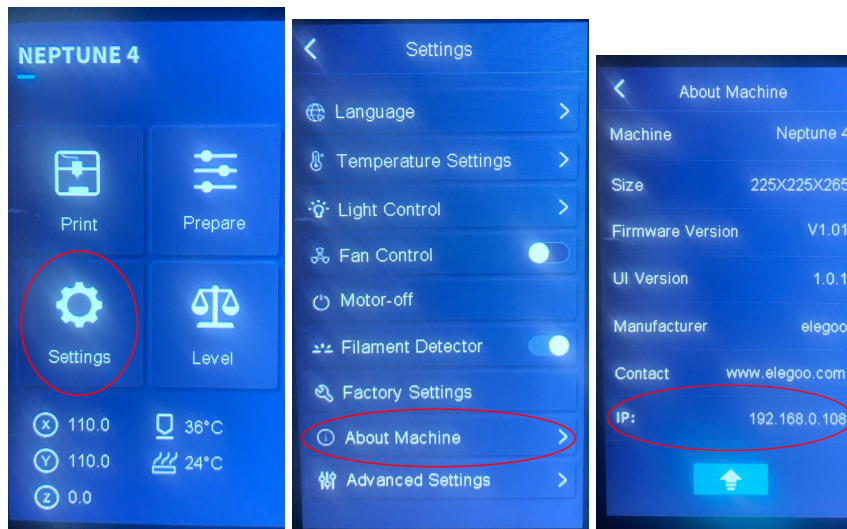


Hello, my dear friends!

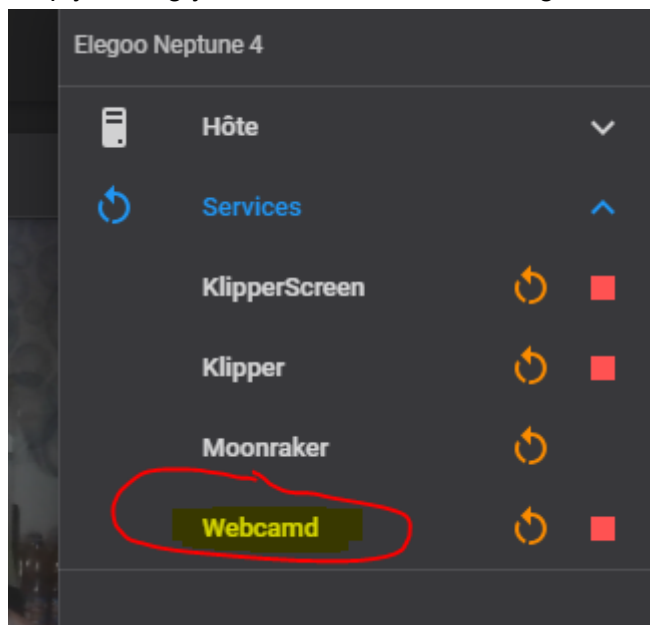
Here is a tutorial to add a webcam to the Neptune 4 / 4 Pro / 4 PLUS / 4 MAX printer!

You will need to know the IP address of your printer (your printer must be connected to your network via ethernet (cable) or wifi)

Once connected, go to the about machine menu



First of all, go to the Fluid web interface and check that if you have the webcam service displayed in the menu at the top right. If this is the case, before starting the procedure, try simply adding your webcam via the settings menu -> webcam -> add webcam



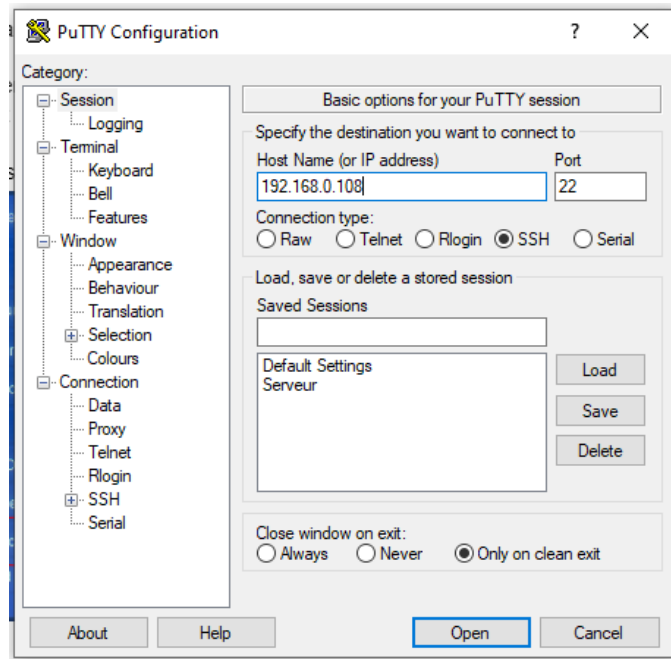
If it's not the case :

Once in the menu you will have an IP address

Use an application to access your printer via ssh such as the putty application

<https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>

indicate the ip address in as if below and press open



Type as login: mks

password: makerbase

/!\ the password is not displayed, this is completely normal ;-)

You arrive at this interface:

```
192.168.0.108 - PuTTY
login as: mks
mks@192.168.0.108's password:

Welcome to Armbian 22.05.0-trunk with bleeding edge Linux 5.16.20-rockchip64

No end-user support: built from trunk

System load: 12%      Up time: 17:56
Memory usage: 20% of 976M  IP: 192.168.0.108
CPU temp: 66°C      Usage of /: 73% of 6.6G

[ 0 security updates available, 3 updates total: apt upgrade ]
Last check: 2023-10-29 00:00

[ General system configuration (beta): armbian-config ]

Warning: a reboot is needed to finish resizing the filesystem
Please reboot the system as soon as possible
Last login: Sat Oct 28 19:17:32 2023 from 192.168.0.237
mks@mkspi:~$
```

The first thing to copy or enter is 3 commands:

```
sudo systemctl enable webcamd
sudo systemctl start webcamd
systemctl status webcamd.service
```

you will get something like this with the last command:

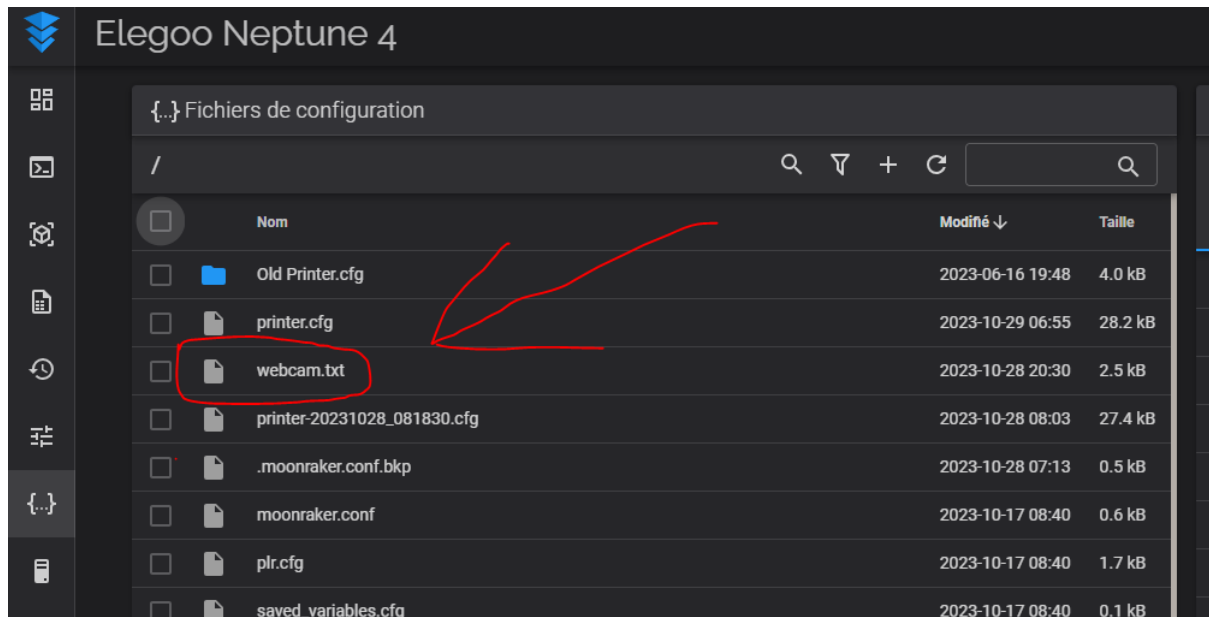
```
mks@mkspi:~$ systemctl status webcamd.service
● webcamd.service - Starts mjpg-streamer on startup
   Loaded: loaded (/etc/systemd/system/webcamd.service; enabled; vendor preset: enabled)
   Active: active (running) since Sun 2023-10-29 10:35:55 CET; 1h 38min ago
     Process: 12622 ExecStart=/usr/local/bin/webcamd (code=exited, status=0/SUCCESS)
    Main PID: 12650 (mjpg_streamer)
       Tasks: 3 (limit: 998)
      Memory: 1.4M
      CGroup: /system.slice/webcamd.service
              └─12650 ./mjpg_streamer -o output_http.so -w ./www-mjpgstreamer -n -i input_uvc.so -n -r 1920

Warning: Journal has been rotated since unit was started. Log output is incomplete or unavailable.
```

Once this is done you go to the printer's web interface and go to the configuration tab



In this part search and click on the webcam.txt file



In this file you will have to modify 2 lines:

```
webcam.txt

### Windows users: To edit this file use Notepad++, VSCode, Atom or SublimeText.
### Do not use Notepad or WordPad.

### MacOSX users: If you use Textedit to edit this file make sure to use
### "plain text format" and "disable smart quotes" in "Textedit > Preferences"

### Configure which camera to use
#
# Available options are:
# - auto: tries first usb webcam, if that's not available tries raspi cam
# - usb: only tries usb webcam
# - raspi: only tries raspi cam
#
# Defaults to auto
#
camera="usb"

### Additional options to supply to MJPG Streamer for the USB camera
#
# See https://faq.octoprint.org/mjpg-streamer-config for available options
#
# Defaults to a resolution of 640x480 px and a framerate of 10 fps
#
camera_usb_options="-d /dev/video4 -n -r 1920x1080 -f 15"

### Additional webcam devices known to cause problems with -f
#
```

- So line 16 (logically) should come: camera="usb"
- Line 24 should normally become: camera\_usb\_options="-d /dev/video4 -n -r 1920x1080 -f 15"

If you know the resolution of your webcam, simply change the resolution in the line:

Here the full HD resolution is 1920x1080

In 2k it will be 2048x1080 and in 4k it gives 4096x2160

So for a camera:

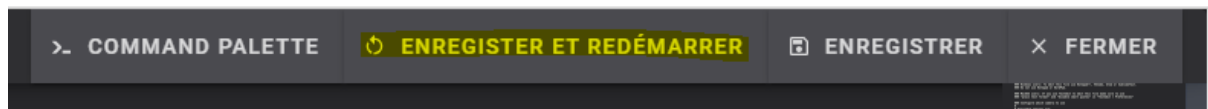
FULL HD: `camera_usb_options="-d /dev/video4 -n -r 1920x1080 -f 15"`

2K: `camera_usb_options="-d /dev/video4 -n -r 2048x1080 -f 15"`

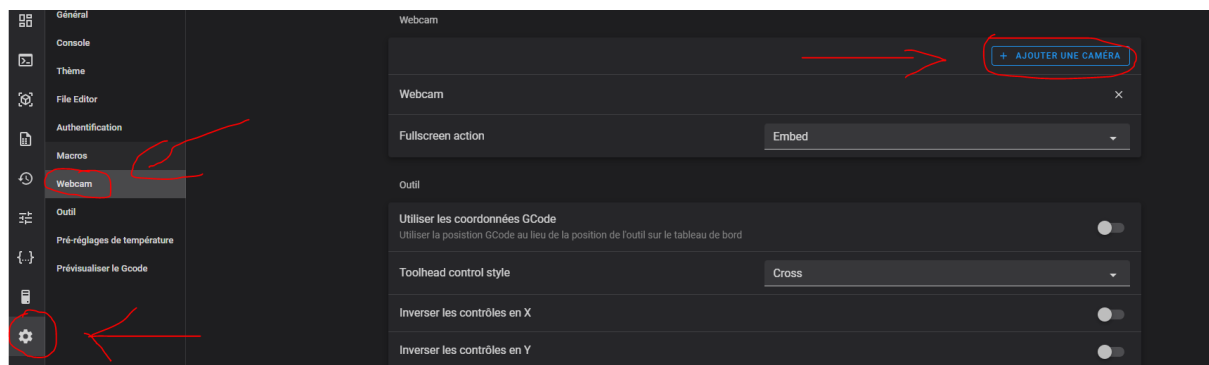
4k: `camera_usb_options="-d /dev/video4 -n -r 4096x2160 -f 15"`

You can also increase the number of frames per second by changing the number 15 to 30 or 60 depending on your needs.

Once the 2 lines have changed click on SAVE and RESTART



We are going to add the camera to the interface go to the settings:



Then click on Webcam and finally on the blue button +Add camera

Then you can fill in like this:

Adapt the number of frames per second to your needs.

A screenshot of a web interface for adding a camera. The form is titled 'Ajouter une caméra'. It contains several settings: 'Activer' (toggle, on), 'Nom' (text input, 'webcam'), 'Retourner horizontalement' (toggle, off), 'Retourner verticalement' (toggle, off), 'Rotate by' (dropdown, 'None'), 'Type de flux' (dropdown, 'MJPEG Adaptive'), 'Nombre d'images par seconde' (text input, '15'), 'FPS Target when not in focus' (text input, '5'), 'Camera Url Stream' (text input, '/webcam?action=stream'), and 'Camera Url Snapshot' (text input, '/webcam?action=snapshot'). At the bottom are two buttons: 'ANNULER' (orange) and 'AJOUTER' (blue).

Click the add button and your camera will be added to the printer's web interface.

If, on the other hand, you don't see anything, try this configuration:

A screenshot of a web interface for editing a camera. The form is titled 'Éditer une caméra'. It contains several settings: 'Activer' (toggle, on), 'Nom' (text input, 'Webcam'), 'Retourner horizontalement' (toggle, on), 'Retourner verticalement' (toggle, on), 'Rotate by' (dropdown, 'None'), 'Type de flux' (dropdown, 'MJPEG Adaptive'), 'Nombre d'images par seconde' (text input, '15'), 'FPS Target when not in focus' (text input, '5'), 'Camera Url Stream' (text input, '/webcam/?action=stream'), and 'Camera Url Snapshot' (text input, '/webcam/?action=snapshot'). At the bottom are two buttons: 'ANNULER' (orange) and 'ENREGISTRER' (blue).

Camera Url Stream : **/webcam/?action=stream**

Camera Url Snapshot : **/webcam/?action=snapshot**

If you have a concern or comment, do not hesitate to let me know, I will make the modifications and adaptations.

Long life and prosperity, may the power of print be with you!

Credit :

Julien Mairy

<https://www.youtube.com/@printernbeer>

<https://www.facebook.com/Smarthome42>

<https://www.facebook.com/groups/impressions3dfr>

<https://www.facebook.com/groups/3542600406013711>