# 7.3.6 Editors - 3D Viewport - Sidebar - Tool Tab - Mesh - Sculpt Mode

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# Tools Tab in Sculpt Mode

Sculpting is a process to deform the geometry by using a brush. Mesh objects, Grease Pencil objects and Hair Curve objects can be sculpted. In this chapter we handle the mesh tools. Grease Pencil and Curve Objects have their own chapter.

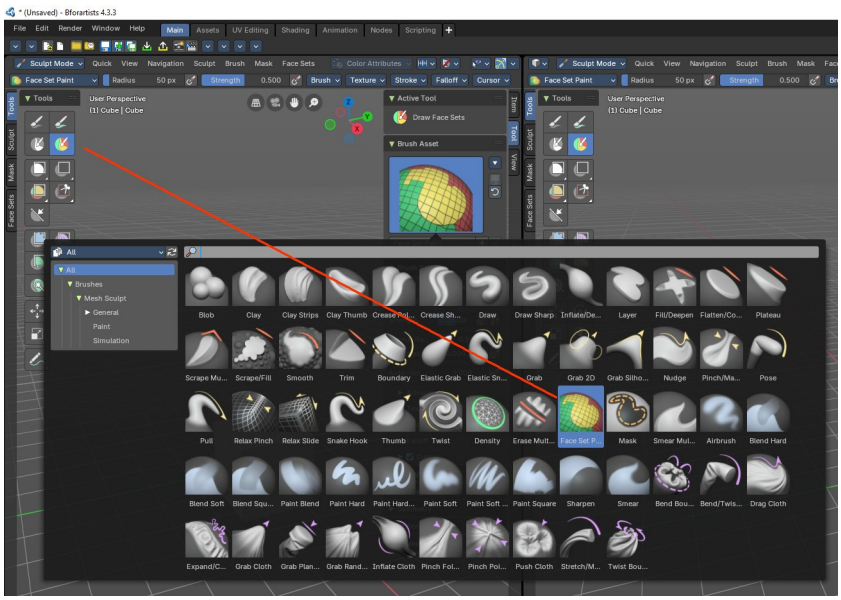
In Sculpt Mode you will mainly find settings for the different brushes, General settings, and brush specific settings. This settings can be found in different panels. The different brushes have different options and settings, dependent of which brush is selected. This brush specific options and settings are explained in the tool shelf chapter. Here we just cover the general panels with options and settings that exists for (nearly) all brushes.

The Sculpt Mode just exists for Mesh, Grease Pencil and Hair Curve objects.

# Brush Asset Panel


The Brush Asset Panel contains the different Brushes and some Brush settings. Choose and adjust your current active brush.

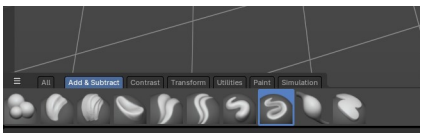
## Browse Brush



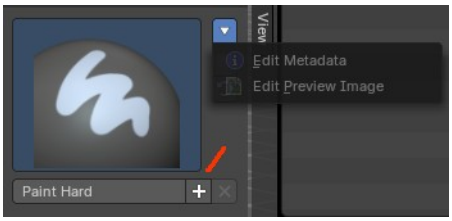
The big image at the top is a dropdown box that allows you to choose a brush. Click at it, and you will see the different brushes. A click at one of the images will choose this brush then.

Note that this browser shows all available brushes. Not only the ones that are meant for the current active tool in the tool shelf. And you might switch the tool by choosing another brush.

Brushes are assets. You can load them from different libraries if you want. Have a look at the brush asset browser at the bottom of the 3d view. Here the brushes are also categorized for easier access.

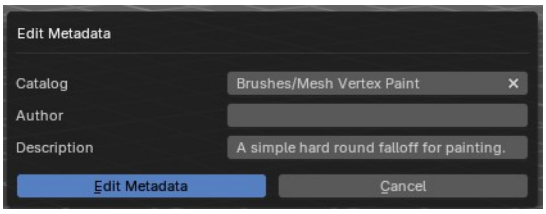


## Brush Specials menu




This menu becomes active when you create a new brush. Which can be done wiht the Plus button in the name property. This data cannot be changed for builtin system brushes.

### Edit Metadata




Calls a popup where you can adjust further informations and settings for the brush.

#### *Catalog*

The asset catalog in which the brush is stored.

#### *Author*

The brush author.

#### *Desctription*

Add a description

#### *OK / Cancel*

Accept or decline the changes.

#### *Edit Preview Image*

Allows you to load a custom preview image.

---

### Save Brush Asset

This button is just active with a custom brush. It saves all changes made at the brush settings into the current custom brush.

### Revert Brush Asset

Reverts the brush settings to the default values of the brush in the asset library.

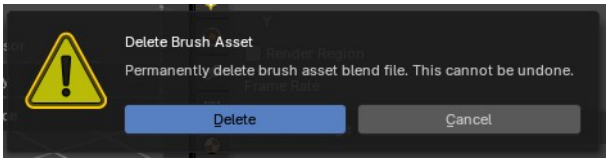
---

### Name


The edit box below the Image shows the name of the current active brush.

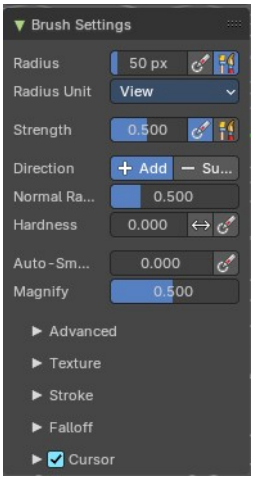
**The + button** allows you to add a new pencil with the current settings. Note that the brushes are NOT automatically saved when you close Bforartists. You need to save the brush asset. See above.

**The X button** deletes the brush from the brushes list and from the asset library. This button is just active with a custom brush. You will be prompted by a warning so that you don't accidentally remove the brush.




# Brush Settings Panel

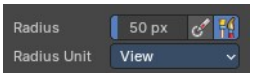
The Brush Settings Panel contains the Brush settings. The content differs, dependent of which brush you have chosen.




# Brush Settings Panel - Common Settings

These settings can be found in all brushes.

## Radius




The Radius edit box allows you to adjust the radius of the brush.

### Size Pressure

The first button behind the edit box enables tablet pressure sensitivity for radius.

### Use Unified Radius

The second button behind the edit box enables global radius size. Any modification at the radius will also modify the radius value for other paint tools.

## Radius Unit

Display the radius value in view units or in scene units. View units are by default in pixels, scene units in meters.

## Strength


The Strength edit box allows you to adjust the strength of the brush.

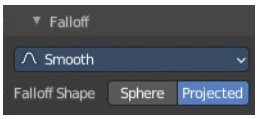
### Size Pressure

The first button behind the edit box enables tablet pressure sensitivity for radius.

### Use Unified Radius

The second button behind the edit box enables global radius size. Any modification at the radius will also modify the radius value for other paint tools.

You need to have the fallof method set to Projected to activate the Front Faces Only checkbox.




## Normal Radius


The ratio between the brush radius and the radius that is going to be used to sample the normal.

## Hardness


How close the brush fallow starts from the edge of the brush.

### Invert Pressure for Hardness

Invert the modulation of pressure in hardness.

### Use pressure for hardness

Tablet feature. Use pressure to modulate hardness.

## Autosmooth


The autosmooth edit box allows you to adjust the amount of smoothing that gets automatically applied to each stroke.

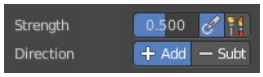
### Use pressure for hardness

Tablet feature. Use pressure to modulate hardness.

# Brush Settings Panel - Blob brush

Add & subtract brushes for sculpting.

## Direction Add / Subtract




Add means the stroke adds to the geometry. Subtract means the stroke subtracts from the geometry.

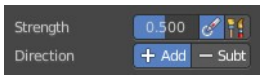
## Magnify


The Crease Brush Pinch Factor.

# Brush Settings Panel - Clay brush


Add & subtract brushes for sculpting.

## Direction Add / Subtract

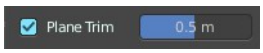



Add means the stroke adds to the geometry. Subtract means the stroke subtracts from the geometry.

## Plane Offset


Adjust the plane on which the brush acts towards or away from the objects surface. Sculpting with the Clay brush happens in a plane defined by the view you are in and the first vertices hit by the brush.

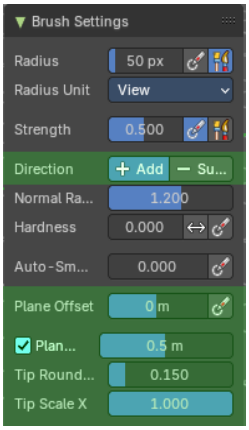
## Plane Trim




Various brushes like Clay, Clay Thumb, Fill and Scrape brush. Enable Plane Trim. Sculpting with these brushes happens in a plane defined by the view you are in and the first vertices hit by the brush. The trim distance defines a limit above which vertices are not affected by the brush.

# Brush Settings Panel - Clay Strips brush

Add & subtract brushes for sculpting.



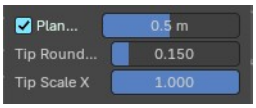

## Direction Add / Subtract


Add means the stroke adds to the geometry. Subtract means the stroke subtracts from the geometry.

## Plane Offset


Adjust the plane on which the brush acts towards or away from the objects surface.
Sculpting with the Clay brush happens in a plane defined by the view you are in and the first vertices hit by the brush.

## Plane Trim




Various brushes like Clay, Clay Thumb, Fill and Scrape brush. Enable Plane Trim.
Sculpting with these brushes happens in a plane defined by the view you are in and the first vertices hit by the brush. The trim distance defines a limit above which vertices are not affected by the brush.

### Distance

Adjust the plane trim distance.

## Tip roundness

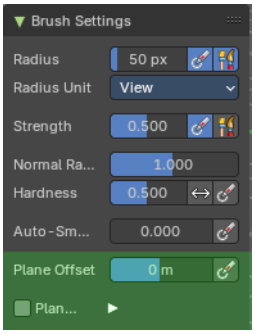
Roundness of the brush tip.

## Tip Scale X

Scale of the tip in x direction.

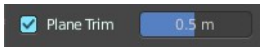
# Brush Settings Panel - Clay Thumb brush

Add & subtract brushes for sculpting.




## Plane Offset


Adjust the plane on which the brush acts towards or away from the objects surface.
Sculpting with the Clay brush happens in a plane defined by the view you are in and the first vertices hit by the brush.




## Plane Trim

Various brushes like Clay, Clay Thumb, Fill and Scrape brush. Enable Plane Trim. Sculpting with these brushes happens in a plane defined by the view you are in and the first vertices hit by the brush. The trim distance defines a limit above which vertices are not affected by the brush.

### Distance

Adjust the plane trim distance.

# Brush Settings Panel - Crease Polish brush

Add & subtract brushes for sculpting.


## Direction Add / Subtract

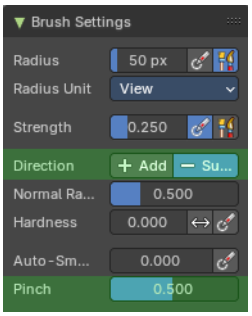
Add means the stroke adds to the geometry. Subtract means the stroke subtracts from the geometry.

## Pinch

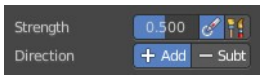

The Crease Brush Pinch Factor.

# Brush Settings Panel - Crease Sharp brush

Add & subtract brushes for sculpting.




## Direction Add / Subtract



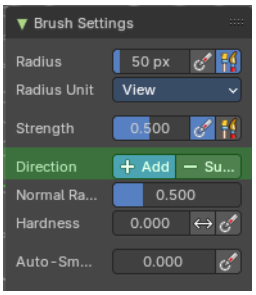

Add means the stroke adds to the geometry. Subtract means the stroke subtracts from the geometry.

## Pinch

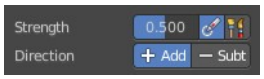

The Crease Brush Pinch Factor.

# Brush Settings Panel - Draw brush

Add & subtract brushes for sculpting.



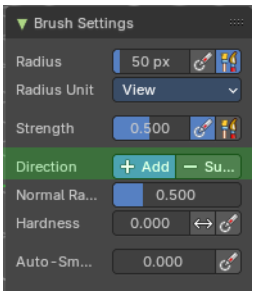

## Direction Add / Subtract




Add means the stroke adds to the geometry. Subtract means the stroke subtracts from the geometry.

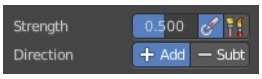
# Brush Settings Panel - Draw Sharp brush

Add & subtract brushes for sculpting.



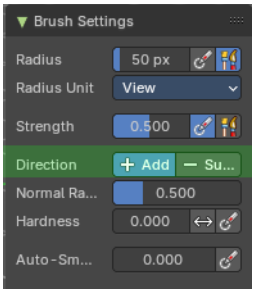
### Direction Add / Subtract

Add means the stroke adds to the geometry. Subtract means the stroke subtracts from the geometry.




## Brush Settings Panel - Inflate/Deflate brush

Contrast brushes for sculpting.

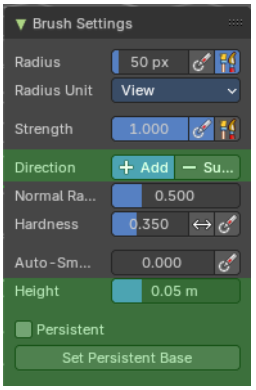



### Direction Inflate / Deflate

Add or subtract effect of the brush.

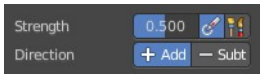

## Brush Settings Panel - Layer brush

Contrast brushes for sculpting.




### Direction Add / Subtract

Add means the stroke adds to the geometry. Subtract means the stroke subtracts from the geometry.

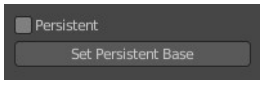



### Height

Layer brush setting. The height that can be affected by the layer brush.


### Persistent

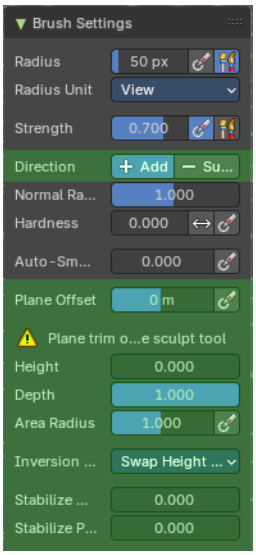
Layer brush setting. Sculpt on a persistent layer of the mesh.



### Set Persistent Base

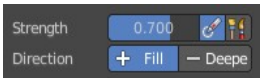
This button resets the base so that you can add another layer.

## Brush Settings Panel - Fill/Deepen brush




Contrast brushes for sculpting.

### Direction Fill / Deepen

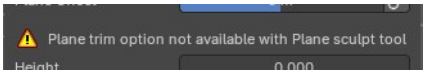



Add or subtract effect of the brush

### Plane Offset


Adjust the plane on which the brush acts towards or away from the objects surface.
Sculpting with the Clay brush happens in a plane defined by the view you are in and the first vertices hit by the brush.

### Warning




Just a warning that the plane trim option is not available for this brush.

### Height

The maximum distance above the plane for affected vertices. Increasing the height affects vertices farther above the plane.

### Depth

The maximum distance below the plane for affected vertices. Increasing the height affects vertices farther above the plane.

## Area Radius


The ratio between the brush radius and the radius that is going to be used to sample the area center.

### Size Pressure

Enables tablet pressure sensitivity for radius.

## Inversion Mode


### Invert Displacement

Displace the vertice away from the plane.

### Swap Height and Depth

Swaps the roles of height and depth.

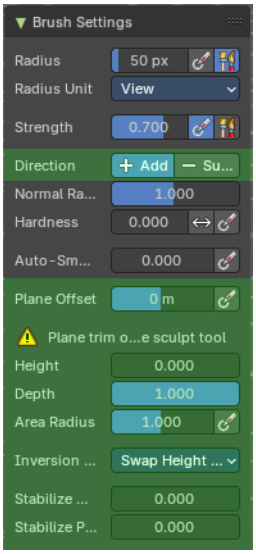
## Stabilize Normal

Stabilize the orientation of the brush plane.

## Stabilize Plane

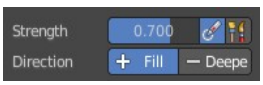
Stabilize the orientation of the brush plane.

# Brush Settings Panel - Flatten/Contrast brush




Contrast brushes for sculpting.

## Direction Fill / Deepen

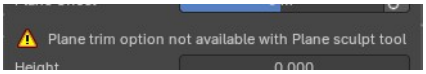



Add or subtract effect of the brush

## Plane Offset


Adjust the plane on which the brush acts towards or away from the objects surface.
Sculpting with the Clay brush happens in a plane defined by the view you are in and the first vertices hit by the brush.

## Warning




Just a warning that the plane trim option is not available for this brush.

## Height

The maximum distance above the plane for affected vertices. Increasing the height affects vertices farther above the plane.

## Depth

The maximum distance below the plane for affected vertices. Increasing the height affects vertices farther above the plane.

## Area Radius


The ratio between the brush radius and the radius that is going to be used to sample the area center.

### Size Pressure

Enables tablet pressure sensitivity for radius.

## Inversion Mode


### Invert Displacement

Displace the vertice away from the plane.

### Swap Height and Depth

Swaps the roles of height and depth.

## Stabilize Normal

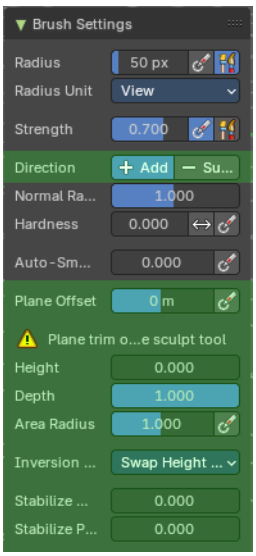
Stabilize the orientation of the brush plane.

## Stabilize Plane

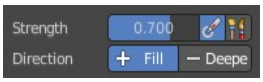
Stabilize the orientation of the brush plane.

# Brush Settings Panel - Plateau brush

Contrast brushes for sculpting.




## Direction Fill / Deepen

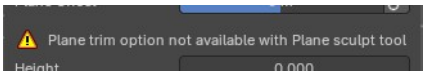



Add or subtract effect of the brush

## Plane Offset


Adjust the plane on which the brush acts towards or away from the objects surface. Sculpting with the Clay brush happens in a plane defined by the view you are in and the first vertices hit by the brush.

## Warning




Just a warning that the plane trim option is not available for this brush.

## Height

The maximum distance above the plane for affected vertices. Increasing the height affects vertices farther above the plane.

## Depth

The maximum distance below the plane for affected vertices. Increasing the height affects vertices farther above the plane.

## Area Radius


The ratio between the brush radius and the radius that is going to be used to sample the area center.

### Size Pressure

Enables tablet pressure sensitivity for radius.

## Inversion Mode


### Invert Displacement

Displace the vertice away from the plane.

### Swap Height and Depth

Swaps the roles of height and depth.

## Stabilize Normal

Stabilize the orientation of the brush plane.

## Stabilize Plane

Stabilize the orientation of the brush plane.

# Brush Settings Panel - Scrape Multi-plane  brush

Contrast brushes for sculpting.


## Plane Angle


Multiplane Scrape brush. The angles between the planes of the crease.


## Dynamic Mode

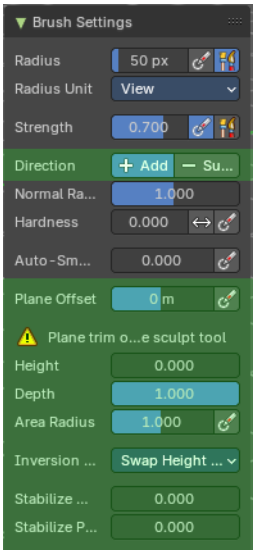
Multiplane Scrape brush. Fit the angles during the stroke to fit the angles under the cursor.

## Show Cursor Preview

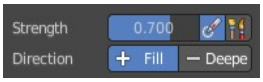

Multiplane Scrape brush. Preview the plane scrapes in the cursor during the stroke.

# Brush Settings Panel - Scrape/Fill brush

Contrast brushes for sculpting.




## Direction Fill / Deepen

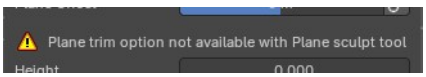



Add or subtract effect of the brush

## Plane Offset


Adjust the plane on which the brush acts towards or away from the objects surface. Sculpting with the Clay brush happens in a plane defined by the view you are in and the first vertices hit by the brush.

## Warning




Just a warning that the plane trim option is not available for this brush.

## Height

The maximum distance above the plane for affected vertices. Increasing the height affects vertices farther above the plane.

## Depth

The maximum distance below the plane for affected vertices. Increasing the height affects vertices farther above the plane.

## Area Radius


The ratio between the brush radius and the radius that is going to be used to sample the area center.

### Size Pressure

Enables tablet pressure sensitivity for radius.

## Inversion Mode


### Invert Displacement

Displace the vertice away from the plane.

### Swap Height and Depth

Swaps the roles of height and depth.

## Stabilize Normal

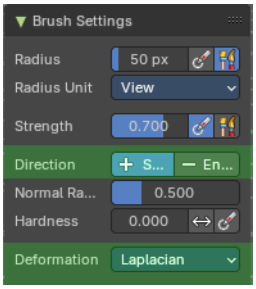
Stabilize the orientation of the brush plane.

## Stabilize Plane

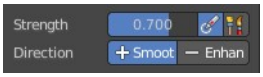
Stabilize the orientation of the brush plane.

# Brush Settings Panel - Smooth brush

Contrast brushes for sculpting.




## Direction Smooth / Enhance




Smooth or enhance the surface detail.

## Deformation


Smooth or enhance the surface detail.

### Laplacian

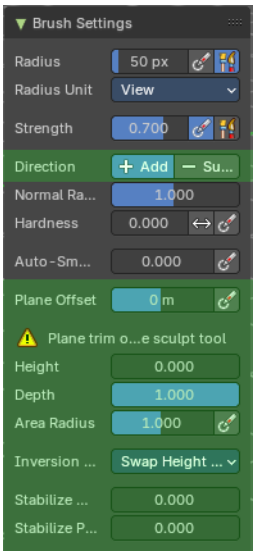
Smoothens the surface and the volume.

### Surface

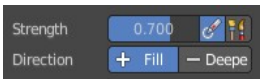
Smoothens the surface and preserves the volume.

# Brush Settings Panel - Trim brush

Contrast brushes for sculpting.




## Direction Fill / Deepen

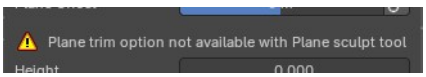



Add or subtract effect of the brush

## Plane Offset


Adjust the plane on which the brush acts towards or away from the objects surface. Sculpting with the Clay brush happens in a plane defined by the view you are in and the first vertices hit by the brush.

## Warning




Just a warning that the plane trim option is not available for this brush.

## Height

The maximum distance above the plane for affected vertices. Increasing the height affects vertices farther above the plane.

## Depth

The maximum distance below the plane for affected vertices. Increasing the height affects vertices farther above the plane.

## Area Radius


The ratio between the brush radius and the radius that is going to be used to sample the area center.

### Size Pressure

Enables tablet pressure sensitivity for radius.

## Inversion Mode


### Invert Displacement

Displace the vertice away from the plane.

### Swap Height and Depth

Swaps the roles of height and depth.

## Stabilize Normal

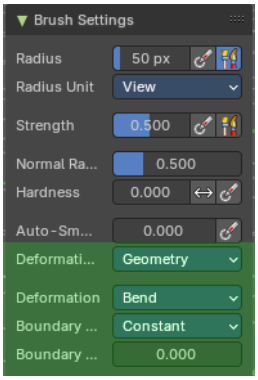
Stabilize the orientation of the brush plane.

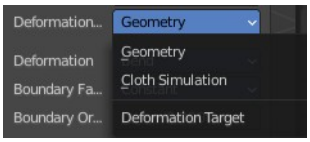
## Stabilize Plane

Stabilize the orientation of the brush plane.

# Brush Settings Panel - Boundary brush

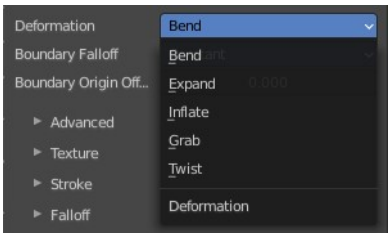
Transform brushes for sculpting.




## Deformation Target

The deformation type to use.

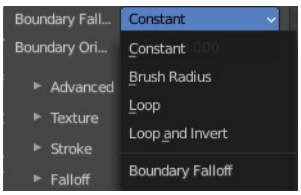



## Deformation

The deformation type to use.

## Boundary Falloff

Boundary brush option. The falloff type.

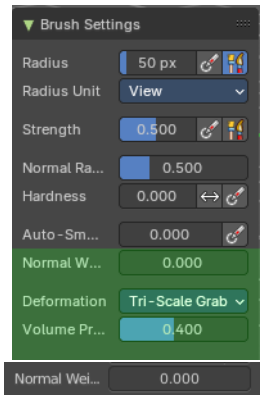



## Boundary Origin Offset

Boundary brush option.  Offset of the boundary origin in relation to the brush radius.


# Brush Settings Panel - Elastic Grab brush

Transform brushes for sculpting.

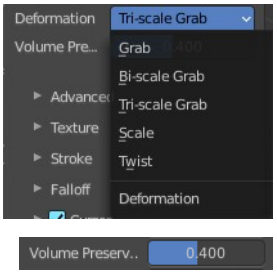



## Normal Weight

How much grab will pull vertexes out of surface during grab.

## Deformation

The deformation type to use.

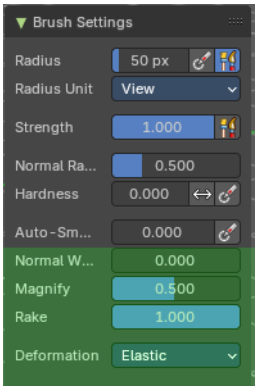



## Volume Preservation

Poisson ratio for elastic deform. The higher the value is the more the volume is kept. But leads to more bulging

# Brush Settings Panel - Elastic Snake Hook brush

Transform brushes for sculpting.



### Normal Weight


How much grab will pull vertexes out of surface during grab.

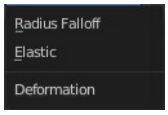
### Magnify


The Crease Brush Pinch Factor.

### Rake


How much grab will follow cursor rotation.

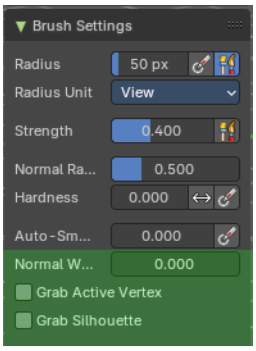
### Deformation




The deformation type.

## Brush Settings Panel - Grab brush

Transform brushes for sculpting.




### Normal Weight


How much grab will pull vertexes out of surface during grab.

### Grab active Vertex

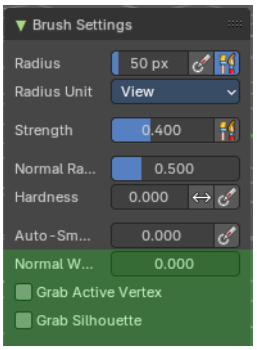

Apply the maximum grab strength to the active vertex instead of the cursor position.

### Grab Silhouette

Grab trying to automask the silhouette of the object.

# Brush Settings Panel - Grab 2D brush

Transform brushes for sculpting.





## Normal Weight

How much grab will pull vertexes out of surface during grab.


## Grab active Vertex

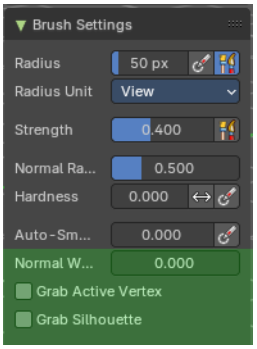
Apply the maximum grab strength to the active vertex instead of the cursor position.

## Grab Silhouette

Grab trying to automask the silhouette of the object.

# Brush Settings Panel - Grab Silhouette brush

Transform brushes for sculpting.




## Normal Weight


How much grab will pull vertexes out of surface during grab.

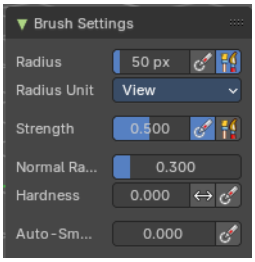
## Grab active Vertex


Apply the maximum grab strength to the active vertex instead of the cursor position.

## Grab Silhouette

Grab trying to automask the silhouette of the object.

# Brush Settings Panel - Nudge brush



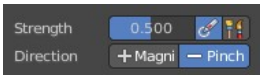

Transform brushes for sculpting.

Just standard settings.

# Brush Settings Panel - Pinch/Magnify brush

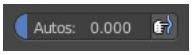

Transform brushes for sculpting.

## Direction Magnify / Pinch



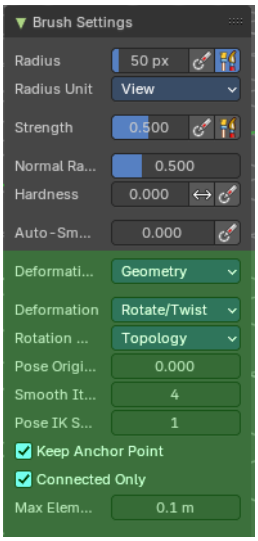

Add or subtract effect of the brush.

## Autosmooth



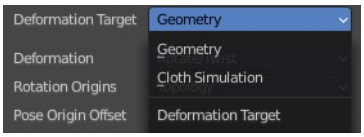

The autosmooth edit box allows you to adjust the amount of smoothing that gets automatically applied to each stroke. The button behind the edit box enables tablet pressure sensitivity for autosmooth.

# Brush Settings Panel - Pose brush




Transform brushes for sculpting.

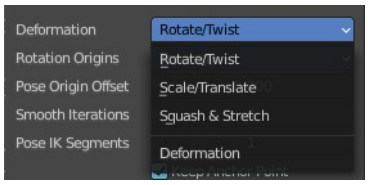
## Deformation Target




Pose Brush setting. How the deformation of the brush

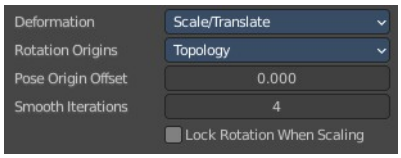
will affect the object.

## Deformation



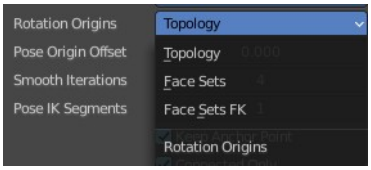

Pose Brush setting. Deformation type that is used in the brush.

### Lock Rotation when scaling



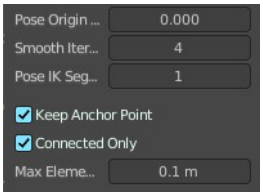

With Scale/Translate mode. Do not rotate the segment when using the scale deform mode.

## Rotation Origins




Pose Brush setting. Define the rotation origins.

## Pose Origin Offset




Pose Brush setting. Offset of the pose origin in relation to the brush radius.

## Smooth Iterations

Pose Brush setting. Smooth iterations applied after calculating the pose factor of each vertex.

## Pose IK Segments

Pose Brush setting. Number of segments of the IK chain that will deform the mesh.

## Keep Anchor Point

Pose Brush setting. Keep the position of the last segment in the IK chain fixed.

## Connected only

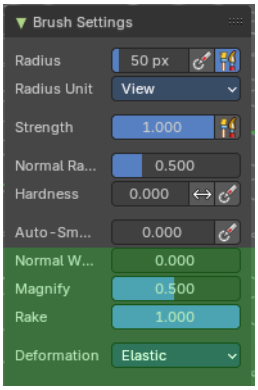
Affect only topology connected elements.

## Max Element Distance

Maximum distance to search for disconnected loose parts in the mesh.

# Brush Settings Panel - Pull brush

Transform brushes for sculpting.




## Normal Weight


How much grab will pull vertexes out of surface during grab.

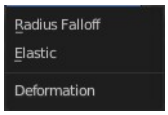
## Magnify


The Crease Brush Pinch Factor.

## Rake


How much grab will follow cursor rotation.

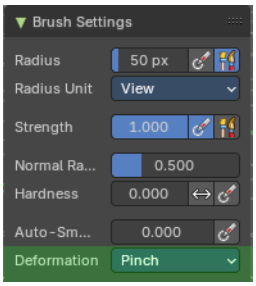
## Deformation



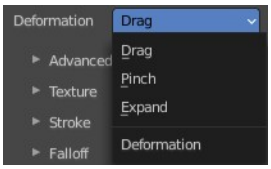

The deformation type.

# Brush Settings Panel - Relax Pinch brush

Transform brushes for sculpting.



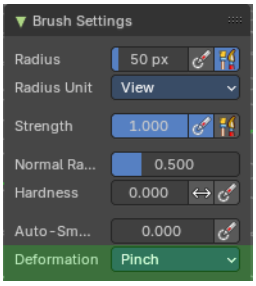

## Deformation




The deformation type to use.

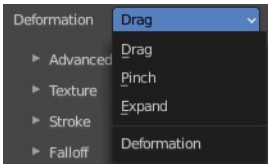
# Brush Settings Panel - Relax Slide brush

Transform brushes for sculpting.



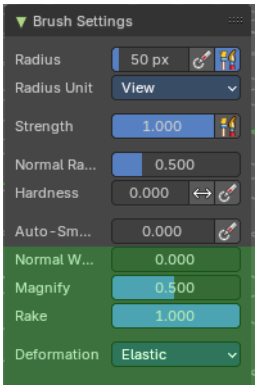

## Deformation

The deformation type to use.




# Brush Settings Panel - Snake Hook brush

Transform brushes for sculpting.




## Normal Weight


How much grab will pull vertexes out of surface during grab.

## Magnify


The Crease Brush Pinch Factor.

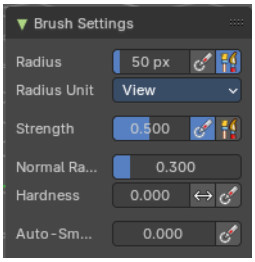
## Rake


How much grab will follow cursor rotation.

## Deformation


The deformation type.

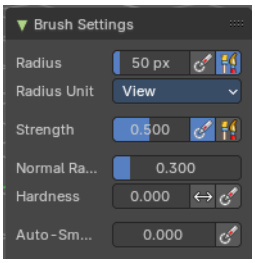
## Brush Settings Panel - Thumb brush




Transform brushes for sculpting.

Just standard settings.

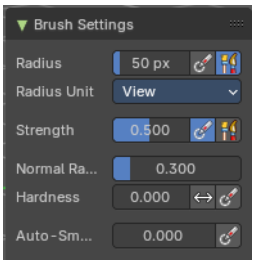
## Brush Settings Panel - Twist brush




Transform brushes for sculpting.

Just standard settings.

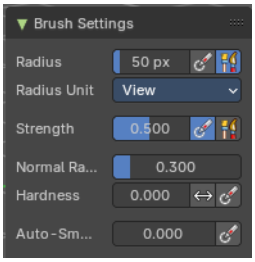
## Brush Settings Panel - Density brush




Utility brushes for sculpting.

Just standard settings.

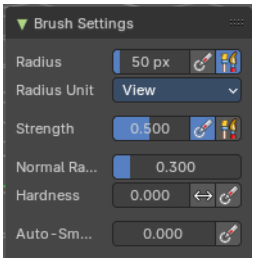
## Brush Settings Panel - Erase multires displacement brush




Utility brushes for sculpting.

Just standard settings.

## Brush Settings Panel - Draw Face Sets brush



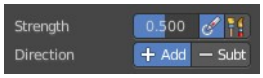

Utility brushes for sculpting.

Just standard settings.

# Brush Settings Panel - Mask brush

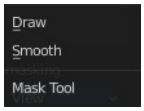
Utility brushes for sculpting.


## Direction Add / Subtract




Add means the stroke adds to the geometry. Subtract means the stroke subtracts from the geometry.

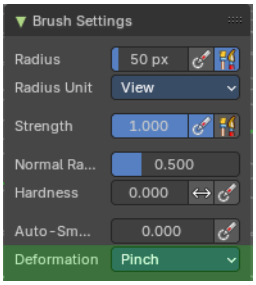
## Mask Tool


Draw or smooth the current mask.

# Brush Settings Panel - Smear Multires Displacement brush

Utility brushes for sculpting.




## Deformation


The deformation method for the smear.

# Brush Settings Panel - Airbrush brush

The airbrush brush allows you to vertex paint onto the sculpt mesh.


## Primary / Secondary color

Set the primary and secondary color for painting.

### Color picker


Clicking at one of the colors will reveal a color wheel where you can adjust your color.

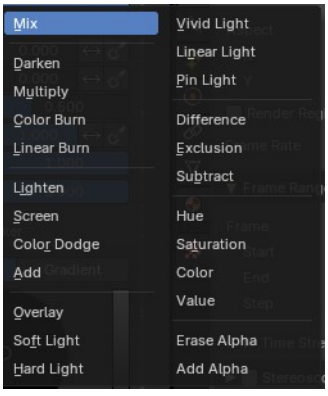
### Swap Colors

Swaps the primary color with the secondary color.

### Use Unified Color

The colors are shared across the brushes.

## Blend Mode




The blend mode of the brush. How the color is applied.

## Flow

Amount of color that is applied per stroke.

### Invert pressure for flow

Invert the modulation of pressure.

### Use pressure for flow

Use tablet pressure.

## Wet Mix

Amount of color that is picked from the surface and mixed into the brush color.

### Invert pressure for Wet Mix

Invert the modulation of pressure.

### Use pressure for Wet Mix

Use tablet pressure.

## Wet Persistence

Amount of wet paint that stays in the brush after applying paint at the surface.

### Invert pressure for Wet Persistence

Invert the modulation of pressure.

### Use pressure for Wet Persistence

Use tablet pressure.

## Wet Paint Radius

Ratio between the brush ardius and the radius that is going to be used to sample the color to blend in wet paint.

## Density

How dense the stroke is.

## Tip roundness

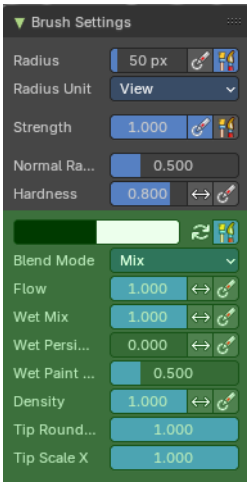
Roundness of the brush tip.

## Tip Scale X

Scale of the tip in x direction.

# Brush Settings Panel - Blend Hard brush

The airbrush brush allows you to vertex paint onto the sculpt mesh.




## Primary / Secondary color

Set the primary and secondary color for painting.

### Color picker

Clicking at one of the colors will reveal a color wheel where you can adjust your color.

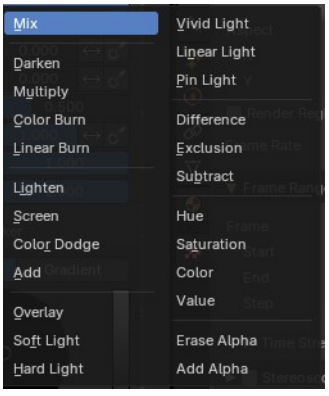
### Swap Colors

Swaps the primary color with the secondary color.

### Use Unified Color

The colors are shared across the brushes.

## Blend Mode




The blend mode of the brush. How the color is applied.

## Flow

Amount of color that is applied per stroke.

### Invert pressure for flow

Invert the modulation of pressure.

### Use pressure for flow

Use tablet pressure.

## Wet Mix

Amount of color that is picked from the surface and mixed into the brush color.

### Invert pressure for Wet Mix

Invert the modulation of pressure.

### Use pressure for Wet Mix

Use tablet pressure.

## Wet Persistence

Amount of wet paint that stays in the brush after applying paint at the surface.

### Invert pressure for Wet Persistence

Invert the modulation of pressure.

### Use pressure for Wet Persistence

Use tablet pressure.

## Wet Paint Radius

Ratio between the brush ardius and the radius that is going to be used to sample the color to blend in wet paint.

## Density

How dense the stroke is.

## Tip roundness

Roundness of the brush tip.

## Tip Scale X

# Brush Settings Panel - Blend Soft brush

The airbrush brush allows you to vertex paint onto the sculpt mesh.


## Primary / Secondary color

Set the primary and secondary color for painting.

### Color picker

Clicking at one of the colors will reveal a color wheel where you can adjust your color.

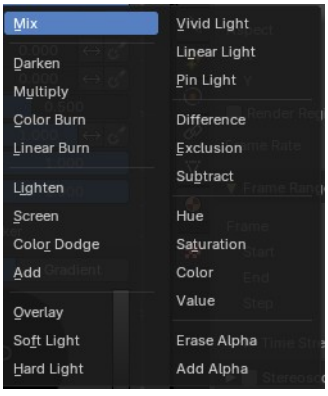
### Swap Colors

Swaps the primary color with the secondary color.

### Use Unified Color

The colors are shared across the brushes.

## Blend Mode




The blend mode of the brush. How the color is applied.

## Flow

Amount of color that is applied per stroke.

### Invert pressure for flow

Invert the modulation of pressure.

### Use pressure for flow

Use tablet pressure.

## Wet Mix

Amount of color that is picked from the surface and mixed into the brush color.

### Invert pressure for Wet Mix

Invert the modulation of pressure.

### Use pressure for Wet Mix

Use tablet pressure.

## Wet Persistence

Amount of wet paint that stays in the brush after applying paint at the surface.

### Invert pressure for Wet Persistence

Invert the modulation of pressure.

### Use pressure for Wet Persistence

Use tablet pressure.

## Wet Paint Radius

Ratio between the brush ardius and the radius that is going to be used to sample the color to blend in wet paint.

## Density

How dense the stroke is.

## Tip roundness

Roundness of the brush tip.

## Tip Scale X

The scale of the tip in X direction.

# Brush Settings Panel - Blend Square brush

The airbrush brush allows you to vertex paint onto the sculpt mesh.


## Primary / Secondary color

Set the primary and secondary color for painting.

### Color picker

Clicking at one of the colors will reveal a color wheel where you can adjust your color.

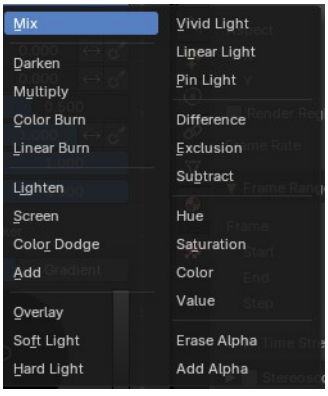
### Swap Colors

Swaps the primary color with the secondary color.

### Use Unified Color

The colors are shared across the brushes.

## Blend Mode




The blend mode of the brush. How the color is applied.

## Flow

Amount of color that is applied per stroke.

### Invert pressure for flow

Invert the modulation of pressure.

### Use pressure for flow

Use tablet pressure.

## Wet Mix

Amount of color that is picked from the surface and mixed into the brush color.

### Invert pressure for Wet Mix

Invert the modulation of pressure.

### Use pressure for Wet Mix

Use tablet pressure.

## Wet Persistence

Amount of wet paint that stays in the brush after applying paint at the surface.

### Invert pressure for Wet Persistence

Invert the modulation of pressure.

### Use pressure for Wet Persistence

Use tablet pressure.

## Wet Paint Radius

Ratio between the brush ardius and the radius that is going to be used to sample the color to blend in wet paint.

## Density

How dense the stroke is.

## Tip roundness

Roundness of the brush tip.

## Tip Scale X

The scale of the tip in X direction.

# Brush Settings Panel - Paint Blend brush


The airbrush brush allows you to vertex paint onto the sculpt mesh.

## Primary / Secondary color

Set the primary and secondary color for painting.

### Color picker

Clicking at one of the colors will reveal a color wheel where you can adjust your color.

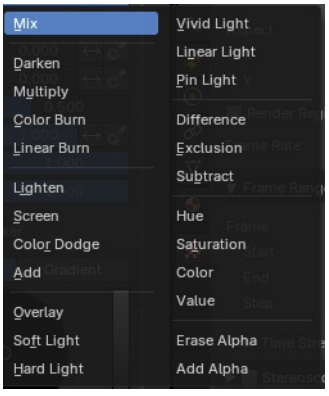
### Swap Colors

Swaps the primary color with the secondary color.

### Use Unified Color

The colors are shared across the brushes.

## Blend Mode




The blend mode of the brush. How the color is applied.

## Flow

Amount of color that is applied per stroke.

### Invert pressure for flow

Invert the modulation of pressure.

### Use pressure for flow

Use tablet pressure.

## Wet Mix

Amount of color that is picked from the surface and mixed into the brush color.

### Invert pressure for Wet Mix

Invert the modulation of pressure.

### Use pressure for Wet Mix

Use tablet pressure.

## Wet Persistence

Amount of wet paint that stays in the brush after applying paint at the surface.

### Invert pressure for Wet Persistence

Invert the modulation of pressure.

### Use pressure for Wet Persistence

Use tablet pressure.

## Wet Paint Radius

Ratio between the brush ardius and the radius that is going to be used to sample the color to blend in wet paint.

## Density

How dense the stroke is.

## Tip roundness

Roundness of the brush tip.

## Tip Scale X

The scale of the tip in X direction.

# Brush Settings Panel - Paint Hard brush

The airbrush brush allows you to vertex paint onto the sculpt mesh.


## Primary / Secondary color

Set the primary and secondary color for painting.

### Color picker

Clicking at one of the colors will reveal a color wheel where you can adjust your color.

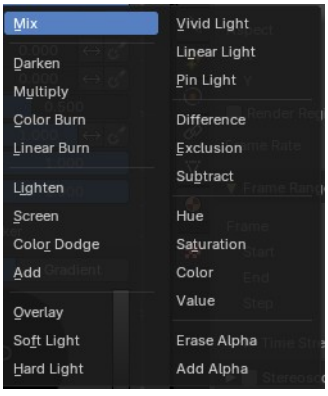
### Swap Colors

Swaps the primary color with the secondary color.

### Use Unified Color

The colors are shared across the brushes.

## Blend Mode




The blend mode of the brush. How the color is applied.

## Flow

Amount of color that is applied per stroke.

### Invert pressure for flow

Invert the modulation of pressure.

### Use pressure for flow

Use tablet pressure.

## Wet Mix

Amount of color that is picked from the surface and mixed into the brush color.

### Invert pressure for Wet Mix

Invert the modulation of pressure.

### Use pressure for Wet Mix

Use tablet pressure.

## Wet Persistence

Amount of wet paint that stays in the brush after applying paint at the surface.

### Invert pressure for Wet Persistence

Invert the modulation of pressure.

### Use pressure for Wet Persistence

Use tablet pressure.

## Wet Paint Radius

Ratio between the brush ardius and the radius that is going to be used to sample the color to blend in wet paint.

## Density

How dense the stroke is.

## Tip roundness

Roundness of the brush tip.

## Tip Scale X

The scale of the tip in X direction.

# Brush Settings Panel - Paint Hard Pressure brush

The airbrush brush allows you to vertex paint onto the sculpt mesh.


## Primary / Secondary color

Set the primary and secondary color for painting.

### Color picker

Clicking at one of the colors will reveal a color wheel where you can adjust your color.

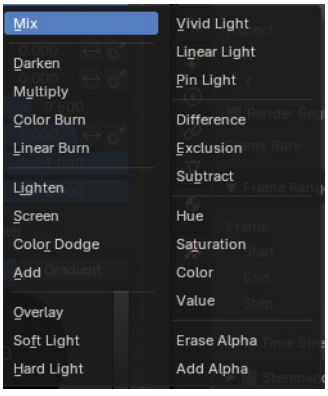
### Swap Colors

Swaps the primary color with the secondary color.

### Use Unified Color

The colors are shared across the brushes.

## Blend Mode




The blend mode of the brush. How the color is applied.

## Flow

Amount of color that is applied per stroke.

### Invert pressure for flow

Invert the modulation of pressure.

### Use pressure for flow

Use tablet pressure.

## Wet Mix

Amount of color that is picked from the surface and mixed into the brush color.

### Invert pressure for Wet Mix

Invert the modulation of pressure.

### Use pressure for Wet Mix

Use tablet pressure.

## Wet Persistence

Amount of wet paint that stays in the brush after applying paint at the surface.

### Invert pressure for Wet Persistence

Invert the modulation of pressure.

### Use pressure for Wet Persistence

Use tablet pressure.

## Wet Paint Radius

Ratio between the brush ardius and the radius that is going to be used to sample the color to blend in wet paint.

## Density

How dense the stroke is.

## Tip roundness

Roundness of the brush tip.

## Tip Scale X

The scale of the tip in X direction.

# Brush Settings Panel - Paint Soft brush

The airbrush brush allows you to vertex paint onto the sculpt mesh.


## Primary / Secondary color

Set the primary and secondary color for painting.

### Color picker

Clicking at one of the colors will reveal a color wheel where you can adjust your color.

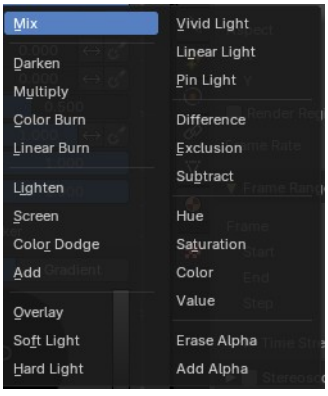
### Swap Colors

Swaps the primary color with the secondary color.

### Use Unified Color

The colors are shared across the brushes.

## Blend Mode




The blend mode of the brush. How the color is applied.

## Flow

Amount of color that is applied per stroke.

### Invert pressure for flow

Invert the modulation of pressure.

### Use pressure for flow

Use tablet pressure.

## Wet Mix

Amount of color that is picked from the surface and mixed into the brush color.

### Invert pressure for Wet Mix

Invert the modulation of pressure.

### Use pressure for Wet Mix

Use tablet pressure.

## Wet Persistence

Amount of wet paint that stays in the brush after applying paint at the surface.

### Invert pressure for Wet Persistence

Invert the modulation of pressure.

### Use pressure for Wet Persistence

Use tablet pressure.

## Wet Paint Radius

Ratio between the brush ardius and the radius that is going to be used to sample the color to blend in wet paint.

## Density

How dense the stroke is.

## Tip roundness

Roundness of the brush tip.

## Tip Scale X

The scale of the tip in X direction.

# Brush Settings Panel - Paint Soft Pressure brush

The airbrush brush allows you to vertex paint onto the sculpt mesh.


## Primary / Secondary color

Set the primary and secondary color for painting.

### Color picker


Clicking at one of the colors will reveal a color wheel where you can adjust your color.

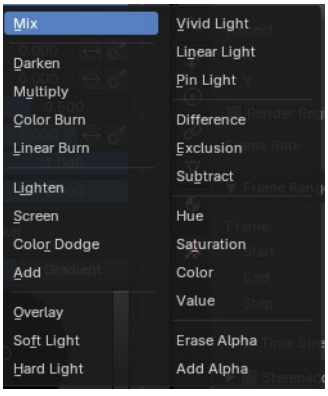
### Swap Colors

Swaps the primary color with the secondary color.

### Use Unified Color

The colors are shared across the brushes.

## Blend Mode




The blend mode of the brush. How the color is applied.

## Flow

Amount of color that is applied per stroke.

### Invert pressure for flow

Invert the modulation of pressure.

### Use pressure for flow

Use tablet pressure.

## Wet Mix

Amount of color that is picked from the surface and mixed into the brush color.

### Invert pressure for Wet Mix

Invert the modulation of pressure.

### Use pressure for Wet Mix

Use tablet pressure.

## Wet Persistence

Amount of wet paint that stays in the brush after applying paint at the surface.

### Invert pressure for Wet Persistence

Invert the modulation of pressure.

### Use pressure for Wet Persistence

Use tablet pressure.

## Wet Paint Radius

Ratio between the brush ardius and the radius that is going to be used to sample the color to blend in wet paint.

## Density

How dense the stroke is.

## Tip roundness

Roundness of the brush tip.

## Tip Scale X

The scale of the tip in X direction.

# Brush Settings Panel - Paint Square brush

The airbrush brush allows you to vertex paint onto the sculpt mesh.


## Primary / Secondary color

Set the primary and secondary color for painting.

### Color picker

Clicking at one of the colors will reveal a color wheel where you can adjust your color.

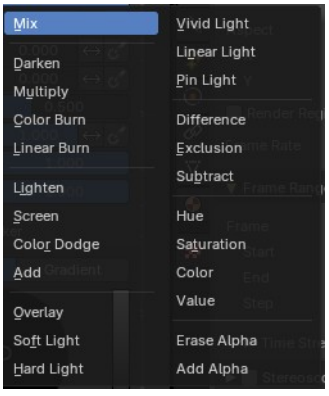
### Swap Colors

Swaps the primary color with the secondary color.

### Use Unified Color

The colors are shared across the brushes.

## Blend Mode




The blend mode of the brush. How the color is applied.

## Flow

Amount of color that is applied per stroke.

### Invert pressure for flow

Invert the modulation of pressure.

### Use pressure for flow

Use tablet pressure.

## Wet Mix

Amount of color that is picked from the surface and mixed into the brush color.

### Invert pressure for Wet Mix

Invert the modulation of pressure.

### Use pressure for Wet Mix

Use tablet pressure.

## Wet Persistence

Amount of wet paint that stays in the brush after applying paint at the surface.

### Invert pressure for Wet Persistence

Invert the modulation of pressure.

### Use pressure for Wet Persistence

Use tablet pressure.

## Wet Paint Radius

Ratio between the brush ardius and the radius that is going to be used to sample the color to blend in wet paint.

## Density

How dense the stroke is.

## Tip roundness

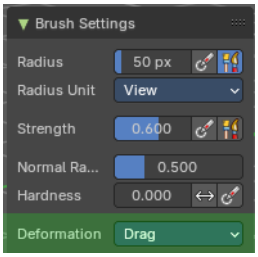
Roundness of the brush tip.

## Tip Scale X

The scale of the tip in X direction.

# Brush Settings Panel - Sharpen brush

The airbrush brush allows you to vertex paint onto the sculpt mesh.

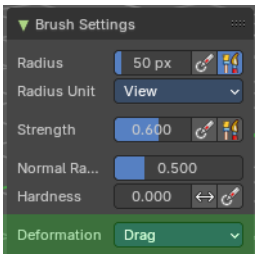



## Deformation

The deformation method for the smear.


# Brush Settings Panel - Smear

The airbrush brush allows you to vertex paint onto the sculpt mesh.

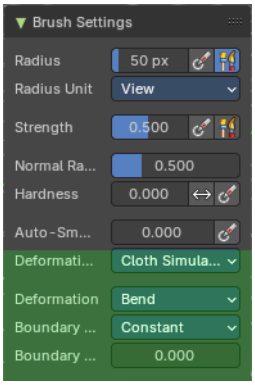



## Deformation

How to deform the smearing.

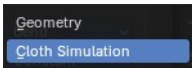

# Brush Settings Panel - Bend Boundary Cloth brush

Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.



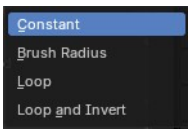

## Deformation target

What data to affect. The simulation or the geometry.



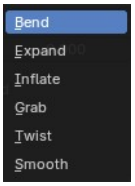
## Deformation

What kind of deformation to apply.




## Boundary Falloff

The boundary falloff method.

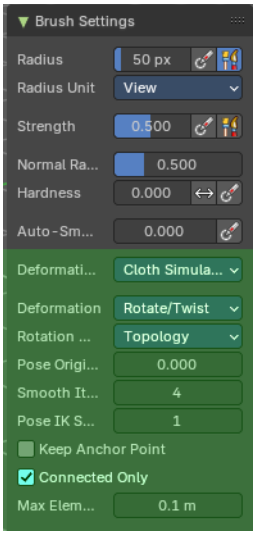



## Boundary Origin Offset

Offset of the boundary origin in relation to the brush radius.

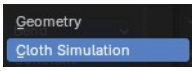
# Brush Settings Panel - Bend/Twist Cloth brush

Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.




## Deformation target

What data to affect. The simulation or the geometry.




## Deformation

What kind of deformation to apply.


## Rotation Origins

The point to bend or twist around.


## Pose Origin Offset

Offset of the boundary origin in relation to the brush radius.

## Smooth iterations

Number of smoothing steps after calculating the pose factor of each vertex.

## Pose IK Segments

Numer of segments of the inverse kinematics chjain that will deform the mesh.

## Keep Anchor Point

Keep the position of the last segment in the ik chain fixed.

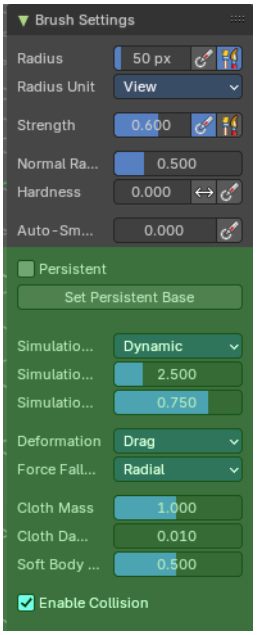
## Connected only

Affect only topological connected geometry.

## Max Element Distance

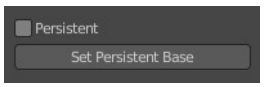
Maximum distance to search for disconnected loose parts in the mesh

# Brush Settings Panel - Drag Cloth brush




Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.

## Persistent

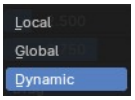



Layer brush setting. Sculpt on a persistent layer of the mesh.

### Set Persistent Base

This button resets the base so that you can add another layer.

## Simulation Area




What data to affect. The simulation or the geometry.

## Simulation Limit

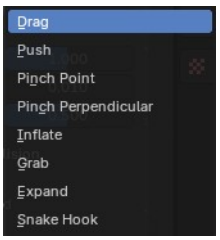
Factor to limit the cloth simulation effects.

## Simulation Falloff

Area to apply the deformation falloff to the effects of the simulation.

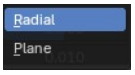
## Deformation

What kind of deformation.




## Force Falloff

Brush shape to apply force.




## Cloth Mass

Mass of each simulation particle.

## Cloth Damping

How much the applied forces are propagated through the cloth.

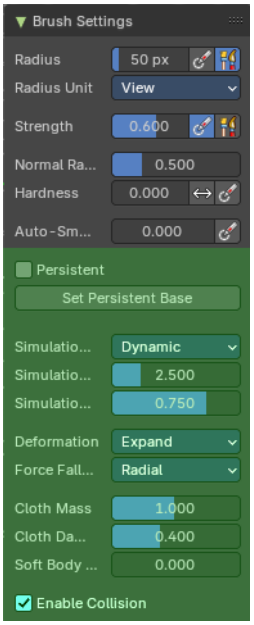
## Soft Body Plasticity

How much the cloth preserves the original shap, acting as a softbody.

## Enable Collision

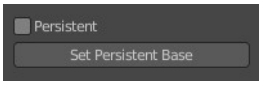
Enable the collision with objects during the simulation.

# Brush Settings Panel - Expand/Contract Cloth brush




Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.

## Persistent

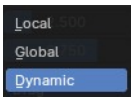



Layer brush setting. Sculpt on a persistent layer of the mesh.

### Set Persistent Base

This button resets the base so that you can add another layer.

## Simulation Area




What data to affect. The simulation or the geometry.

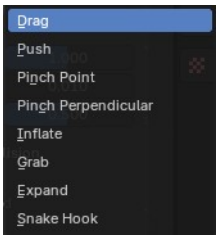
## Simulation Limit

Factor to limit the cloth simulation effects.

## Simulation Falloff

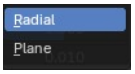
Area to apply the deformation falloff to the effects of the simulation.

## Deformation




What kind of deformation.

## Force Falloff




Brush shape to apply force.

### Cloth Mass

Mass of each simulation particle.

### Cloth Damping

How much the applied forces are propagated through the cloth.

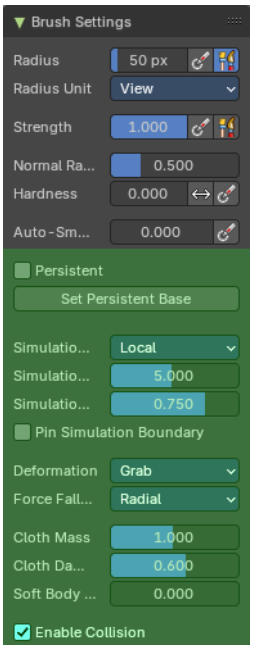
### Soft Body Plasticity

How much the cloth preserves the original shap, acting as a softbody.

### Enable Collision

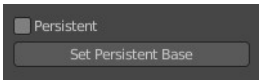
Enable the collision with objects during the simulation.

## Brush Settings Panel - Grab Cloth brush




Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.

### Persistent

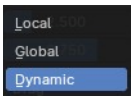



Layer brush setting. Sculpt on a persistent layer of the mesh.

#### Set Persistent Base

This button resets the base so that you can add another layer.

### Simulation Area




What data to affect. The simulation or the geometry.

## Simulation Limit

Factor to limit the cloth simulation effects.

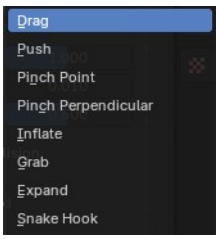
## Simulation Falloff

Area to apply the deformation falloff to the effects of the simulation.

## Pin Simulation Boundary

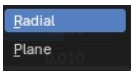
Lock the position of the vertices in the simulation falloff area. This can help to avoid artifacts, and creates a softer transition with unaffected areas.

## Deformation




What kind of deformation.

## Force Falloff




Brush shape to apply force.

## Cloth Mass

Mass of each simulation particle.

## Cloth Damping

How much the applied forces are propagated through the cloth.

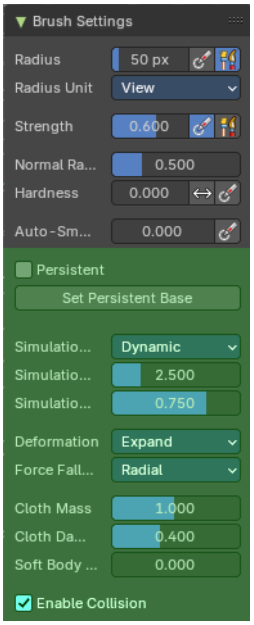
## Soft Body Plasticity

How much the cloth preserves the original shap, acting as a softbody.

## Enable Collision

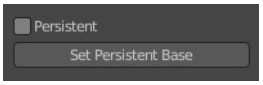
Enable the collision with objects during the simulation.

# Brush Settings Panel - Grab Planar Cloth brush




Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.

## Persistent

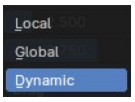



Layer brush setting. Sculpt on a persistent layer of the mesh.

### Set Persistent Base

This button resets the base so that you can add another layer.

## Simulation Area




What data to affect. The simulation or the geometry.

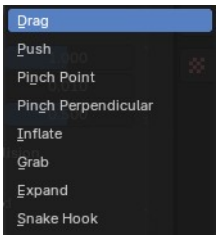
## Simulation Limit

Factor to limit the cloth simulation effects.

## Simulation Falloff

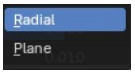
Area to apply the deformation falloff to the effects of the simulation.

## Deformation




What kind of deformation.

## Force Falloff




Brush shape to apply force.

## Cloth Mass

Mass of each simulation particle.

## Cloth Damping

How much the applied forces are propagated through the cloth.

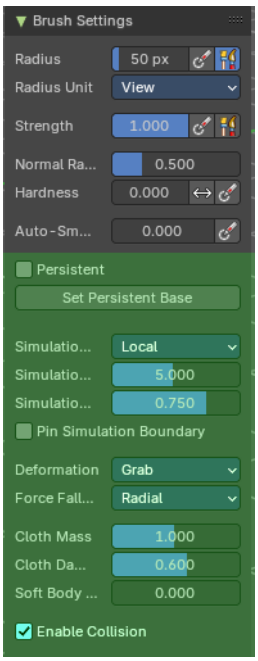
## Soft Body Plasticity

How much the cloth preserves the original shap, acting as a softbody.

## Enable Collision

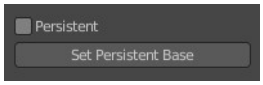
Enable the collision with objects during the simulation.

# Brush Settings Panel - Grab Random Cloth brush




Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.

## Persistent

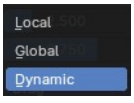



Layer brush setting. Sculpt on a persistent layer of the mesh.

### Set Persistent Base

This button resets the base so that you can add another layer.

## Simulation Area




What data to affect. The simulation or the geometry.

## Simulation Limit

Factor to limit the cloth simulation effects.

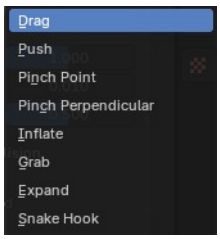
## Simulation Falloff

Area to apply the deformation falloff to the effects of the simulation.

## Pin Simulation Boundary

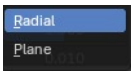
Lock the position of the vertices in the simulation falloff area. This can help to avoid artifacts, and creates a softer transition with unaffected areas.

## Deformation




What kind of deformation.

## Force Falloff




Brush shape to apply force.

## Cloth Mass

Mass of each simulation particle.

## Cloth Damping

How much the applied forces are propagated through the cloth.

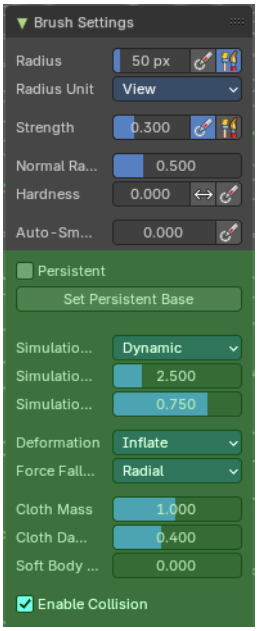
## Soft Body Plasticity

How much the cloth preserves the original shap, acting as a softbody.

## Enable Collision

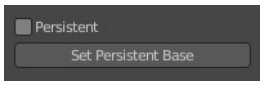
Enable the collision with objects during the simulation.

# Brush Settings Panel - Inflate Cloth brush




Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.

## Persistent

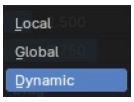



Layer brush setting. Sculpt on a persistent layer of the mesh.

### Set Persistent Base

This button resets the base so that you can add another layer.

## Simulation Area




What data to affect. The simulation or the geometry.

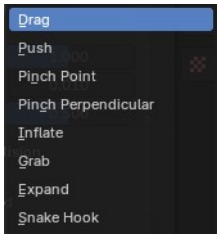
## Simulation Limit

Factor to limit the cloth simulation effects.

## Simulation Falloff

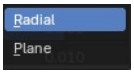
Area to apply the deformation falloff to the effects of the simulation.

## Deformation




What kind of deformation.

## Force Falloff




Brush shape to apply force.

### Cloth Mass

Mass of each simulation particle.

### Cloth Damping

How much the applied forces are propagated through the cloth.

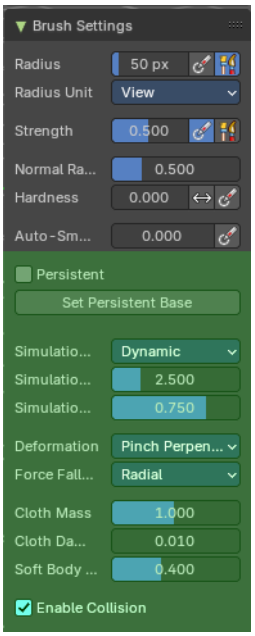
### Soft Body Plasticity

How much the cloth preserves the original shap, acting as a softbody.

### Enable Collision

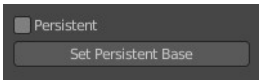
Enable the collision with objects during the simulation.

## Brush Settings Panel - Pinch Folds Cloth brush




Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.

### Persistent

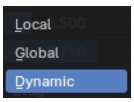



Layer brush setting. Sculpt on a persistent layer of the mesh.

#### Set Persistent Base

This button resets the base so that you can add another layer.

## Simulation Area




What data to affect. The simulation or the geometry.

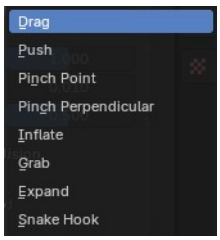
## Simulation Limit

Factor to limit the cloth simulation effects.

## Simulation Falloff

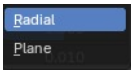
Area to apply the deformation falloff to the effects of the simulation.

## Deformation




What kind of deformation.

## Force Falloff




Brush shape to apply force.

## Cloth Mass

Mass of each simulation particle.

## Cloth Damping

How much the applied forces are propagated through the cloth.

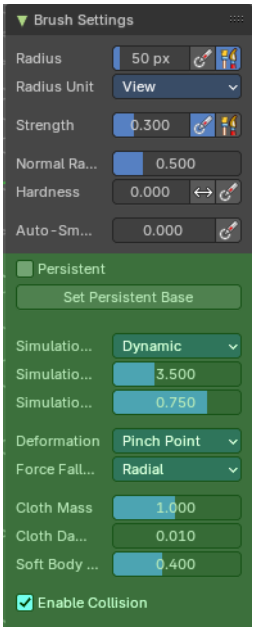
## Soft Body Plasticity

How much the cloth preserves the original shap, acting as a softbody.

## Enable Collision

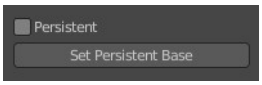
Enable the collision with objects during the simulation.

# Brush Settings Panel - Pinch Point Cloth brush




Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.

## Persistent

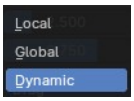



Layer brush setting. Sculpt on a persistent layer of the mesh.

### Set Persistent Base

This button resets the base so that you can add another layer.

## Simulation Area




What data to affect. The simulation or the geometry.

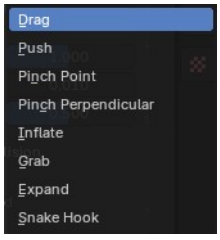
## Simulation Limit

Factor to limit the cloth simulation effects.

## Simulation Falloff

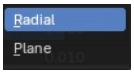
Area to apply the deformation falloff to the effects of the simulation.

## Deformation




What kind of deformation.

## Force Falloff




Brush shape to apply force.

## Cloth Mass

Mass of each simulation particle.

## Cloth Damping

How much the applied forces are propagated through the cloth.

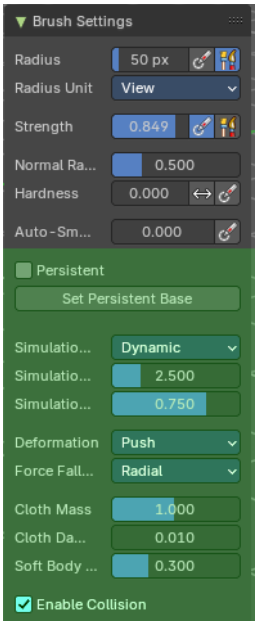
## Soft Body Plasticity

How much the cloth preserves the original shap, acting as a softbody.

## Enable Collision

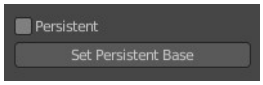
Enable the collision with objects during the simulation.

# Brush Settings Panel - Push Cloth brush




Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.

## Persistent

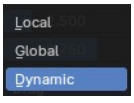



Layer brush setting. Sculpt on a persistent layer of the mesh.

### Set Persistent Base

This button resets the base so that you can add another layer.

## Simulation Area




What data to affect. The simulation or the geometry.

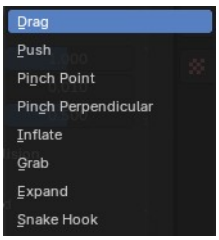
## Simulation Limit

Factor to limit the cloth simulation effects.

## Simulation Falloff

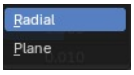
Area to apply the deformation falloff to the effects of the simulation.

## Deformation




What kind of deformation.

## Force Falloff




Brush shape to apply force.

## Cloth Mass

Mass of each simulation particle.

## Cloth Damping

How much the applied forces are propagated through the cloth.

## Soft Body Plasticity

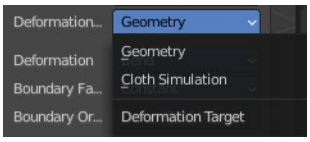
How much the cloth preserves the original shap, acting as a softbody.

## Enable Collision

Enable the collision with objects during the simulation.

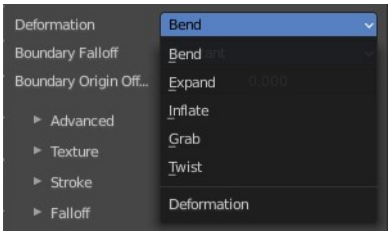
# Brush Settings Panel - Stretch/Move Cloth brush


Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.




## Deformation Target

The deformation type to use.




## Deformation

The deformation type to use.


## Rotation Origins

The point to bend or twist around.

## Pose Origin Offset

Offset of the boundary origin in relation to the brush radius.

## Smooth iterations

Number of smoothing steps after calculating the pose factor of each vertex.

## Lock Rotation When Scaling

Lock the rotation when scaling.

## Keep Anchor Point

Keep the position of the last segment in the ik chain fixed.

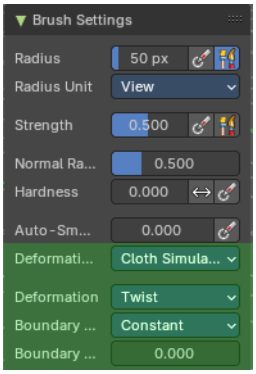
## Connected only

Affect only topological connected geometry.

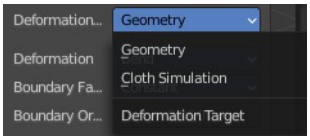
## Max Element Distance

Maximum distance to search for disconnected loose parts in the mesh.

# Brush Settings Panel - Twist Boundary Cloth brush

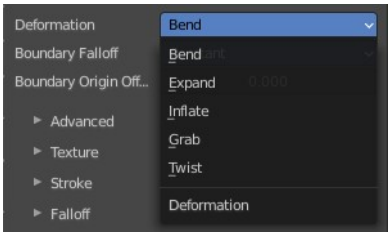



Simulation brushes allows you to sculpt and alter simulation data. To refine cloth simulations for example.



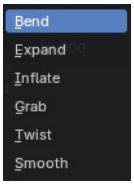

## Deformation Target

The deformation type to use.




## Deformation

The deformation type to use.



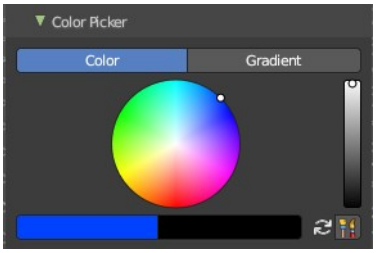

## Boundary Falloff

The boundary falloff method.

## Boundary Origin Offset

Offset of the boundary origin in relation to the brush radius.

# Brush Settings Panel - Color Picker Sub panel




Paint brushes only.  This sub panel is for the vertex painting paint tool. Define the primary and secondary color for the paint by a color picker and gradient dialog.

## Mode

### Color / Gradient

Choose the color mode.

### Color picker mode

#### Colorpicker

The color wheel of the color picker.

#### *Primary / Secondary color*

Set the primary and secondary color for painting.

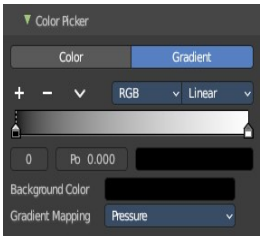
#### *Swap colors*

Swap the primary with the secondary color.

#### *Use Unified Color*

Use the same color over all editors and modes.

### Gradient mode




Allows you to paint gradients.

#### *Color Ramp*

Color Ramps enables the user to specify a range of colors based on color stops. The color between the color stops gets interpolated.

#### Controls

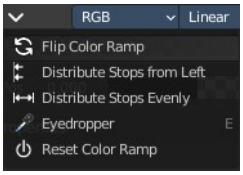
**+**

Add a stop to your color ramp. The stop will be added after the selected one, in the middle to the next one.

**-**

Deletes the selected color stop from the list.

#### Tools menu




##### *Flip Color Ramp*

Flips the gradient, inverting the values of the color ramp.

#### *Distribute Stops from Left*

Rearrange the stops so that every step has the same space to the right.

#### *Distribute Stops Evenly*

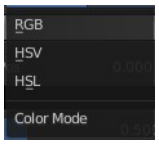
Space between all neighboring stops becomes equal.

#### *Eyedropper (pipette icon) E*

An Eyedropper to sample a color or gradient from the interface to be used in the color ramp.

#### *Reset Color Ramp*

Resets the color ramp to its default state.




### Color Mode

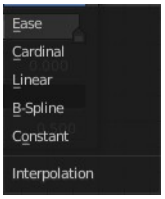
#### *RGB*

Blends color by mixing each color channel and combining.

#### *HSV/HSL*

Blends colors by first converting to HSV or HSL, mixing, then combining again. This has the advantage of maintaining saturation between different hues, where RGB would de-saturate, this allows for a richer gradient.

### Interpolation




#### *Ease*

Uses an Ease Interpolation for the color stops.

#### *Cardinal*

Uses a Cardinal Interpolation for the color stops.

#### *Linear*

Uses a Linear Interpolation for the color stops.

#### *B-Spline*

Uses a B-Spline Interpolation for the color stops.

#### *Constant*

Uses a Constant Interpolation for the color stops.

### Color Ramp

The color band. A click at one of the color stops makes it the active one. You can move the color stops by clicking at them and dragging them around.

### Active Color Stop elements

Adjust the active color stop.


#### *Choose active color stop*

Choose the color stop by index.

### *Pos*


The position of the active color stop. The range goes from 0.000 to 1.000

### *Color*

The color of the active color stop. Click at it to change the color.

---

### *Background Color*

The background color.


### *Gradient Mapping*

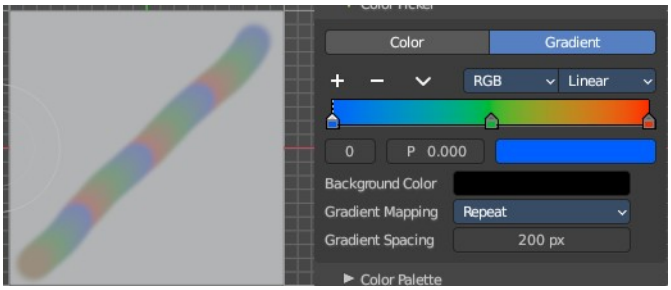
How to paint the gradient.

#### Pressure

Paint the gradient by tablet pressure. Obviously you need a tablet for this.

#### Repeat

Paint the gradient by repeating the colors.

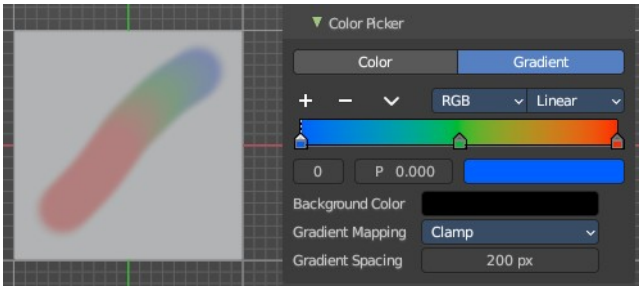



#### *Gradient Spacing*

The spacing between the colors in screen pixels. You need to have a gradient spacing higher than 0.

#### Clamp

Paint the gradient from first color to last color, and then sticks with the last color. You need to have a gradient spacing higher than 0.

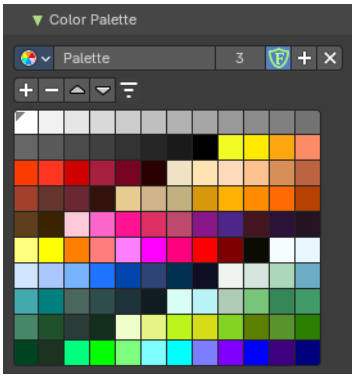



#### *Gradient Spacing*

The spacing between the colors in screen pixels.

## Brush Settings Panel - Color Palette Sub panel

Paint brushes only. A color palette. There is a premade palette, and you can create your own palette of colors.




This sub panel just shows with the paint tool. Define a color palette to use for vertex painting.



Create a color palette for later reuse.

First create a new palette by clicking at New. Then adjust the color in the color picker. And then click at the add button to add this color to the palette.

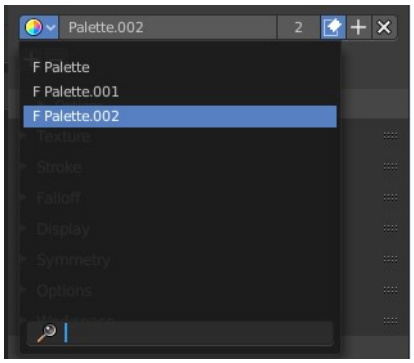
To set the color picker to a palette color simply click at this palette color.

To remove a color from the palette, choose it, then click at the remove button. The active palette color that gets removed is the one with the triangle at it.

The color palette cannot be saved externally. It is part of the current blend file. You can however append color palettes from other blend files.

The currently active color is the one with the triangle at it.

The elements are explained from left to right.




## Palette browser

The button at the left opens a dropdown list. Choose between your palettes.

## Edit Box

The name of the currently active palette. You can also rename the palette here. A click into the edit box makes the name editable.

## Number of users

See how many users the palette currently has.

## Fake User

Fake User sets the element to have a fake user. Zero user data-blocks are normally not saved. But sometimes you want to force the data to be kept even when the data block has no user.

## Add palette

Add a new palette.

## Remove Palette

Clicking at this button removes the palette. Note that you need to save, close Bforartists and reload the blend file to remove the palette completely.

## Add color

Adjust a color in the color picker. Then click at the add button to add this color to the palette.

## Remove color

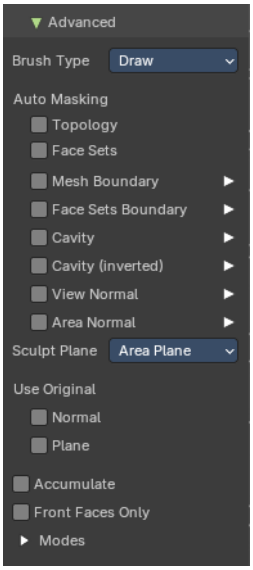
Select the color in the palette, then click at the minus button to remove it.

### Sort By

Sort the palette by the chosen method.

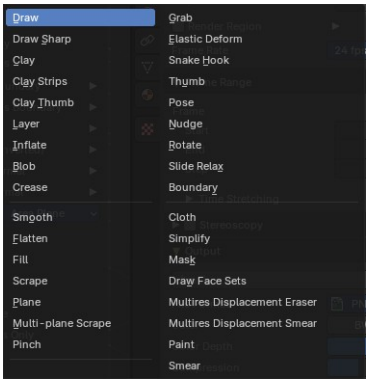

## Brush Settings Panel - Advanced Sub panel

In this sub panel you can find the not so often used settings. They differ from brush to brush. Have a look at the tool tips.

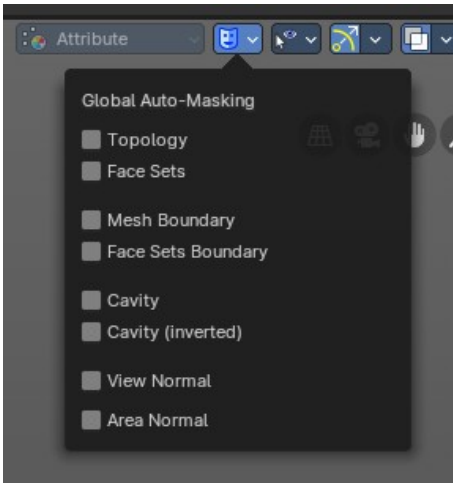



### Brush Type

Dropdown box to display and to change the brush type. Note that the brush type is already given by the brush that you choose.



# Automasking




In this group of properties toggles you can define Auto-Masking settings per brush. The same content can also be found in the header. But here as global settings. **Note:** *These override any brush Auto-Masking settings.*

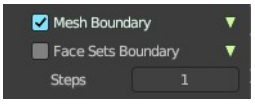
## Topology

Affect only vertices that are connected to the current active vertex under the brush.

## Face Sets

Affect only vertices that share face sets with the active vertex.

## Mesh Boundary




Do not affect non manifold boundary edges.

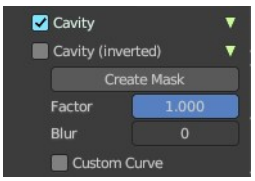
The setting that appears on activation and is valid for both, Mesh Boundary and Face Sets Boundary.

## Face Sets Boundary

Do not affect vertices that belong to a face set boundary.

The setting that appears on activation and is valid for both, Mesh Boundary and Face Sets Boundary.

## Cavity




Do not affect vertices on peaks. This feature is based on the surface curvature.

The setting that appears on activation and is valid for both, Cavity, and Cavity (Inverted).

## Cavity (Inverted)

Do not affect vertices in valleys. This feature is based on the surface curvature.

The setting that appears on activation and is valid for both, Cavity, and Cavity (Inverted).

### Create Mask

Creates a mask based on the curvature of the surface.

### Factor

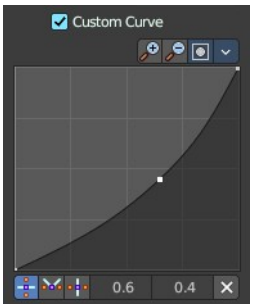
The contrast of the cavity mask.

### Blur

The number of times the cavity mask is blurred

### Custom Curve

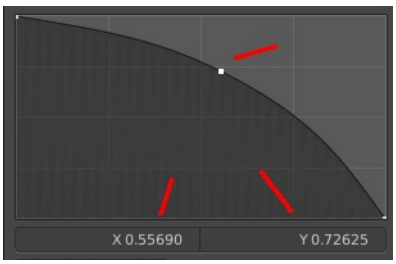
Use a custom falloff curve for the cavity mask.




### Selecting Points

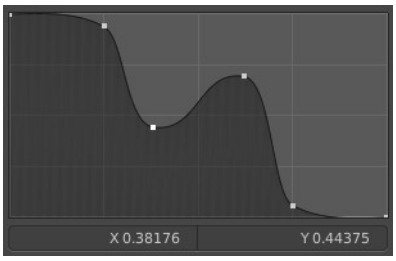
You can select curve points. This reveals two edit boxes for the x and y coordinate of this point.

Selected points can be moved around. Left click at them, hold the mouse button down and move them to a new location.




### Adding Points

You can add new curve points by simply left clicking at the curve. Move the mouse to position them where you need it.




### Navigation elements

The navigation elements at the top are described from left to right.

### Zoom in and out

The two buttons with the magnifying glass at it zooms in and out in the curve window.

---

### Clipping Options

Set up clipping for the stroke.


#### *Use Clipping*

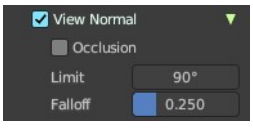
Turns clipping on or off.

### Min and Max X  Y

The values for the clipping area.

---

## View Normal




Affect only vertices with a normal that faces the viewer.

### Occlusion

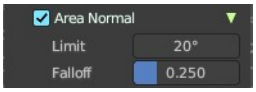
Only affect vertices that are not occluded by other faces. With Occlusion on the Limit and Falloff options are not available.

### Limit
View normal limit. The range of angles that will be affected.

### Falloff
Extend the angular range with a falloff gradient.

---

## Area Normal



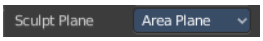

Affect only vertices with a similar normal to where the stroke starts.

### Limit
Area normal limit. The range of angles that will be affected.

### Falloff
Extend the angular range with a falloff gradient.

---

## Sculpt Plane




The sculpt plane defines how the sculpting is aligned. It is a dropdown box. Choose different methods. By default the Area Plane gets used.


---

## Use Original

### Normal
When ticked keep using normal of the surface where the stroke was initiated.

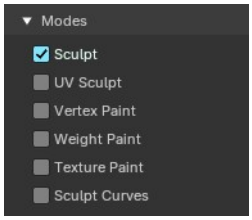
### Plane
When ticked keep using plane origin of the surface where the stroke was initiated.

## Accumulate
Accumulate stroke daubts on top of each other.

### Front Faces Only
The brush only affects the vertices that faces the viewer. Projected Falloff Only.

## Modes

In which mode this brush will be available

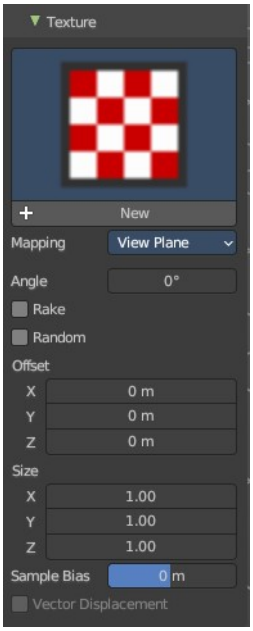



# Brush Settings Panel - Texture Subpanel

The Texture panel allows you to sculpt with textures. This allows you for example to grab a foto from some fish scales, and simply sculpt them into the surface of your object by using this image as a pencil. Or as a blueprint where you calk through ( Stencil method ).

Note that the following shots are made with Symmetry off and without Brush falloff. Since they disturbed.

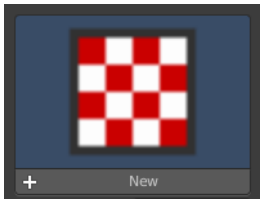
Symmetry can be turned off a few panels deeper in the Symmetry panel.



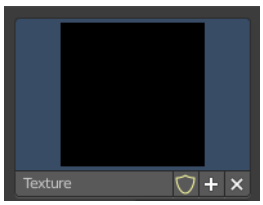

---

## Browse Texture to be linked

The image at the top of the panel is a image browser. Choose a texture that you can choose for sculpting then. You can also have more than one image loaded at once.



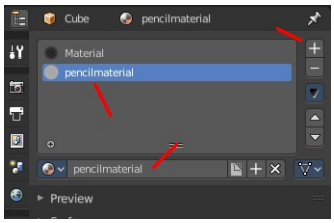

### *Adding a texture*

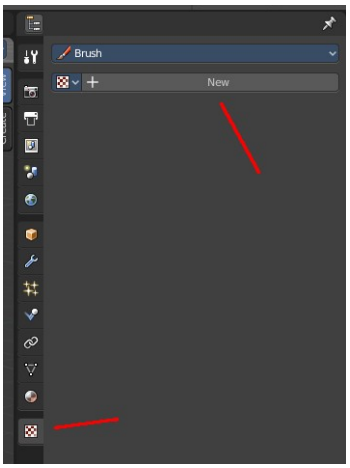


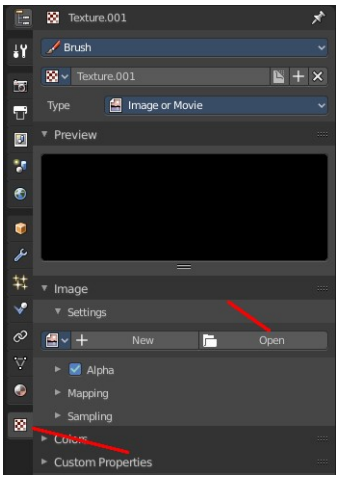

The way to add the texture here is a bit more complicated. And not done with clicking at the New button.

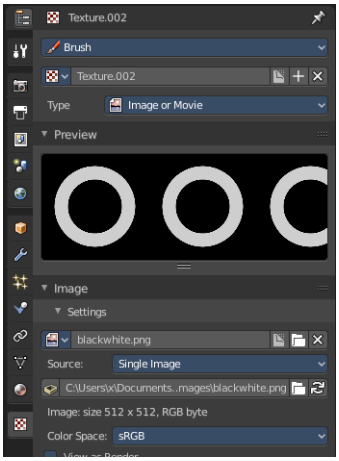
First click at the New button below the image. This will create a new texture slot. This slot is still empty, it displays black.

We need to load the texture in this slot. This must be done in the Properties editor in the Textures tab.

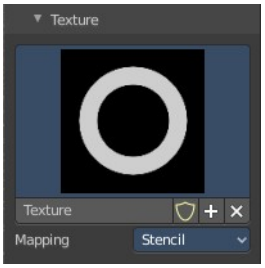



And when you switch back to the Tools tab, then the texture finally shows in the Texture panel in the Tool Shelf. And we can use it.




---

## Texture Edit box


The Texture edit box is the edit box below the Image browser. When there's no image loaded then it displays the New button. When there's a image (or more) loaded, then you will see the name of the current texture.

The Fake User button turns this texture into a data block with a fake user. Means it will exists even when there is no data connected to it anymore.

The + Button adds another texture slot. Note that you will have to load a texture too, as explained above.

The X button deletes the texture slot.

---

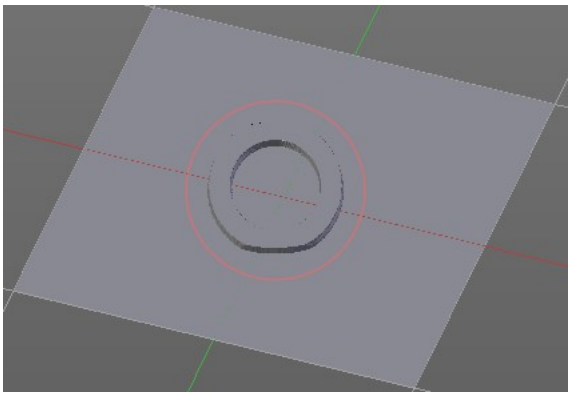
## Brush Mapping

Our texture can be mapped in different methods. The Brush mapping is a drop down box. Choose this different brush mapping methods.

The settings vary. So we will go through them by the different brush mapping methods.

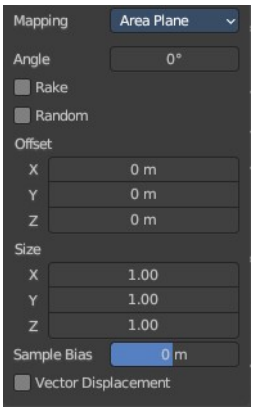
---

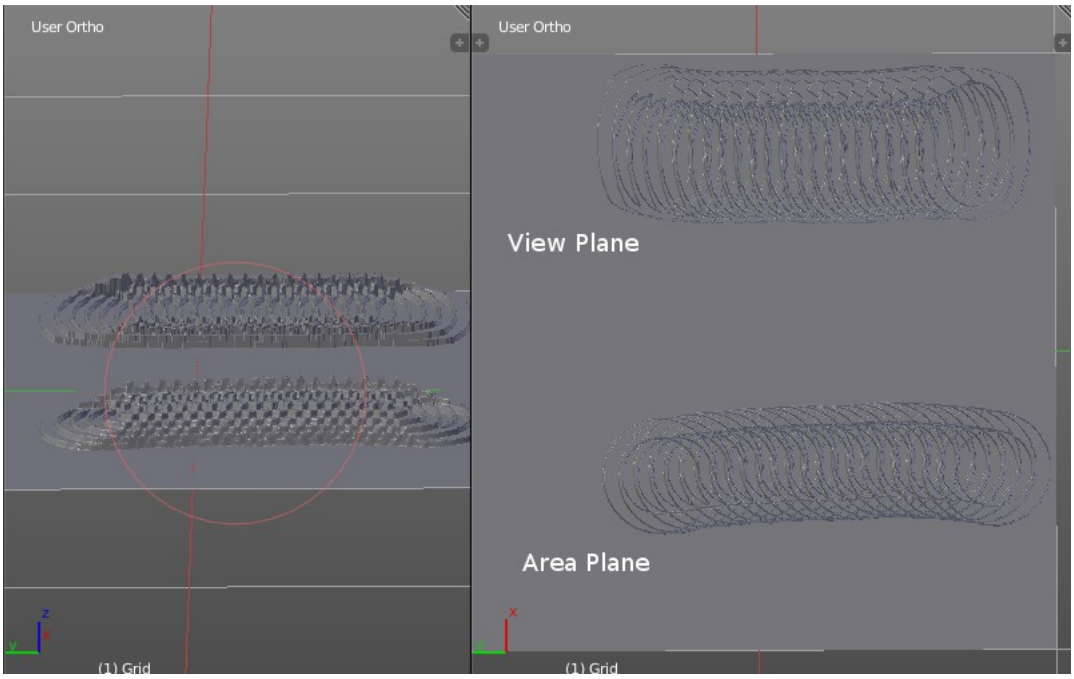
## Brush Mapping with mapping method View Plane and Area Plane



The brush mapping method View Plane maps the brush onto the surface of the object, calculating the mapping from the current view. The result may be distorted when the view does not align with the surface of the object.

The brush mapping method Area Plane maps the brush onto the surface of the object, calculating the mapping from the current view. The result is not distorted.




### *Angle edit box*

Adjust the angle of the brush.

### *Rake*

The angle follows the direction of the brush stroke.

### *Random*

The brush angle gets set random.

### *Random edit box*

Becomes visible when you tick Random. Adjust the maximum value of the random angle.

### *Offset*

Fine tune the offset of the texture in the brush.

### *Size*

Fine tune the size of the texture in the brush.

### *Sample Bias*

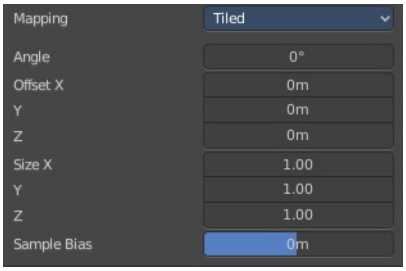
Add to or subtract from the amount that gets added by the brush texture.

### *Vector Displacement*

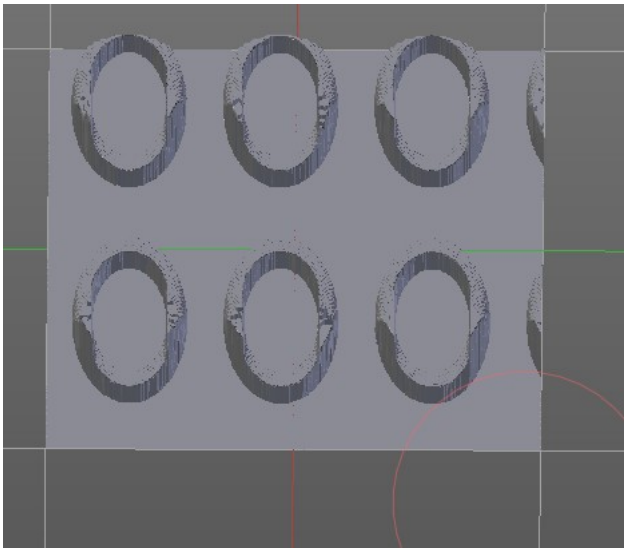
Just Area Plane. Handles each pixel color as an individual vector for displacement.

---

## Brush Mapping with mapping method Tiled




The brush mapping method View Plane maps the brush onto the surface of the object, and tiles the pencil onto the surface. The mapping happens from the View plane. Means you get distortions when you sculpt from an angle.



### *Angle edit box*

Adjust the angle of the brush.

### *Offset*

Fine tune the offset of the texture in the brush.

### *Size*

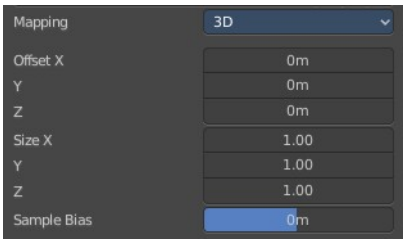
Fine tune the size of the texture in the brush.

### *Sample Bias*

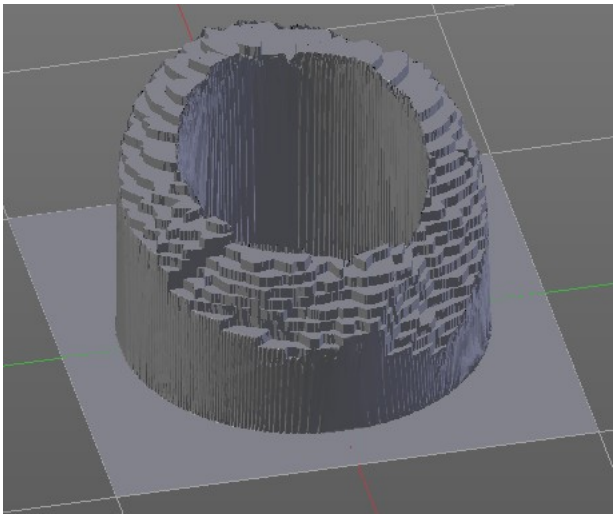
Add to or subtract from the amount that gets added by the brush texture.

---

## Brush Mapping with mapping method 3D




The brush mapping method View Plane and Area Plane sculpts where the pencil is. The method 3D sculpts at the initial position of the pencil, as long as you don't release the mouse. The mapping happens from the View plane. Means you get distortions when you sculpt from an angle.



### *Offset*

Fine tune the offset of the texture in the brush.

### *Size*

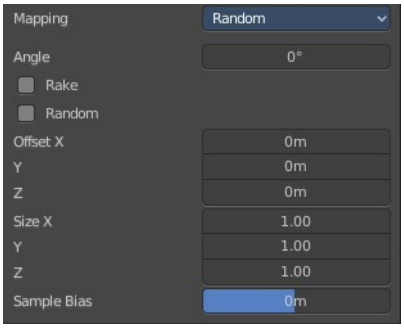
Fine tune the size of the texture in the brush.

### *Sample Bias*

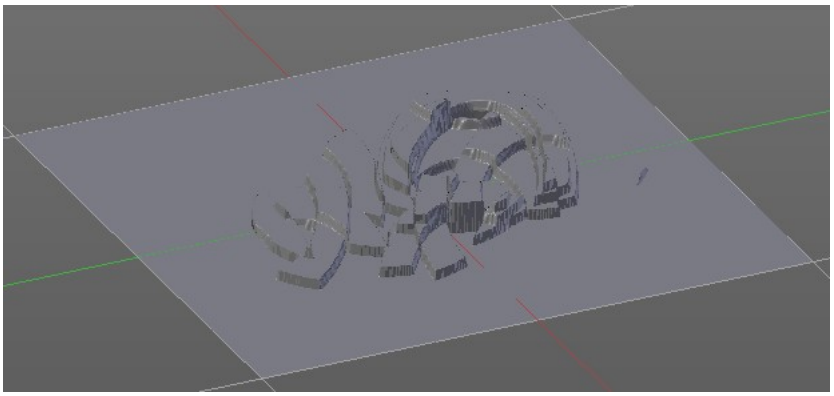
Add to or subtract from the amount that gets added by the brush texture.

---

## Brush Mapping with mapping method Random




The brush mapping method Random randomizes the texture position of the pencil texture.  And so it sculpts random fragments of the pencil.



### *Angle edit box*

Adjust the angle of the brush.

### *Rake*

The angle follows the direction of the brush stroke.

### *Random*

The brush angle gets set random.

### *Random edit box*

Becomes visible when you tick Random. Adjust the maximum value of the random angle.

### *Offset*

Fine tune the offset of the texture in the brush.

### *Size*

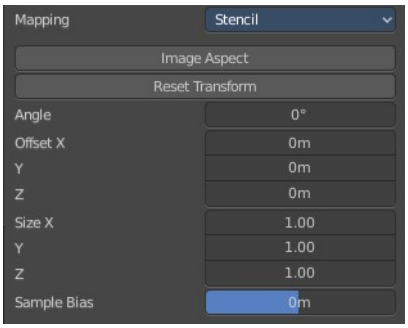
Fine tune the size of the texture in the brush.

### *Sample Bias*

Add to or subtract from the amount that gets added by the brush texture.

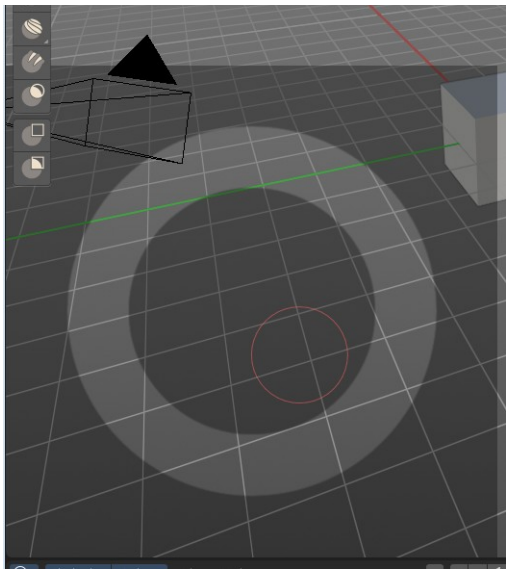
---

## Brush Mapping with mapping method Stencil




The former methods uses the textures for the brush. The method Stencil works different. You have your texture displayed in the workspace above the object, and you paint this texture onto your object with your pencil strokes.

Note that the texture in the 3d space is just visible when you are with the mouse over the viewport.



### *Image Aspect*

Adjust the stencil size to fit to the image aspect ratio.

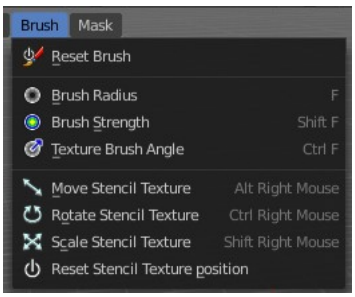
### *Angle edit box*


Adjust the angle of the brush. The button at the end allows you to set the radius by dragging the mouse. This should be done in the viewport and with the hotkey. This button is just a visible reminder.

### *Offset*

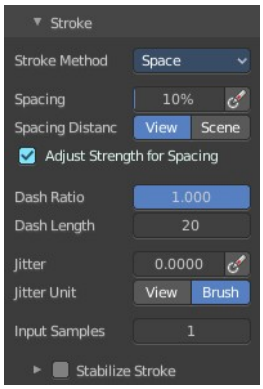
Fine tune the offset of the texture in the brush.

### *Stencil Texture Controls*




You can find the controls to modify the position, rotation and scale of the stencil texture in the Brush menu in the 3D view. This happens by Hotkeys.

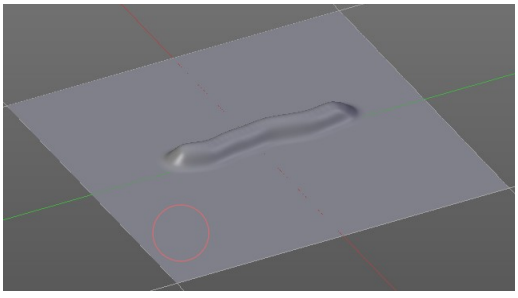
## Brush Settings Panel - Stroke Sub panel



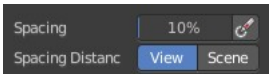

The Stroke panel contains settings to influence the behavior of the brush stroke. There are various stroke methods available. We will go through them one by one.

### Stroke Panel with Stroke method Space

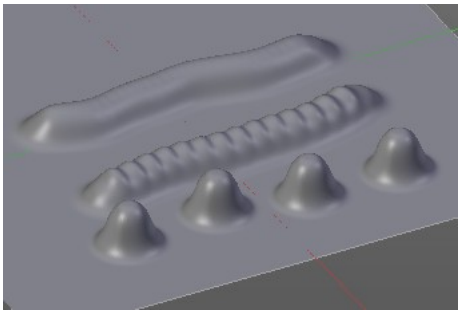
This is the default Stroke method. The sculpt stroke gets added continuously with given settings.



## Spacing Edit Box




The sculpt drawing happens by mapping the pencil onto the mouse position. And when you move the mouse then the next mapping happens. Adjust the spacing after what mouse movement the next mapping should happen. The lower the value, the lower the distance between the single dots.



### *Spacing Pressure*

The icon behind the edit box enables tablet pressure sensitivity for tablets.

### *Spacing Distance*

If the spacing happens in View or in Scene distance.

---

## Adjust Strength for Spacing


Automatically adjust the strength to give consistent results for different spacing.

---

## Dash Ratio

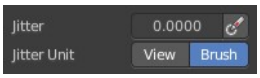
Ratio of samples in a cycle that the brush is enabled.

## Dash Length

Length of a dash cycle measured in stroke samples.

---

## Jitter Edit Box




Add Jitter to the brush while painting.

### *Jitter Pressure*

The icon behind the edit box enables tablet pressure sensitivity for tablets.

### *Jitter Unit*

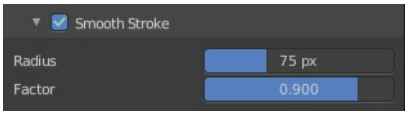
If the jitter happens in screen space in pixels, or relative to the brush size.

---

### *Input Samples Edit Box*

Average multiple input samples together to smooth the brush stroke.

### *Stabilize Stroke*




When activated then the brush lags behind the mouse position, and produces a much smoother stroke by that. It is a sub panel with two settings.

### Smooth Stroke Radius Edit Box

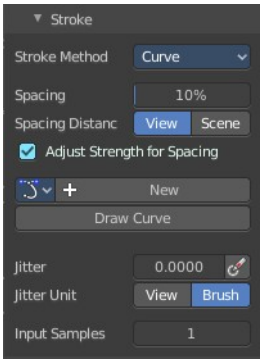
Adjust the radius of the smoothing.

### Smooth Stroke Factor Edit Box

Adjust the factor of the smoothing.

---

## Stroke Panel with Stroke method Curve

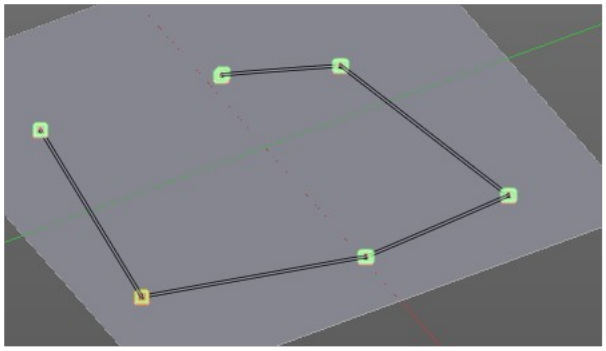


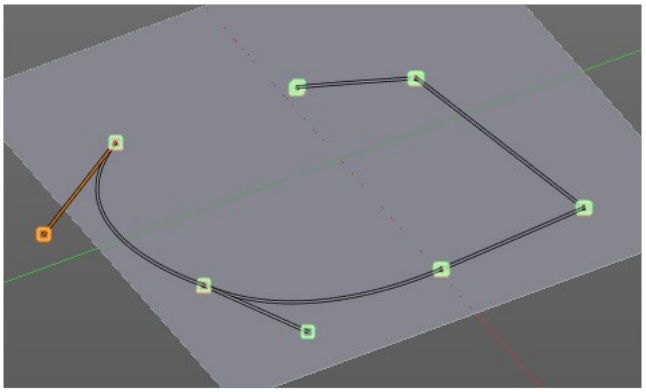

The Stroke method curve doesn't simply influence the way how the stroke is painted.

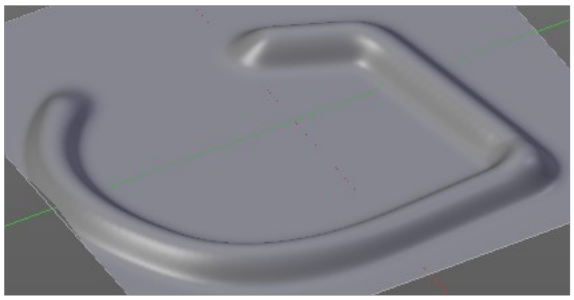
It is a special method. First you draw a curve object by holding down ctrl and clicking with left mouse button. Then you tweak the curve. You can click at the curve point, and drag out handlers to make the curve points smooth.

Then you hit the Draw Curve button. And the curve gets sculpted.

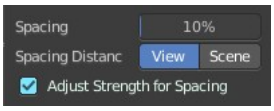
---



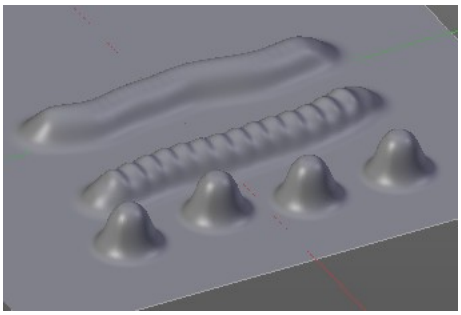




## Spacing Edit Box




The sculpt drawing happens by mapping the pencil onto the mouse position. And when you move the mouse then the next mapping happens. Adjust the spacing after what mouse movement the next mapping should happen. The lower the value, the lower the distance between the single dots.



The icon behind the edit box enables tablet pressure sensitivity for tablets.

### *Spacing Distance*

If the spacing happens in View or in Scene distance.

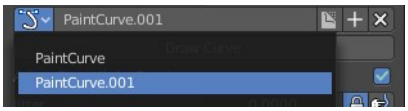
### *Adjust Strength for Spacing*

Automatically adjust the strength to give consistent results for different spacing.

---

### *Paint Curve edit box*

Here you set the active curve.




**The first element** is a drop down box where you will find your curves objects. You can have more than one.

**The second element** is the edit box that displays the active curve.

**Fake User** set the brush to have a fake user. Zero user data-blocks are normally not saved. But sometimes you want to force the data to be kept even when the data block has no user.

**The + button** allows you to add a new pencil with the current settings. Note that the brushes are NOT saved when you close Bforartists.  You can save them into the current blend file. Or you can save the startup file. But be careful here. This saves everything else of the current state of Bforartists too.

**The X button** deletes the brush as the active one. It does NOT delete it from the brushes list.

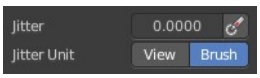
---

### *Draw Curve Button*

A click at it to turns the curve into a sculpt stroke.

---

## Jitter Edit Box




Add Jitter to the brush while painting.

### *Jitter Pressure*

The icon behind the edit box enables tablet pressure sensitivity for tablets.

### *Jitter Unit*

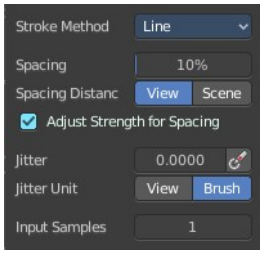
If the jitter happens in screen space in pixels, or relative to the brush size.

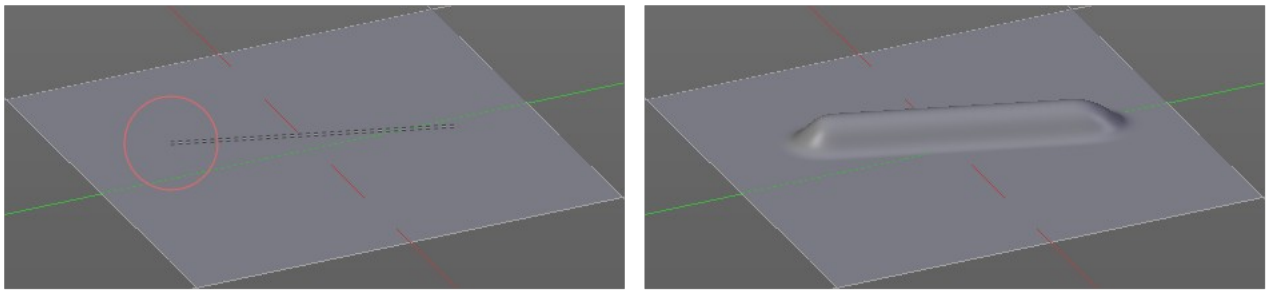
### *Input Samples Edit Box*


Average multiple input samples together to smooth the brush stroke.

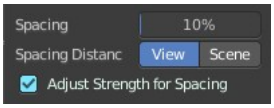
## Stroke Panel with Stroke method Line

With Stroke method line you draw a line between a starting point and an endpoint. And when you release the mouse then the line gets sculpted.

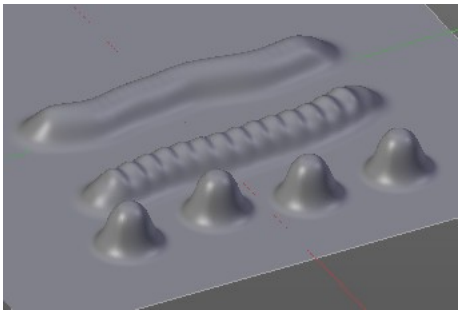


### Spacing Edit Box




The sculpt drawing happens by mapping the pencil onto the mouse position. And when you move the mouse then the next mapping happens. Adjust the spacing after what mouse movement the next mapping should happen. The lower the value, the lower the distance between the single dots.



The icon behind the edit box enables tablet pressure sensitivity for tablets.

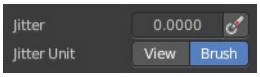
#### *Spacing Distance*

If the spacing happens in View or in Scene distance.

#### *Adjust Strength for Spacing*

Automatically adjust the strength to give consistent results for different spacing.

### Jitter Edit Box




Add Jitter to the brush while painting.

### *Jitter Pressure*

The icon behind the edit box enables tablet pressure sensitivity for tablets.

### *Jitter Unit*

If the jitter happens in screen space in pixels, or relative to the brush size.

---

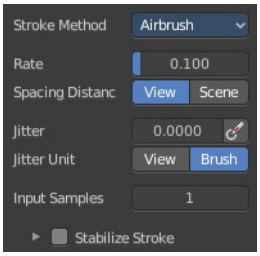
## Input Samples Edit Box

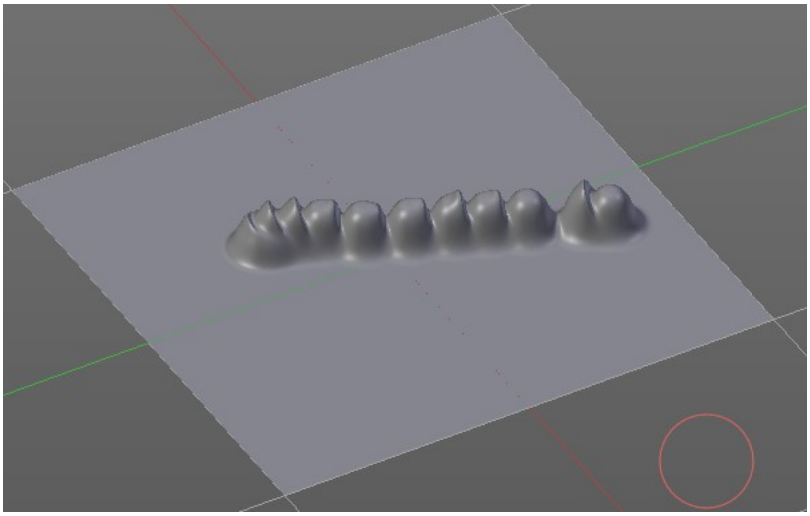

Average multiple input samples together to smooth the brush stroke.

---

# Stroke Panel with Stroke method Airbrush

The sculpt stroke acts like an airbrush pencil. The dots gets placed randomly.



---

## Rate Edit Box

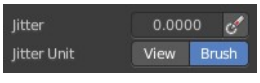

Define the rate of the drawing.

### *Spacing Distance*

If the spacing happens in View or in Scene distance.

---

## Jitter Edit Box




Add Jitter to the brush while painting.

### *Jitter Pressure*

The icon behind the edit box enables tablet pressure sensitivity for tablets.

### *Jitter Unit*

If the jitter happens in screen space in pixels, or relative to the brush size.

---

## Input Samples Edit Box


Average multiple input samples together to smooth the brush stroke.

---

## Stabilize Stroke


When activated then the brush lags behind the mouse position, and produces a much smoother stroke by that. Smooth stroke has two settings.

## Smooth Stroke Radius Edit Box

Adjust the radius of the smoothing.

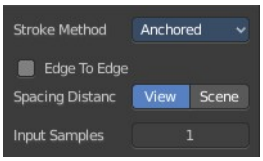
## Smooth Stroke Factor Edit Box

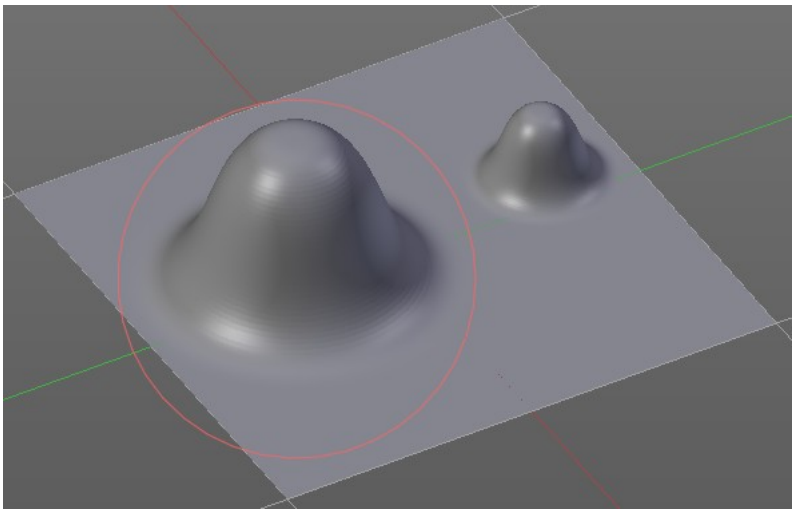
Is just active when Smooth Stroke is activated. Adjust the factor of the smoothing.

---

# Stroke Panel with Stroke method Anchored

Click and drag to place a dot and to scale it.



## Edge to Edge

Without Edge to Edge the scaling happens from the center of the brush. With edge to edge the scaling happens from the edge of the brush.

### *Spacing Distance*

If the spacing happens in View or in Scene distance.

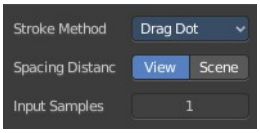
### Input Samples Edit Box


Average multiple input samples together to smooth the brush stroke.

---

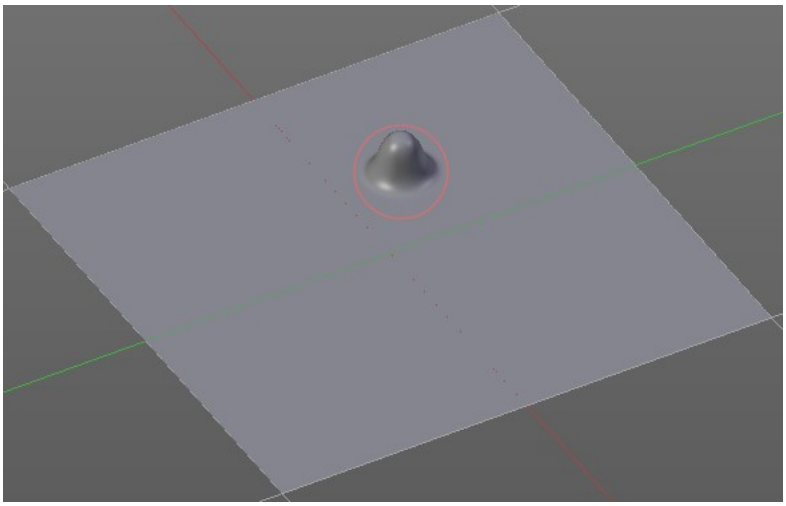
## Stroke Panel with Stroke method Drag dot

Click and drag to place a dot.




### Spacing Distance

If the spacing happens in View or in Scene distance.



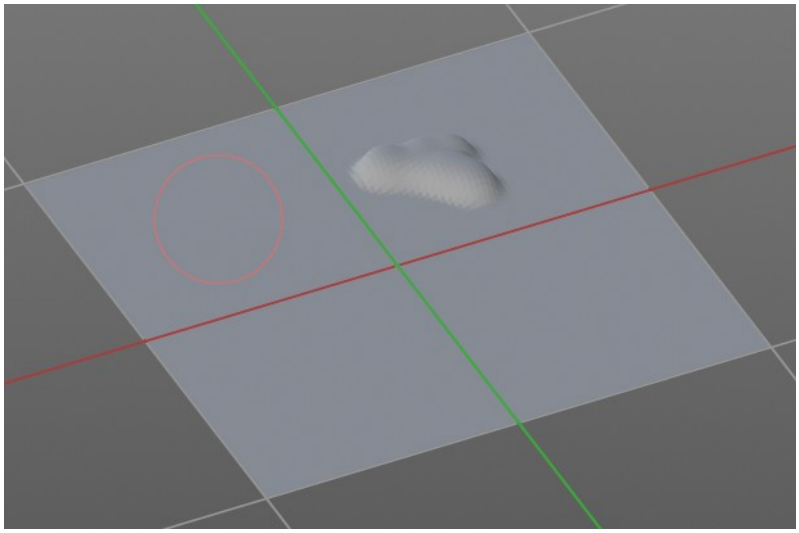
---

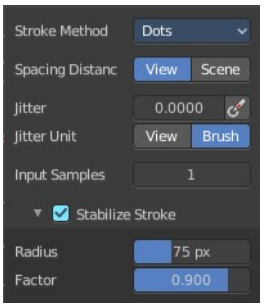
### Input Samples Edit Box


Average multiple input samples together to smooth the brush stroke.

---

# Stroke Panel with Stroke method dot

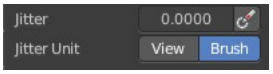





## Spacing Distance

If the spacing happens in View or in Scene distance.

## Jitter Edit Box




Add Jitter to the brush while painting.

The icon behind the edit box enables tablet pressure sensitivity for tablets.

### *Jitter Unit*

Jitter in screen space or relative to the brush size.

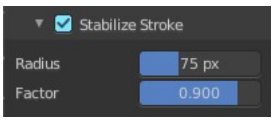
---

## Input Samples Edit Box


Average multiple input samples together to smooth the brush stroke.

---

## Stabilize Stroke




When activated then the brush lags behind the mouse position, and produces a much smoother stroke by that. Smooth stroke has two settings.

## Smooth Stroke Radius Edit Box

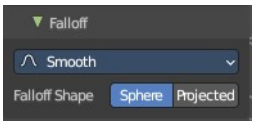
Adjust the radius of the smoothing.

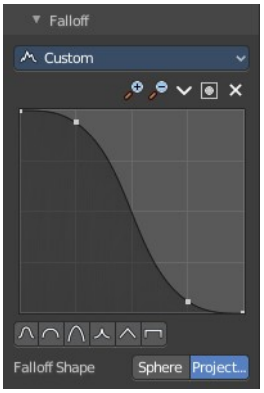
## Smooth Stroke Factor Edit Box

Adjust the factor of the smoothing.

# Brush Settings Panel - Falloff Sub panel

The Falloff panel allows you to define different falloffs methods for the border of the brush.



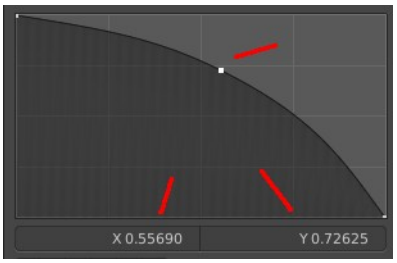

## Presets

The different available falloff presets. The method custom allows you to define your own falloff. And reveals a curve panel.


### Selecting Points

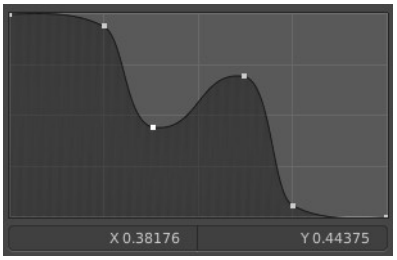
You can select curve points. This reveals two edit boxes for the x and y coordinate of this point.

Selected points can be moved around. Left click at them, hold the mouse button down and move them to a new location.




### Adding Points

You can add new curve points by simply left clicking at the curve. Move the mouse to position them where you need it.




### Navigation elements

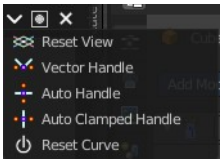
The navigation elements at the top are described from left to right.

### Zoom in and out

The two buttons with the magnifying glass at it zooms in and out in the curve window.

## Tools

Tools is a menu where you can find some curve related tools.




### *Reset View*

Resets the curve windows zoom.

### *Vector Handle*

Set handle type to Vector.

### *Auto Handle*

Set handle type to Auto.

### *Auto Clamped Handle*

Set handle type to Auto Clamped.

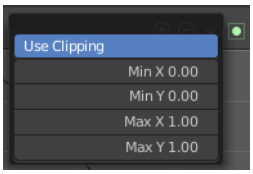
### *Reset Curve*

Resets the curve to the initial shape.

---

## Use Clipping

Clipping options. Set up clipping for the stroke. The blue button at the top turns clipping on or off.




## Delete Points

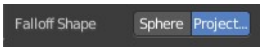
Deletes the selected curve point.

---

## Curve Presets

Predefined curve presets as a starting point.

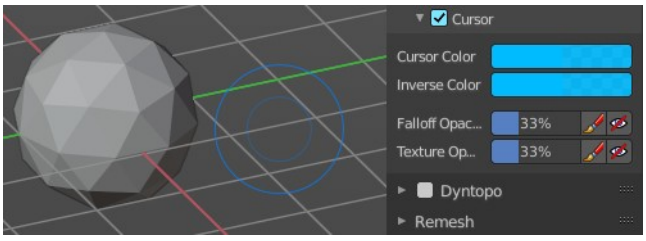
## Falloff Shape




Use projected or spherical falloff.

# Brush Settings Panel - Cursor Sub panel

Change the appearance of the brush cursor.




## Cursor checkbox in header

Show or hide the brush cursor.

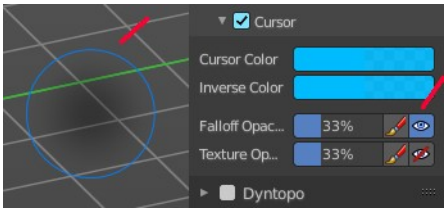
## Cursor Color

The cursor color with add operations.

## Inverse Color

The cursor color with subtract operations.

## Falloff Opacity




You can turn on the cursor overlay with the eye button at the end. The falloff opacity slider allows you to adjust the opacity of this cursor overlay.

### Override Overlay

Hide the Cursor Overlay when painting.

### Use Cursor Overlay

Turn on Cursor Overlay.

## Texture Opacity

This is for the case when you paint with a texture brush. You can turn on the Texture overlay with the eye button at the end. The falloff opacity slider allows you to adjust the opacity of this cursor overlay.

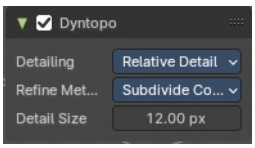
### Override Overlay

Hide the Texture Overlay when painting.

### Use Cursor Overlay

Turn on Texture Overlay.

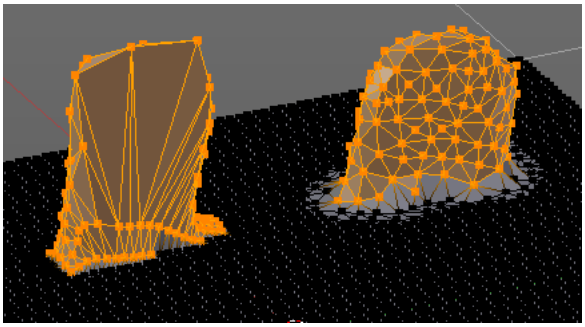
# Dyntopo Panel




Dyntopo stands for Dynamic Topology Sculpting.

Without Dyntopo you just deform the existing geometry. With Dyntopo geometry gets subdivided when needed. This makes it possible to sculpt complex shapes out of a block.

Left without Dyntopo, right with Dyntopo.



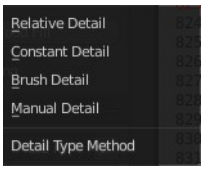
**Note:** Some *brushes are incompatible with Dyntopo.*

*Brushes that are incompatible are the Grab brush, Rotate brush, Thumb brush, Layer brush, Smooth brush (including alt-key smoothing with a different brush) and Mask brush.*

*The topology will also not update if the stroke mode is Anchored or Drag Dot.*

---

## Detailing




Define the Detail Type method.

### *Relative Detail*

Mesh Detail is relative to brush size and detail size

### *Brush Detail*

Mesh Detail is relative to brush radius.

### *Constant Detail*

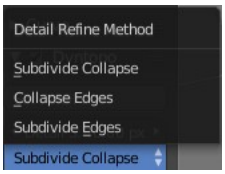
Mesh detail is constant in object space according to detail size.

### *Manual Detail*

Mesh detail does not change on each stroke. But just on flood fill

---

## Refine method




Define the Detail refine method.

### *Subdivide Collapse*

Both methods in one. Subdivide long edges to add mesh detail where needed. And collapse short edges to remove mesh detail where possible.

### *Collapse Edges*

Collapse short edges to remove mesh detail where possible.

### *Subdivide Edges*

Subdivide long edges to add mesh detail where needed.

---

## Resolution


The Resolution defines how fine the subdivision will be.

The edit box below does the same. But with a slider, and without visible feedback in form of a widget.

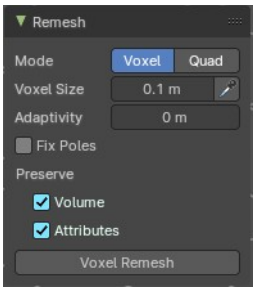
### *Sample detail size picker*

This pipette allows you to pick the current resolution from a mesh.

To activate the tool, hover with the mouse over the mesh and left click to apply.

**Note:** *This work in the Constant and Manual methods exclusively.*

# Remesh Panel




You may create a sculpt mesh that has ways too many polygons. Or too many polygons at one area, and not enough polygons at another area. Remeshing recreates the mesh geometry, with a more uniform topology.

Remesh does not work with Dyntopo enabled. You need to turn it off for remeshing.

## Mode


The Remesher in Sculpt mode uses the Voxel remesher by default. When you want to remesh with the Quadriflow method, then switch to Quad remesher. Quad remesher has no further options.

## Voxel Size

Adjust the density of the new created geometry

### Sample Detail Size

With this picker you can pick the density from an area of your mesh.

## Adaptivity

Reduces the final face count by simplifying geometry where detail is not needed. This method uses tris. A value greater than 0 disables the Fix Poles feature.

## Fix Poles

Produce less poles and a better topology flow.

## Smooth Normals

Smooths the normals of the result.

## Preserve

### Volume

Tries to preserves the volume of the original mesh.

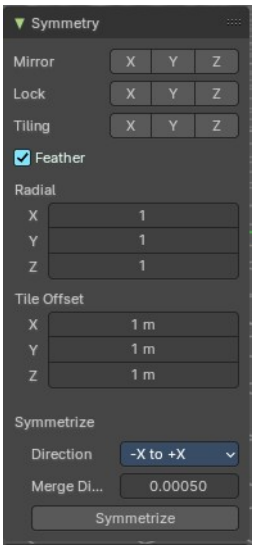
### Attributes

Keep existing paint masks, face sets, vertex color and other generic mesh attributes on the new mesh.

## Voxel Remesh / Quadriflow Remesh

Starts the remesh operation.

# Symmetry Panel




The Symmetry Lock panel contains tools around symmetry and lock features. Here you can turn on or off mirroring along axis, etc.


## Mirror

Mirror sculpt along activated axis. By default the mirroring is activated around X axis.

The same buttons plus the whole Symmetry Lock Panel as a drop down menu can also be found in the tool settings bar as icon buttons. This allows quicker access and better visual control which mirror axis is currently active.

## Lock

Disallow vertices movement in locked axis direction.

## Tiling

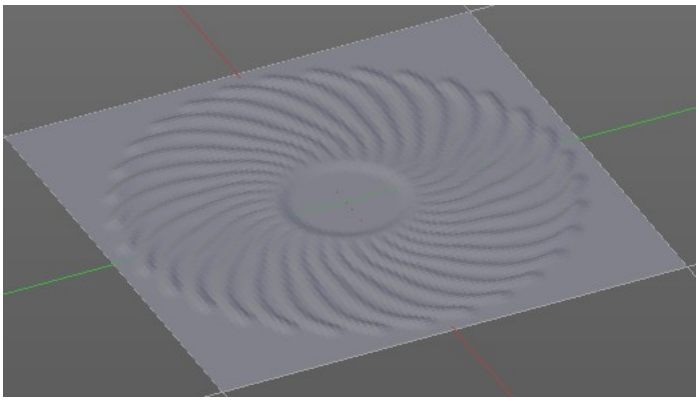
Produces a mesh that is tilable in the activated directions.

## Feather

Reduce the strength of the brush where it overlaps symmetrical daubs.

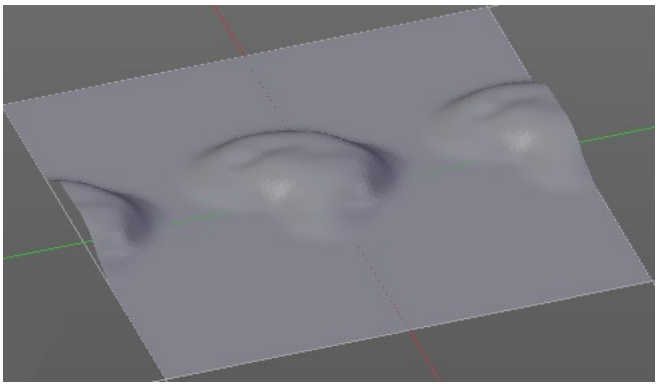
## Radial

Adjust the repeating across some axis. For example, when you change Z to 32, then you can draw 32 segments simultaneously around the Z axis instead of just one, distributed around the Z axis.



## Tile Offset

Adjust the offset of the tiling.



## Symmetrize

### Direction

The direction in which the mirroring happens.

### Merge Distance

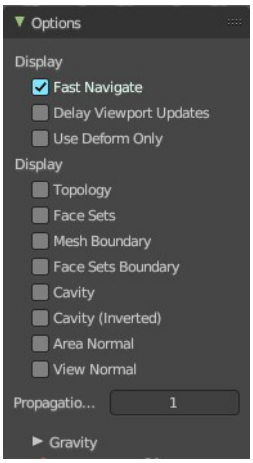
The distance to merge vertices with symmetrizing.

### Symmetrize

Symmetrize the topology modifications.

# Options Panel

## Display




### Fast Navigate

For Multires, show Low Res mesh when navigating.

### Delay Viewport Updates

Update the geometry when it enters the view. This enables a faster viewport navigation.

### Use Deform only

Use only deformation modifiers ( The other constructive modifiers except multi-resolution gets temporary disabled)

## Display

### *Topology*

Affect only vertices connected to the active vertex under the brush.

### Face Sets

Affect only vertices that share face sets with the active vertex.

### Mesh Boundary

Do not affect non manifold boundary edges.

### Face Sets Boundary

Do not affect vertices that belongs to a face set boundary.

### Cavity

Do not affect vertices at the peaks. Based on the surface curvature.

### Cavity ( Inverted)

Do not affect vertices in the valleys. Based on the surface curvature.

### Area Normal

Affect only vertices with a similar normal to where the stroke starts.

### View Normal

Affect only vertices with a normal that faces to the view.

### Propagation Steps

Distance where boundary edge automasking is going to protect vertices from the fully masked edge.

## Gravity sub panel

A panel with the gravity settings. Add gravity after each stroke.


### Factor

The factor slider defines the amount.

### Orientation

Here you define an object that gets used to determine the gravity from. The Z axis of this object gets used.