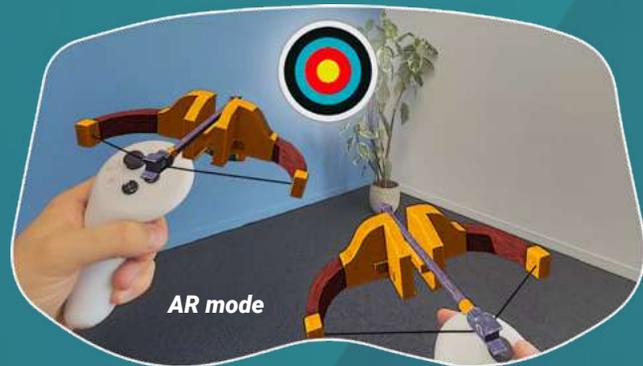
### VR upper limbs exercises

#### Archery (Bow)



Use both hands and work on your coordination to draw the bowstring and aim at the targets!

#### Archery (Crossbow)



Use one or both hands to aim and hit the targets around you. Increase the difficulty, and the targets will start moving!

**#UpperLimb #Reactivity #Speedv#Coordination (Bow) #Hemineglect**

# VR upper limbs exercises

## Dust Off

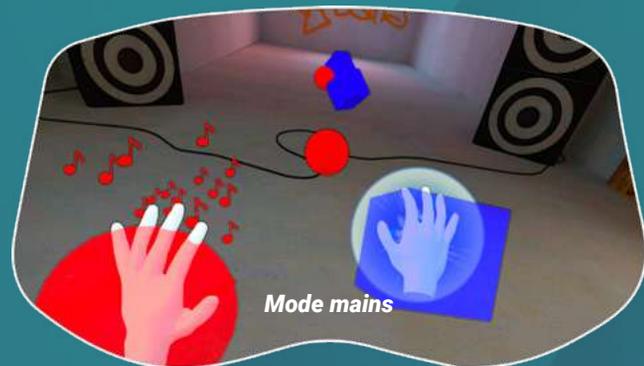
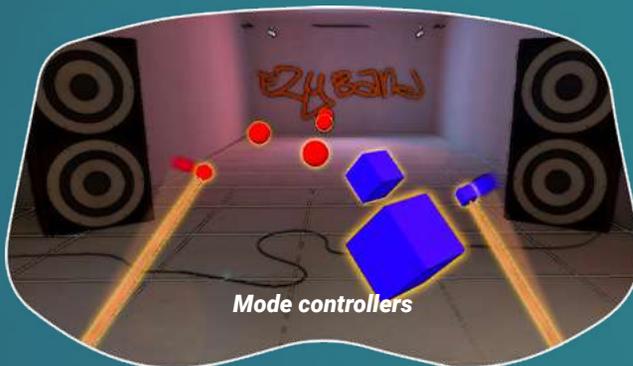


This unique exercise requires no controllers! The headset's cameras track hand movements, while AI-powered EzyGain software detects fine motor actions.

Practice different pinches (thumb-index, thumb-middle, thumb-ring, thumb-little finger) or use a closed fist. Follow the robot's instructions and help clean the museum's artworks!

**#UpperLimb #FineMotorSkills #Fingers**

## Beat the Beats



Auditory rhythmic stimulation, combined with motor activity, accelerates rehabilitation progress. In a garage band setting, hit the music blocks in sync with the percussive beats of iconic songs, using one or both hands.

**#UpperLimb #Speed #Coordination #AuditoryStimulation**

# VR upper limbs exercises

## Master mix



**#UpperLimb #Coordination #Hemineglect  
#RangeOfMotion #Concentration**

In a bar setting, prepare alcohol-free cocktails using one or both hands—or even just head and gaze control!

This exercise requires focus to follow the recipe and find the right ingredients among the available options. Hurry up, your customers are waiting, and time is running out!

## Gardening



**#UpperLimb #Coordination #RangeOfMotion  
#Concentration**

The fruit trees in the garden are full. Reach out to pick the fruits and sort them!

## VR upper limbs exercises

### Watering



**#UpperLimb #Coordination #RangeOfMotion  
#Concentration**

The garden plants are thirsty! Complete a sequence of tasks: grab the watering can, fill it at the fountain, and water the flower pots.

This exercise focuses on upper limb range of motion, with adjustable difficulty. To simplify, you can remove the watering can preparation steps.

### Picking the Eggs



**#UpperLimb #Bending #Concentration**

In a beautiful garden, bend down to collect the freshly laid eggs and place them in a basket. For added difficulty, different types of eggs require careful sorting—don't mix them up!

Can't bend all the way to the ground? Easily adjust the virtual height to make the task more accessible.

## VR upper limbs exercises

### Battleship



**#Vestibular #Balance #CervicalMobility  
#OcularTracking**

Perfect for working on vestibular function, cervical mobility, ocular tracking, and hemineglect, this exercise immerses you aboard a Viking drakkar that you must defend against enemy attacks!

Level 1 too easy? Increase the challenge by adding chaotic waves for a more intense experience.

## Relaxation and Pain Reduction Exercises



VR is a powerful tool for relaxation and pain relief. By immersing users in a soothing environment, it promotes relaxation and reduces stress. Additionally, by diverting attention from pain, VR activates cognitive mechanisms that decrease the perception of discomfort.

Its interactive nature allows for a personalized experience, optimizing its effectiveness based on individual needs.

Don't forget that the previously presented VR exercises also play a key role in pain management. They actively engage the patient in a task, effectively shifting their focus away from discomfort.

## 360° Real Relaxation and Pain Reduction Environments



... and more!

Filmed in 6K quality, these stunning 360° immersive videos transport you to breathtaking, serene landscapes. In some environments, you may even see animals approaching you! For an enhanced relaxation experience, you can add soothing music and an animation to guide patients through a coherent breathing exercise.

## 360° Virtual Relaxation and Pain Reduction Environments



These are fully virtual environments, carefully designed and developed to immerse you in a calm and soothing world.

Enjoy relaxing soundscapes and the guided breathing exercises for a deeper relaxation experience.



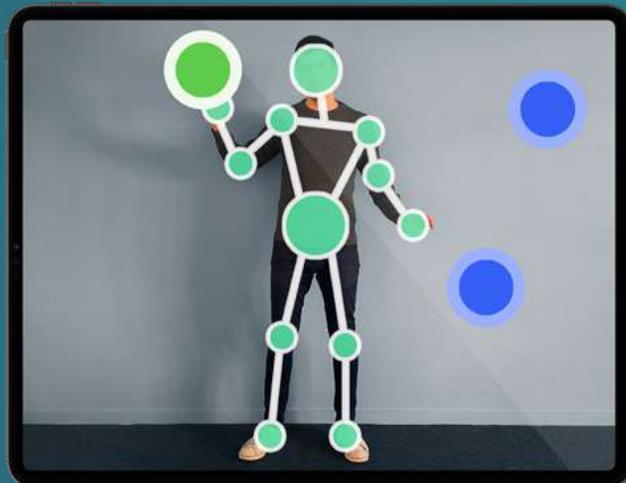
## Facing Camera Exercises

The EzyGain VR kit is the only solution on the market to include this type of activity without requiring a VR headset. This means that patients who cannot tolerate wearing a headset can still benefit from engaging exercises. For these exercises, you only need the tablet. The front-facing camera tracks the patient's body movements, allowing them to control the exercise naturally—with no complicated setup required!



**With over 15 interactive exercises, patients can train different body parts while playing:**

- Upper limbs
- Lower limbs
- Trunk, in seated or standing positions



### The EzyPods Exercise

This Facing Camera exercise offers endless possibilities. Simply select the body part you want the patient to move, then place targets on the screen for them to reach using the chosen limb (head, hand, joint, foot, etc.).

Create a wide variety of movements and make them fun and engaging in an instant!



## Science and Research

Scientific literature confirms the growing interest in virtual reality (VR) for rehabilitation, particularly for neurological and musculoskeletal disorders.

Numerous studies show that VR enhances neuroplasticity by stimulating neural circuits involved in movement and cognition. It boosts patient engagement through interactive and gamified exercises, increasing motivation and adherence to treatment.

Clinical trials have demonstrated significant functional improvements in post-stroke patients, individuals with Parkinson’s disease, and those with balance disorders. VR also enables intensive and repetitive training in a safe environment, providing real-time feedback and exercise adaptation based on patient performance.

Compared to conventional therapies, VR is often more effective in improving coordination, proprioception, and mobility. Additionally, it helps reduce chronic pain by modulating nociceptive perception.

### Selected Studies on the Topic:

Title	Authors
<i>Immersive Virtual Reality in Post-Stroke Rehabilitation: A Systematic Review</i>	<b>Demeco A, Zola L, Frizziero A, Martini C, Palumbo A, Foresti R, Buccino G, Costantino C.</b>
<i>Effectiveness of Using Virtual Reality-Supported Exercise Therapy for Upper Extremity Motor Rehabilitation in Patients With Stroke: Systematic Review and Meta-analysis of Randomized Controlled Trials</i>	<b>Chen J, Or CK, Chen T.</b>
<i>Effects of vestibular rehabilitation therapy versus virtual reality on balance, dizziness, and gait in patients with subacute stroke: A randomized controlled trial</i>	<b>Sana V, Ghous M, Kashif M, Albalwi A, Muneer R, Zia M.</b>
<i>Effects of Virtual Reality Rehabilitation Training on Cognitive Function and Activities of Daily Living of Patients With Poststroke Cognitive Impairment: A Systematic Review and Meta-Analysis</i>	<b>Chen X, Liu F, Lin S, Yu L, Lin R.</b>
<i>Virtual Reality Design for Stroke Rehabilitation</i>	<b>Charles D, Holmes D, Charles T, McDonough S.</b>
<i>Effects of Virtual Reality Intervention on Neural Plasticity in Stroke Rehabilitation: A Systematic Review</i>	<b>Hao J, Xie H, Harp K, Chen Z, Siu KC.</b>
<i>Virtual reality rehabilitation in children with brain injury: a randomized controlled trial</i>	<b>Choi JY, Yi SH, Ao L, Tang X, Xu X, Shim D, Yoo B, Park ES, Rha DW.</b>
<i>Effects of virtual reality-based motor rehabilitation: a systematic review of fMRI studies</i>	<b>Feitosa JA, Fernandes CA, Casseb RF, Castellano G.</b>
<i>Virtual reality rehabilitation for unilateral spatial neglect: A systematic review of immersive, semi-immersive and non-immersive techniques</i>	<b>Salatino A, Zavattaro C, Gammeri R, Cirillo E, Piatti ML, Pyasik M, Serra H, Pia L, Geminiani G, Ricci R.</b>
<i>Virtual Reality and Cognitive Rehabilitation in People With Stroke: An Overview</i>	<b>Maggio MG, Latella D, Maresca G, Sciarrone F, Manuli A, Naro A, De Luca R, Calabrò RS.</b>

<i>Use of virtual reality-based training in different fields of rehabilitation: A systematic review and meta-analysis</i>	<b>Rutkowski S, Kiper P, Cacciante L, Cieřlik B, Mazurek J, Turolla A, Szczepańska-Gieracha J.</b>
<i>Effectiveness of action observation therapy based on virtual reality technology in the motor rehabilitation of paretic stroke patients: a randomized clinical trial</i>	<b>Sana V, Ghous M, Kashif M, Albalwi A, Muneer R, Zia M.</b>
<i>Effects of Virtual Reality Rehabilitation Training on Cognitive Function and Activities of Daily Living of Patients With Poststroke Cognitive Impairment: A Systematic Review and Meta-Analysis</i>	<b>Errante A, Saviola D, Cantoni M, Iannuzzelli K, Ziccarelli S, Togni F, Simonini M, Malchiodi C, Bertoni D, Inzaghi MG, Bozzetti F, Menozzi R, Quarenghi A, Quarenghi P, Bosone D, Fogassi L, Salvi GP, De Tanti A.</b>
<i>Virtual reality in the rehabilitation process for individuals with cerebral palsy and Down syndrome: A systematic review</i>	<b>Lopes JBP, Duarte NAC, Lazzari RD, Oliveira CS.</b>
<i>Virtual Reality-Based Exercise Rehabilitation in Cancer-Related Dysfunctions: Scoping Review</i>	<b>Su Z, Zhang L, Lian X, Guan M.</b>
<i>Can specific virtual reality combined with conventional rehabilitation improve poststroke hand motor function? A randomized clinical trial</i>	<b>Rodríguez-Hernández M, Polonio-López B, Corregidor-Sánchez AI, Martín-Conty JL, Mohedano-Moriano A, Criado-Álvarez JJ.</b>
<i>Is Virtual Reality Effective in Orthopedic Rehabilitation? A Systematic Review and Meta-Analysis</i>	<b>Gumaa M, Rehan Youssef A.</b>
<i>Efficacy of Virtual Reality Rehabilitation after Spinal Cord Injury: A Systematic Review</i>	<b>de Araújo AVL, Neiva JFO, Monteiro CBM, Magalhães FH.</b>



 **ezyGain  
VR**

**THE MOST ADVANCED, VERSATILE, AND USER-FRIENDLY VR KIT FOR FUNCTIONAL REHABILITATION**



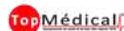
**Watch the EzyGain VR kit in video here!**



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