Hardware setup

Installing Buttons and Joysticks

1. Button Installation

- Pass the button module through your index finger

2. Joystick Installation

- Velcro attachment

Affix the included velcro to the tip of your index finger. It is difficult to reattach the velcro, so please position it carefully.

- Mounting the joystick module

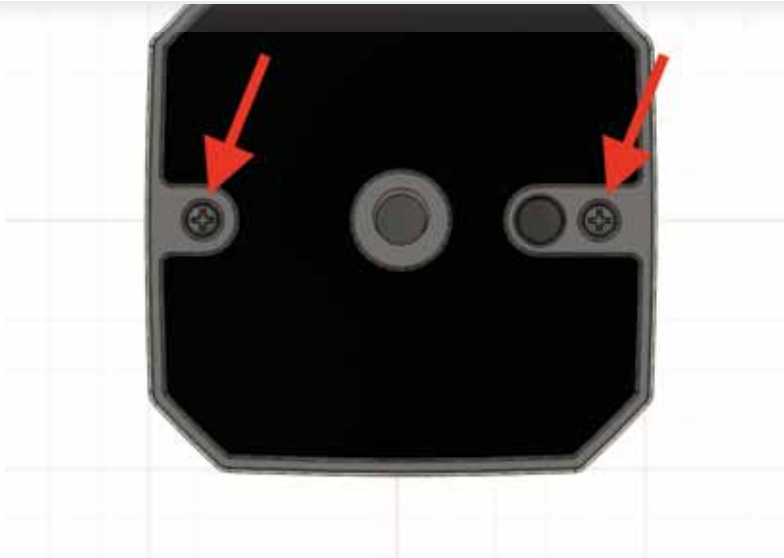Secure the joystick with Velcro. It is also possible to fine-tune the mounting position.

▶ If you want to place the joystick module on something other than your fingertips

Installing the mounting adapter

1. Tundra Tracker Users

- Remove tracker baseplate

Remove the two screws that secure the baseplate. Do not lose the screws during removal.

- Mounting the adapter

Remove the mounting adapter for the Tundra Tracker from the case and fix it to the tracker using the screws you removed earlier. There is a direction to install the adapter, so please install it in the same direction as the photo above.

2. **For Vive Tracker users**

- Mounting the adapter

Remove the mounting adapter for Vive Tracker from the case and fix it using the included screws as shown in the image above.

> **TIP**
>
> By using the dedicated adapter for the Tundra Tracker, the height of the tracker can be made shorter and less likely to shake. If you frequently use the tracker outside of the ContactGlove, attaching the Vive Tracker adapter to the Tundra Tracker makes it easier to remove the adapter. (*The height of the tracker will be higher than when using the dedicated adapter.)

Attach tracker to ContactGlove body

Align the tracker with the rail and slide it until it clicks into place.

The hardware related setup is now complete!

Install Diving Station →

ContactGlove Product Specifications

Item	Specification
Battery Capacity	1,800mAh
Continuous Operation Time	Approximately 12 hours (built-in battery)
Charging Time	Approximately 3 hours (when powered off)
Charging Method	USB Type-C Connector
Hand Tracking	Independent bending acquisition of each finger and joint
Haptic Feedback	Vibration using built-in Haptic Reactor
Wireless Communication	Proprietary communication utilizing 2.4GHz band
Maximum Simultaneous Connections	Up to 8 pairs of gloves to a single PC (varies based on surrounding radio conditions)
Controller Inputs [1]	Trigger / Grip / Touchpad (press)
Controller Inputs (Additional Modules)	A / B / System / Joystick [2]
Compatible VR Headsets	Various headsets compatible with SteamVR [3]
Compatible Applications	VRChat / Other SteamVR applications [4][5]
Tracking	Additional attachment of trackers, etc., required for compatibility with various tracking systems

[Detailed Specifications]

1. Input emulation using hand tracking data.

details.

3. Operation is not guaranteed on all headsets.
4. Content must support Skeletal Input for independent hand tracking of each finger and joint in SteamVR.
   - As of November 2023, VRChat does not support Skeletal Input, but you can use the following hand tracking through our proprietary software:
     - Hand tracking compliant with Valve Index Controller
     - ContactGlove's independent finger and joint hand tracking
   - For more detailed specifications regarding hand tracking in VRChat, please refer to here ☒ .
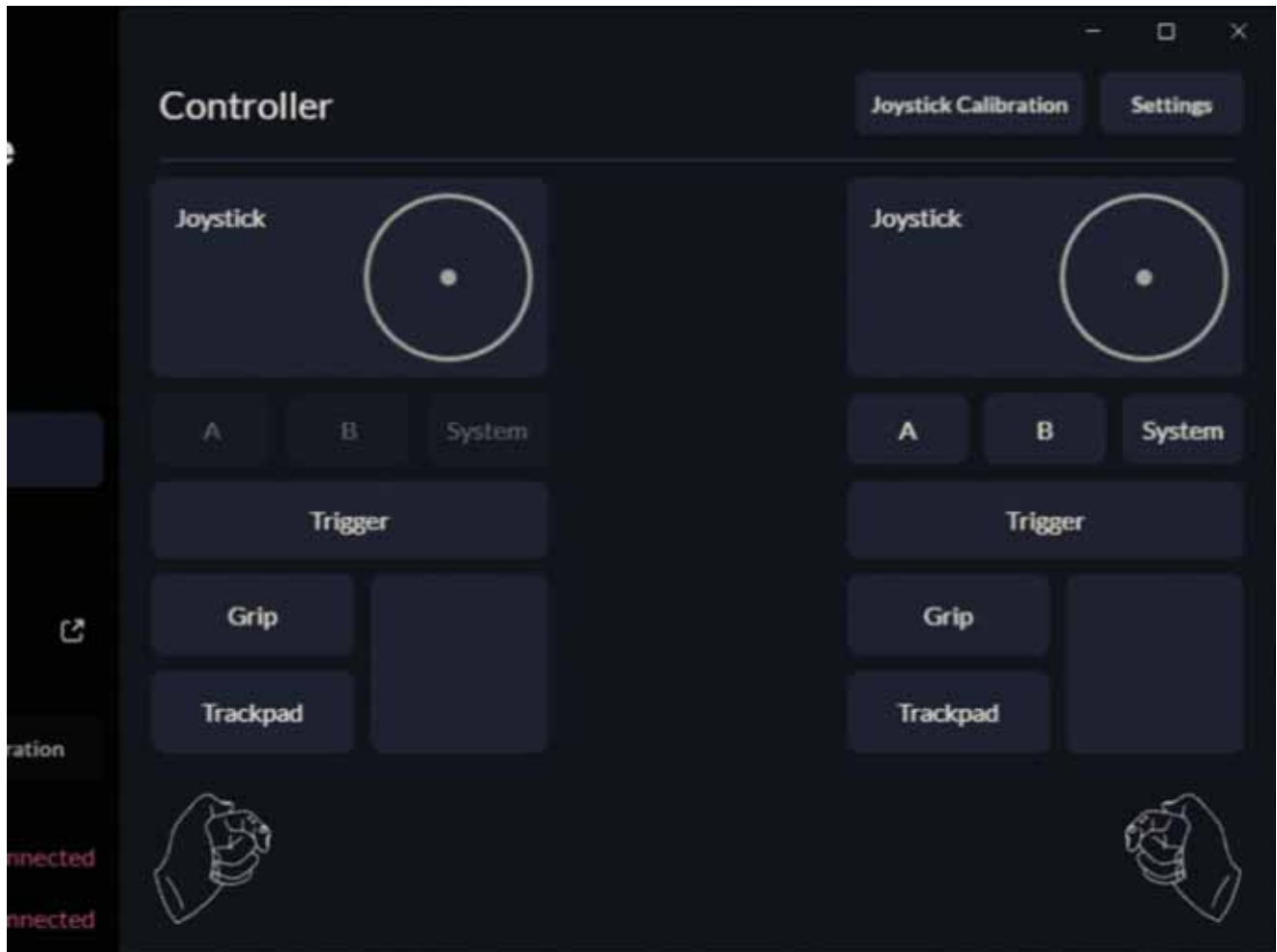5. Operation is not guaranteed on all SteamVR applications.

Controller Settings

In the controller menu, you can disable buttons and configure bindings.

enable/disable controller

When you press the setting button on the upper right of the controller menu, you can edit the settings related to the controller. By checking/unchecking the checkbox to the left of each controller component (joystick, button, etc.), you can enable/disable each controller function.

> **TIP**

Sensitivity adjustment

You can adjust the sensitivity of controller inputs based on gestures, such as triggers and grips. If you increase the Sensitivity, you can respond to triggers etc. with a smaller finger movement, and if you decrease the sensitivity, you can prevent the controller from responding unless you move your finger a lot.

Change bindings

If you want to change the placement of the controller, you can use the binding editing function. It is also possible to add a function to the pairing button on the back of the main unit.

> **TIP**
>
> If the shake is large and the trigger cannot be handled well, it may be improved by assigning the trigger function to the button.

Controller Switching

There are two methods for switching controllers.
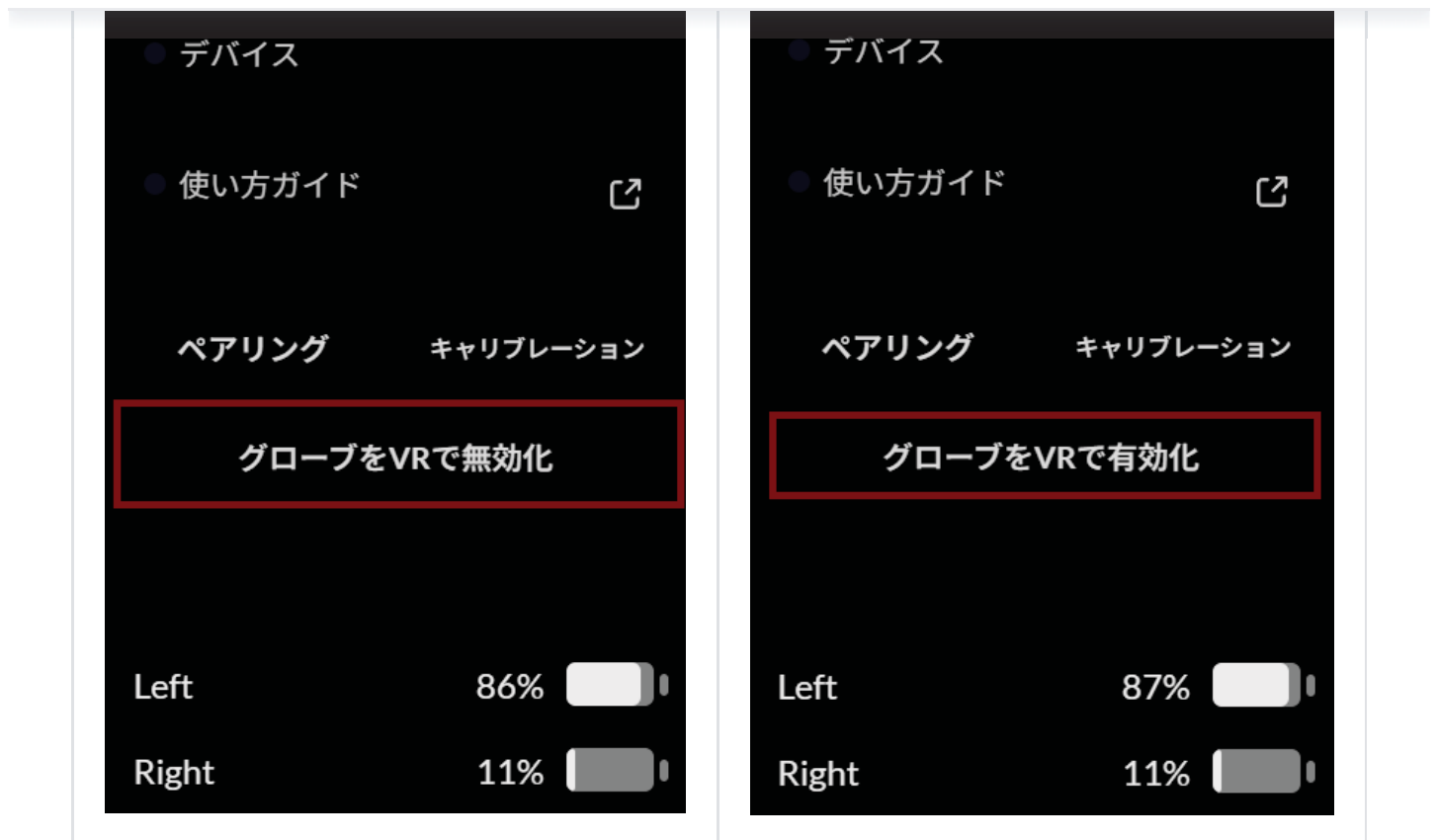
Enabling/Disabling the Driver

By disabling the ContactGlove driver before launching SteamVR, you can use other controllers alongside ContactGlove.

> **TIP**
>
> A SteamVR restart is required for the changes to take effect.

The enable/disable state of the ContactGlove driver can be toggled using the button indicated by the red frame in the DivingStation image.

Controller Switching Using DivingStation's Functionality

The following
Recognition: The device is powered on, and the corresponding device icon in SteamVR status is illuminated blue, indicating recognition.
is expressed.

By utilizing DivingStation's controller switching enable option, you can switch devices without restarting SteamVR.
The controller switching enable option can be toggled ON/OFF with the following steps.

1. Open the DivineStation window and go to the **Devices** tab.
2. Toggle the **Enable Controller Switching** checkbox under advanced settings to turn the option ON/OFF.

Controller Switching Enable: ON

Switch controllers based on the recognition order and status of the devices.

Devices are represented in three types.

- ContactGlove
- **Other Controllers**: Vive Wand, Index Controller, and others
- **Tracker for Gloves**: Trackers set to Handheld/Left Hand or Right Hand with TrackerRole

The following is the controller recognition determination for device recognition states. "〇" indicates recognition, and "-" indicates an unrecognized state.

[Controller Recognition Determination]

Controller Recognition	ContactGlove	Other Controllers	Tracker for Gloves	[Notes]
Tracker for Gloves	-	-	〇	[1]
Other Controllers	-	〇	-	
First Recognized Device	-	〇	〇	[1][2]

ContactGlove (Input Only)	○	-	-	[3]
ContactGlove (First Recognized Device)	○	-	○	[1][4]
First Recognized Device	○	○	-	[2][3]
First Recognized Device	○	○	○	[1]

[Notes]

1. To recognize ContactGlove as a controller, it needs to be recognized in the order of **ContactGlove -> Tracker for Gloves**.
2. Turning off the power of either one will result in the other being recognized as a controller.
3. To enable position tracking of ContactGlove, recognition of the Glove Tracker is required.
4. **In cases of extremely poor communication with ContactGlove, the device recognition may be lost, and the Glove Tracker may become the controller.** Turn off the Tracker's power, confirm that ContactGlove is recognized, and then turn the Tracker's power back on. If the issue persists, try turning off the controller switching enable option.

Controller Switching Enable: OFF

Regardless of the power and communication status of ContactGlove, its recognition is maintained from the startup of SteamVR.

> TIP

Glove Tracker is required.

← ContactGlove and Dongle	Calibration of Glove Tracker (Position Offset) →

troubleshooting

communication

Communication is slow/I feel a delay

Select Devices on DivingStation and check the ping of each device.

1. Dongle ping is around 100 (or higher)
   - The USB connection may be bad. Try plugging the dongle into another port.
2. Left or Right ping is around 100 (or higher)
   - Change the channel. Radio waves may be interfering with other devices.
   - Check if the dongle of another device is stuck near the dongle. Please connect to PC away from other dongles.

Steam VR

I can see the Diver-X logo on SteamVR, but I can't move my finger

Possible causes are:

1. DivingStation is not open
   - Fingers will not move on SteamVR if the DivingStation is not open or if it is open but not connected to the glove.
2. DivingStation and SteamVR are not communicating
   - Launch Control Panel and select System and Security > Windows Defender Firewall > Allowed apps.
   - Find divingstation.exe and check Private/Public.

   ▶ When things go wrong

ContactGlove icon remains gray and hands are not visible in SteamVR

There is a high possibility that the tracker's role setting is not done. Please review the settings.

Devices

Dongle is not recognized even though it is inserted

Press the upper right setting button and press the "Install USB driver" button.

The red light on the globe does not come on even though it is charging

ContactGlove is designed to stop charging in order to cool down when it has a certain amount of heat. Please turn off the glove and charge it after a while.

The remaining battery level displayed on the DivingStation is incorrect

While charging, the remaining battery level displayed on the DivingStation may be incorrect. Please be assured that there is no problem in operation.

The tracker pops out

You can download the 3D data of the injection prevention parts from here and create them with a 3D printer. This part will be delivered to the purchaser at a later date. https://drive.google.com/drive/folders/1TTIp6JGvdQ5v2gMpvVG9b3fd5-1N74eJ?usp=sharing

FCC Certifications

FCC Caution.

§ 15.19 Labelling requirements.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

§ 15.21 Information to user.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

§ 15.105 Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Specific Absorption Rate (SAR) information:

This equipment complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmi er must not be co-located or operating in conjunction with any other antenna or transmi er.

• The portable device is designed to meet the requirements for exposure to radio waves established by the ISED. These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue.

←   **Trademarks**