

# Blender 2.0

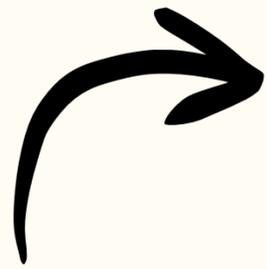
Presented by Hailie Tucker



Date	GBM	GBM Title	Secondary Event	Presenter
9 Jan		(No Meeting)	(Involvement fair?)	
15 Jan	1	Intros, Icebreakers, and Retrospectives		Everyone
21 Jan	2	Unity 201 (what new things?)	In the Co-Lab	Jake
29 Jan	3	2D Art -- Pixel and ...not pixel?	In the Pitch Room ↓	Calvin & Ares
5 Feb	4	2D Animation -- Frames and Tweening	(May have to move)	Calvin & Ares
12 Feb	5	Making Music for Non-Musicians		Marsh
19 Feb	6	Blender 201 -- Tidbits		Hailie
26 Feb	7	Unity 202 -- Lighting	Florida Comedy Jam (27-1)	Jake & Marsh
5 Mar	8	Writing For Games		Screenwriting Club
12 Mar	9	1 HOUR LEVEL DESIGN JAM		David
19 Mar		Spring Break		🐦
26 Mar	10	Sound Design and the Art of Foley	(May have to move)	Yusong
2 Apr	11	Unity 203 -- A*, Agents and Navmesh		Jake & Marsh
9 Apr	12	Online Portfolios (HTML Basics) -WICS collab		Hailie
16 Apr	13	Prototyping Levels	(May have to move)	Marsh
23 Apr	14	Year's Out Celebration!		Everyone

we are here →





<https://itch.io/jam/florida-comedy-game-jam-26>



DEVLUP @ FSU X UF X FIT X USF X UCF

# Make the funniest game in Florida.

## Florida Comedy Game Jam

February 27th 6:00 PM - March 1st 6:00PM  
at the Garnet Gaming Lounge



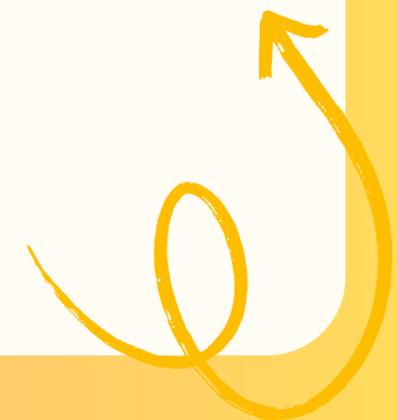
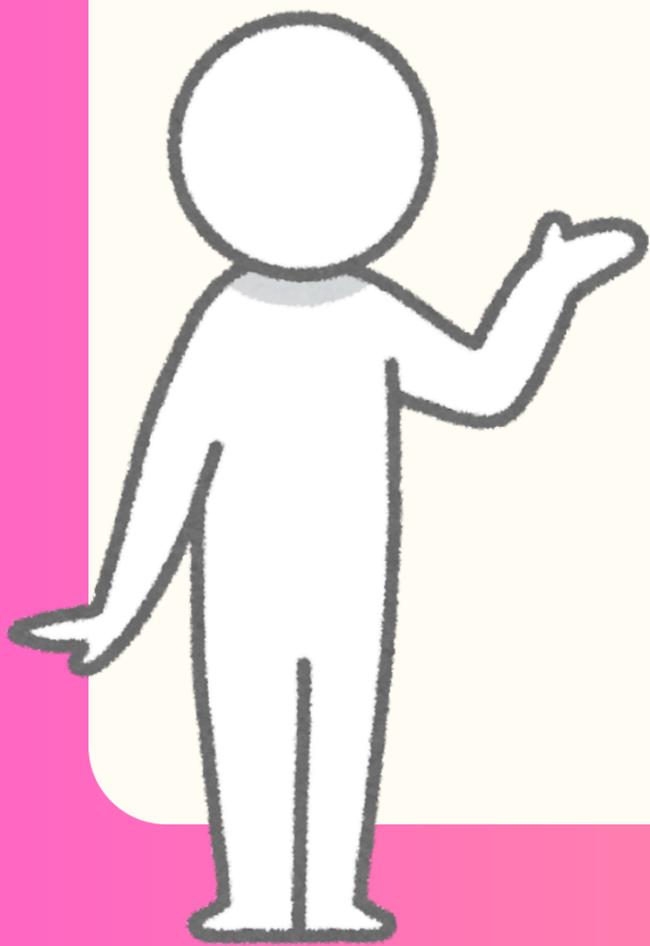
# Showcase!



# Blender Interface Overview

## Understanding Your 3D Workspace - Movement

- **Rotate View: Click and hold the Middle Mouse Button (Mouse-M).**
  - **Translate (Pan) View: Shift + Mouse-M.**
- **Zoom View: Mouse-Wheel for stepwise zooming, or Ctrl + Mouse-M for continuous zooming.**
- **Focus on Selected: Numpad . (period) to center the view on the active object.**
  - **Toggle Camera View: Numpad 0.**
- **View Pie Menu: ` (backtick) opens a menu to quickly switch between Top, Front, Right, and other views**



# Modes

## Object Mode

- Add new objects
- move object from origin
- scale object
- measure



**SHIFT + SPACEBAR**

## Edit Mode

- Vertex, Edge, and Faces
- Extrude (E)
- Inset (I)
- Bevel (ctrl + B)
- Loop cut (ctrl + R)
- Knife (K) -->to escape hit (enter)
- Spin (shift + 0)
- smooth (ctrl + 1)

**Scrolling can effect these!**

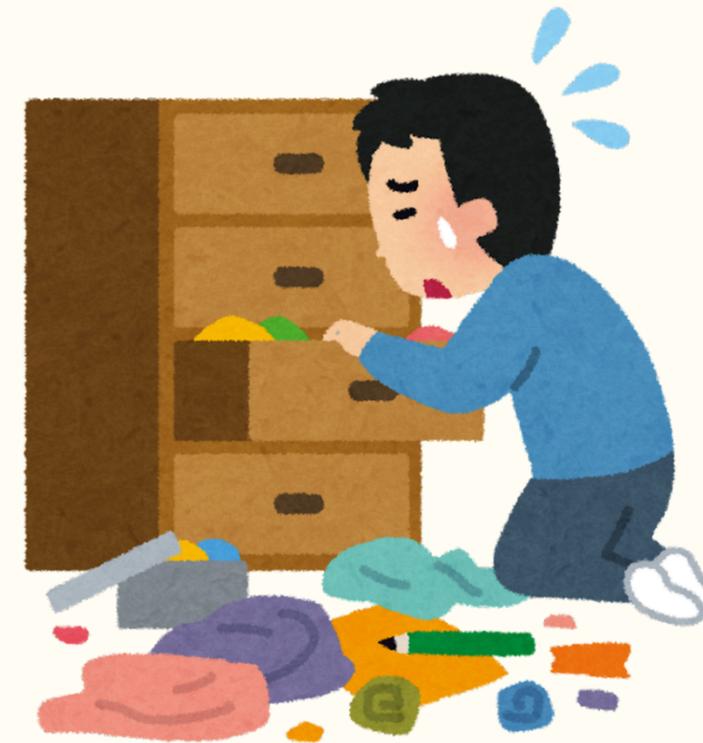
# Special keys

Best use is to simplify complex models and get rid of unnecessary overlapping vertices

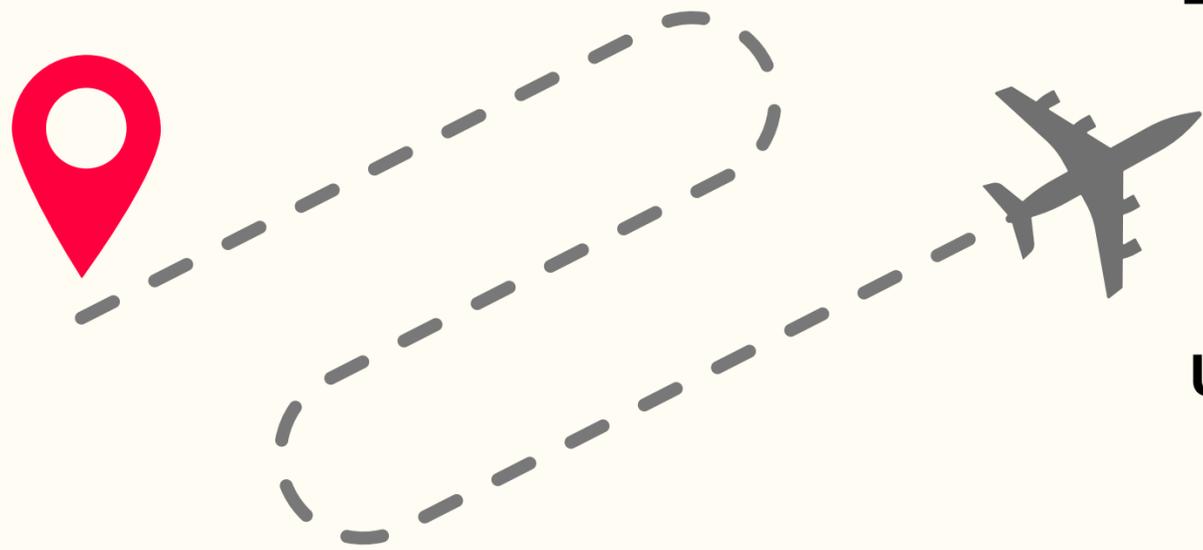
Key	Outcome
a	selects all
m	merge
d	by distance

Ex. When importing .svg files (text)

- F3 (Search): If you forget where a tool is, press F3 and type its name.



# Special keys



**ctrl + right click**

**places vertices!**

**Use: to trace an image**

**step 1: drop image in blender**

**step 2: merge object to 1 vertex**

**step 3: use the x,y,z sphere to align camera**

**step 4: use ctrl + right click to add vertices along  
the edges of the object you wish to trace**



# More special keys

f	creates edges or faces
ctrl + right click	when extruding, extrudes to the cursor
cmd + a or control + a (on window)	opens apply window
right click + set origin	change where origin is
s	scale



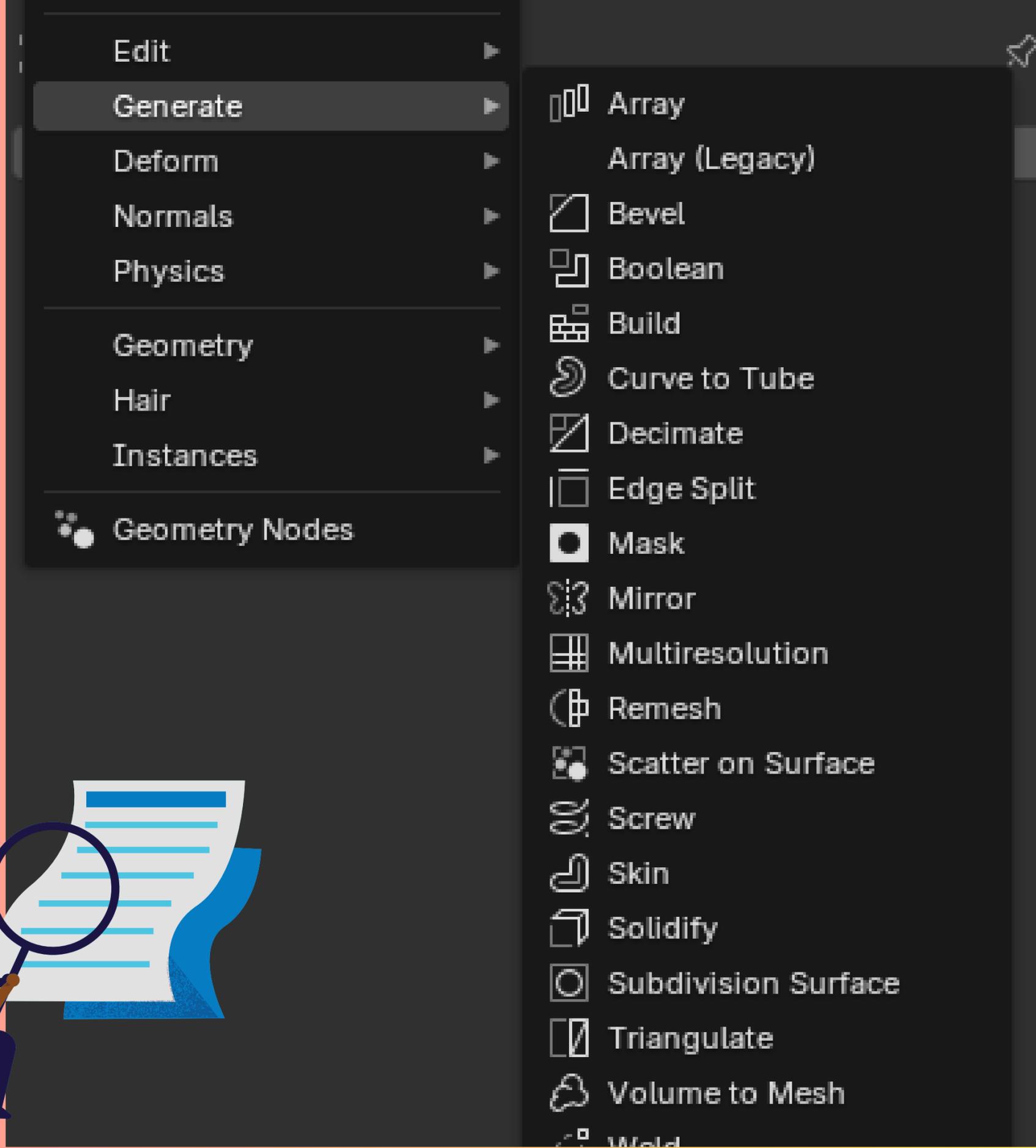
# Modifiers

## Generate

There are 21 generate modifiers  
so, we shall NOT go over them all today

- Array
- Boolean
- Mirror
- Screw
- Solidify
- Subdivision Surface

(if multiple, order matters, reads top down)

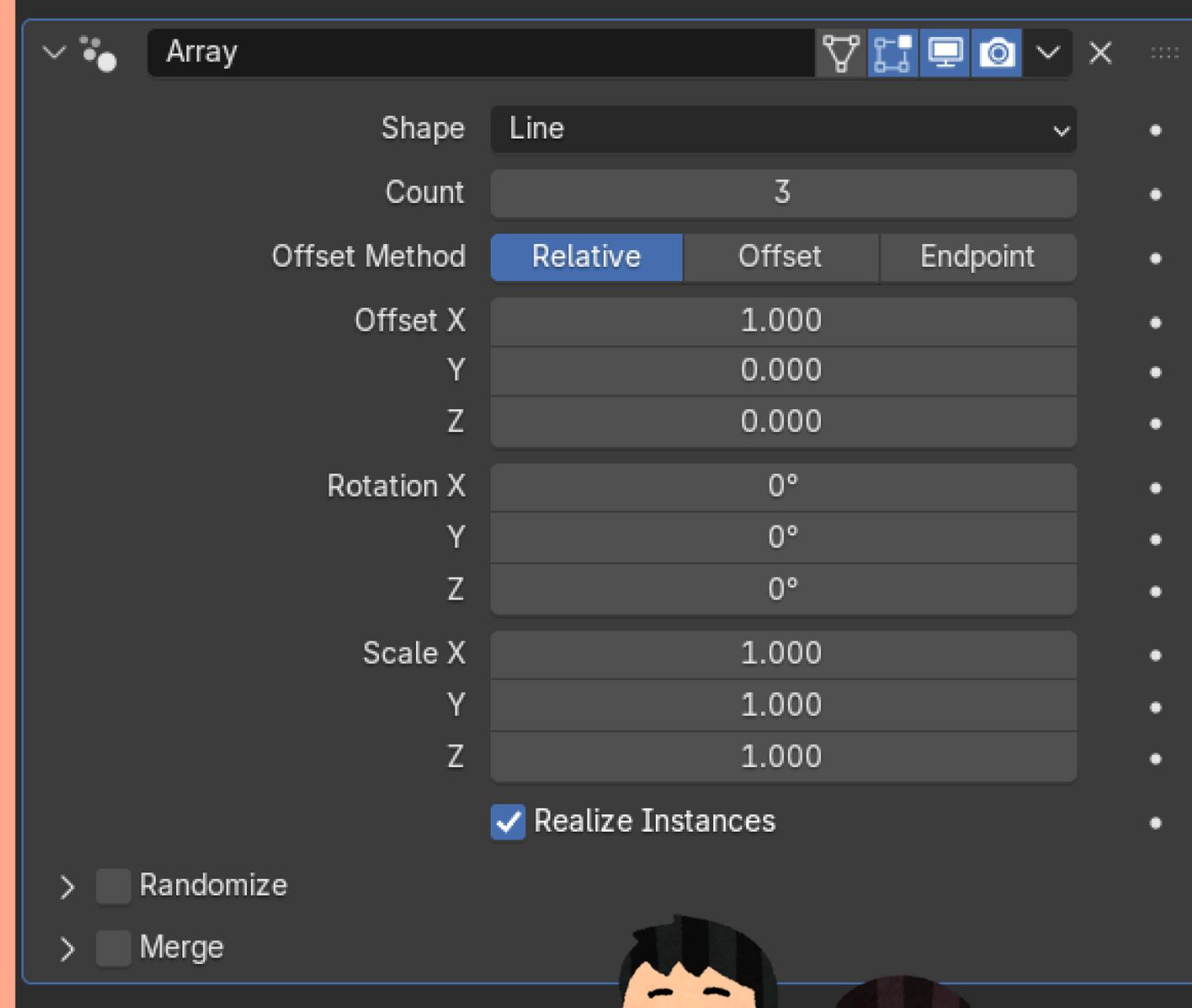


# Modifiers

## Array

**Creates multiple repeating copies of your object in a sequence. It is the go-to tool for generating repetitive structures like chains, fences, brick walls, or stairs .**

- **Relative / Constant Offset:** Spaces the copies out in a straight line based either on the object's own size or by exact measurements.
- **Object Offset:** Uses a secondary object (like an "Empty") to control the movement, rotation, and scale of the copies. This is how you create complex circular, curving, or spiraling patterns.

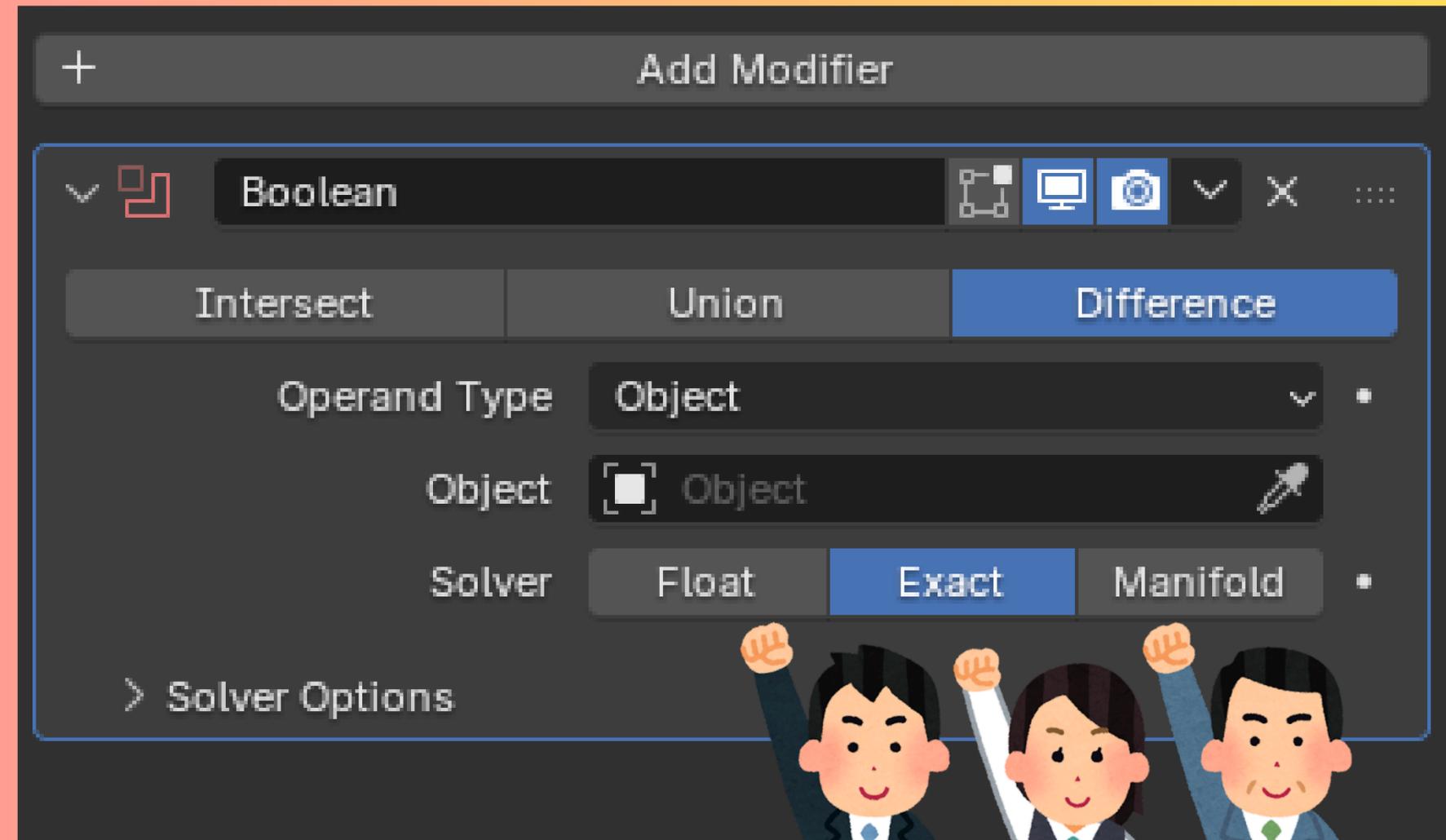
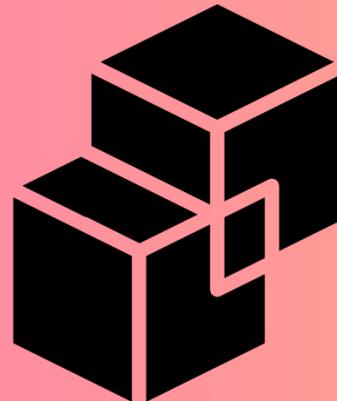


# Modifiers

## Boolean

Performs logical operations using another object to reshape your mesh.

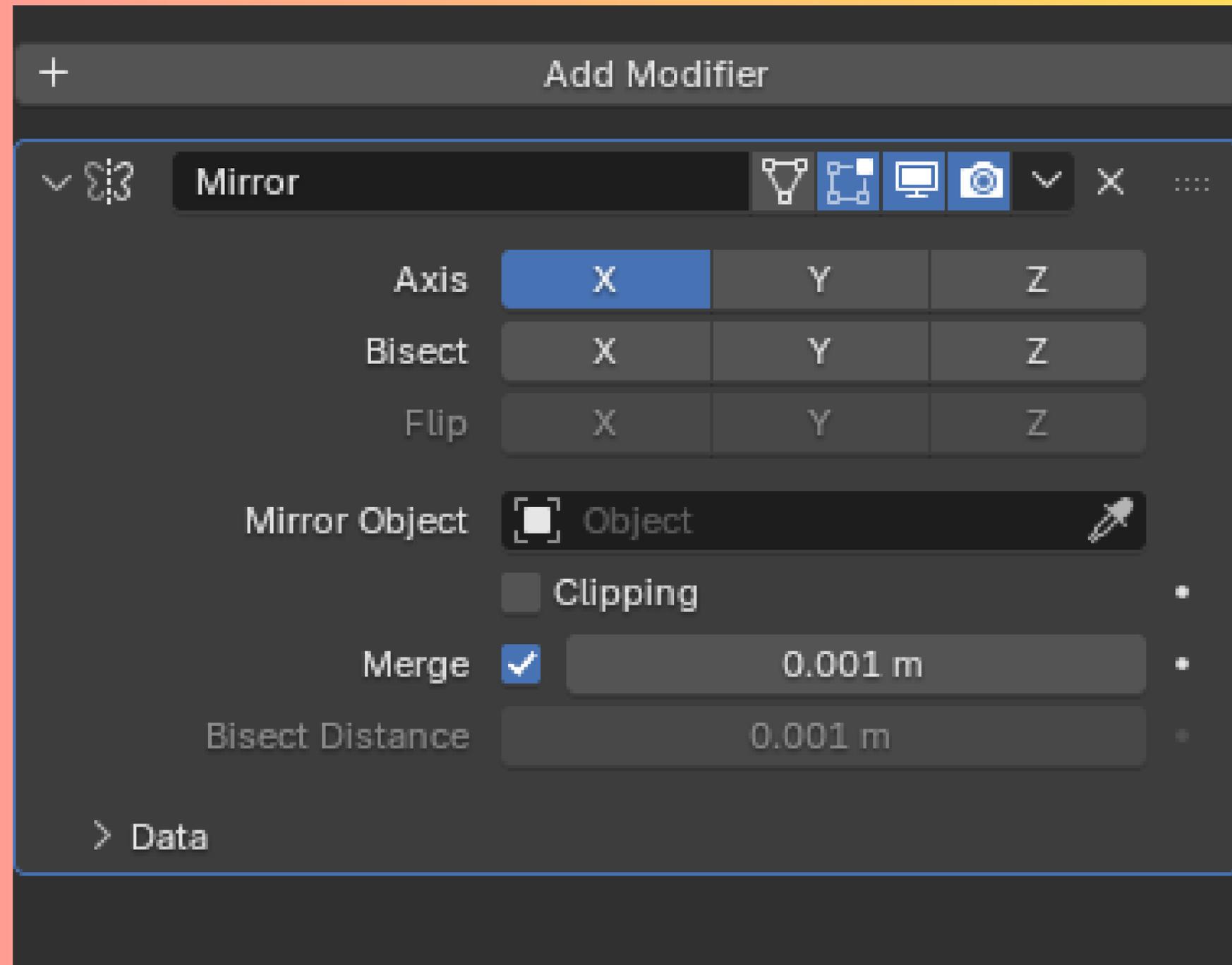
- **Difference:** Carves one shape out of another (like a hole punch).
- **Union:** Fuses two shapes together into a single mesh.
- **Intersect:** Keeps only the volume where the two shapes overlap.



# Modifiers

## Mirror

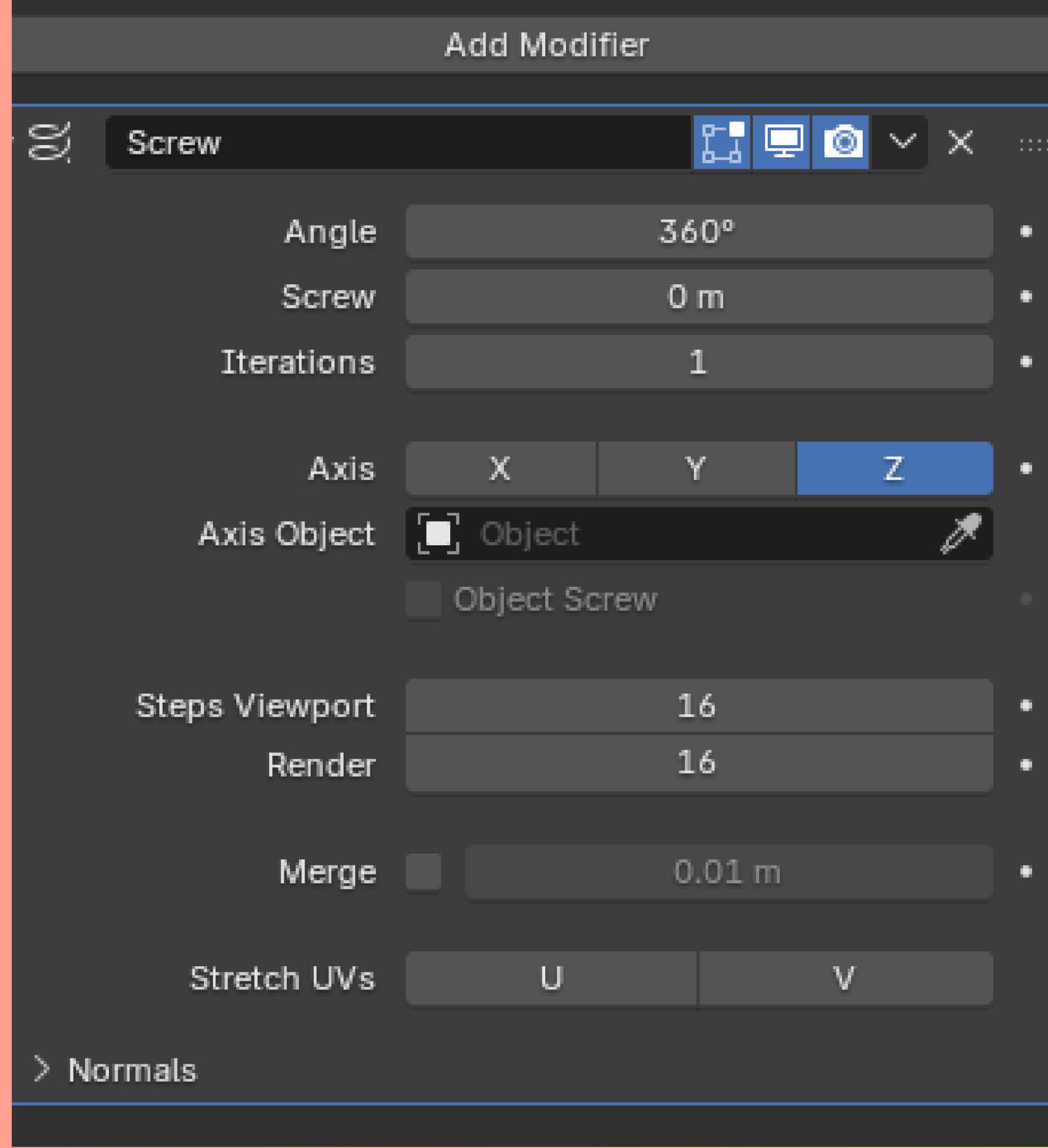
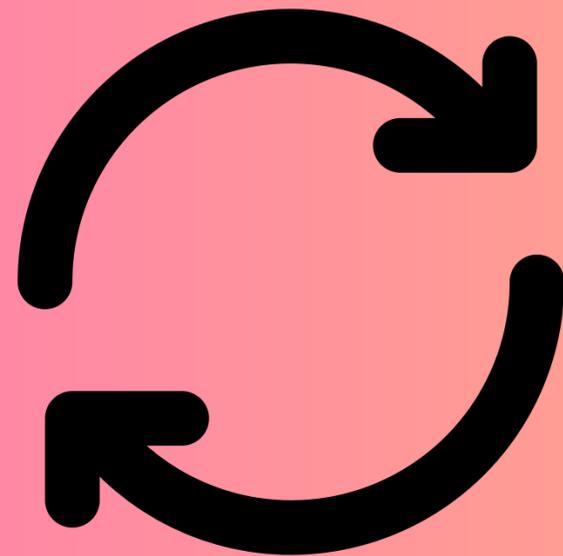
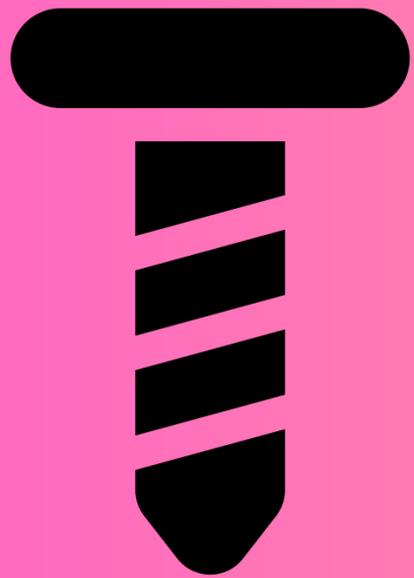
Symmetrically duplicates your geometry across a chosen axis (X, Y, or Z). This is essential for modeling symmetrical objects like faces, cars, or aircraft, allowing you to work on just one half while the other updates automatically



# Modifiers

## Screw

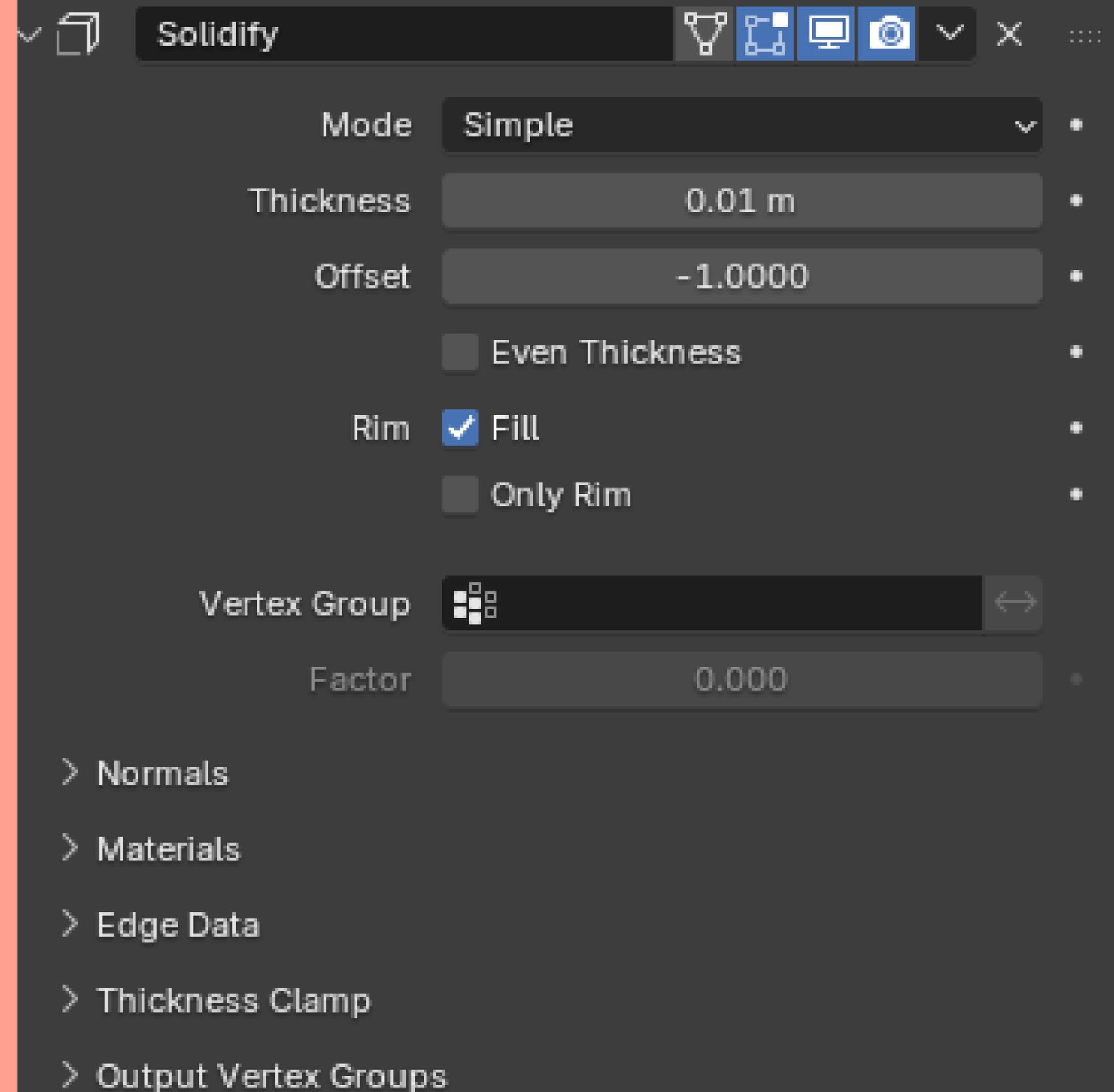
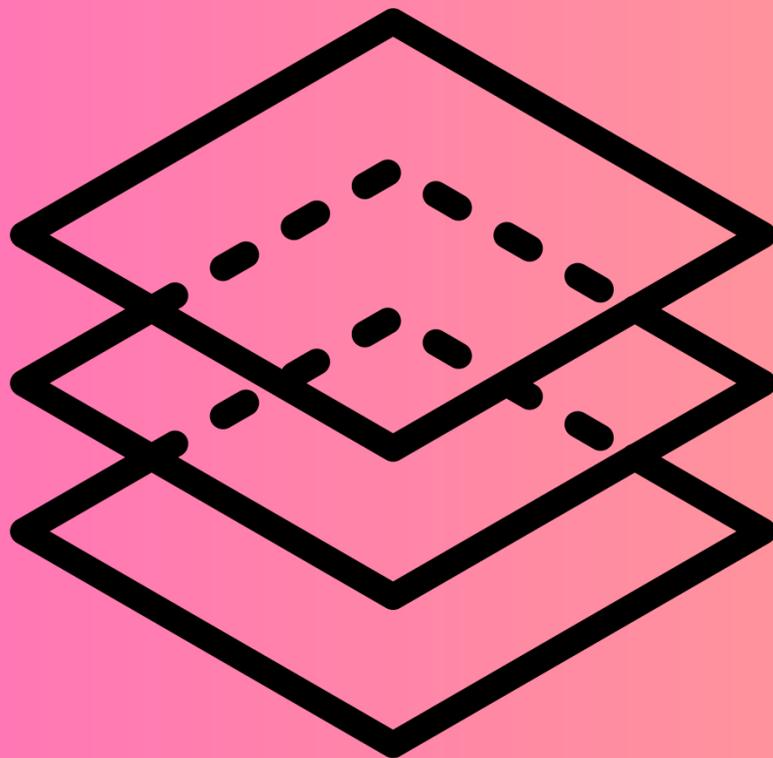
Takes a 2D profile (like a line or curve) and spins it around an axis to create a 3D spiral or helix. It is used to generate screws, springs, bolts, and spiral staircases.



# Modifiers

## Solidify

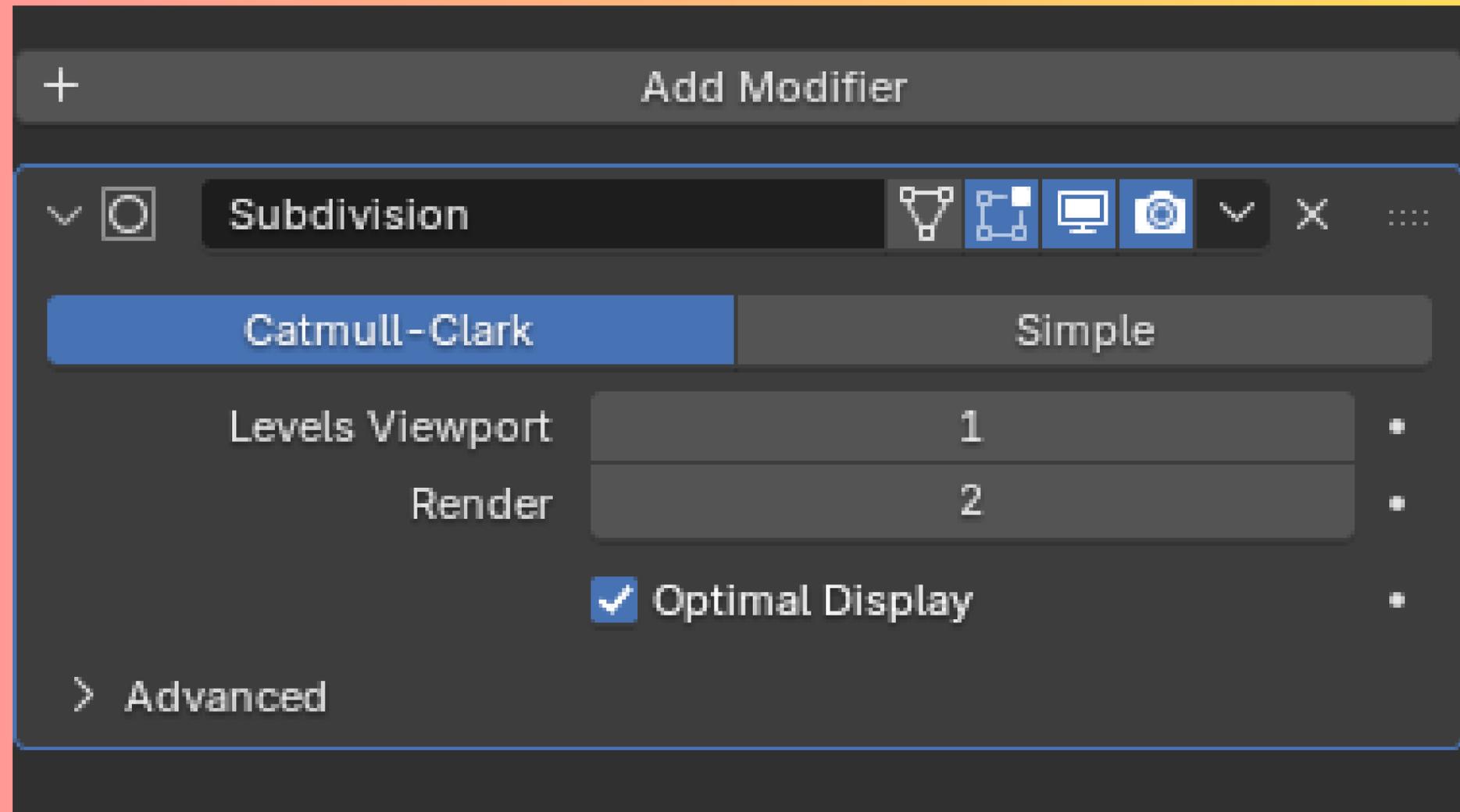
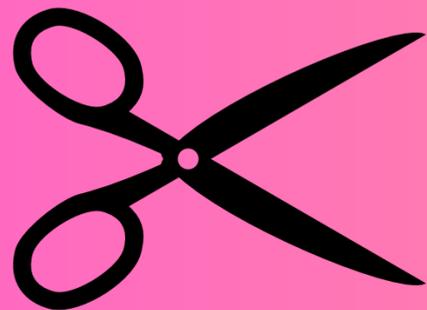
Adds depth or thickness to a flat, paper-thin surface. It instantly turns a 2D plane into a 3D object with volume, making it perfect for walls, armor plating, or cloth.



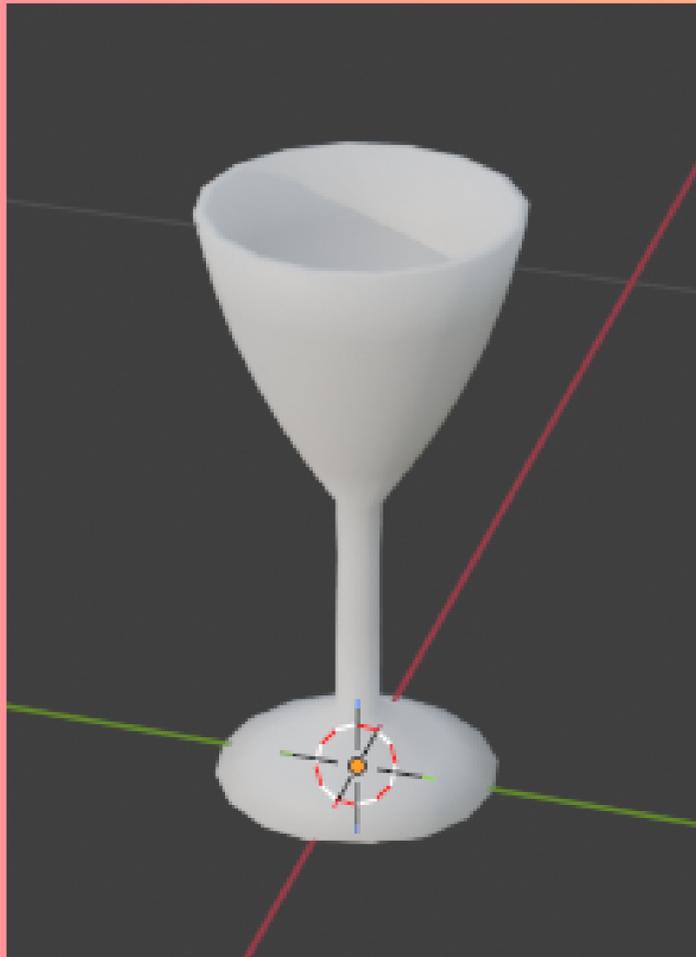
# Modifiers

## Subdivision Surface

Divides existing faces into smaller ones to smooth out the geometry. It is the standard method for taking a low-poly model and turning it into a smooth, high-resolution model.

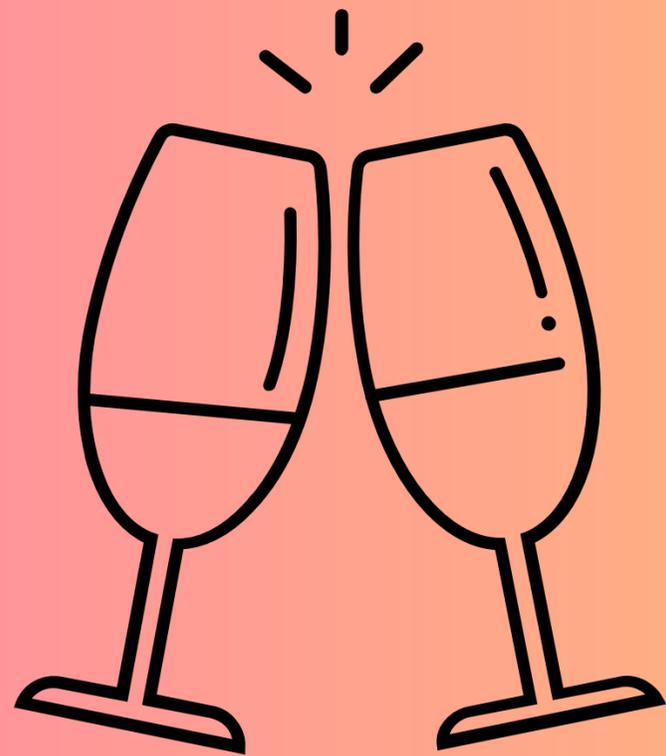


# Lets Test what you learned!



Model a cup/glass

Put your projects in  
showoff!



# Open for Questions/ Research



Hopefully y'all learned something!

