

Rock-it Shaft - Installation Guide

Table of Content:

Prerequisites

VRCFury (Optional)
Thicc Water (Optional)

Installation Method 1 - Drag and Drop

Basic Installation (PC)
Install Low Memory Parameters (Optional)
Basic Installation (Quest)

<u>Installation Method 2 - Manual Install</u>

Manual Installation (PC Only)

Merge method 1 - AV3 Manager

Merge method 2 - Manual Merge

Common Issues

Clicking the link brings you to the page.

Prerequisites

VRCFury (Optional)

The Unity plugin VRCFury is required if you want to make use of the following features:

- Drag and drop installation
- Quest installation
- SPS integration
- Wetness cover effect
- SPS + Thicc Water interaction

As the author frequently makes improvements and changes to their script, please read their tutorial on how to install the plugin. This asset was created with VRCFury version 1.771.0, although newer versions should probably work too.

https://vrcfury.com

In the event that the hyperlink becomes broken in the future, please look up VRCFury on your search engine of choice.

Since I am not involved in the development and distribution of 3rd party apps or scripts, I can not provide technical support or instructions for them. I also can not guarantee that they will work well, nor can I guarantee the integrity of your Unity project or the safety of your computer and personal information if you decide to use them.

Thicc Water (Optional)

The Unity asset Thicc Water is required if you want to make use of the following features:

- Particle based fluid effect
- Pre drool fluid effect
- SPS + Thicc Water interaction

You only need to import the Thicc Water Unitypackage into your project for the asset integration to work, no extra steps required. This asset was created with Thicc Water version 1.3, although newer versions should probably work too.

https://pleasurearcade.gumroad.com/l/thiccwater

In the event that the hyperlink becomes broken in the future, please look up Thicc Water on your search engine of choice.

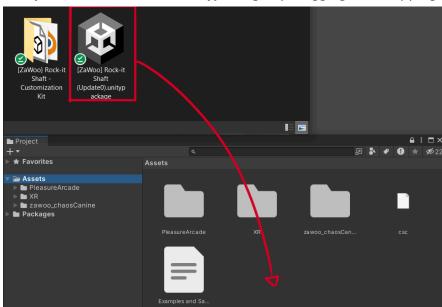
Since I am not involved in the development and distribution of 3rd party apps or scripts, I can not provide technical support or instructions for them. I also can not guarantee that they will work well, nor can I guarantee the integrity of your Unity project or the safety of your computer and personal information if you decide to use them.

Installation Method 1 - Drag and Drop

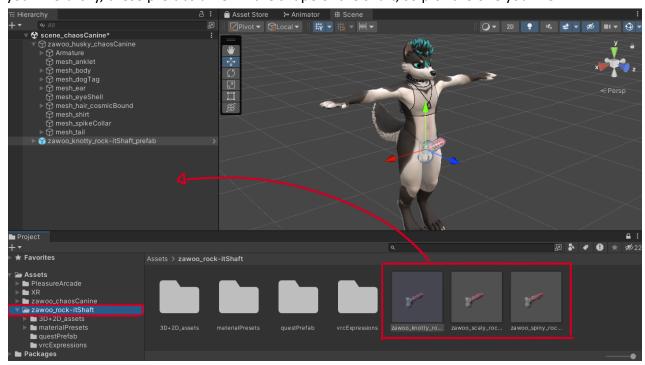
This guide is written with people with very little Unity experience in mind.

Basic Installation (PC)

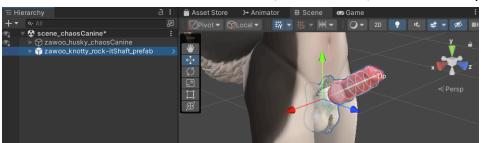
- 1. Make sure you have VRCFury installed in your Unity project.
- 2. (Optional) If you want to use Thicc Water, import the Thicc Water unitypackage by dragging and dropping it into your project.
- 3. Import the Rock-it Shaft unitypackage by dragging and dropping it into your project.



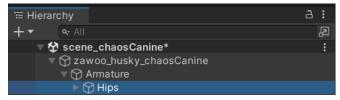
- 4. If it's not opened already, open the scene containing your avatar.
- 5. In your project view, find and open the folder "zawoo_rock-itShaft". You will find 3 prefabs. Drag and drop any one of these into your Hierarchy, these prefabs differ in the shape of the shaft, so pick the one you like.



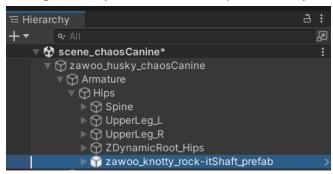
6. You should see the asset appear on you scene view now. If you can't see it, select the prefab in your hierarchy, **put your mouse cursor in the middle of the scene window**, and Press "F", this will center your camera to the asset.



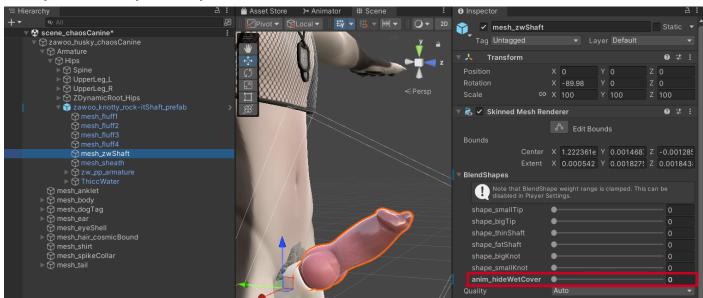
7. **Find the hip bone of your avatar**. The hip bone is usually found under the gameobject called "Armature". Although the name could differ depending on how the avatar creator named it. Common armature names are "Armature" or "Skeleton". Common hip bone names are "Hip" "Hips" "Pelvis" or "Root".



8. Drag and drop the Rock-it Shaft prefab into your hip bone.



- 9. **And that's it!** You can move, rotate and scale the prefab around to position it properly, and start customizing it if you wish. I recommend reading the customization guide before you do so.
- 10. (Optional, but recommended) Before you upload your avatar, select "mesh_zwShaft" and turn the blendshape "anim_hideWetCover" down to 0. This avoids possible issues with the wetness cover mesh. If your shaft appears half wet, you know you've set it up correctly.



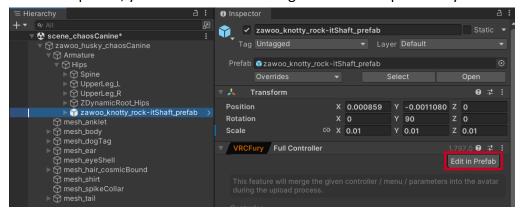
Install Low Memory Parameters (Optional)

By default, Rock-it Shaft uses 32 bits of VRC Avatar Parameter memory, this can be reduced down to 8 if your avatar is hurting for memory. Using low memory parameters locks you out of some functions, see the chart below.

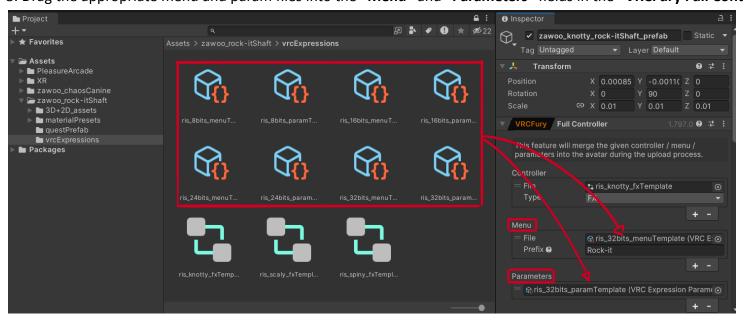
Features\Memory Used	32 Bits (Default)	24 Bits	16 Bits	8 Bits
Changing States (Sheathed to Full Out)	Radial dial and preset toggles.	Radial dial and preset toggles.	Radial dial and preset toggles.	Radial dial and preset toggles.
Changing Angles	4 way puppet and preset toggles.	2 way puppet and preset toggles, Up and down only.	Toggle between preset angles, no puppet.	Toggle between preset angles, no puppet.
SPS Integration	Yes.	Yes.	Yes.	Yes, automatically turns on when the shaft is fully out, cannot be turned off manually.
Thicc Water Integration	Yes.	Yes.	Yes.	No.
Throbbing Animation	Yes.	Yes.	Yes.	No.
Sheath Interaction	Yes.	Yes.	Yes.	Yes, automatically turns on when the shaft is sheathed, cannot be turned off manually.
Wetness Cover Effect	Yes.	Yes.	Yes.	Yes, however cum cover effect is not available. Wet cover effect cannot be turned off manually.

Features which are not mentioned here are available on all versions.

1. Select the prefab you just installed, and find the "VRCFury Full Controller" component, click on "Edit in Prefab". (If you don't want to edit the prefab, you can also choose to right click on the prefab in your hierarchy, and select "Prefab/Unpack Completely")



- 2. In your Unity project, find and open the folder "zawoo_rock-itShaft/vrcExpressions", in which there are many VRC expression menu and parameter template files, all labeled accordingly.
- 3. Drag the appropriate menu and param files into the "Menu" and "Parameters" fields in the "VRCFury Full Controller" component.

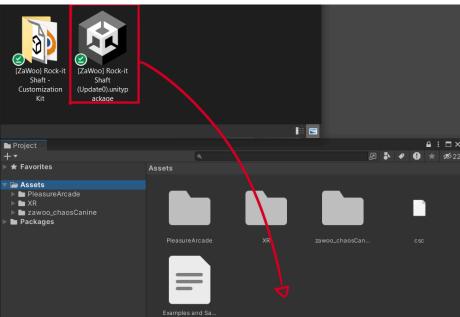


4. And that's it!

Basic Installation (Quest)

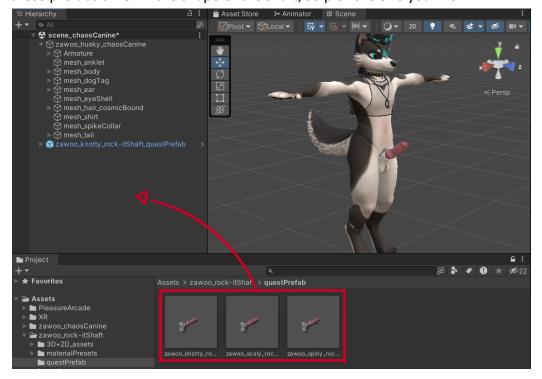
The following features are not available on Quest because of Quest limitations:

- SPS integration (Lights and custom shader)
- Thicc Water Integration (Custom shader)
- Wetness Cover Effect (Custom shader)
- 1. Make sure you have VRCFury installed in your Unity project.
- 2. If you haven't done it yet, **import the Rock-it Shaft unitypackage** by dragging and dropping it into your project.

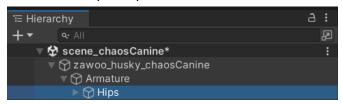


3. If it's not opened already, open the scene containing your avatar.

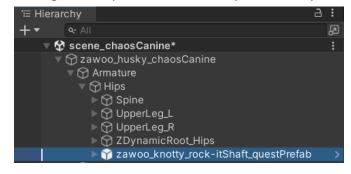
4. Open the folder "zawoo_rock-itShaft/questPrefab". You will find 3 prefabs. Drag and drop any one of these into your Hierarchy, these prefabs differ in the shape of the shaft, so pick the one you like.



5. **Find the hip bone of your avatar**. The hip bone is usually found under the gameobject called "Armature". Although the name could differ depending on how the avatar creator named it. Common armature names are "Armature" or "Skeleton". Common hip bone names are "Hip" "Hips" "Pelvis" or "Root".



6. Drag and drop the Rock-it Shaft prefab into your hip bone.



7. **And that's it!** You can move, rotate and scale the prefab around to position it properly, and start customizing it if you wish. I recommend reading the customization guide before you do so.

Installation Method 2 - Manual Install

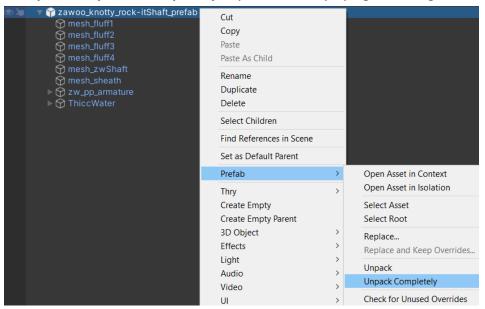
This guide is written concisely. It's only meant for people who are familiar with Unity, and have a good understanding of VRC AV3. If you want to know more about VRC AV3, please consult the <u>official VRC AV3 documentation</u>.

You can use the manual installation method if you don't want to use VRCFury to install assets in order to have full control over the structure of your avatar, or if the drag and drop method doesn't work for you.

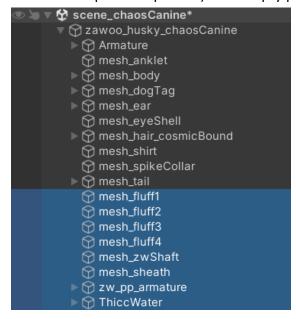
Manual Installation (PC Only)

Please import all optional prerequisites before following this guide.

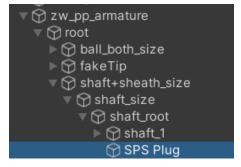
- 1. Find the prefab you want to use in the folder "zawoo_rock-itShaft", and move it into your hierarchy.
- 2. Move, rotate and scale the prefab so it appears to fit on your avatar visually.
- 3. Unpack the prefab completely in your hierarchy by right clicking on it, select "Prefab/Unpack Completely"



4. In your hierarchy, **move all contents of the prefab into the root gameobject of your avatar** (the gameobject that contains the VRC Avatar Descriptor component). The empty parent gameobject can now be deleted.



5. **(Optional)** If you don't want to use SPS integration, or don't have VRCFury installed, then In your hierarchy, find "zw_pp_armature/root/shaft+sheath_size/shaft_size/shaft_root/SPS Plug", **delete "SPS Plug"**

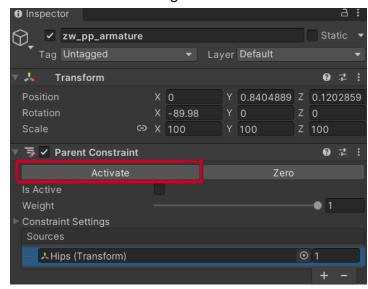


6. (Optional) Delete whichever mesh_fluff that you don't want to use.

- 7. Add the "Parent Constraint" component to these gameobjects:
 - mesh_fluff1
 - mesh_fluff2
 - mesh_fluff3
 - zw_pp_armature

Don't parent constraint mesh_fluff4, it's a skinned mesh.

8. In constraint settings, add the hip bone of your avatar to the "Sources" field, and click "Activate". Clicking the "Is Active" checkbox is **not the same** as clicking on "Activate"



- 9. This is the final step, now you need to merge the FX animator controller, VRC expression menu, and VRC expression parameters from the templates into what's already on your avatar.
 - You can find them in the folder "zawoo_rock-itShaft/vrcExpressions". They are labeled accordingly.
 - There are 4 different versions of menu/param combo, they differ in memory used. Reference the chart here, but **don't follow** the guide in the link. Simply decide on which combo you'd like to use.
 - There are 3 different FX controllers, which one you want to use depends on the shaft mesh you chose.
 - Two different merge methods are proposed in this guide <u>Merge method 1 AV3 Manager</u>, and <u>Merge method 2 Manual Merge</u>.

Special Note

Before you upload your avatar, select "mesh_zwShaft" and turn the blendshape "anim_hideWetCover" down to 0. This avoids possible issues with SPS baking the wetness cover mesh, although it might still work just fine even if you don't do this. If your shaft appears half wet, you know you've set it up correctly.

Merge method 1 - AV3 Manager

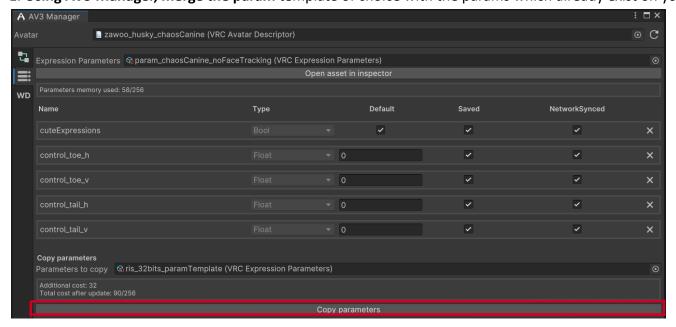
You can use Avatars 3.0 Manager to automate merging **VRC expression parameters** and **FX controllers**. AV3 Manager is available as a curated package in the CreatorCompanion app.

I will not provide detailed instruction on how to use AV3 manager, please consult their documentation instead. https://github.com/VRLabs/Avatars-3.0-Manager

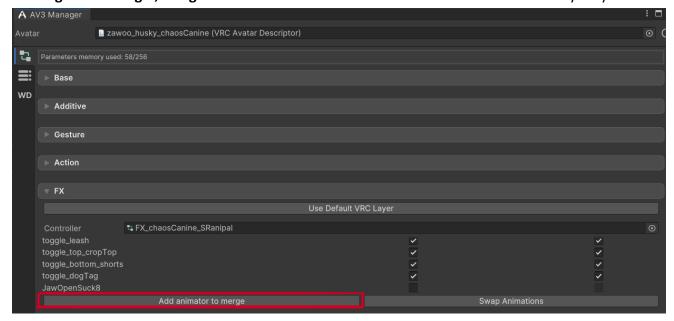
In the event that the hyperlink becomes broken in the future, please look up VRLabs Avatars 3.0 Manager on your search engine of choice.

Since I am not involved in the development and distribution of 3rd party apps or scripts, I can not provide technical support or instructions for them. I also can not guarantee that they will work well, nor can I guarantee the integrity of your Unity project or the safety of your computer and personal information if you decide to use them.

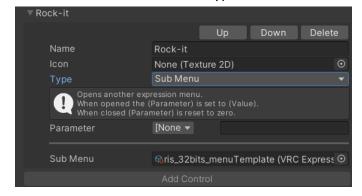
1. Using AV3 Manager, merge the param template of choice with the params which already exist on your avatar.



2. Using AV3 Manager, merge the FX controller of choice with the FX controller already on your avatar.

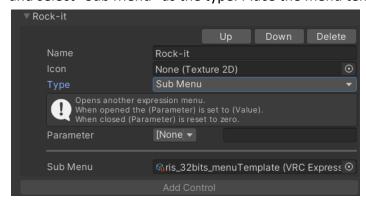


3. In the AV3 expression menu which is already on your avatar, add the menu template as a sub menu by clicking "Add Control" and select "Sub Menu" as the type. Place the menu template of choice into the "Sub Menu" field.



Merge method 2 - Manual Merge

- 1. Find the VRC expression parameters that's already on your avatar, and manually add every parameter from the param template of choice.
 - Make sure they are all synced and have the correct default values.
- 2. Find the FX controller of your avatar. Consulting the FX template, add new animator parameters manually.
 - Not to be confused with the VRC expression parameter.
 - Make sure all parameters are initialized with the correct value.
 - You do not need to add parameters like "===zw_ris_network_param_start===", they are just dividers for organization.
- 3. Find the FX controller of your avatar. Consulting the FX template, add new layers manually to your existing FX controller.
 - You can copy paste the layer content from the FX template by dragging out a box to select all contents of the layer, and Ctrl+C Ctrl+V.
 - You can not copy paste the layers themselves, and have to create them manually.
 - Make sure all layer weight is set to 1, and the correct blending mode is applied.
 - It doesn't actually matter if you named the layers incorrectly.
- 4. In the AV3 expression menu which is already on your avatar, add the menu template as a sub menu by clicking "Add Control" and select "Sub Menu" as the type. Place the menu template of choice into the "Sub Menu" field.



Common Issues

Here are some common issues and solutions.

• I installed it with VRCFury, but it doesn't work in game, even though it works in Gesture Manager.

If you run into this problem, try removing everything in your hierarchy that's not a part of the avatar which you're uploading (This includes all other avatars in the scene). VRCFury can sometimes merge the controllers incorrectly, especially when there's other gameobjects with VRCFury Full Controller components present.

• I used the manual installation method, but nothing works.

When nothing works at all, it's usually because of incorrect hierarchy setup, or the parameters might be typed wrong or missing, or you didn't set weight to 1 in the controller layer. You can try using the in game debug menu (radial menu -> options -> debug) and see if the animation is playing. If the animation does play, that suggests hierarchy issues. If the animation doesn't play, that suggests parameter or animator controller issues.

• The SDK doesn't let me upload to Quest because the file size is too large.

The easiest way to reduce upload size is to size down your textures, look at the textures applied to your avatar in Unity, and either reduce their dimensions or use a more aggressive compression method.

• When uploading to Quest, the SDK complains about having too many physbone components.

You will have to remove some physbones on your avatar. Where the physbone components are located differs from avatar to avatar. However, the physbone components in Rock-it Shaft are located in "zw_pp_armature". If you choose to remove the physbone on the shaft, I recommend starting with deleting "physbone_shaft_floppy" (You can just delete the whole gameobject), since that is only used when you select the floppy preset state.

My shaft becomes all white in game and when I test it in play mode.

This is caused by having outdated VRCFury which doesn't have proper support for surface shaders. Update VRCFury to fix it.

• My Thicc Water doesn't follow the shaft when I bend it sideways with SPS.

This is an SPS limitation. There is no solving this unless the author of SPS figures out a way that would support it in the future. You can use the angle puppet to position your shaft more closely to where you want to bend it to, in order to align them.

• There is a "ghost shaft" when I use SPS.

SPS uses vertex shader to bend the mesh, and some worlds use effects that don't take account to this type of mesh manipulation. The best thing you can do is to go to another world or change the world post processing setting.