**Using the Massless Pen with Google Tilt Brush**

If you would like to use the Massless Pen as an input device for Google Tilt Brush - that is excellent! It is now compatible, using our SteamVR driver.

Before entering Tilt Brush, the first thing you need to do is ensure that your Massless Pen, Massless tracker, VR headset, and secondary VR hand controller are all connected. You can check this by starting SteamVR: if the window looks like the image below, then your Massless Pen is properly
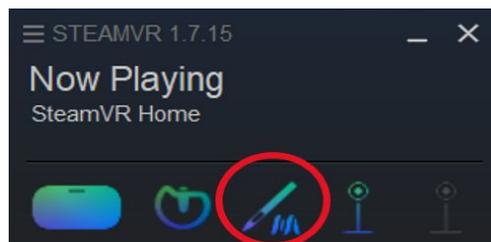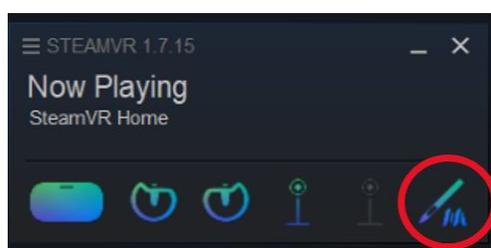

connected.

However, if your stem VR window looks more like this:

Or doesn't appear at all in your SteamVR window, then your pen will not appear in VR. This is likely because both Oculus or Vive controllers are still connected, and the dominant hand controller is overriding the Massless Pen.

To fix this, first shut down your SteamVR driver. Then, disconnect the

dominant hand Oculus or Vive Controller. The easiest way to do this is to remove the batteries in this controller. Once you have done this, ensure your Massless Pen is turned on and connected by checking that both the light on the pen and the light on the Massless Tracker are both purple. Finally, re-open the SteamVR driver, and it should display that the Massless Pen and only one Oculus controller are connected.

Once you have ensured that all of your devices are connected properly, you need to set the bindings. However, as of this writing, you cannot set the
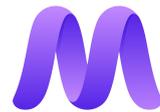
bindings for the pen prior to opening Tiltbrush - if you do set the bindings before opening Titbrush, the bindings will be dropped the minute you start the application. So, to set the bindings, follow these steps:

1. Open Tiltbrush on your computer (not from within the Headset).

2. Outside of Tiltbrush, right click on the "menu" button on the SteamVR window (shown below), and select "devices", then "controller settings".
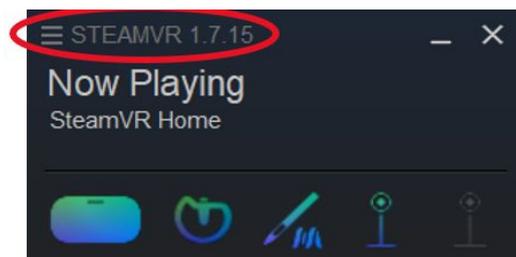
3. This will open a page, which on the top right will have an option to "Manage Controller Bindings", followed by a list of your downloaded SteamVR apps. Select the Tiltbrush application (if this app not displayed on the list immediately, select "Show More Applications").

4. In that same dialog box, - if the "Active Controller" is not the Massless Pen, next to Active Controller Binding, select Custom. Then click Choose Another. You will be taken to a "Change Bindings for Tilt Brush" dialog box. If the current controller isn't Massless Pen, click on the Oculus Touch label next to the Oculus Touch image and this menu will appear:

5. Select "Massless Pen" from this menu, as highlighted above. This will take you back to the previous screen, where you will be able to choose your bindings.

6. Now select "create new bindings". This will open a window displaying vive controllers (because Steam doesn't have an image of the Massless Pen to use), with various options for the left and right hands. We would recommend that you bind Single Click Front as "grip". You do this by clicking the + next to Single Click Front, then
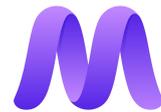
selecting Button from the list. Now under Single Click Front, it shows button and you need to define which button, so click on the label None. This will open a long list of buttons available to map the Single Click on the Front of the cap sense to. Scroll down to Right Grip Button and select it. Then select the check under More Options. We also recommends assigning a click on the rear of the Pen's cap sense to the trigger button. Follow the same process as the Single Click Front for the Single Click Rear, but select Right Trigger Press from the list and click the check mark. You can also assign the Double Click Rear of the Pen's touch pad as the select/deselect using the same method as above and selecting Secondary Button (A,X). When you are done, click Save Personal Binding. Close that dialog box, then close the SteamVR Settings dialog box. Start Tilt Brush and begin creating!

7. Once you have completed the above, click "save this binding", label it and save it. Now, with Tiltbrush still open, click "select this binding".

8. You can now put on your headset and enter VR. You should be in the Tiltbrush start area, and you should be able to see two controllers in front of you - both will look like the opposite hand version of the controller you are using with your secondary hand (ie. a Vive or Oculus controller). As long as both controllers in VR are tracking to where your real controllers are, you are good to go. Begin creating!

If you have any issues with using the Massless Pen in Tiltbrush, please email **support@massless.zohodesk.eu** for technical support.