

Introduction

In the following file, we present a tabular record of the comparison results between images generated solely by the **FLUX.1 [dev]** model, images generated from these using a specialization prompt via **FLUX.1-Kontext [dev]**, images generated by applying the specialization via **FLUX.1-Kontext [dev]** and additionally using the corresponding **LoRA** and meshes generated from all the above with **TRELLIS** model.

The prompts utilized during the generation, training and test of the models, along with all the images and meshed presented here, are available in the */data* folder of the compressed file *data.zip* available in the Git repository: <https://github.com/alejandro-garnung-citic/material-alch3mist/releases>.

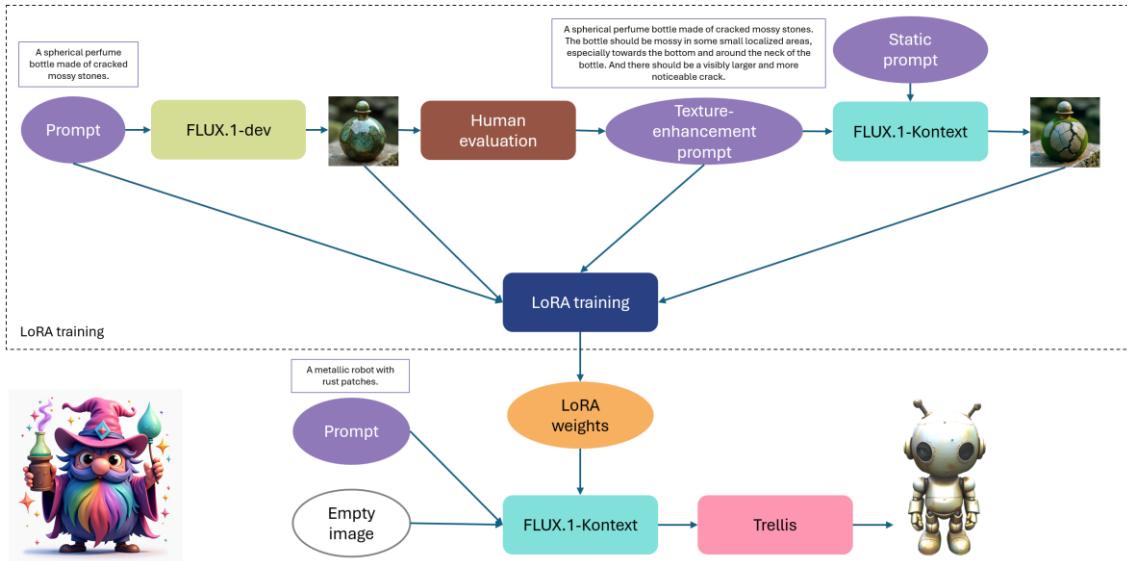


Fig. 1. Full workflow of our project.

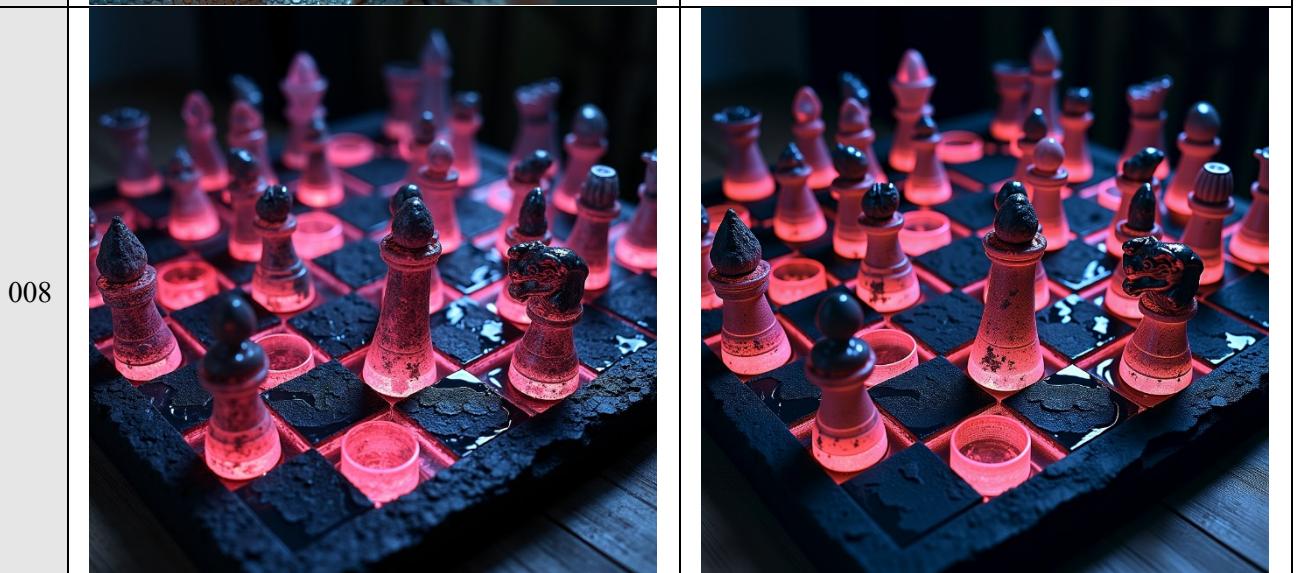
Results

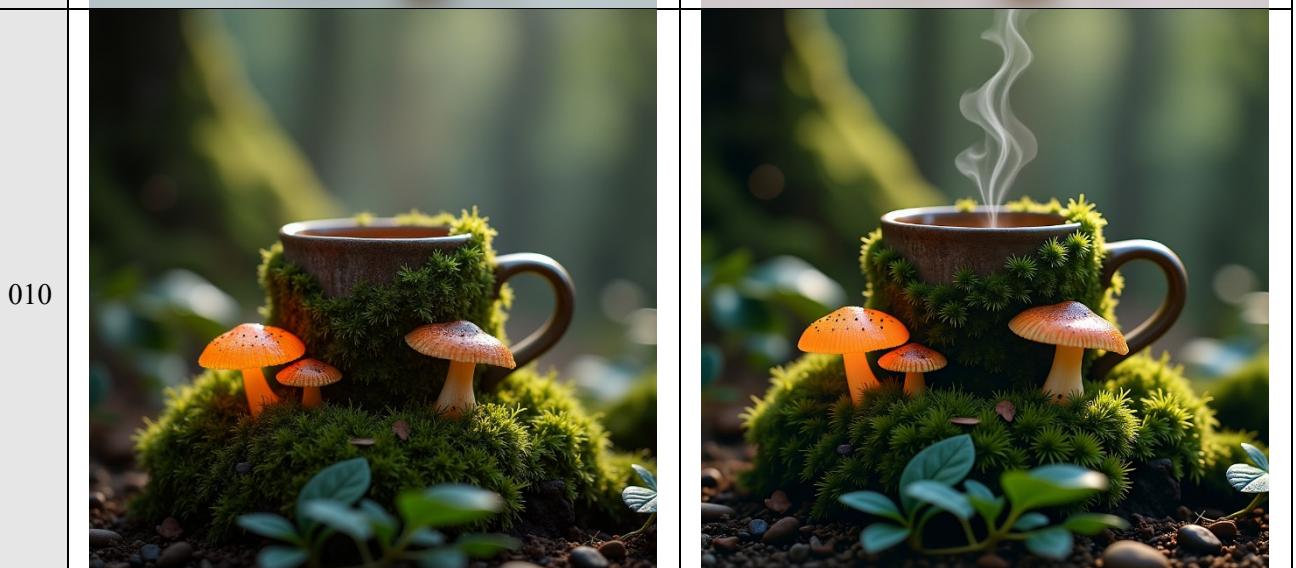
Below are the comparative results of the images and meshes generated using the mentioned models.

FLUX.1 original images vs FLUX.1-Kontext enhanced images (LoRA training)

#	Original Image (FLUX.1 [dev])	Specialization (FLUX.1-Kontext [dev])
000		
001		
002		











018



019



020



021



022



023



024



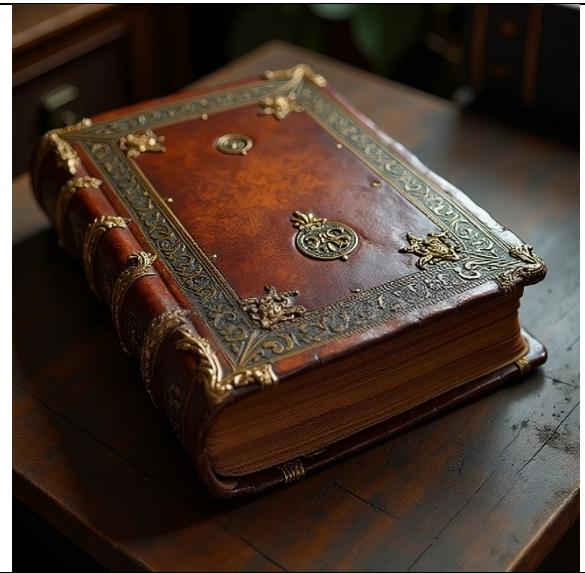
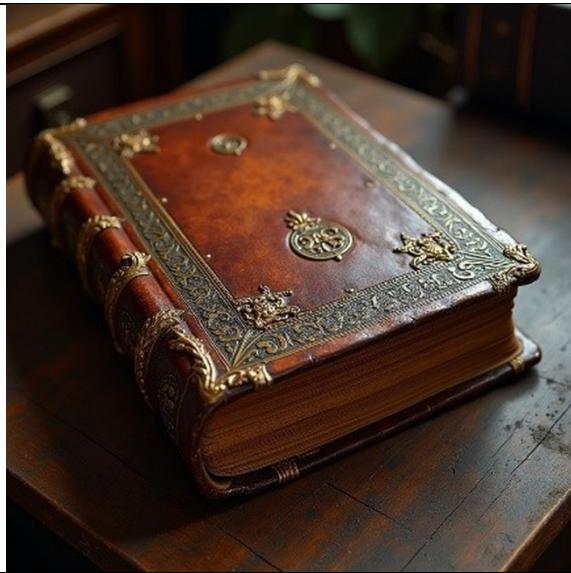
025



026



027



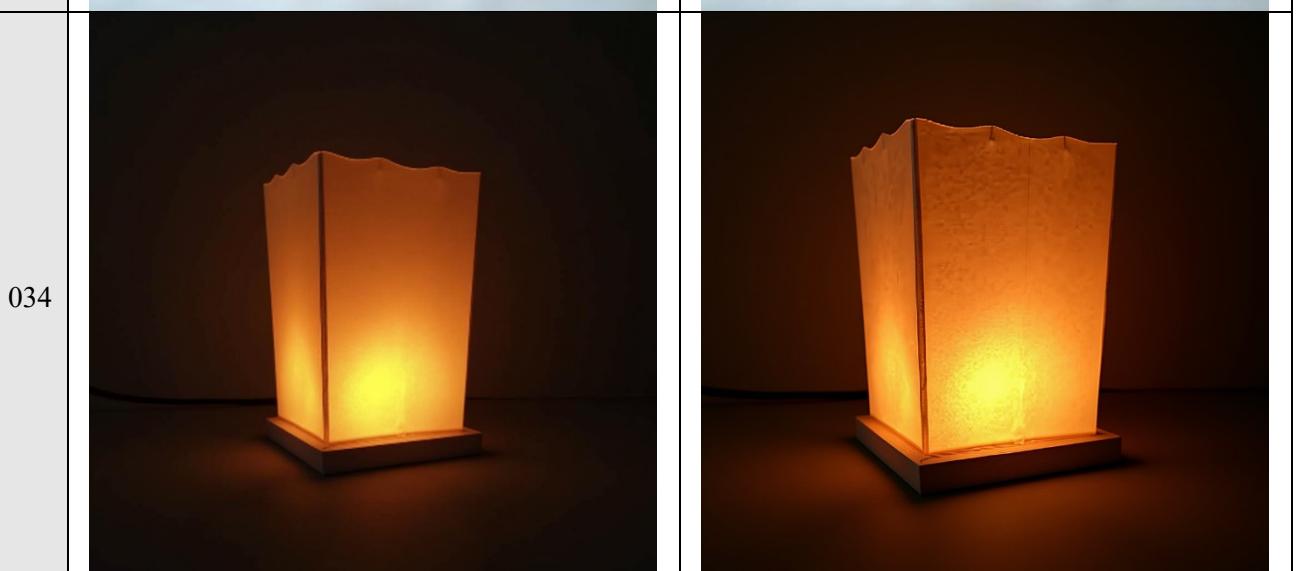
028

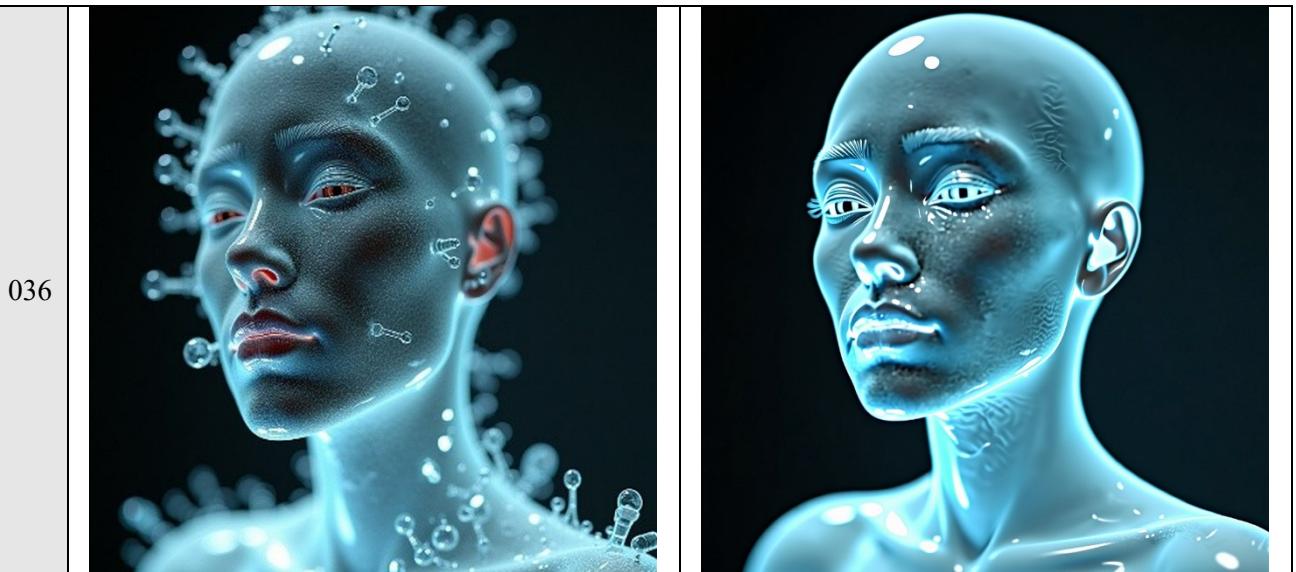


029









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043



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048



049



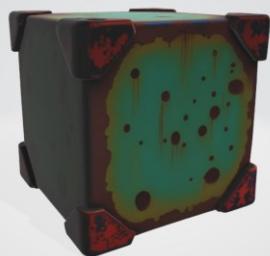
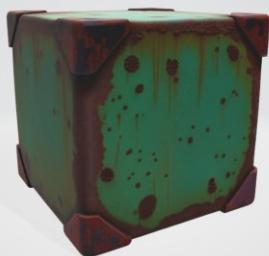
FLUX.1 original meshes vs FLUX.1-Kontext enhanced meshes (LoRA training)

#	Original Mesh (FLUX.1 [dev])	Specialization (FLUX.1-Kontext [dev])
000		
001		
002		

003



004



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006



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008



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010



011



012



013



014



015



016



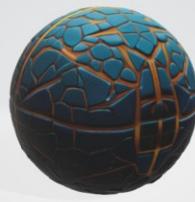
017



018



019



020



021



022



023



024



025



026



027



028



029



030



031



032



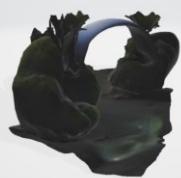
033



034



035



036



037



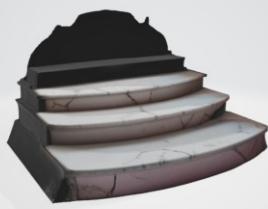
038



039



040



041



042



043



044



045



046



047



048



049



FLUX.1 vs FLUX.1-Kontext + LoRA test images (final flow)

#	Baseline Image (FLUX.1 [dev])	Specialized Image (FLUX.1-Kontext [dev] + LoRA)
000	 <p>“Make a mechanical owl perched on a twisted iron branch, feathers made of thin bronze plates, etched with delicate patterns, subtle rust and patina, glowing amber eyes.”</p>	 <p>“Alch3mist, make a mechanical owl perched on a twisted iron branch, feathers made of thin bronze plates, etched with delicate patterns, subtle rust and patina, glowing amber eyes.”</p>
001	 <p>“Make a crystal skull embedded with gold filigree, surface covered in tiny cracks, faint reflections and light scattering through translucent quartz.”</p>	 <p>“Alch3mist, make a crystal skull embedded with gold filigree, surface covered in tiny cracks, faint reflections and light scattering through translucent quartz.”</p>

002



“Make a pair of steampunk goggles with brass frames, leather straps soaked in rain, scratched lenses reflecting muted light, intricate tiny gears exposed.”

“Alch3mist, make a pair of steampunk goggles with brass frames, leather straps soaked in rain, scratched lenses reflecting muted light, intricate tiny gears exposed.”

003



“Make a humanoid figure wearing a cloak of living vines, leaves intertwined with copper wires, dewdrops on the foliage, subtle bioluminescent veins glowing softly.”



“Alch3mist, make a humanoid figure wearing a cloak of living vines, leaves intertwined with copper wires, dewdrops on the foliage, subtle bioluminescent veins glowing softly.”

004



"Make a sword with a blade forged from molten silver, engraved with arcane symbols, handle wrapped in aged leather, faint scratches and burn marks along the edge."



"Alch3mist, make a sword with a blade forged from molten silver, engraved with arcane symbols, handle wrapped in aged leather, faint scratches and burn marks along the edge."



"Make a mechanical insect with wings of stained glass and copper veins, tiny scratches and dents on its metallic body, soft reflections on the glass wings."



"Alch3mist, make a mechanical insect with wings of stained glass and copper veins, tiny scratches and dents on its metallic body, soft reflections on the glass wings."

		
	<p>“Make a humanoid warrior with armor forged from jagged obsidian and streaked iron, engraved with battle scars, moss growing in crevices, and faint glimmers of molten veins under the surface.”</p>	<p>“Alch3mist, make a humanoid warrior with armor forged from jagged obsidian and streaked iron, engraved with battle scars, moss growing in crevices, and faint glimmers of molten veins under the surface.”</p>
		
	<p>“Make a stone golem with metallic joints of tarnished bronze, surface carved with ancient runes, cracks filled with glowing mineral veins, and subtle scratches showing centuries of wear.”</p>	<p>“Alch3mist, make a stone golem with metallic joints of tarnished bronze, surface carved with ancient runes, cracks filled with glowing mineral veins, and subtle scratches showing centuries of wear.”</p>

Among the advantages of the Kontext model with LoRA, it is evident that the model is now specialized and more knowledgeable about materials such as stone, metal, and obsidian... because it has been specifically trained for this purpose. Additionally, it typically focuses on presenting objects in a frontal, close-up view, isolating them from the scene and giving them prominence—something that is critical for downstream tasks such as converting a single-view image into a 3D representation. Furthermore, the texture is not diminished; on the contrary, it tends to be rendered at higher resolution or with added fine details, in accordance with the way the model has been trained.

FLUX.1 vs FLUX.1-Kontext + LoRA test meshes (final flow)

#	Baseline Mesh (FLUX.1 [dev] + TRELLIS)	Specialized Mesh (FLUX.1-Kontext [dev] + LoRA + TRELLIS)
000		
001		
002		

003



004



005



006



007



FLUX.1-Kontext vs FLUX.1-Kontext + LoRA test images (final flow)

As a bonus track, we tested how the base Kontext model would perform without the LoRA action, regarding its activation. To do this, we conducted a test generating images with and without the trigger word (the trigger word is “Alch3mist”). Below are some results, which clearly show that, when the LoRA is activated, generation from a blank image improves significantly, especially in emphasizing textures and for subsequent 3D generation.

#	FLUX.1-Kontext [dev] Image	FLUX.1-Kontext [dev] + LoRA Image
000	 <p>“Make a realistic humanoid hand made entirely of polished bronze, with engraved surface patterns and scratches. With a white background.”</p>	 <p>“Alch3mist, make a realistic humanoid hand made entirely of polished bronze, with engraved surface patterns and scratches. With a white background.”</p> <p>Improvement: <u>Skin is more realistic; less artifacts around the fingers, cracks are more reliable in depth and shadow. Background is white.</u></p>
001	 <p>“Make a leather-bound journal soaked in rain, wet surface texture, water droplets and soft reflections on aged leather.”</p>	 <p>“Alch3mist, make a leather-bound journal soaked in rain, wet surface texture, water droplets and soft reflections on aged leather.”</p>

		<p>Improvement: <u>More and better water droplets, leather is more realistic</u></p>
002	 <p>"Make a cat sculpted from leaf with spider webs edges."</p>	 <p>"Alch3mist, make a cat sculpted from leaf with spider webs edges."</p> <p>Improvement: <u>Sculpture is made of visually coherent green texture with better resemblance to leafs</u></p>