

# Gamepad Integration

The **Gamepad Integration** addon bridges the gap between standard game controllers (Xbox, PS4/PS5, etc.) and your SimLab Composer VR experience. This allows users to navigate or interact with the scene using a familiar gamepad instead of traditional VR controllers.

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## How It Works: The Logic

The addon translates physical button presses into **Variables** within SimLab Composer.

- **The Input:** Pressing a button sends a signal (e.g., "Pressed/Released" or a pressure value from 0.0 to 1.0).
  - **The Response:** In the **Training Builder**, you use nodes like **Watch Boolean Expression** or **Branch on Expression** to monitor these variables and trigger specific actions in your scene.
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## Setup Guide

### 1. Discovering Your Controller

Once you launch the addon, it will detect any connected controllers.

- **Discover:** If you connect your controller after the addon is open, click **Discover**. A popup will appear showing the controller's name and image.
- **Mapping Buttons:** While the Discover dialogue is open, press any button on your gamepad. The variable name and its current value will appear in the list.
- **Add Variable:** Click the **Add Variable** button next to the desired input. This automatically creates that variable in the Training Builder for you to use.

### 2. Linking the System

After mapping your variables, close the Discover dialogue to return to the main menu.

- **Link VR Experience:** Click this to generate the internal Training Builder system that allows SimLab to talk to the controller server.
- **Connect to VR:** Click this to establish the live connection. This step starts a local server that handles the communication.

## 3. Running the Experience

Because the addon uses a server-based connection, your gamepad input can be sent to multiple platforms:

- **PC VR:** Standard wired or wireless connection.
- **Mobile & Standalone Headsets:** Since the connection happens via a server, you can control experiences running on mobile devices or headsets like the Meta Quest.

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## Input Types Reference

Input Type	Value Range	Best Use Case
<b>Discrete (Buttons)</b>	Pressed / Released	Toggling lights, opening doors, or teleporting.
<b>Analog (Triggers/Sticks)</b>	0.0 to 1.0	Controlling movement speed or dimming lights.

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## Closing the Session

When you are finished testing or presenting, click **Disconnect from VR**. This terminates the server connection and stops the variable tracking.

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## Workflow Summary

1. **Discover:** Connect and identify your gamepad.
2. **Map:** Press buttons and click **Add Variable** to send them to Training Builder.
3. **Link:** Use **Link VR Experience** to build the connection logic.
4. **Connect:** Hit **Connect to VR** and launch your scene.

Watch this tutorial to learn more

<https://www.youtube.com/embed/wrKuLXasTBs>

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