

MatchingVR

Module tutorial

Table of contents

1. GENERAL 3
1.1. Description 3
1.2. Required accessories 3
1.3. Patient setup 3
2. Settings 4
2.1. Session settings 4
2.1.1. Controller (and tracker) mode 4
2.1.2. Force plate mode (for the StaticVR and MotionVR platforms) 6
3. Module 7
3.1. Session 7
3.1.1. During the session 7
3.2. Shortcuts 9
3.3. Results 9
3.3.1. Summarized results 9
3.3.2. Graphs and report 10

1. GENERAL

1.1. Description

MatchingVR software is an immersive 3D simulation based on virtual reality technology, enabling a person to be immersed in a digitally created artificial world.

MatchingVR is a memory-based functional rehabilitation program for upper limbs and balance.

The patient must find the right pairs of cards placed in front of them.

Used with a controller or tracker: the patient aims at the back of the cards and holds the position for a set time, using a laser pointer to turn them over and see the figures.

Used with StaticVR and MotionVR platforms: using their center of pressure, the patient "aims" at the back of the cards and holds the position for a set time to turn them over and see the figures.

1.2. Required accessories

VR headset **AND** 1 controller or 1 tracker **OR** VR headset or TV screen **AND** StaticVR force platforms or MotionVR dynamic posturography platform.

1.3. Patient setup

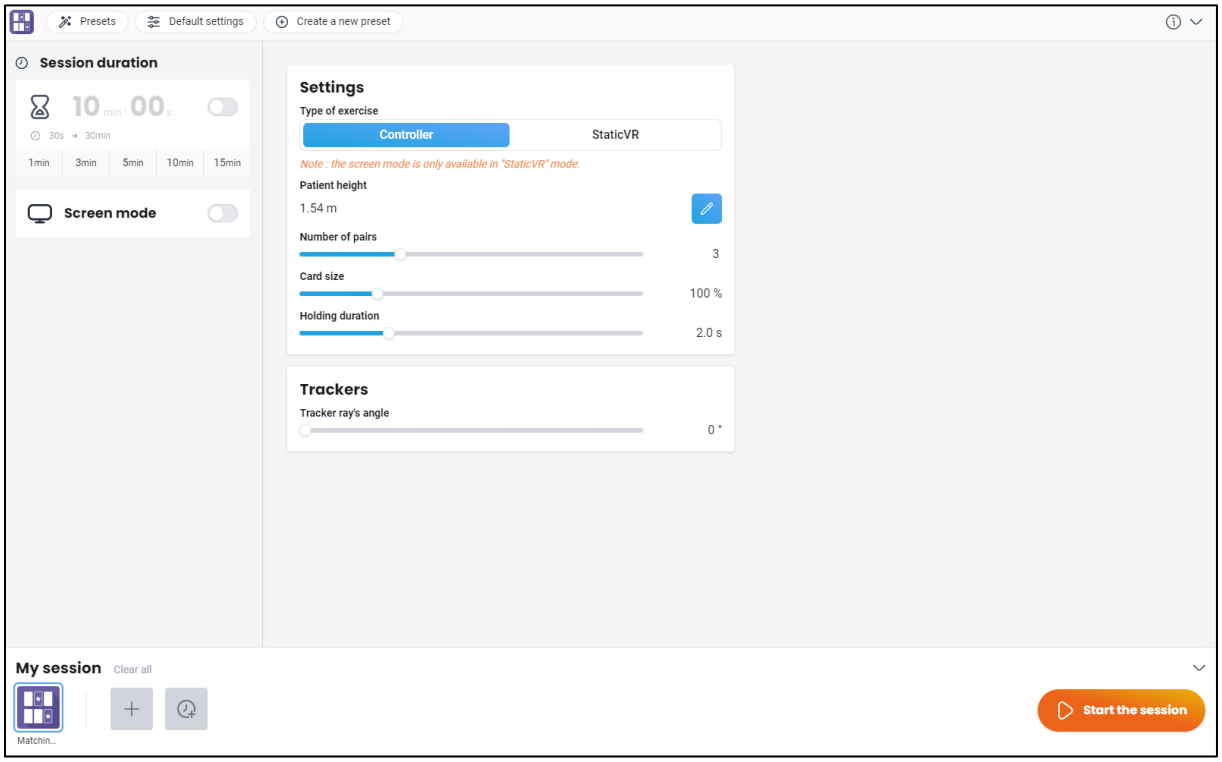
The patient can be sitting or standing when using the software with a controller or tracker.

The patient is standing when using the software in the force platform mode.

2. Settings

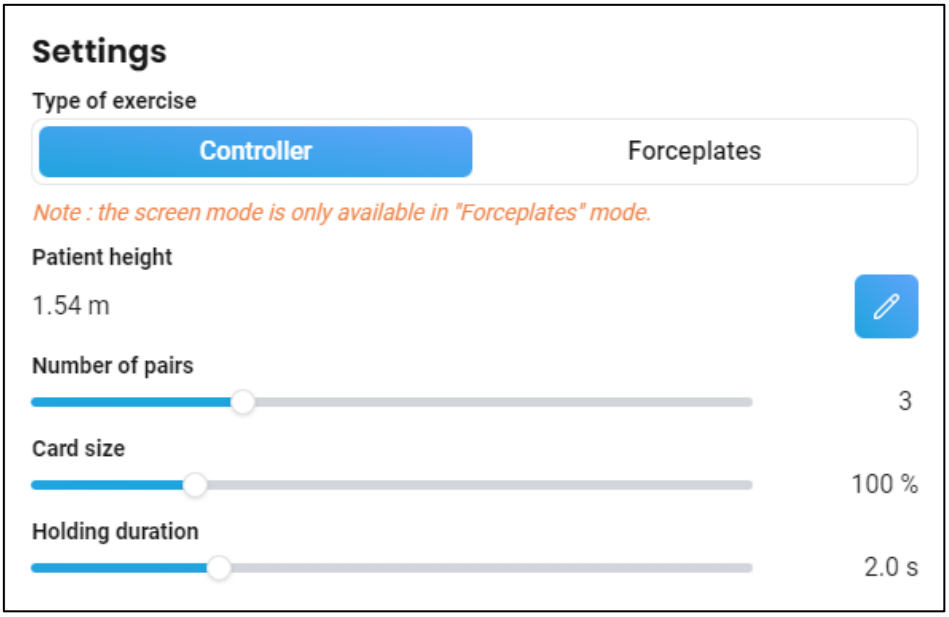
2.1. Session settings

2.1.1. Controller (and tracker) mode



The default setting is the "**Controller**" mode. The following settings can be changed before or during the session:

2.1.1.1. Settings



Type of exercise:

Two modes are available: **Controller** and **StaticVR**.

Patient height:

If the size was entered when the patient's file was created, the value is automatically displayed in the "**Patient height**" field.

Otherwise, the field is empty, and the size must be manually entered and saved.

Number of pairs:

Value: 1 to 8.

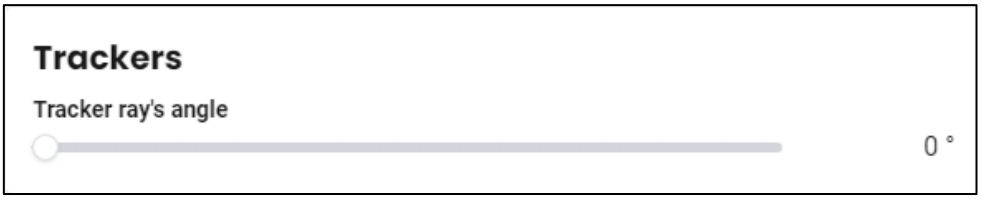
Card size:

Value: 50 to 280 %.

Holding duration:

Value: 1 to 5.0 s.

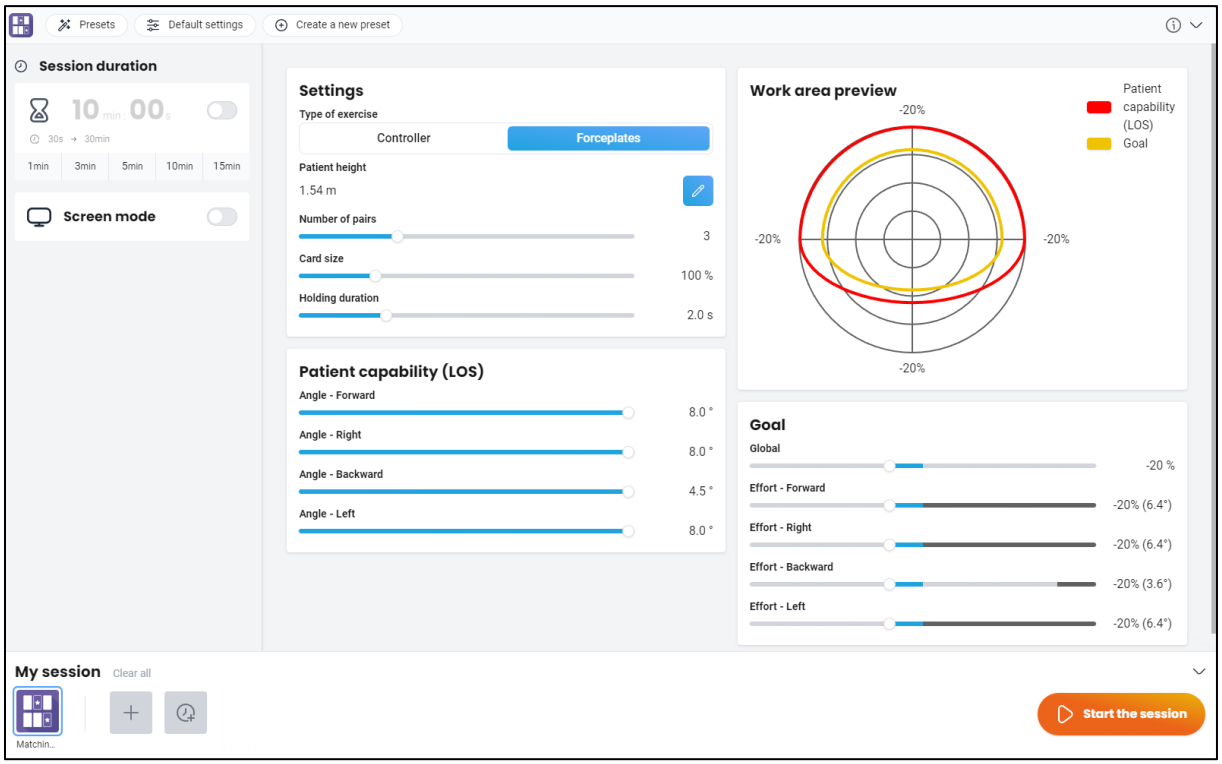
2.1.1.2. Trackers



Tracker ray's angle:

Value: 0 to 90°.

2.1.2. Force plate mode (for the StaticVR and MotionVR platforms)



The default settings are taken from the last **LOS** (Limits of Stability) assessment session.

The **Goals** are calculated at -20% of the **patient's capabilities**.

Patient capability (LOS):

Modifying the patient capabilities automatically adjusts the **Goals**.

The following settings can be changed before or during the session:

- Number of pairs: from 1 to 8.
- Card size: from 50 to 280%.
- Hold time: from 1 to 5 sec.

The session's goals can also be adapted:

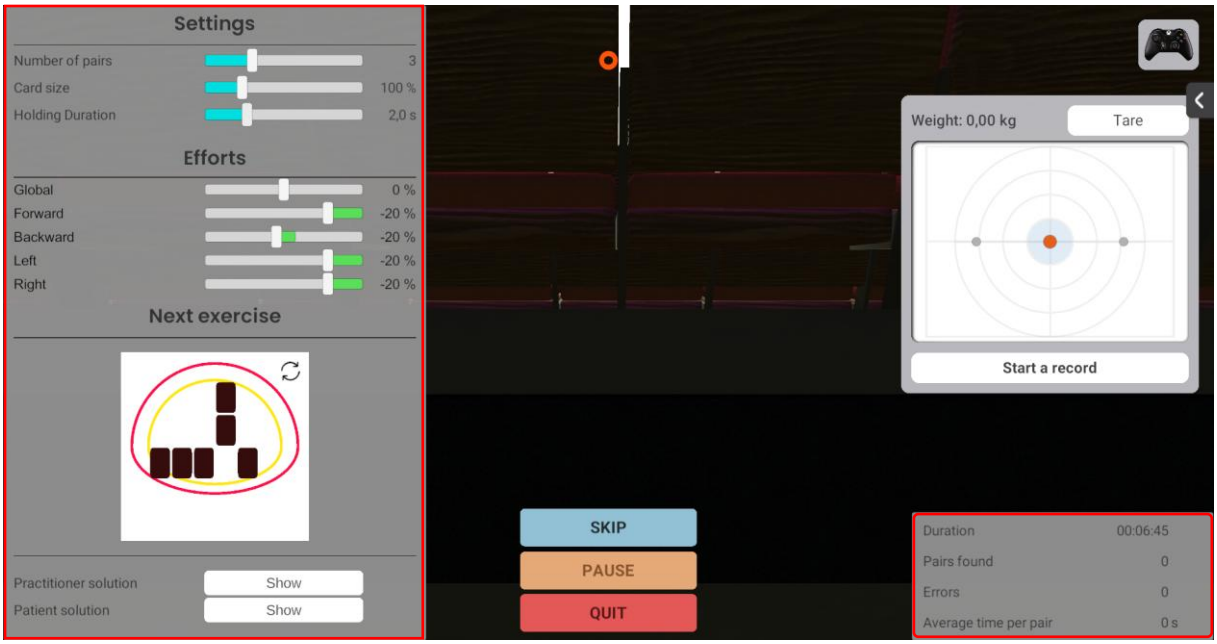
- Global effort.
- Forward effort.
- Right effort.
- Backward effort.
- Left effort.

3. Module

3.1. Session

Once the presets have been selected, click on "**Start the session**" in the bottom right of the screen.

3.1.1. During the session



During the session, the user can modify the parameters from the **left side of the screen**. They are not visible to the patient.

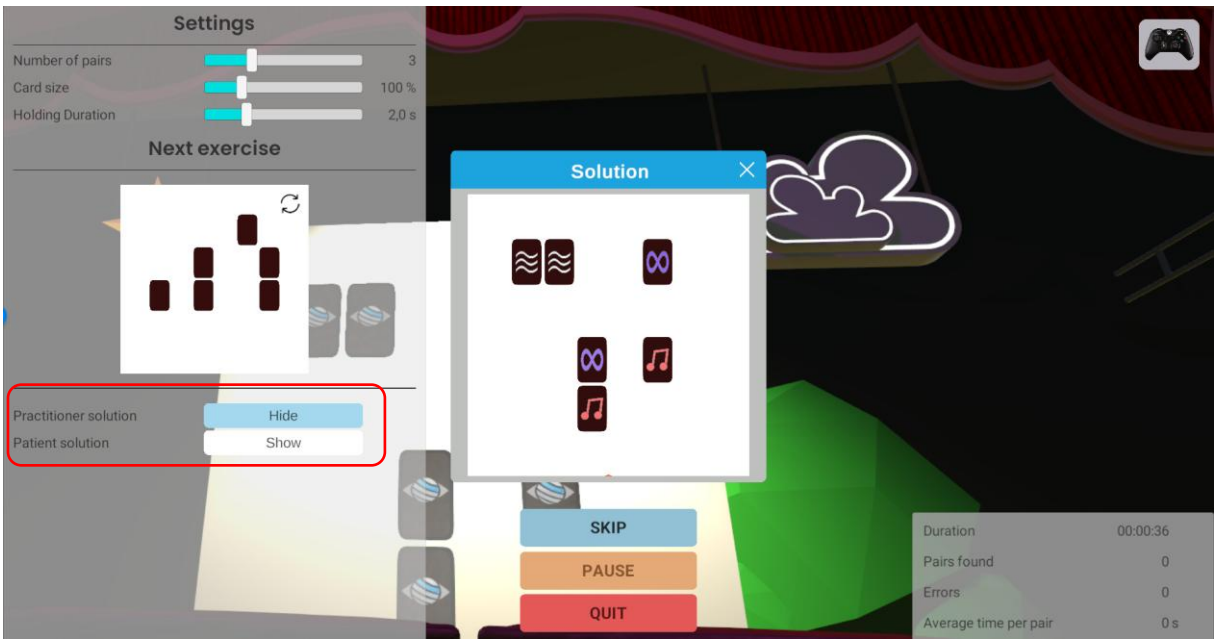
In the bottom right of the screen, the user can observe the results of the session live.

The "**Skip**" button allows you to switch to the next exercise.

In **Controller** mode, if a tracker is connected, a visual appears and allows you to control the direction of the tracker's ray.

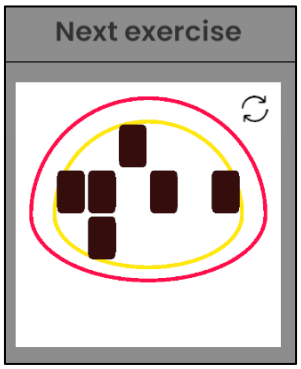
> During the session, modifying the goals using the **Efforts** sliders also modifies the number of pairs of

Once the session has started, the user can visualize the solutions and can also have the patient visualize them in the headset:



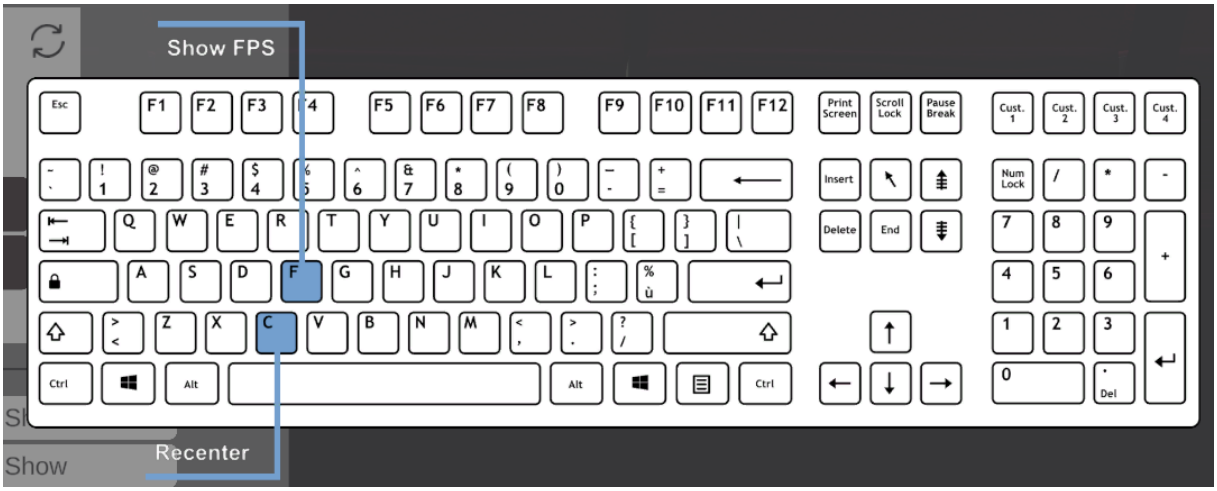
You can also get a preview of the next exercise's card disposition, and generate a new one if necessary by clicking on .

This preview is different in the **Forceplates** mode: it shows the last LOS assessment's results and the current objectives with two circles of different color, above the next exercise's card disposition:



3.2. Shortcuts

The shortcut list can be accessed within the module, by clicking on the joystick icon in the upper right corner of the screen.



3.3. Results

Once the session is over, you can view the results.

3.3.1. Summarized results

By default, the results are as follows:

- Number of pairs
- Card size
- Holding duration
- Angle – Forward
- Angle – Backward
- Angle – Left
- Angle – Right
- Effort – Forward
- Effort – Backward
- Effort – Left
- Effort – Right
- Type of exercise
- Tracker ray's angle
- Patient height.

3.3.2. Graphs and report

To find the detailed results and to generate a report, click on the histogram icon.

