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# DevLUp FSU

## GBM #5



October 10th, 2024

# Welcome!

# Next Few Weeks

Date	Week #	GBM Title	Secondary Event	Presenter
29 Aug	1	(No Meeting)	Involvement Fair	
5 Sep	2	Intro to Club and New Club Project		Club
12 Sep	3	Intro to Game Design		Chris
19 Sep	4	Intro to 3D Game Dev in Godot		Dion
26 Sep	5	(No Meeting)	Hurricane	
3 Oct	6	Intro to 3D Modelling in Blender		Jake, Parker, Emma
10 Oct	6	Blender Animations		Ares
17 Oct	7	Blender Materials		Parker, Jake
24 Oct	9	Pixel Art		Ares, Emma
31 Oct	10	Tile Maps	Game Jam!	Jake, Ares
7 Nov	11	Writing for Games		Emma, Chris
14 Nov	12	UI Design		Emma, Jake
21 Nov	13	3D Math		Dion
28 Nov	14	Thanksgiving Break		
5 Dec	15	Goodbye Chris Social		Chris
12 Dec	16	Finals		

# DevLUp War Games - Game Jam

- DevLUp-wide Game Jam
  - FSU, UF, FIT, FAU, and more
- November 1st — 3rd
  - 48 hours
  - Starts Friday afternoon/evening
  - Ends Sunday afternoon/evening
- We will likely have access to the Innovation Hub (still needs to be reserved)

COUNTDOWN TO GAME JAM: **21 DAYS**



#00 showoff recap

# Intro to 3D Animation

## PLAN OF THE DAY

- ★ Keyframes :D
- ★ Bones :)
- ★ Weight painting :o
- ★ Physics??? Procedural  
animations?????? :O???

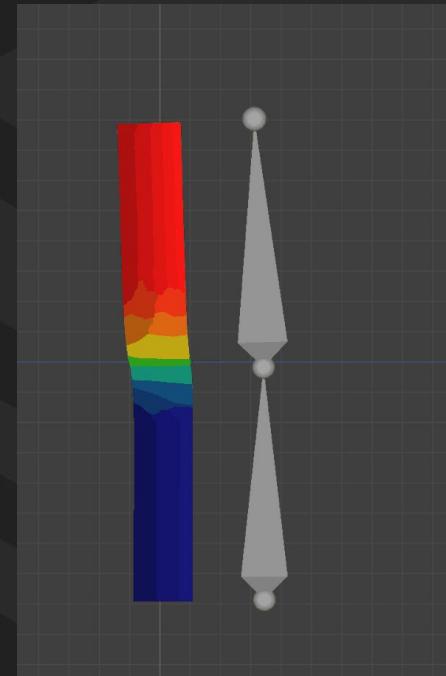


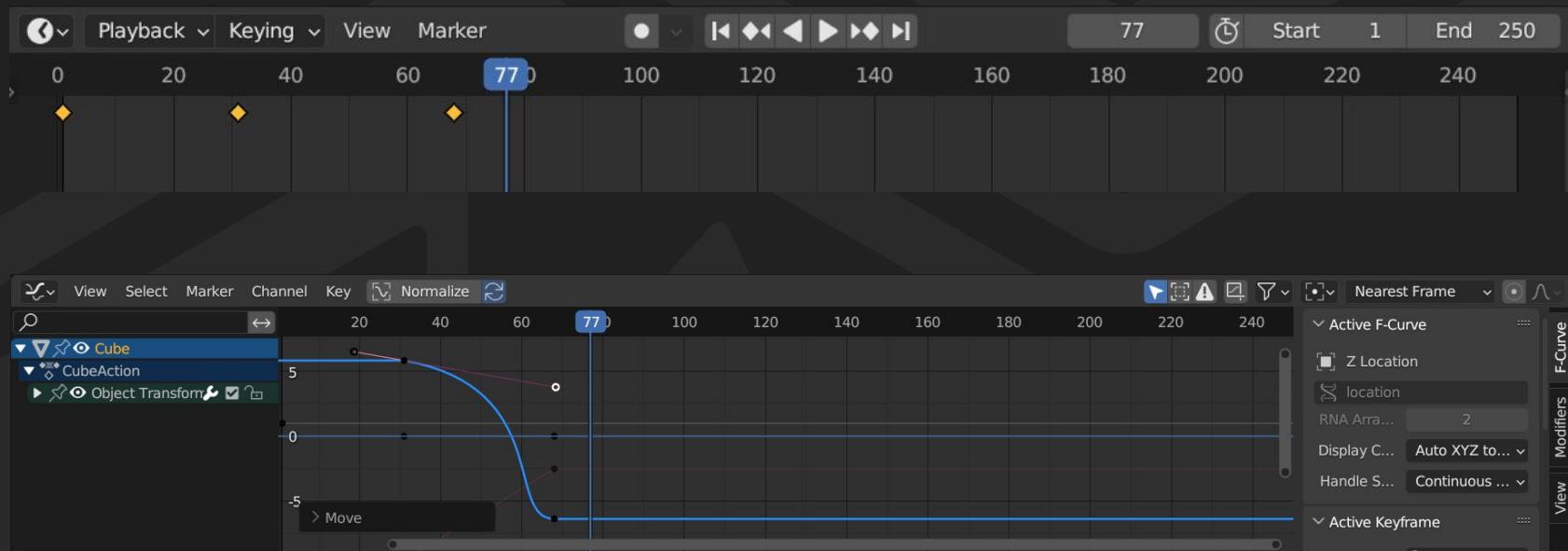
Fig. O: *what the actual*

# Keyframes

# Keyframe Animation

Add Keyframe: i

- You can animate basically any property for any asset in the scene



# Keyframe Animation

Here, we're taking Suzanne  
The Monkey for a little ride  
with two “location” keyframes

Add Keyframe: i



Playback ▾ Keying ▾ View Marker

● ◀◀◀▶▶▶

1 Start 1 End 250

1

20 40 60 80 100 120 140 160 180 200 220 240

# Keyframe Animation

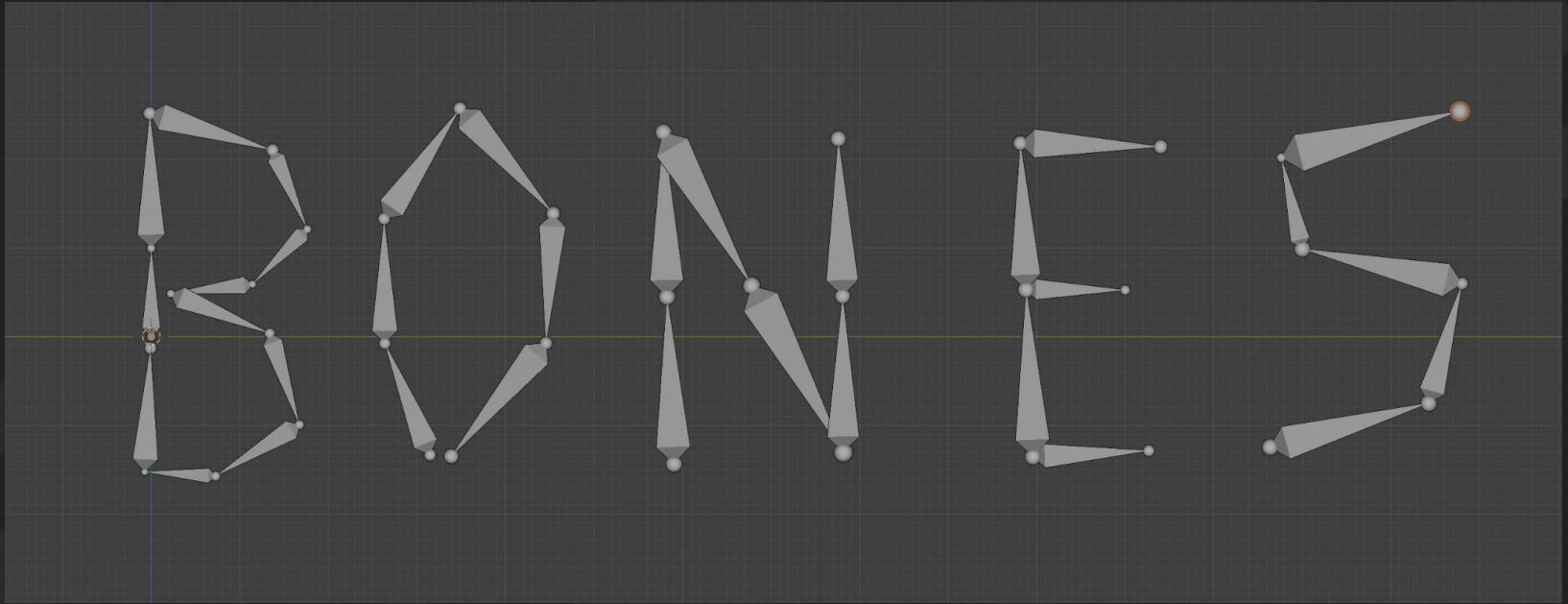
Remember, you can keyframe nearly every property: here, we're animating Suzanne's eye color. Be careful with those Suzanne!

Add Keyframe When Hovering Over A Property: i

The image shows the Blender 3D interface. In the center is a low-poly version of the Suzanne model, with its eyes colored red. The timeline at the bottom left shows frame 1 is selected. The properties panel on the right displays the material settings for the active object:

- GGX
- Random Walk
- Base Color: A color swatch followed by a long red bar indicating a keyframe.
- Subsurface: A color swatch followed by the value 0.000.
- Subsurface Radius: A color swatch followed by the value 1.000, with additional values 0.200 and 0.100 listed below.

# Bones



# Armatures

- An armature is a group of bones (often attached to each other) that can be posed
- Think of them like a literal wooden armature

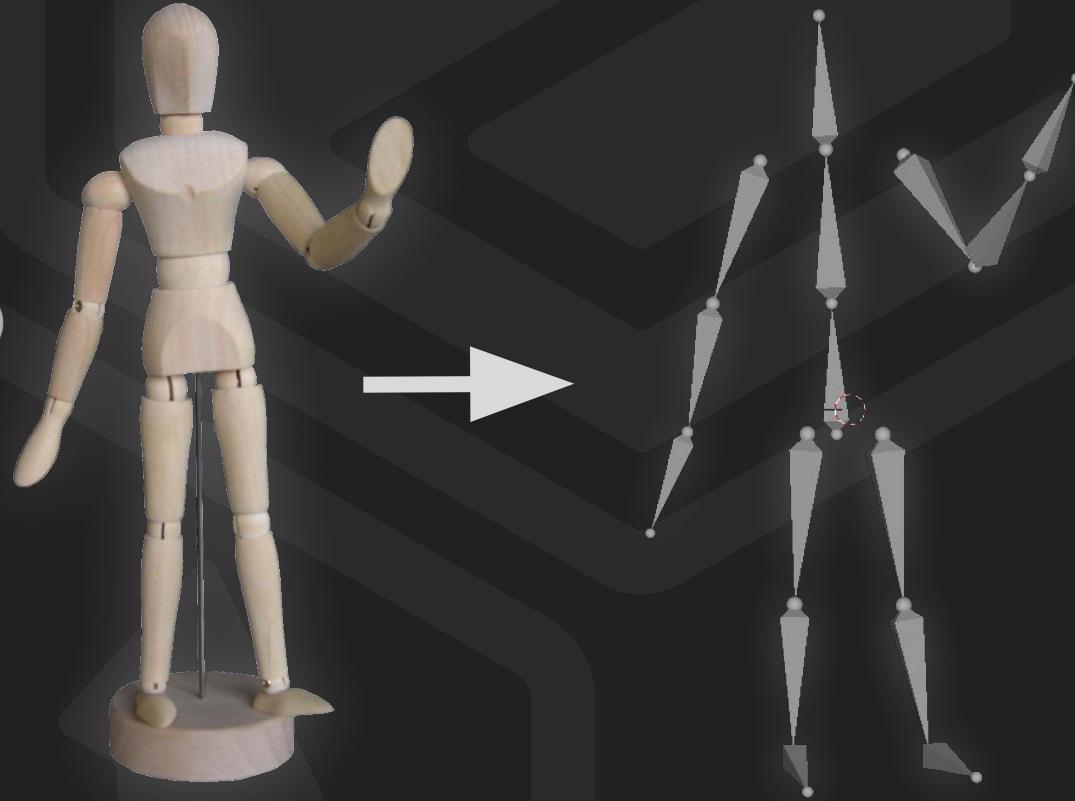


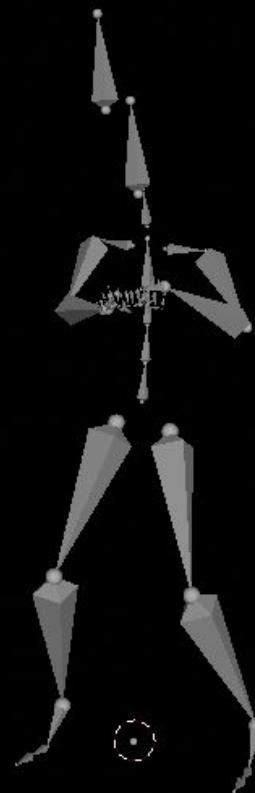
Fig. 2: I really need to get one of these things...  
Y'know, just to talk to. 😂😂😂

# Keyframe Animation

Here's some keyframe animation playing on a armature:



(Alec made this for last year  
and I think it's beautiful)



# Weights

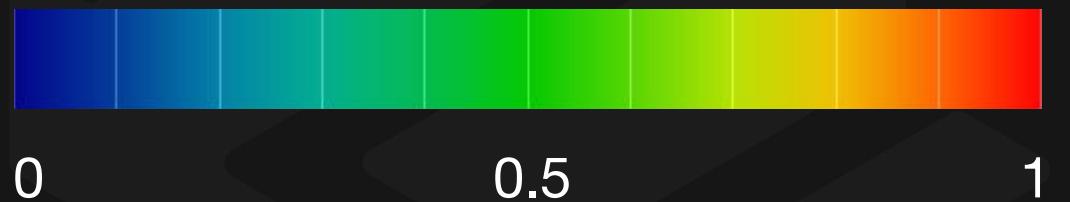
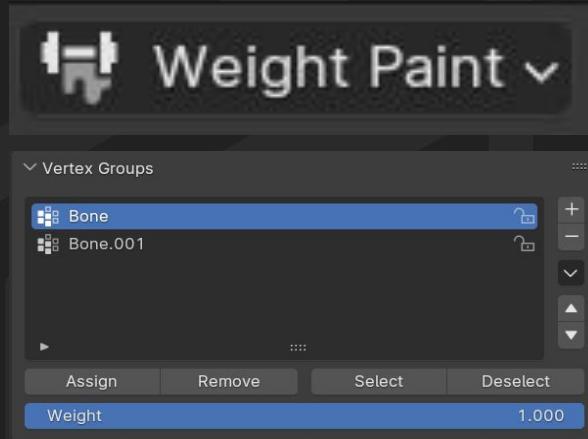
# Weights:

How do parts of a mesh  
get affected by a bone  
being animated?

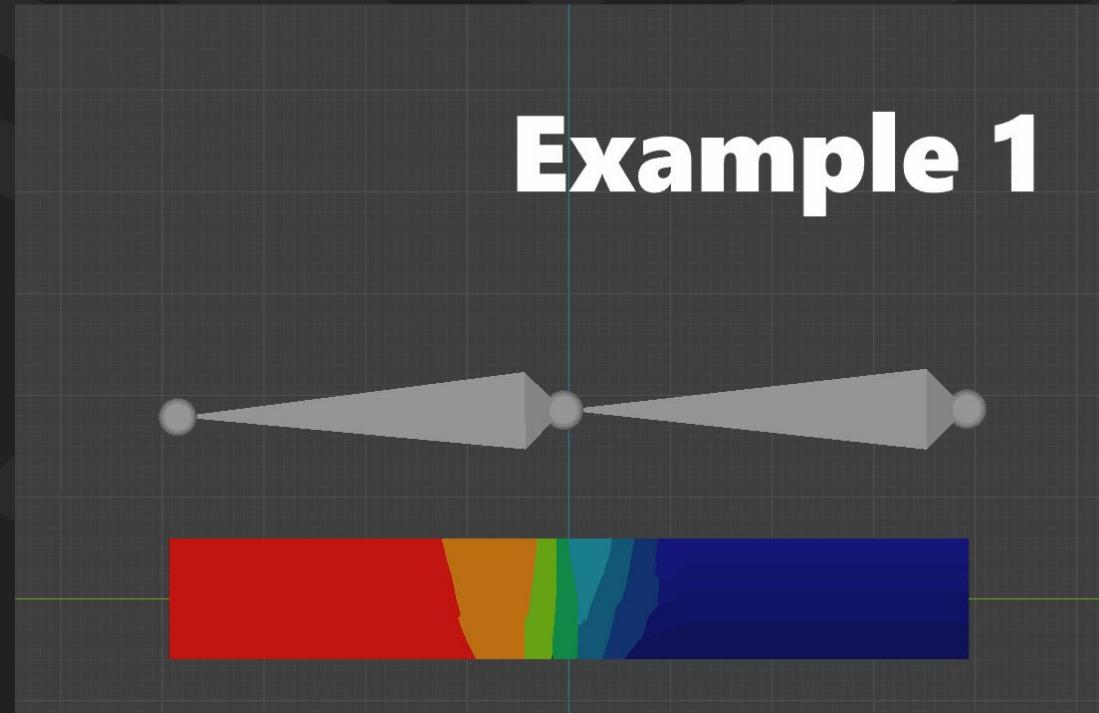


# Weight Painting:

With weight painting, you can assign the weights (the degree a bone affects) a vertex on the mesh:



## Example 1



# HOW DOES ANY OF THIS WORK?

# Keyboard Shortcuts you forgot:

Move: G

Rotate: R

Scale: S

Keyframe: I

Add objects: Shift + A

Change Mode: Tab

Selection and Cursor: Shift + S

Loop Cut: Ctrl + R

Duplicate: Shift + D

Repeat Last Action: Shift + R



Try opening a cheat sheet when you work.

# Jakes Marine Creatures!!!! We WILL(Y) make them swim!



# Additional Resources:

Tech Artist who makes really great shader tutorials:



Ben Cloward

@BenCloward 51.1K subscribers 206 videos

This channel focuses on shader creation and other game development tip... >

Blender Guru:



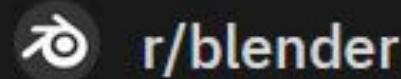
Blender Guru •

@blenderguru 2.68M subscribers 264 videos

Subscribe for tutorials on learning Blender (open source 3d software). >

[poliigon.com](http://poliigon.com) and 1 more link

Blender Reddit



Artstation (many artists post great breakdowns)



ARTSTATION

# Exit Survey:



Fig. 1: Homer dislikes exit surveys.

