

# Installation Guide for Kohya SS and ComfyUI

Follow these steps carefully for a successful installation.

## Step 1: Set Up Environment

Make sure you are in the **Sagemaker** directory. Remember, everything you do outside this directory won't get saved.

## Step 2: Install Miniconda

Miniconda is crucial for creating isolated Python environments. Install it using the following commands:

```
ls (to check which directory you are in)
cd SageMaker

wget https://repo.anaconda.com/miniconda/Miniconda3-py310_23.5.2-0-Linux-x86_64.sh -O "miniconda.sh"
bash "miniconda.sh" -b -u -p "miniconda"
```

Activate the base environment with this command:

```
source miniconda/bin/activate
```

## Step 3: Clone Repositories

Clone the Kohya SS and ComfyUI repositories into the Sagemaker directory with these commands:

```
git clone https://github.com/bmaltais/kohya_ss.git
```

```
git clone https://github.com/comfyanonymous/ComfyUI.git
```

## Step 4: Install ComfyUI

Navigate to the ComfyUI directory, install the required packages, and run the main program:

```
cd ComfyUI
pip install -r requirements.txt
python main.py
```

Return to the base directory using `cd ..`.

## Step 5: Install Kohya SS

Repeat the process for Kohya SS:

Make sure you activate the environment

```
cd SageMaker
```

```
git clone https://github.com/bmaltais/kohya_ss.git
cd kohya_ss
```

((delete the sd\_scripts folder))

```
git clone https://github.com/kohya-ss/sd-scripts.git
```

```
pip install bitsandbytes
pip install xformers
pip install -r requirements.txt
```

```
python kohya_gui.py
```

## Step 6: Install Automatic1111

Repeat the process for Kohya SS:

Make sure you activate the environment

```
cd SageMaker
git clone https://github.com/AUTOMATIC1111/stable-diffusion-webui.git
cd stable-diffusion-webui
pip install -r requirements.txt
```

```
python launch.py
```

After installing:

```
source /home/ec2-user/SageMaker/miniconda/bin/activate
cd SageMaker/stable-diffusion-webui
python launch.py
```

## Step 7: Install ComfyUI Manager

The ComfyUI Manager can be installed with the following commands:

```
source miniconda/bin/activate
cd ComfyUI/custom_nodes
git clone https://github.com/ltdrdata/ComfyUI-Manager.git
```

After cloning, restart the GUI with `python main.py`.

## Step 8: Install Ngrok for Hosting in a New Terminal

Ngrok is used for exposing local servers to the internet. Install it with these commands:

### OPEN A NEW TERMINAL

```
source miniconda/bin/activate  
pip install ngrok  
pip install pyngrok
```

Run `ngrok` to check if it's installed.

Sign up on

<https://ngrok.com/> and copy the authtoken code snippet.

The snippet should look like this:

```
ngrok config add-authtoken 2ctWoY6DQ1aiyk2CNnzmWqczBM5_6XKx93cda3LWYMz4sdadauX2AN
```

 (Replace with your token)

Finally, run this command based on which UI you are running:

```
ngrok http 127.0.0.1:8188 (for ComfyUI)  
ngrok http 127.0.0.1:7860 (for kohya_ss)  
ngrok http 127.0.0.1:7860 (for automatic1111)
```

Click the link forwarding to open a new tab. Use `killall ngrok` to shut down all the other open hosts.

Congrats! You're all set.

**For the checkpoints installation on Sagemaker, due to permission issues, the regular folder cannot be opened. There are alternative methods to handle this:**

1. **Install the checkpoints through the User Interface (UI). For example CivitAI Loader.**
2. **Use 'wget' to download links for the checkpoints.**
3. **Create a new folder and adjust the path accordingly for the checkpoints.**

Installing Kohya\_ss (new method)

Make sure you activate the environment

```
cd SageMaker
```

```
git clone https://github.com/bmaltais/kohya_ss.git  
cd kohya_ss
```

```
((delete the sd_scripts folder))
```

```
git clone https://github.com/kohya-ss/sd-scripts.git
```

```
pip install bitsandbytes  
pip install xformers  
pip install -r requirements.txt
```

```
python kohya_gui.py
```