

FDM FOREMAN

Build management for 3D print farms

FDM Foreman

Printer Connection Guide

How to connect your 3D printer to FDM Foreman.

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1.0

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SECTION 01

Before you start

This guide walks you through connecting a 3D printer to FDM Foreman so you can monitor and control prints from any browser. The process takes about 10 minutes per printer.

What you need

- A 3D printer running Klipper / Moonraker (most modern boards) or OctoPrint (Beta support).
- A computer or phone connected to the same network as the printer.
- SSH access to the printer's controller (Raspberry Pi, MKS board, etc.).

What is SSH?

SSH (Secure Shell) is a way to remotely control a small computer — like the one inside your printer — by typing commands from your laptop or phone. It's how you'll send the FDM Foreman installer to the printer in just one line.

What is Moonraker?

Moonraker is the web service that sits alongside Klipper on your printer's controller. It exposes a network API so apps like Mainsail, Fluidd — and FDM Foreman — can talk to your printer. If your printer runs Klipper, Moonraker is almost certainly already installed.

TIP

You'll move quickly through this

Each section builds on the previous one. Keep this document open in one window and your SSH terminal in another.

SECTION 02

Finding your printer's IP address

FDM Foreman talks to your printer over your local network, so first you need to know its IP address (four numbers separated by dots, e.g. **192.168.1.42**). Try these in order:

Method 1 · Your router's device list

The most reliable method. Open your router's admin page (commonly **192.168.1.1** or **192.168.0.1**) and look for a list of connected devices. Your printer often shows up as raspberrypi, mkspi, mainsail, or the printer model name.

Method 2 · The printer's screen

On most modern printers, navigate to Settings → Network (or WiFi). The IP address is usually displayed there once the printer is connected.

Method 3 · Try pinging by hostname

Open a terminal or command prompt and try:

```
ping raspberrypi.local
```

```
ping mkspi.local
```

If the printer responds, the IP address it answers from is the one you need.

Method 4 · A network scanner app

Apps like Fing (free on iOS and Android) scan your local network and list every device with its IP and manufacturer. Your printer's controller usually shows as Raspberry Pi or a generic Linux device.

TIP

Write down the IP

You'll need your printer's IP address again when you add the printer in FDM Foreman. Note it somewhere safe.

SECTION 03

How to SSH into your printer

SSH lets you send commands to the printer's controller. The tool you use depends on your operating system.

Windows · using PuTTY

1. Download PuTTY from putty.org and install it.
2. Open PuTTY. In the Host Name field, enter your printer's IP address.
3. Make sure Port is set to **22** and Connection type is SSH.
4. Click Open. The first time you connect, accept the security warning.
5. When prompted, enter the username and password (see the table on the next page).

Windows Terminal · Mac · Linux

Open the built-in Terminal app and type one of the following, replacing **YOUR_PRINTER_IP** with the IP you wrote down:

```
ssh mks@YOUR_PRINTER_IP
```

Use this for MKS / Makerbase boards — including the Elegoo Neptune 4 family.

```
ssh pi@YOUR_PRINTER_IP
```

Use this for Raspberry Pi-based setups (MainsailOS, FluddPi, OctoPi).

Default credentials

Board type	Username	Password
MKS / Makerbase (Neptune 4 etc.)	mks	makerbase
Raspberry Pi (MainsailOS, FluddPi)	pi	raspberrypi
OctoPi (Beta)	pi	raspberrypi

WARNING

Factory defaults only

These are the credentials shipped from the factory. If you (or anyone else) has changed the password, use your custom password instead — the defaults won't work.

SECTION 04

Adding the printer in FDM Foreman

With your SSH session open and ready, switch back to your browser:

1. Log in to app.fdmforeman.com.
2. Open Printers from the side menu, then click Add Printer.
3. Choose your printer type — Klipper / Moonraker or OctoPrint (Beta).
4. Enter a friendly name for the printer (e.g. Neptune 4 — Bay 3) and the IP address you wrote down earlier.
5. Click Save.
6. A unique install command will appear with your token. Copy it using the "Copy Install Command" button.

IMPORTANT

Always use the Copy button

The install command contains a long token that must be exact. Always click Copy Install Command — do not retype it manually, even if it looks short.

SECTION 05

Running the install command

Switch back to your SSH session, paste the command, and press Enter. Right-click usually pastes in PuTTY; on Mac/Linux Terminal use ⌘V or Ctrl+Shift+V.

What the installer does

- Checks that Python 3 is installed (it almost always is).
- Downloads the FDM Foreman agent from our servers.
- Sets up a systemd service so the agent starts automatically on boot.
- Connects the agent to your FDM Foreman account using the token.

Expected output

You'll see something like this scroll past — each line means a step has succeeded:

```
[1/5] Verifying Python ... Python 3 is installed and supported.
[2/5] Downloading agent ... The agent package is being fetched.
[3/5] Installing dependencies ... Required Python libraries are added.
[4/5] Configuring service ... The agent is registered as a service.
[5/5] Starting agent ... The agent connects to FDM Foreman.
[OK] Done — printer linked. Success. The printer is paired to your account.
```

TIP

Should appear within 30 seconds

Once the installer finishes, your printer will show as Online in the FDM Foreman dashboard within 30 seconds.

SECTION 06

Verifying it worked

- Open Printers in the app — the status should change from Pending to Idle (or whatever the printer is currently doing).
- The file list for the printer will populate automatically within 30 seconds — files come directly from the printer's storage.
- If anything seems stuck, you can watch the agent's live logs over SSH:

```
sudo journalctl -u fdmforeman -f
```

Press Ctrl+C to stop watching. A healthy agent prints a heartbeat line every few seconds.

SECTION 07

Starting a print remotely

From this point on, you don't need SSH again. Everything happens from the web app.

1. Go to Jobs → Add Job.
2. Select the printer from the dropdown.
3. Pick a file — the dropdown is pulled live from the printer's storage.
4. Set the material, colour, and quantity.
5. Press the Play button.
6. The printer will start within 5 seconds.

TIP

Keep an eye on the first layer

FDM Foreman lets you start prints remotely, but the first layer still benefits from a human check. Use the printer's webcam stream in the dashboard if you have one configured.

SECTION 08

Stopping or disabling the agent

If you want to take a printer offline temporarily, or remove it from FDM Foreman entirely, run these commands over SSH:

Stop the agent (until next reboot)

```
sudo systemctl stop fdmforeman
```

Disable the agent (don't start on boot)

```
sudo systemctl disable fdmforeman
```

Confirm the current state

```
sudo systemctl status fdmforeman
```

You'll see active (running), inactive (dead), or disabled. To bring the agent back, swap **stop** for **start** and **disable** for **enable**.

SECTION 09

Troubleshooting

Most issues fall into one of the patterns below. Try the suggested fix first — if it doesn't help, see Section 10 for support.

Symptom	What to try
Printer shows Offline	Check the agent is running with systemctl status fdmforeman . Confirm the printer has network connectivity.
Command timed out	The Moonraker IP in the agent's service file is wrong. Edit it to match your printer's actual IP and restart the agent.
Agent installed but shows an HTML error	The token wasn't transferred cleanly. Re-run the install command (use the Copy button).
401 Unauthorized	The token doesn't match. Get a fresh token from the key icon next to the printer in the app, then re-run the install.
SSL error during install	The installer handles this automatically on retry — just run the command a second time.

SECTION 10

Getting help

We read every message and reply quickly — usually within a few hours during UK business days.

HELP & FAQ

fdmforeman.com/help.html

Full documentation, video walkthroughs, and answers to the questions we get most often.

EMAIL

hello@fdmforeman.com

Best for detailed issues — attach screenshots and the output from `journalctl` if you can.

WHATSAPP

[07488 370484](https://wa.me/07488370484)

Fastest way to reach a human. Great for quick questions while you're at the printer.

Happy printing.

FDM Foreman is built by makers, for people running real print farms. If something feels missing or clunky, tell us — your feedback shapes the roadmap.