



AI Animation Studio - User Guide

Version: M1 (Milestone 1) - Motion-Lock Engine

Status: Complete

Date: December 2024



What is This?

AI Animation Studio is a smart tool that helps you transform rough sketches into polished animation frames. It's like having a professional animator that cleans up your drawings while keeping your original style and motion intact.



Milestone 1 Complete!

We've successfully completed **Milestone 1: The Motion-Lock Engine** (December 12-19, 2024).

What We Built:

- Cloud Infrastructure:** Professional GPU setup (RTX 4090) for fast processing
- AI Brain:** Multi-modal AI that understands your drawings
- 5 Art Style Models:** Different models for different types of art
- Smart Model Selection:** AI automatically picks the best model for your image
- Motion Lock:** Keeps your character's pose exactly the same
- Transparent Backgrounds:** Clean PNG output ready for compositing
- Multiple Animation Phases:** From rough sketch to final colored art



How to Use the App

Step 1: Open the App

Open this link in your browser:

<https://animationbrainanalystfrontend-onyntxm9glmlrq5lrfjn8v.streamlit.app/>

You'll see a clean interface with three main sections.

Step 2: Upload Your Image

Location: Section **1** - "Upload Your Image"

1. Click "**Choose an image file**"
2. Select your sketch (PNG, JPG, or JPEG)
3. You'll see a preview of your image

What is this?

This is where you upload the drawing you want to improve.

Step 3: Choose Your Phases

Location: Still in Section **1**

You'll see two dropdown menus:

"What stage is your image now?"

- **Skeleton:** Very rough stick figure
- **Roughs:** Loose, sketchy drawing (Most Common)
- **Tie Down:** Cleaner but not perfect
- **CleanUp:** Almost perfect lines
- **Colors:** Final colored version

Example: If you drew a rough character sketch, select "Roughs"

"What stage do you want to reach?"

- **Skeleton:** Convert to stick figure
- **Roughs:** Make it rough but structured
- **Tie Down:** Clean up the lines (Recommended)
- **CleanUp:** Perfect, smooth lines
- **Colors:** Add colors to your drawing

Example: If you want clean lines, select "Tie Down" or "CleanUp"

Step 4: Configure Settings

Location: Section **2** - "Settings & Options"

Keep Same Pose ✓

- **What it does:** Makes sure your character stays in the same position
- **When to check:** Almost always! (Unless you want to change the pose)

Keep Same Style ✓

- **What it does:** Preserves your art style and proportions
- **When to check:** If you like your current style

How Much to Fix Anatomy (Slider: 0-100)

- **What it does:** Controls how much the AI fixes anatomy problems
- **0 = Don't fix anything** (Keep exactly as is)
- **70 = Fix major problems** (Recommended)
- **100 = Fix everything perfectly** (May change your style)

Example: Set to 70 for balanced results

Step 5: Choose Model (AI or Manual)

Location: Still in Section **2**

You have two options:

Option A: ✨ AI Auto-Select (Recommended)

- **What it does:** The AI analyzes your image and picks the best model automatically
- **Best for:** Beginners or if you're not sure which model to use

Option B: ⚪ Manual Selection

- **What it does:** You choose which art style model to use
- **Available models:**
 - **AnythingXL Ink Base** - Best for clean line art (Default)
 - **Counterfeit V3** - Best for anime characters
 - **GhostMix V2** - Best for fantasy/magical scenes
 - **Lyriel V1.6** - Best for artistic illustrations
 - **Realistic Vision** - Best for realistic rendering (NOT for line art!)

Tip: Start with "AI Auto-Select" to see what the AI recommends!

Step 6: Generate!

Location: Section **3** - "Generate Your Animation Frame"

1. Click the big blue button: " **Start Generation**"
 2. Wait 30-60 seconds while the AI works
 3. You'll see progress updates:
 4.  Step 1: Analyzing your image...
 5.  Step 2: Creating instructions...
 6.  Step 3: Generating your new image...
-



What Happens During Generation?

Step 1: AI Analyzes Your Image (10 seconds)

The AI looks at your drawing and identifies:
- What's in the image (character, object, scene)
- What needs to be fixed (anatomy problems, messy lines)
- What needs to be removed (construction lines, scribbles)
- What should stay the same (pose, style, colors)
- Which model is best for this image

Step 2: AI Creates Instructions (5 seconds)

The AI converts its analysis into detailed instructions for the image generator, including:
- Positive instructions (what to include)
- Negative instructions (what to avoid)
- Technical parameters (quality settings)

Step 3: Image Generation (30-60 seconds)

The selected AI model generates your new image based on the instructions.



Understanding Your Results

You'll Get Two Images:

1. **With Transparent Background** 
2. PNG file with see-through background
3. Perfect for compositing in video editors
4. Shows only your cleaned-up drawing

5. With White Background

6. PNG file with white background
7. Ready to print or share
8. Easier to see the final result

You'll Also See:

AI Analysis Report

- **Things to Fix:** Anatomy or quality issues corrected
- **Things to Remove:** Elements removed from your drawing
- **Things to Keep the Same:** What stayed unchanged
- **AI Recommended Model:** Which model the AI suggested and why

Generated Prompts

- Technical instructions the AI created
- Positive prompt (what to include)
- Negative prompt (what to avoid)



Tips for Best Results

For Beginners:

1. Start with "Roughs → Tie Down" transition
2. Keep both "Keep Same Pose" and "Keep Same Style" checked
3. Use "AI Auto-Select" for model selection
4. Set Anatomy slider to 70

For Line Art:

1. Use "AnythingXL Ink Base" model (or AI Auto-Select)
2. Start from "Roughs" phase
3. Go to "Tie Down" or "CleanUp" phase
4. You'll get clean black lines on transparent background

For Colored Output:

1. Start from "CleanUp" phase (clean lines first!)
2. Go to "Colors" phase
3. Use "Counterfeit V3" for anime or "GhostMix" for fantasy
4. You'll get fully colored artwork

Common Mistakes to Avoid:

1. Don't use "Realistic Vision" for line art (it adds unwanted shading)
 2. Don't jump from "Roughs" to "Colors" (go through CleanUp first)
 3. Don't uncheck "Keep Same Pose" unless you want the pose to change
 4. Don't set Anatomy slider to 100 if you like stylized proportions
-

Troubleshooting

Problem: Output has unwanted shading

Solution: Make sure you're using "AnythingXL Ink Base" for line art phases

Problem: Character pose changed

Solution: Make sure "Keep Same Pose" is checked

Problem: Art style changed too much

Solution: Make sure "Keep Same Style" is checked and lower the Anatomy slider

Problem: Lines are too messy

Solution: Try going to a higher phase (e.g., from "Roughs" to "CleanUp" instead of "Tie Down")

Problem: Image generation is slow

Solution: This is normal! High-quality AI generation takes 30-60 seconds

Support

If you need help or have questions: - Check the " Documentation" page in the app - Review the " Advanced Settings" page for fine-tuning - Contact your technical support team

What's Next?

Milestone 1 is complete! You now have a fully functional AI Animation Studio.

Coming in future milestones: - More animation phases - Advanced style controls - Batch processing - Animation sequence generation

Thank you for using AI Animation Studio!  