



Dynamic Subjective Visual Vertical (DSVV)

Module tutorial



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1. GENERAL

1.1. Description

Dynamic Subjective Visual Vertical (DSVV) software is an immersive 3D simulation based on virtual reality technology, i.e. it allows a person to be immersed in an artificial digitally created world.

DSVV is a software used to assess the perception of verticality with optokinetic disturbance.

1.2. Required accessories

Headset. Xbox controller, Hive controller(s) or keyboard are all optional.

1.3. Patient setup

The principle of measuring patients' Subjective Visual Vertical is that they have no vertical or horizontal, visual or proprioceptive reference.

It is therefore recommended to take the measurements using the following installation:

- Patient seated (preferably on an "upholstered" seat, a swivel chair is ideal)
- Feet on a footrest, not on the ground
- Keyboard, controller(s) or Xbox controller in hand so they can take the measurements themselves (if possible).



2. Settings

2.1. Session settings

The screenshot shows the 'Session settings' window of the VVS Dynamic software. The interface is divided into several sections:

- Measures:** A section with a 'Measures count' slider set to 6. Below it is a 'Pseudo-random values' button. Six individual measure input fields are shown: Measure 1 (10), Measure 2 (-30), Measure 3 (20), Measure 4 (-20), Measure 5 (-10), and Measure 6 (30).
- Inclinaison mode:** A toggle switch currently turned off.
- Settings:** A section with 'Mode' set to 'Vertical' (with 'Horizontal' as an option). It includes toggle switches for 'Sway referenced vision' and 'Display arrows', both currently off. It also has sliders for 'Rotation speed' (set to 15 °/s) and 'Background distance' (set to 1 m).
- Rod settings:** A section with 'Rod type' set to 'Bar' (with 'Image' as an option).
- My session:** A section at the bottom with a 'Clear all' link, a 'Dynamic...' button, and a 'Start the session' button.

The variable settings for this module are as follows:

2.1.1. Measures

Measures

Measures count

This detailed view shows the 'Measures' section. At the top, the 'Measures count' is set to 6. Below this is a blue button labeled 'Pseudo-random values' with a refresh icon. Underneath are six input fields for individual measures:

Measure 1 10	Measure 2 -30	Measure 3 20
Measure 4 -20	Measure 5 -10	Measure 6 30

Used to define the value of the various measurements for the entire protocol.

Measure count:



Number of measures taken during the session.

Value: 4 to 24.

Pseudo-random values:

Defines random values for measurements.

Values are mirrored: they are tilted both to the right (positive values) and to the left (negative values).

2.1.2. Inclinaison mode

Tilt mode



Head angle

Angle 1	Angle 2	Angle 3	Angle 4	Angle 5	Angle 6	Angle 7
-45	-30	-15	0	15	30	45

− +

Tolerance

 4 °

☒ Head angle control

If this option is enabled, the exercise will be interrupted if the head angle is not correct.

Tilt mode:

Checking this option unlocks the following parameters:

Head angle:

Used to define head inclination values to be measured. There are 7 by default, you can choose 1, 3, 5 or 7.

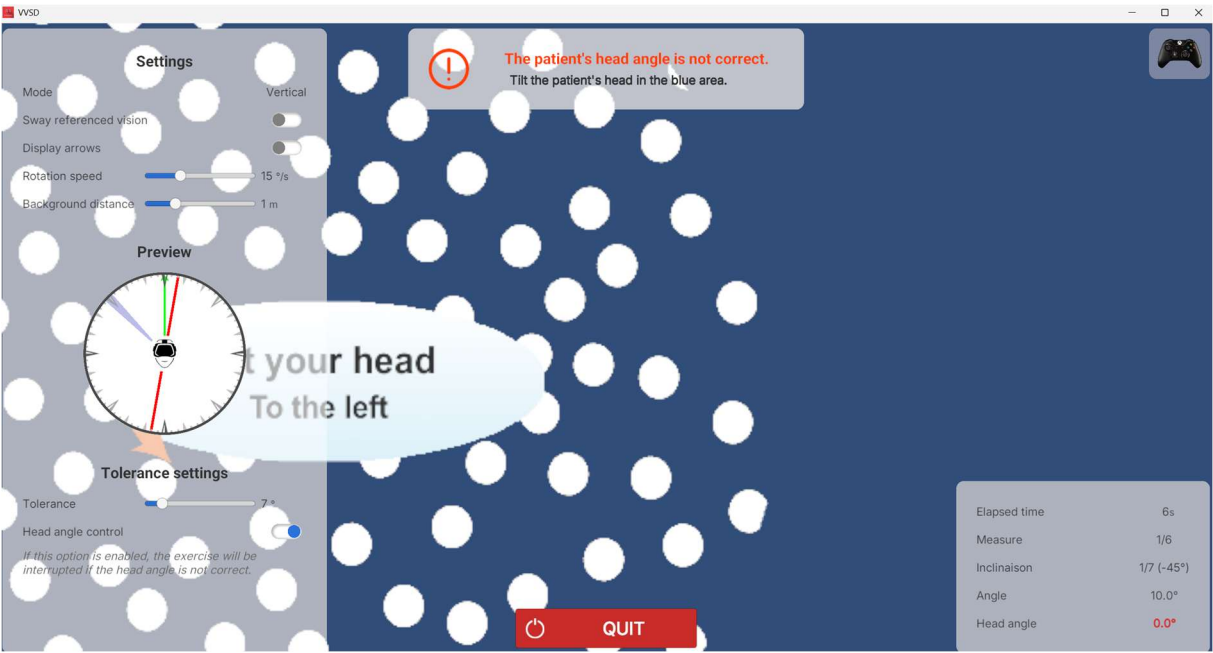
Delete or add measures by clicking on the “-” or “+” button.

Tolerance :

Modifies the tolerance threshold for the head tilt angle.

Value: 2.0 to 45.0.

Respect head angle: box checked by default. The session pauses if the angle is not respected. (Example below)



2.1.3. Settings

Settings

Mode

Vertical

Horizontal

Sway referenced vision

☐

Display arrows

☐

Rotation speed

15 °/s

Background distance

1 m

Mode:

Allows you to choose between vertical or horizontal measurements for the entire protocol.



Sway referenced vision:

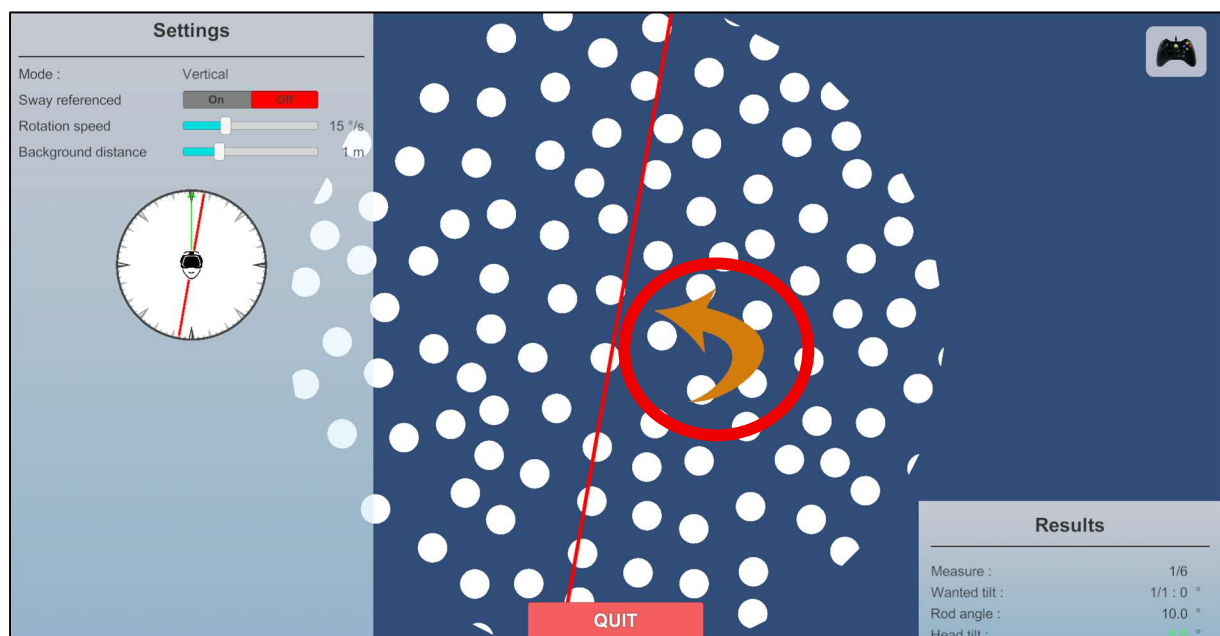
Check this option to have the image displayed in the VR headset matched the patient's head movements.

If enabled, the bar is “fixed” in front of the patient, and tilts with the patient's own head tilts. Measured values are relative to the earth's vertical, without taking head tilt into account.

Otherwise, the bar is in “real conditions”, as if it were floating in the room. It is therefore unaffected by the patient's head movements.

Display arrows:

Check this option to make the arrows visible and help the patient visualize the direction of movement of the bar (right or left).



Rotation speed:

Determines the rotation speed of the optokinetic disk. Its direction of rotation follows the direction of bar inclination.

Value: 0 to 50°/s.

Background distance:

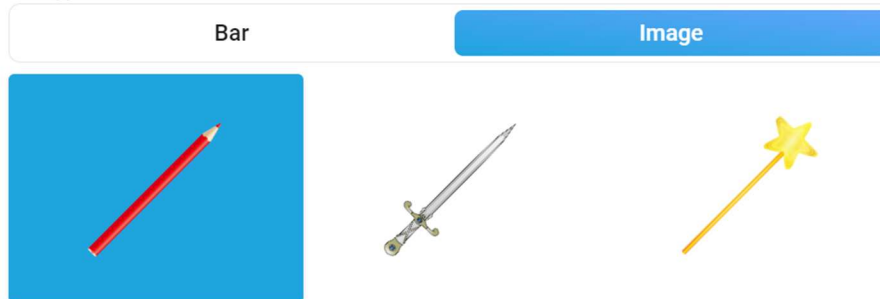
Value: 0 to 4 m.



2.1.4. Rod settings

Rod settings

Rod type



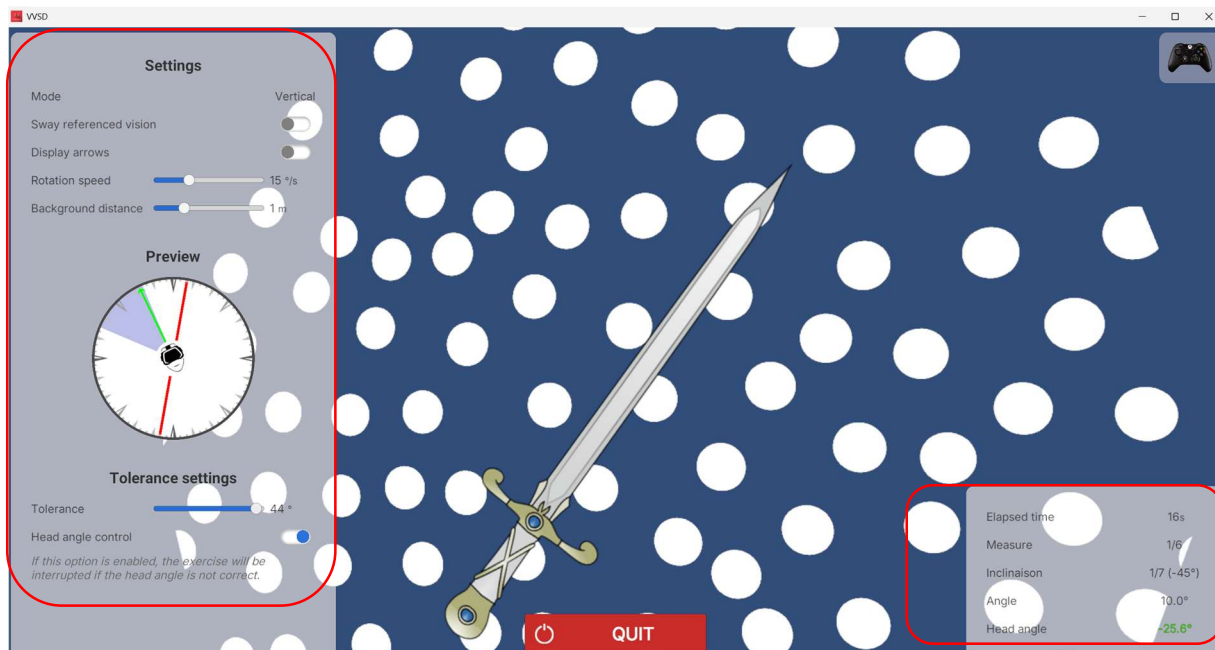
Changes the type of rod displayed on the screen.



3. Module

3.1. Session

Once the presets have been defined, click on the **"Start the session"** button.

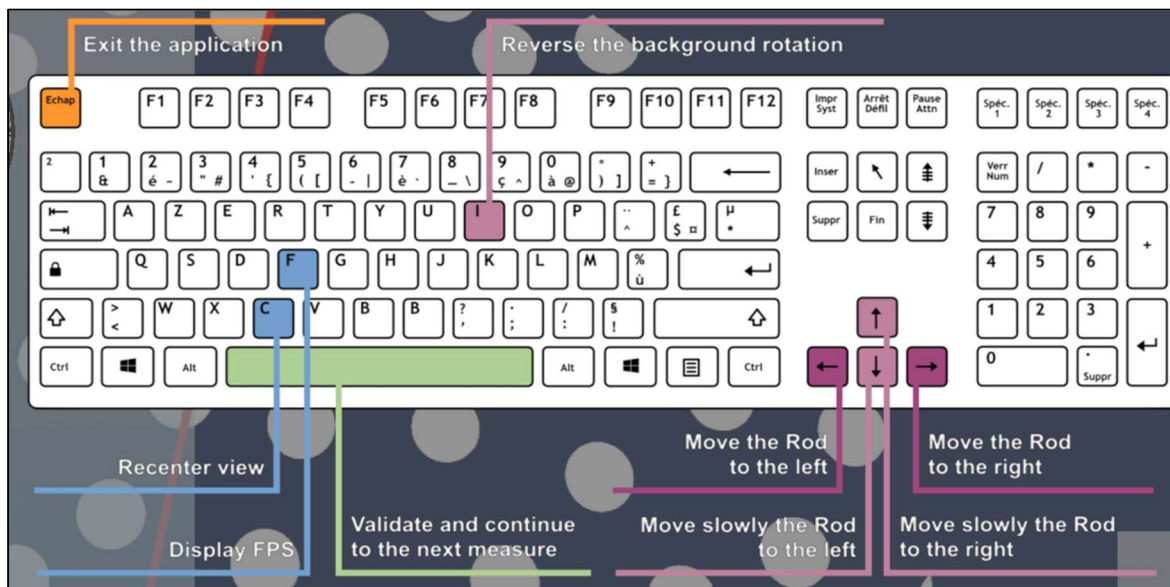


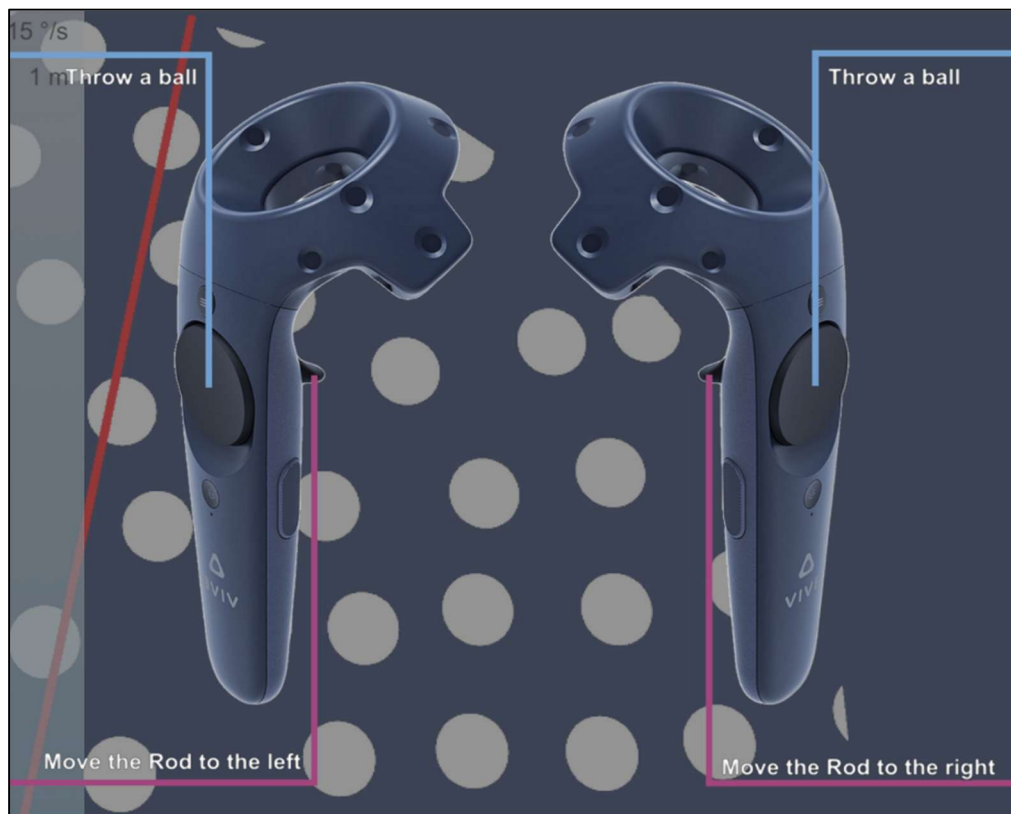
During the session, the user can modify the parameters from the **left side of the screen**. They are not visible to the patient.

In the bottom right corner of the screen, the user can view the results of the session in real time.

3.2. Shortcuts

During the session, the shortcut list is found by clicking on the Xbox controller icon in the upper right corner of the screen.







3.3. Results

At the end of the session, the different head inclination values of the patient are displayed.

3.3.1. Summarized results

To access the summary results, click on “Results” at the end of the session, regardless of the mode displayed.

Session details
04/12/2025 16:46

Dynamic SVV

Parameters

Results

Notes

Name	Result					
Measures	2.74 °	-9.06 °	8.52 °	-5.97 °	-4.29 °	6.03 °
Start angles	10.00 °	-30.00 °	20.00 °	-20.00 °	-10.00 °	30.00 °
Head angles	-1.32 °	-1.31 °	-1.14 °	-1.18 °	-1.13 °	-0.93 °
Reference angles	0.00 °	0.00 °	0.00 °	0.00 °	0.00 °	0.00 °

Session details
09/12/2025 11:58

Dynamic SVV (Tilt mode)

Parameters

Results

Notes

Name	Result						
Measures	10.00 °	-30.00 °	20.00 °	-20.00 °	-10.00 °	30.00 °	10.0
Start angles	10.00 °	-30.00 °	20.00 °	-20.00 °	-10.00 °	30.00 °	10.0
Head angles	-0.87 °	-2.03 °	-2.39 °	-2.53 °	-2.57 °	-2.62 °	-2.6
Reference angles	-45.00 °	-45.00 °	-45.00 °	-45.00 °	-45.00 °	-45.00 °	-30.0

3.3.2. Graphs and report

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



Session details
04/12/2025 16:46

Dynamic SVV

Parameters

Results

Notes

Name	Result					
Measures	2.74 °	-9.06 °	8.52 °	-5.97 °	-4.29 °	6.03 °
Start angles	10.00 °	-30.00 °	20.00 °	-20.00 °	-10.00 °	30.00 °
Head angles	-1.32 °	-1.31 °	-1.14 °	-1.18 °	-1.13 °	-0.93 °
Reference angles	0.00 °	0.00 °	0.00 °	0.00 °	0.00 °	0.00 °

You can view measurements and results in different formats by selecting the appropriate button.

Examples:

← **Dynamic SVV**

1 session(s) selected [Export to .csv](#)

Unselect all

12/04/2025

04:46 PM
Dynamic SVV 3.0/10

04:44 PM
Dynamic SVV (Inclinaison mode) 3.0/10

04:41 PM
Dynamic SVV (Inclinaison mode) 3.0/10

10/07/2025

03:57 PM
Dynamic SVV 3.0/9

03:56 PM
Dynamic SVV 3.0/9

10/03/2025

04:16 PM
Dynamic SVV 3.0/9

Chart options

⌵

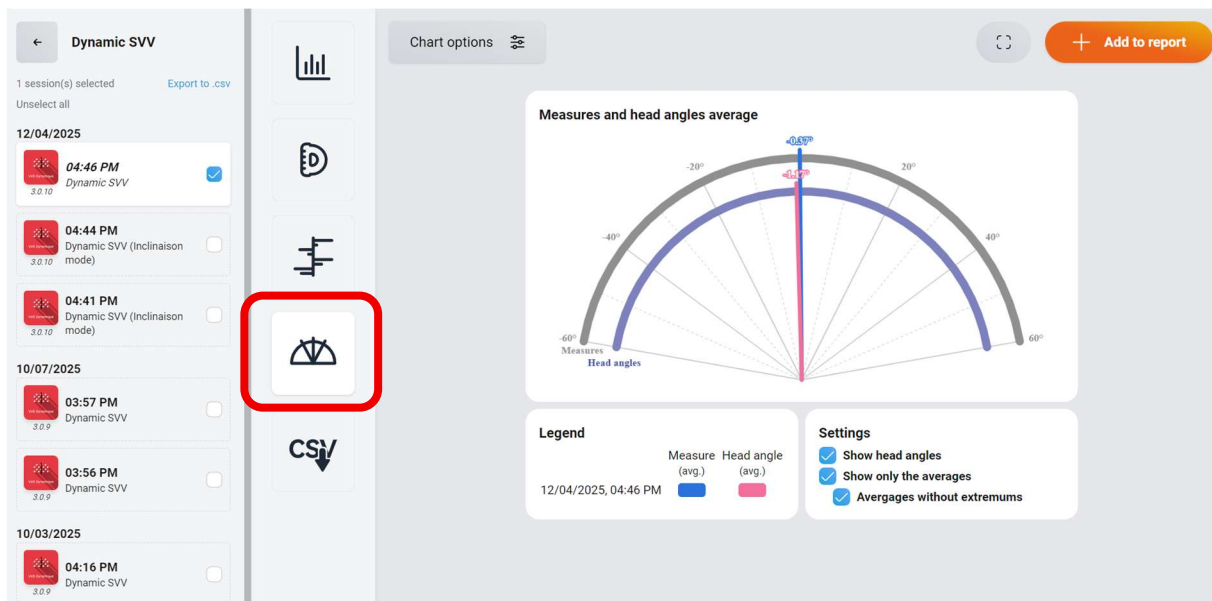
+ Add to report

Measures and head angles

Legend

■ Measure 1	■ Head angle 1
■ Measure 2	■ Head angle 2
■ Measure 3	■ Head angle 3
■ Measure 4	■ Head angle 4
■ Measure 5	■ Head angle 5
■ Measure 6	■ Head angle 6

Tips : More settings available under "Chart options"



Previous versions:

