

# MOPIC Hub

## User Manual

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Based on MOPIC Hub 1.0 · For Windows

# Contents

|           |                                                                   |    |
|-----------|-------------------------------------------------------------------|----|
| <b>1</b>  | Before You Start                                                  | 3  |
| <b>2</b>  | Installation and First Launch                                     | 4  |
| <b>3</b>  | Screen Overview                                                   | 5  |
| <b>4</b>  | Installing and Running Apps — Applications                        | 6  |
| <b>5</b>  | Games in 3D — Games (Beta)                                        | 7  |
| <b>6</b>  | Plugins and Components — Add-on                                   | 8  |
| <b>7</b>  | Application: 3D Viewer — Viewing 3D Models                        | 10 |
| <b>8</b>  | Application: MOPIC 3D Capture — Displaying Captured Screens in 3D | 12 |
| <b>9</b>  | Application: MOPIC 3D Player — Playing 3D Video                   | 14 |
| <b>10</b> | Troubleshooting                                                   | 15 |

## 1

## Before You Start

MOPIC Hub is a program that manages, in one place, the apps and runtime environment needed to use a MOPIC glasses-free 3D display. Please check the requirements below before use.

| Item                   | Recommended                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Display</b>         | MOPIC 3D display — recommended resolution for each model, <b>refresh rate 60 Hz or higher</b>                                    |
| <b>Camera</b>          | MOPIC Eye Tracking camera — connect to a <b>USB 3.0 or higher port (does not work on USB 2.0 ports)</b>                          |
| <b>OS</b>              | Windows 10 version 1903 or later (May 2019 Update and later)                                                                     |
| <b>CPU</b>             | Intel Core i7, 10th generation or later                                                                                          |
| <b>Memory</b>          | 16 GB or more · dual channel                                                                                                     |
| <b>Graphics card</b>   | NVIDIA GeForce RTX 2080 Ti, or RTX 30 series or later ( <b>AI 3D conversion is unavailable without an NVIDIA graphics card</b> ) |
| <b>Graphics memory</b> | 6 GB or more                                                                                                                     |
| <b>Network</b>         | Internet connection required for installation, one-time license activation, and updates                                          |

## Installation and First Launch

### 1. Run the installer.

Run the MOPIC Hub installer (MOPIC Hub Setup) and follow the instructions to complete the installation. Hub automatically installs the components required to run 3D.

### 2. Connect the MOPIC monitor and camera.

Connect the monitor to your PC, and connect the **Eye Tracking camera to a USB 3.0 or higher port.**

**Hub automatically detects the product and activates the license.**

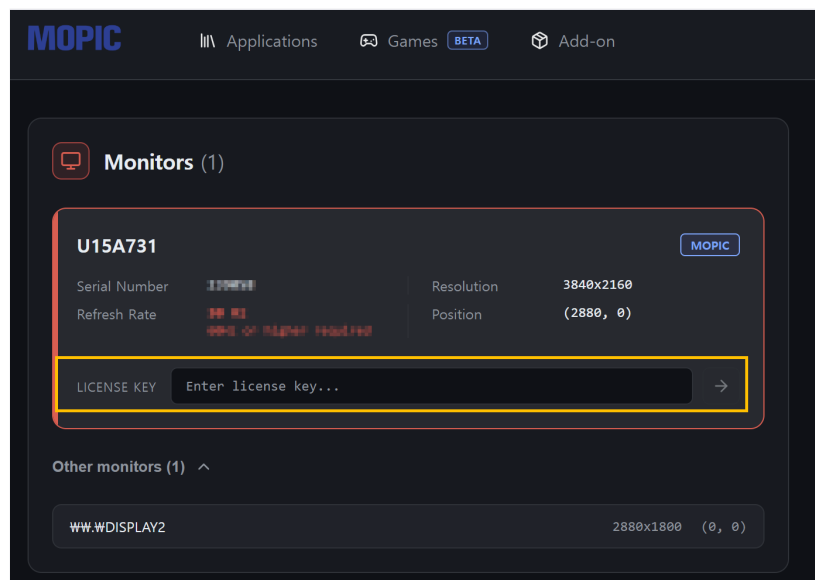
**MOPIC Hub cannot be used unless a MOPIC monitor is connected.**

### 3. Check the status on the Home screen.

When you open Hub, the connected monitor and camera appear on the Home screen.

If the status indicators at the bottom left (Monitors · Cameras) are green, you are ready to go.

**If you need to enter the license manually:** If automatic activation fails, enter the 20-character license key provided with the product (including hyphens) in the License Key field on the monitor card of the Home screen, then click the refresh-shaped button on the right. Once activated, the available PERMISSIONS and the validity period of each appear below the field.

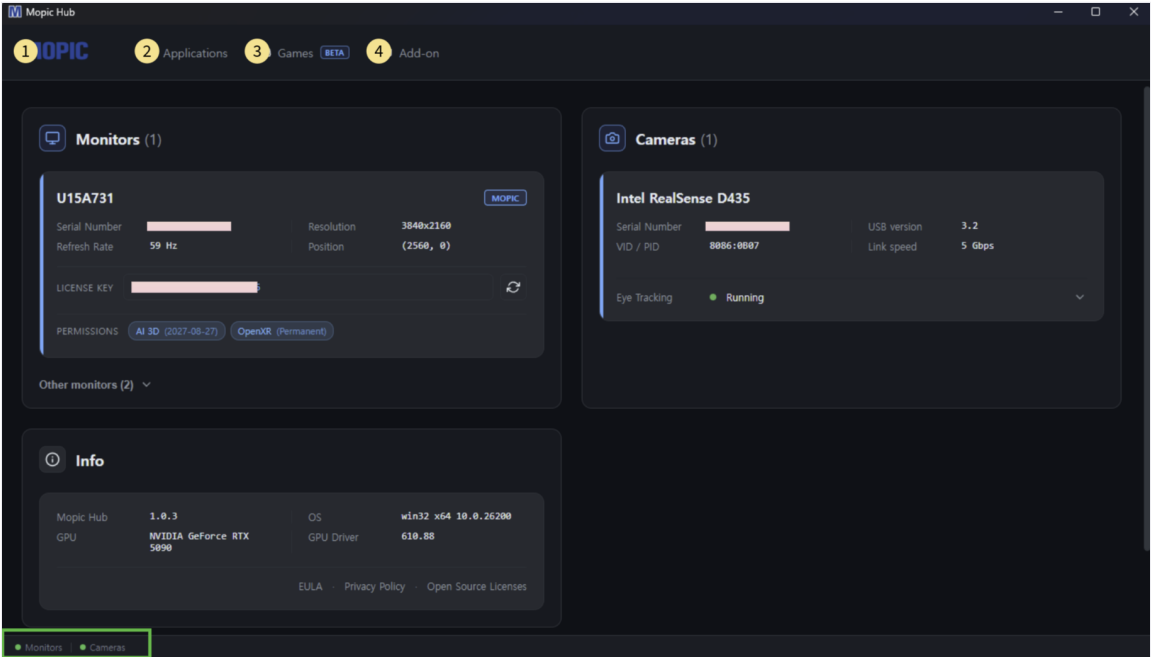


License Key field on the monitor card — enter the 20-character key and click the button on the right.

# Screen Overview

Hub consists of the Home screen and three tabs. Click the MOPIC logo at the top to return to Home at any time.

| Screen          | What it does                                                                                                                                                    |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Home mopic logo | Check the status of the connected monitor and camera, the license, the Hub version, and PC information. If there is a problem, a notice appears on this screen. |
| Applications    | Install and run MOPIC 3D apps.                                                                                                                                  |
| Games beta      | Play games installed on your PC in glasses-free 3D.                                                                                                             |
| Add-on          | Manage the AI 3D plugin and system components.                                                                                                                  |

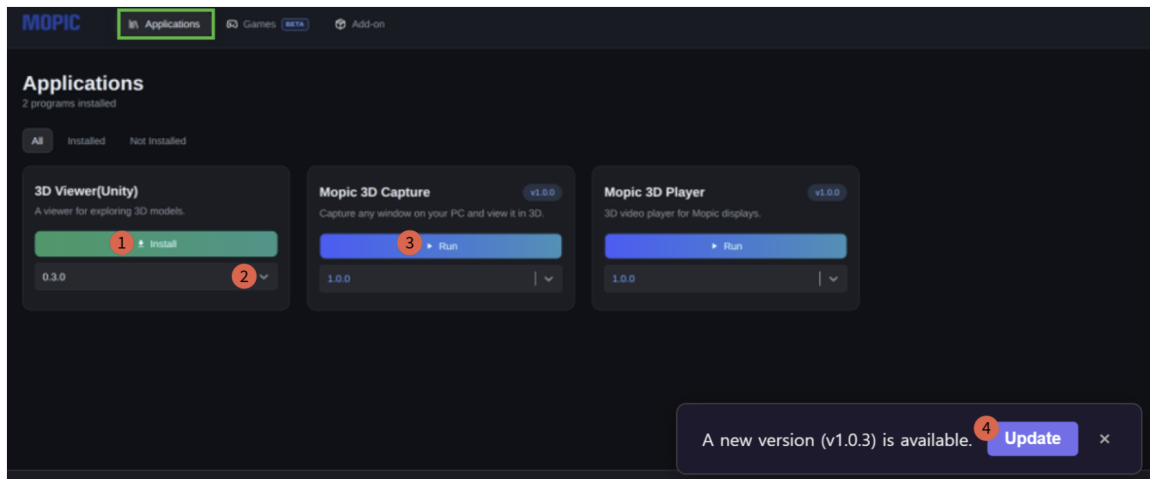


Home screen — monitor, camera, and license status at a glance.

**Reading the status indicators** · If the Monitors · Cameras lights at the bottom left are green, everything is normal. If Eye Tracking on the camera card shows Running, eye tracking is active.

## Installing and Running Apps — Applications

The Applications tab lists official MOPIC 3D apps as cards. Each card shows its installation status and version. Use All · Installed · Not Installed above the list to filter by installation status (the same applies to the Games and Add-on tabs).



Applications tab — apps show an Install button before installation and a Run button once installed.

### 1. Install

Click the ① **Install button** on an app card, and the download and installation proceed automatically. To choose a specific version, select it from the ② **version list** below the button before installing.

### 2. Run

Once installation is complete, the button changes to a ③ **Run button**. Click Run to launch the application.

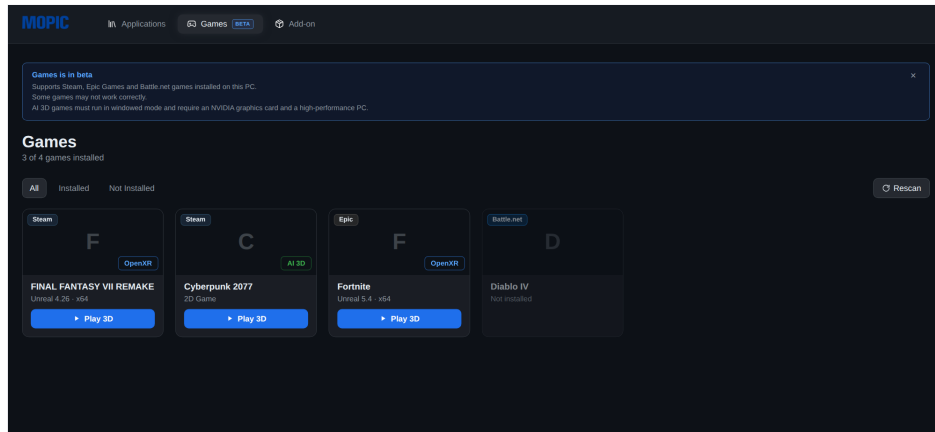
### 3. Update · Uninstall

When a new version is available, an ④ **Update badge** appears on the card.

| Available apps          | Purpose                                                                                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3D Viewer</b>        | Load 3D model files (GLB, OBJ, etc.) and display them in glasses-free 3D                                                                                                       |
| <b>MOPIC 3D Capture</b> | Capture a screen running on your PC and display it in glasses-free 3D<br>Ordinary 2D screens are converted with AI 3D; Side-by-Side 3D screens are displayed in 3D as they are |
| <b>MOPIC 3D Player</b>  | Play 3D and VR video (SBS, TB, etc.) in glasses-free 3D<br>Ordinary 2D video can also be converted with AI 3D and played                                                       |

## Games in 3D — Games (Beta)

The Games tab automatically finds and lists games installed via Steam, Epic Games, and Battle.net. If an installed game is missing from the list, click the Rescan button at the top right.



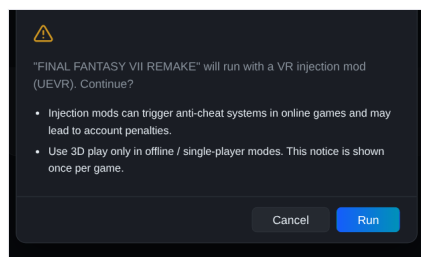
Games tab — each game shows its launch mode (OpenXR or AI 3D) as a badge. (The game list is an example.)

### 1. Click Play 3D.

Click the Play 3D button on a game card to launch the game. Hub automatically selects the launch mode for each game — Unreal Engine games run in OpenXR mode, and other games run with AI 3D conversion. AI 3D conversion requires an NVIDIA graphics card and a license that includes this feature.

### 2. Check the notice dialog.

**OpenXR-based games** show a notice dialog like the one below on first launch. Review it and click Run to start the game.

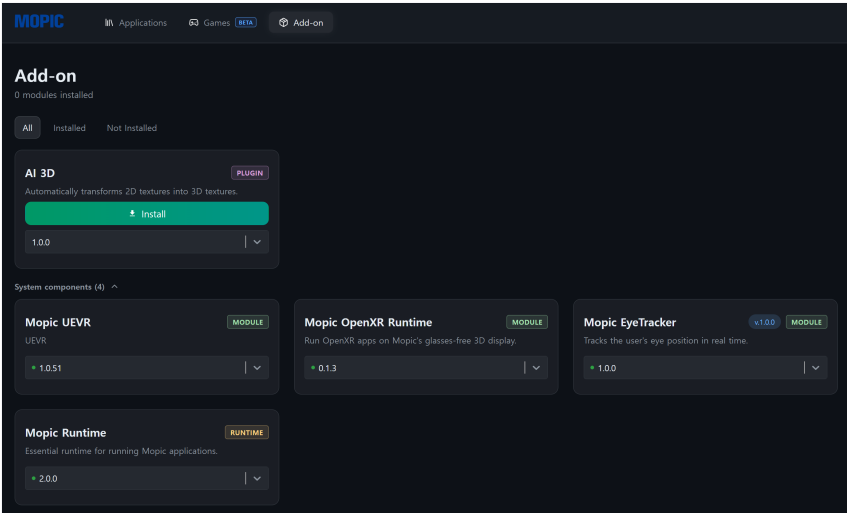


Anti-cheat Warning — online games carry a risk of account penalties, so use 3D play only in offline / single-player modes. Shown once per game.

**Good to know** · AI 3D games must run in windowed mode, and require an NVIDIA graphics card and a high-spec PC. · Games is currently in beta; some games may not work correctly.

# Plugins and Components — Add-on

On the Add-on tab, you can see optional plugins and the system components that Hub manages automatically. To see the system components, expand **System components** at the bottom of the list.



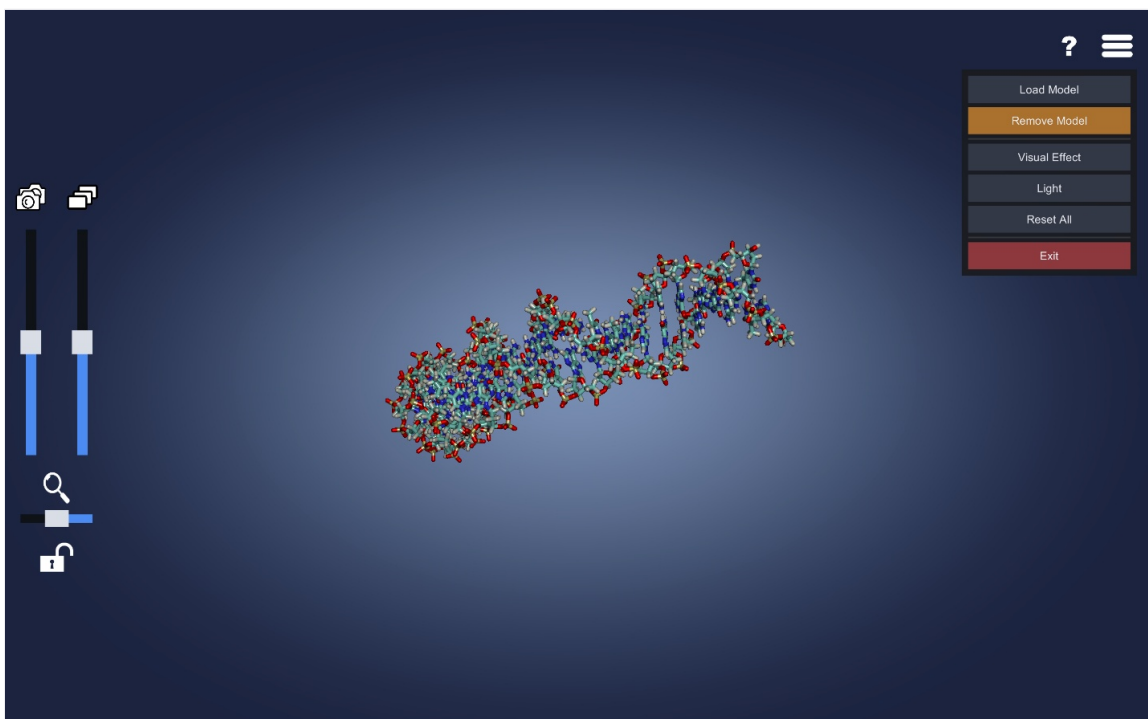
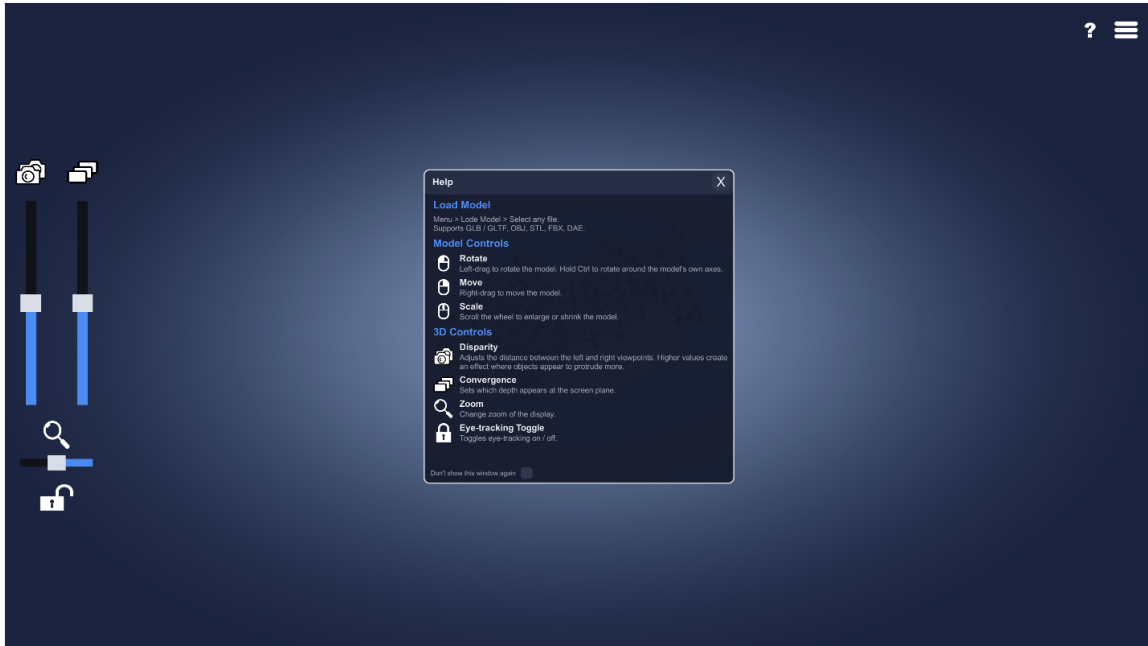
Add-on tab — optional plugins at the top; System components below are managed automatically by Hub.

| Component                         | Role                                                                                                                                                                              |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AI 3D PLUGIN                      | A plugin that converts 2D content to 3D. Once installed, 2D→3D conversion is available in Capture, Player, and Games. (Requires an NVIDIA graphics card and the AI 3D permission) |
| MOPIC Runtime auto-managed        | Core runtime that renders 3D on screen                                                                                                                                            |
| MOPIC EyeTracker auto-managed     | Tracks the viewer’s eye position in real time                                                                                                                                     |
| MOPIC OpenXR Runtime auto-managed | Runs OpenXR apps and games in MOPIC 3D                                                                                                                                            |
| MOPIC UEVR auto-managed           | Handles 3D execution of Unreal Engine games                                                                                                                                       |

**If installation is blocked** If a "Permission required" notice appears, your current monitor license does not include permission for that Add-on. To add permissions, contact your vendor or MOPIC ([info@mopic.co.kr](mailto:info@mopic.co.kr)).

## Application: 3D Viewer — Viewing 3D Models

3D Viewer is an app for loading 3D model files and viewing them in glasses-free 3D. On first launch, a help window explaining the controls appears — check **Don't show this window again** to hide it in the future.



3D Viewer — click the on-screen menu button to open Load Model, Light, Visual Effect, and Help.

## 1. Load a model

Select Menu > **Load Model** and choose a file; the model is automatically fitted and displayed at the center of the screen.

To remove the model, select **Remove Model**.

| Supported formats            | Description                                                                                                                                                                       |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GLB · GLTF</b>            | Recommended formats. Textures and materials are embedded and displayed as-is                                                                                                      |
| <b>OBJ · STL · FBX · DAE</b> | General-purpose 3D formats. If texture files are in the same folder as the model, they are applied automatically based on naming conventions (basecolor, normal, roughness, etc.) |

## 2. Model controls

| Mouse action                  | Action                                                                            |
|-------------------------------|-----------------------------------------------------------------------------------|
| <b>Left-click &amp; drag</b>  | Rotate the model — hold Ctrl while dragging to rotate around the model's own axes |
| <b>Right-click &amp; drag</b> | Move the model                                                                    |
| <b>Scroll wheel</b>           | Zoom the model in and out                                                         |
| <b>Reset All button</b>       | Resets rotation, position, and zoom to the initial state                          |

## 3. Adjusting the 3D effect

Use the sliders below the menu to adjust the 3D effect. Adjust gradually, within a range that feels comfortable for your eyes.

| Item               | What it does                                                                                                             |
|--------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Disparity</b>   | Adjusts the distance between the left and right viewpoints. Higher values create a stronger pop-out effect               |
| <b>Convergence</b> | Sets which depth appears at the screen plane. This determines whether the model appears in front of or behind the screen |
| <b>Zoom</b>        | Changes the display magnification                                                                                        |

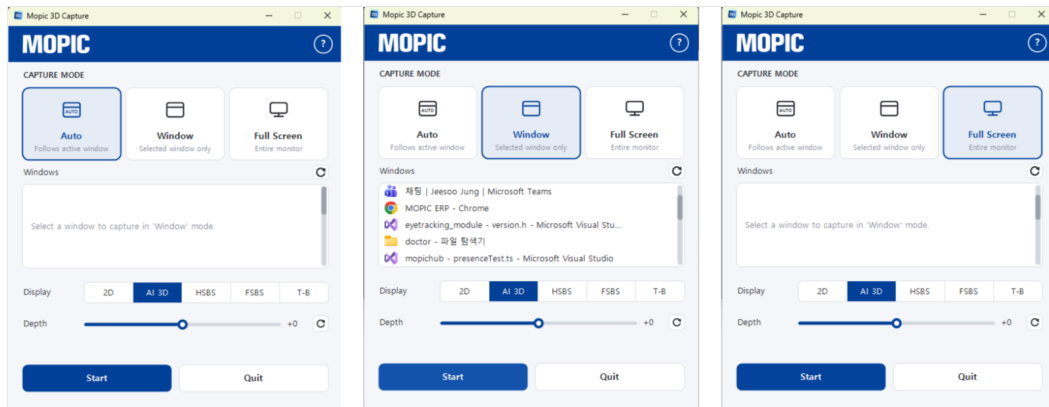
## 4. Light · Effects · Textures

In the **Light** panel, choose a lighting preset or adjust the light's intensity, direction, and color directly.

In the **Visual Effect** panel, enable model presentation effects and screen filters.

## Application: MOPIC 3D Capture — Displaying Captured Screens in 3D

MOPIC 3D Capture is an app that captures a screen running on your PC and displays it on the MOPIC monitor in glasses-free 3D. Any screen can be captured — 3D videos on YouTube, photos, games, and more.



MOPIC 3D Capture home — choose a capture mode and display mode, then click Start to begin capturing.

### 1. Start capturing

On the home screen, choose a **CAPTURE MODE** and click the **Start** button. To finish capturing, click **Stop**.

| Capture mode       | Action                                                     |
|--------------------|------------------------------------------------------------|
| <b>Auto</b>        | Click any active window (except MOPIC apps) to capture it. |
| <b>Window</b>      | Captures only the window you pick from the list            |
| <b>Full Screen</b> | Captures the entire MOPIC monitor screen                   |

### 2. Choose a display mode — DISPLAY

Choose how the captured screen is turned into 3D under **DISPLAY**. Select the mode that matches your content type.

| Mode                     | Purpose                                                                                                                                          |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AI 3D</b>             | Converts an ordinary 2D screen to 3D in real time. (AI 3D conversion requires an NVIDIA graphics card and a license that includes this feature.) |
| <b>HSBS · FSBS · T-B</b> | Displays content already made in Side-by-Side (Half/Full) or Top-Bottom 3D format in glasses-free 3D                                             |

**2D** Displays the original screen as-is (without 3D).

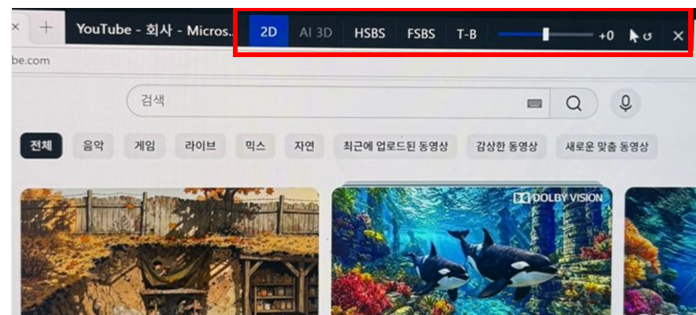
### 3. Adjust the 3D effect — DEPTH

Adjust the 3D intensity with the **Depth** slider. Click the reset button to return to the default (0).



### 4. Control bar and tray icon

During capture, a blue bar-shaped tab appears above the captured area. Hover over it to expand the quick controls (control bar).

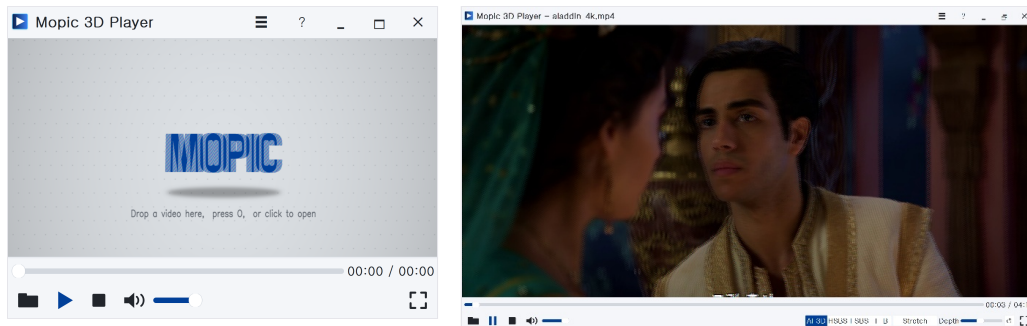


| Shortcut              | Action                                 |
|-----------------------|----------------------------------------|
| <b>Ctrl + Alt + C</b> | Turn AI 3D (2D→3D conversion) on / off |
| <b>Ctrl + Alt + Q</b> | Quit the app                           |

**Good to know** · If the AI 3D option is grayed out, check the status message — **not installed** (install the AI 3D plugin from the Add-on tab), **license not authorized** (your license lacks the AI 3D permission — contact your vendor or MOPIC), **checking license** (activates automatically shortly). · If there is no window to capture, “No window to capture yet — open an app and click it” appears. Launch the app you want to capture and click its window once.

## Application: MOPIC 3D Player — Playing 3D Video

MOPIC 3D Player is a video player that plays 3D video (Half SBS / Full SBS / TB) in glasses-free 3D, or converts 2D video to 3D and plays it.



MOPIC 3D Player — drag a video into the window to play it right away.

### 1. Open a video

**Drag & drop** a video file into the player window, or click the file-open button to select one.

### 2. Play 3D video

Plays 3D video in side-by-side (SBS) or Top-Bottom format in glasses-free 3D.

### 3. Play 2D video (AI 3D)

Converts 2D video to 3D in real time and plays it in glasses-free 3D.

(AI 3D conversion requires an NVIDIA graphics card and a license that includes this feature.)

### 4. Choose a display mode

Choose how the video is shown in 3D from the bottom bar. Select the mode that matches your content type.

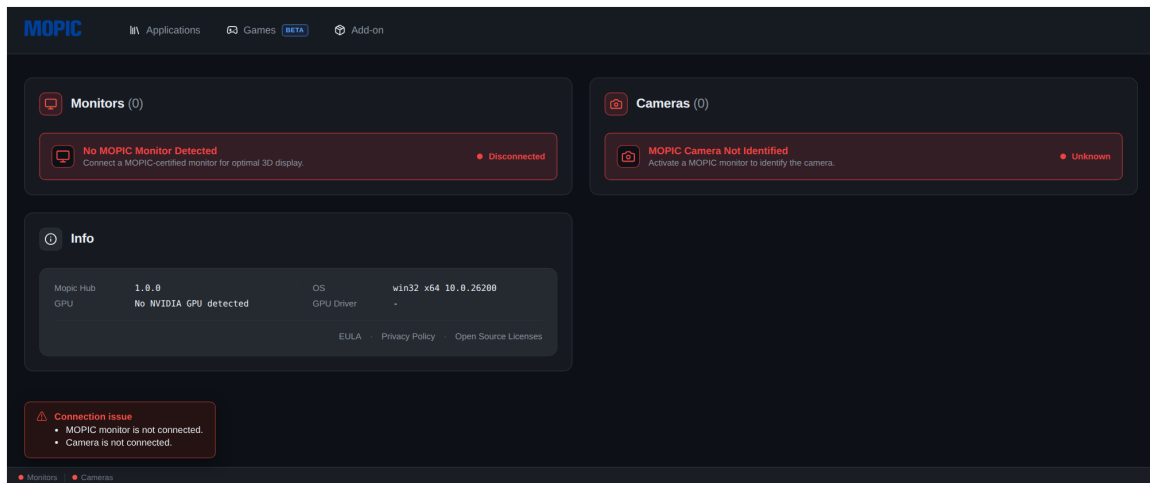
| Mode              | Purpose                                                                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| AI 3D             | Converts an ordinary 2D screen to 3D in real time. (AI 3D conversion requires an NVIDIA graphics card and a license that includes this feature.) |
| HSBS · FSBS · T-B | Displays content already made in Side-by-Side (Half/Full) or Top-Bottom 3D format in glasses-free 3D                                             |

### 5. Adjust the 3D effect — DEPTH

Adjust the 3D intensity with the **Depth** slider. Click the reset button to return to the default (0).

## Troubleshooting

Hub continuously checks the conditions required for 3D, and if something is wrong, the Connection issue notice at the bottom left of the Home screen points out the cause. You can resolve the problem yourself by reviewing the notice.



When there is a problem, the causes are shown as a list.