


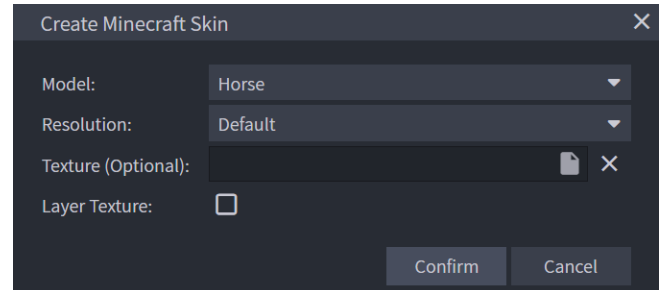
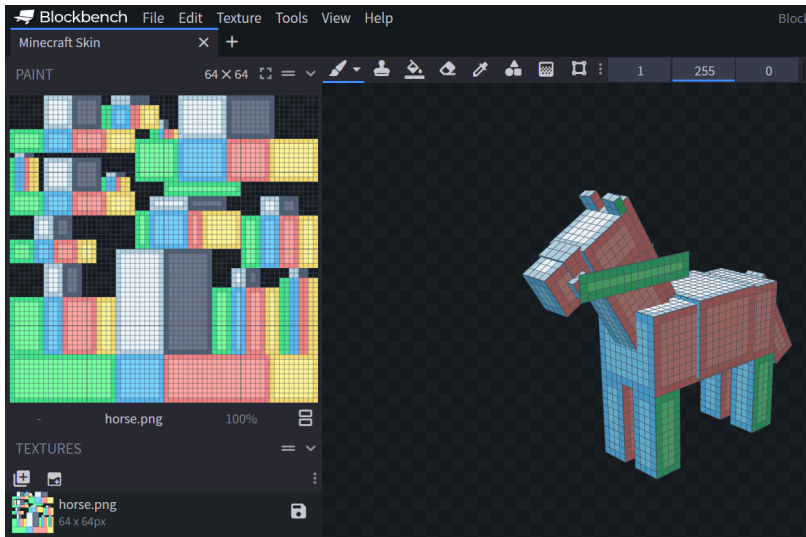


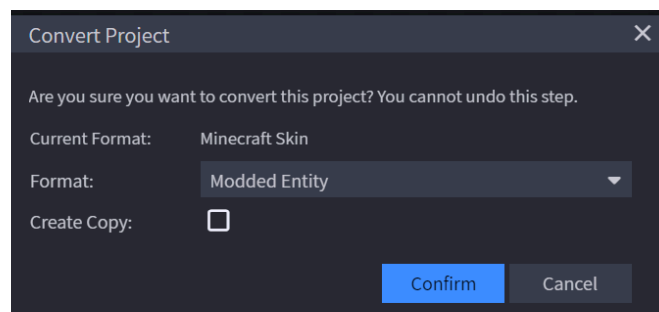
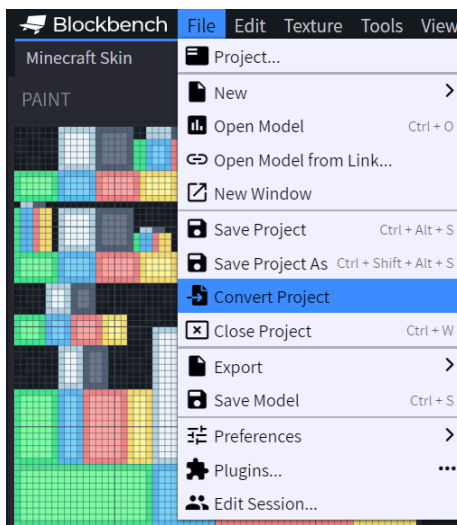
Let's Code a Modded Entity!

1) Open  Blockbench App, select  Minecraft Skin and  Create New Model

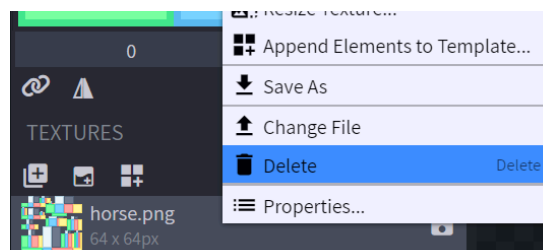
2) Chose any Model (for this tutorial we will be creating our own Horse Variant)



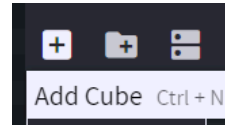
3) Select **File >> Convert Project >> Format: Modded Entity >> Confirm**



4) **Delete** the Texture
(**Right-Click** on it and select **Delete**)



5) Click on Add Cube on the Right Side of the Screen



6) Select movement by using these Icons

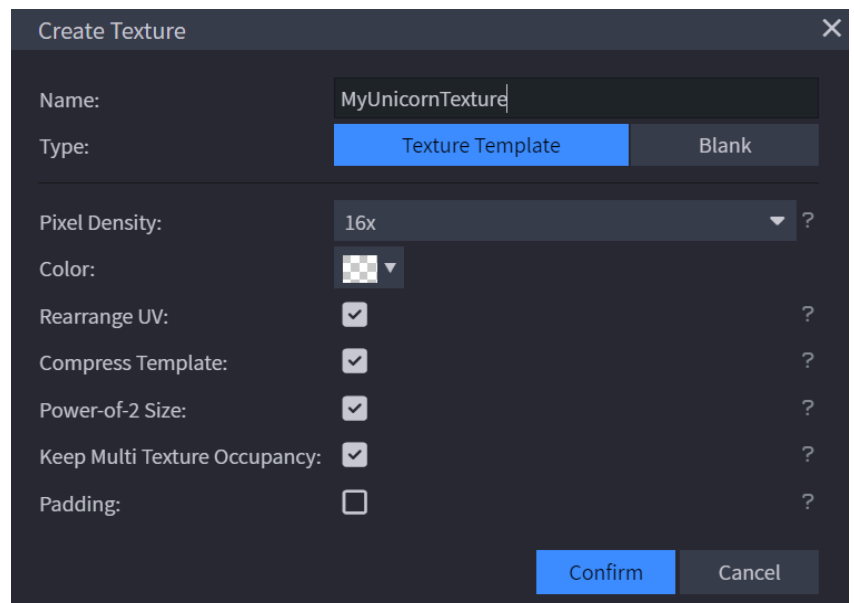
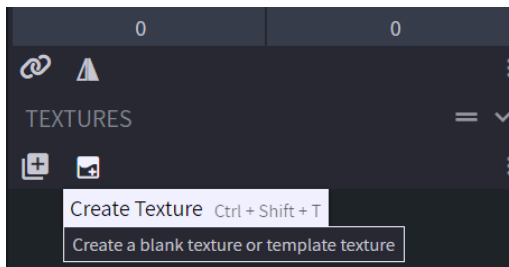


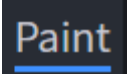
(Move, Resize, and Rotate)



I made a unicorn horn!

7) After creating the Model, we create its **Texture**



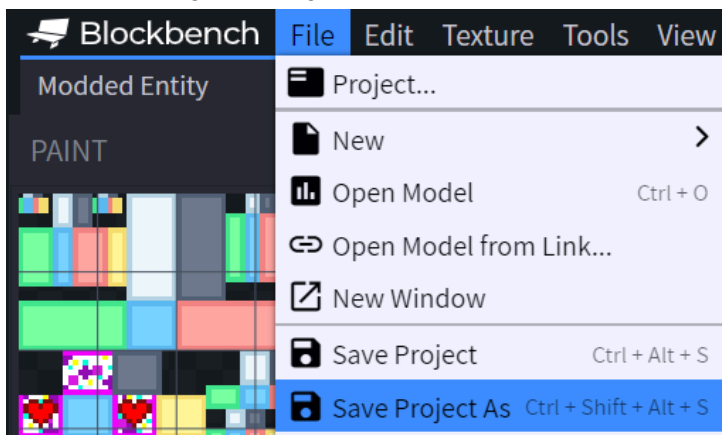
8) Switch to the Paint tab  and start designing the Texture of your Mob!



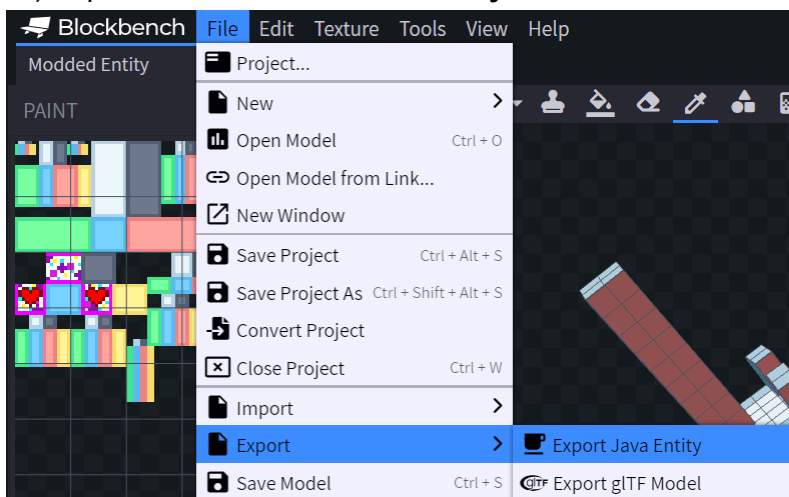
I decorated its saddle!

9) Save the Project (**File >> Save Project As >> Name Your Project**)

Please Save your project to the Downloads Folder!



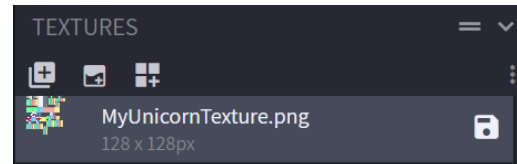
10) Export the **Model** as a **Java Entity**



11) Save the **Texture** by clicking the

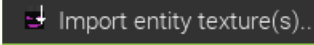


button on



Move Back to MCreator!

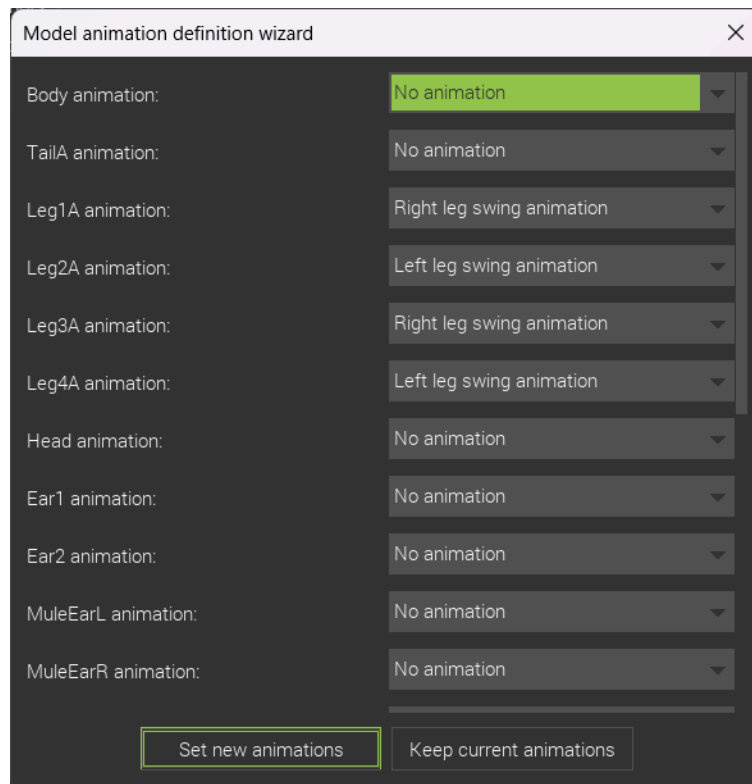
12) Import the **Entity Texture** by selecting **Resources >> Texture Files >>** 

>>  Import entity texture(s)... >> [Select your Entity Texture]


13) Import the **Java 3D Model** by selecting **Resources >> 3D models and texture mappings**

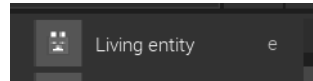
>>  Import Java 3D model... >> [Select your 3D Model File]

14) Adjust the **Model Animations** as Necessary, then Select **Set new Animations**

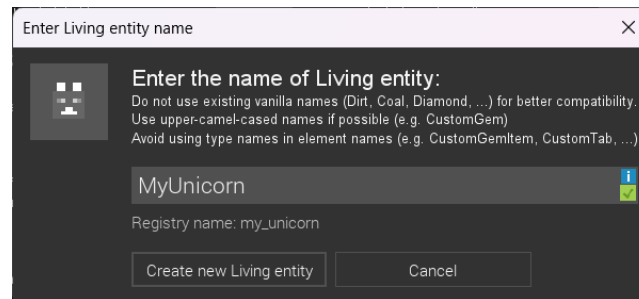


Now, we can create the Mod!

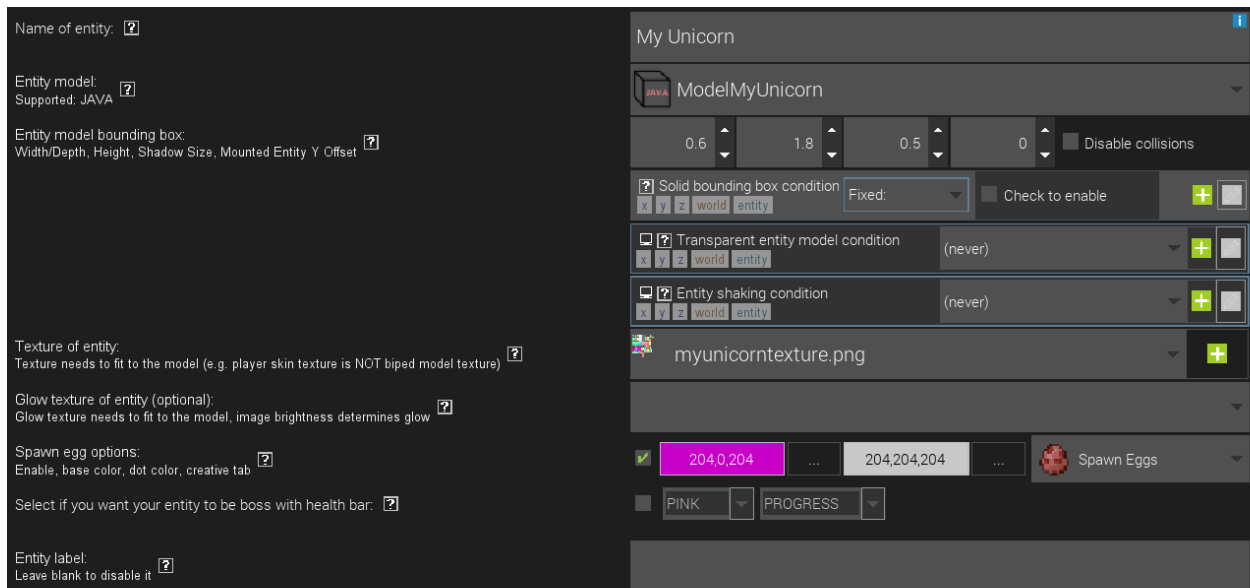
15) Click the “Green Plus Sign”  and select



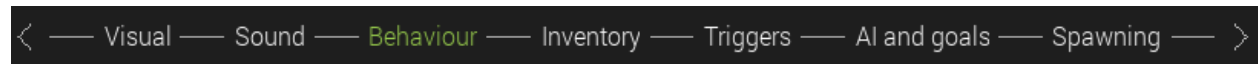
16) Name your tool (using “CamelCasing”) and **Create new Living entity**



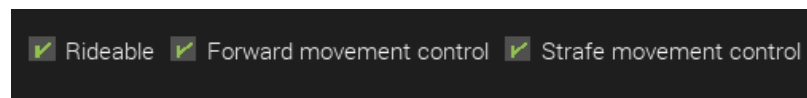
17) Change **Entity model** and **Texture of entity** to the correct files



18) Customize your mobs by using the tabs below:

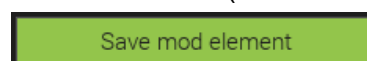


For our Unicorn, let's make it **Rideable and Controllable!**



(This is in the **Behavior Tab**)

19) Finally save your **Living Entity** by clicking




Now create a Jump Button!

20) Create a Procedure (like “UnicornJumpAbility”) and give it the following Code

Objective: We want to give the Entity Upward (positive y-axis) Movement **ONLY** if we are riding the correct mob.

Step 1: Use an IF statement to check IF we are riding the CORRECT MOB
Find the following Code Blocks (Puzzle Pieces)

Flow control



(In the Search Bar, write “type of”)

type of

Is (sub)type of

Is (sub)type of

No entry selected

Entity data

Get lowest entity that

Event/target entity

is riding, or self if not riding anything

Entity management

Attempt to override motion vector of

to vx:

0

vy:

1

vz:

0

Step 2: Put these pieces together!

Event trigger - triggered by external call
or when (global trigger): No additional trigger

if

Is

Get lowest entity that

Event/target entity

is riding, or self if not riding anything

(sub)type of

My Unicorn

do

Attempt to override motion vector of

Get lowest entity that

Event/target entity

is riding, or self if not riding anything

to vx:

0

vy:

1

vz:

0

This code means:

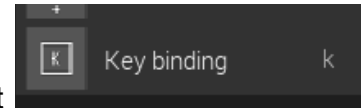
IF the entity we are riding **IS** a **Unicorn Entity**

THEN give the **Unicorn Entity** upward movement in the **Positive Y-axis** with a jump factor of **1**
(Try changing the **vy**: to increase the jumping power!)

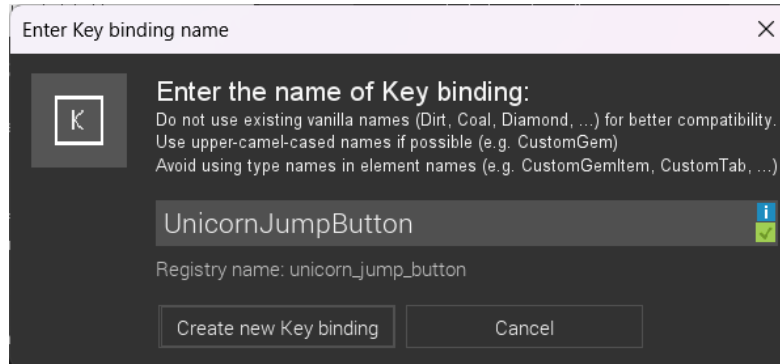
21) Once finished with the **Procedure**, select

Save mod element

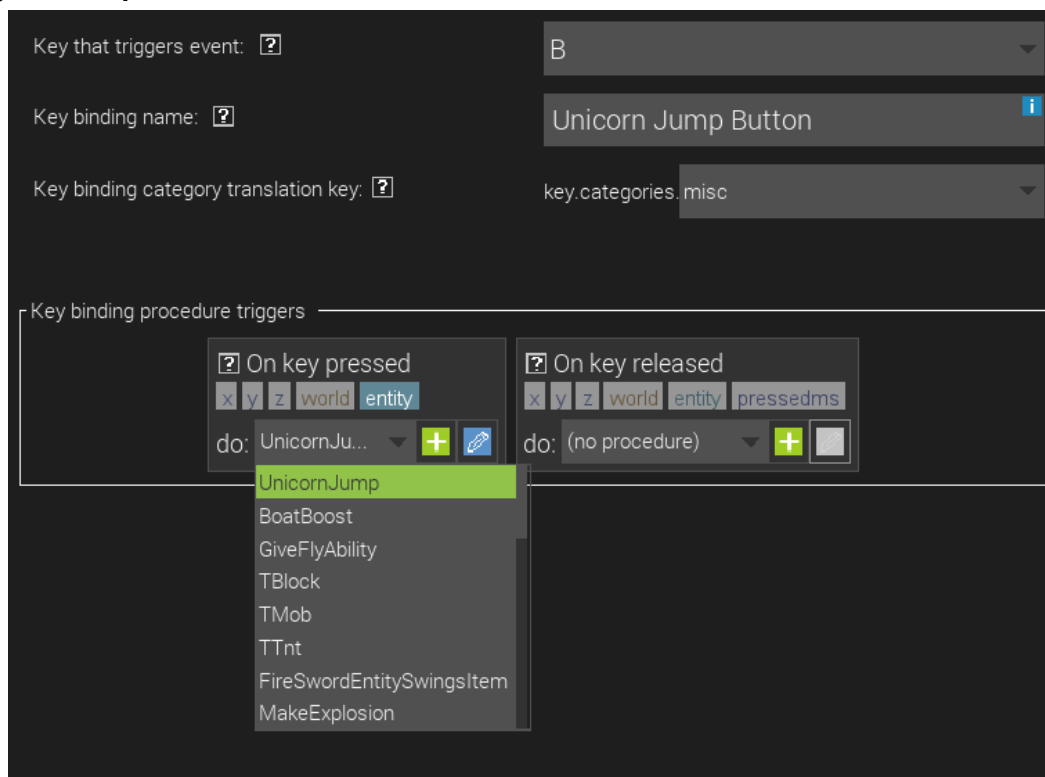
22) Click the “Green Plus Sign”  in the **Workspace** and select



23) Name your tool (using “CamelCasing” if necessary) and **Create new KeyBinding**



24) Choose a Keyboard Key for the Jump Button and then give the **On key pressed** trigger your **Jump Procedure**




(I chose B as my Button)

15) Finally save your **Key Binding** by clicking

Save mod element



















Time to play test!



16) Click on the  in the top right corner of your screen and create a new world in CREATIVE MODE to test out your weapon!

Your Turn!

17) Try picking one of the other Events in the **Triggers** Tab of your **Living Entity** and create a new **Procedure** for it.

<p><input type="checkbox"/> When it is struck by lightning</p> <p>x y z world entity</p> <p>do: (no procedure)  </p>	<p><input type="checkbox"/> When entity falls</p> <p>x y z world entity</p> <p>do: (no procedure)  </p>	<p><input type="checkbox"/> When entity dies</p> <p>x y z world entity sourceentity</p> <p>do: (no procedure)  </p>
<p><input type="checkbox"/> When entity is hurt</p> <p>x y z world entity sourceentity</p> <p>do: (no procedure)  </p>	<p><input type="checkbox"/> When right clicked on entity</p> <p>x y z world entity sourceentity itemstack</p> <p>do: (no procedure)  </p>	<p><input type="checkbox"/> When this entity kills another one</p> <p>x y z world entity sourceentity</p> <p>do: (no procedure)  </p>
<p><input type="checkbox"/> On entity tick update</p> <p>x y z world entity</p> <p>do: (no procedure)  </p>	<p><input type="checkbox"/> When player collides with this entity</p> <p>x y z world entity sourceentity</p> <p>do: (no procedure)  </p>	<p><input type="checkbox"/> On initial entity spawn</p> <p>x y z world entity</p> <p>do: (no procedure)  </p>