

Raspberry Pi 3 Model B "cnc-pi" - Basic Setup

Konfigurationsübersicht Raspberry Pi:

- Modell: Raspberry Pi 3 Model B
- Architecture: armv71 (32 Bit) / armel
- OS: Raspbian GNU/Linux (buster) Desktop
- Festplatte: 16 GB SHDC Karte
- Hostname: "cnc-pi" (original: "raspberrypi")
- SSH-Port: 22
- Setup: by Mathieu Ermuth und Mario Voigt
- Letztes Image: 17.07.2018

Konfiguration physischer Monitor

```
mode "1280x1024"  
  geometry 1280 1024 1280 1024 32  
  timings 0 0 0 0 0 0  
  rgba 8/16,8/8,8/0,8/24  
endmode
```

Setup VNC Server / Desktop Environment

VNC Server

```
sudo apt install xfce4 xfce4-goodies tightvncserver  
vncserver #set a secure password  
vncserver -kill :1  
mv ~/.vnc/xstartup ~/.vnc/xstartup.bak
```

```
vim ~/.vnc/xstartup
```

```
#!/bin/bash  
xrdb $HOME/.Xresources  
startxfce4 &
```

```
sudo chmod +x ~/.vnc/xstartup
mv ~/.vnc /home/flcuser/
```

```
vim /etc/systemd/system/vncserver@.service
```

```
[Unit]
Description=Start TightVNC server at startup
After=syslog.target network.target

[Service]
Type=forking
User=flcuser
Group=flcuser
WorkingDirectory=/home/flcuser/
#PAMName=login
PIDFile=/home/flcuser/.vnc/%H:%i.pid
ExecStartPre=-/usr/bin/vncserver -kill :%i > /dev/null 2>&1
ExecStart=/usr/bin/vncserver -depth 24 -geometry 1280x1024 :%i
ExecStop=/usr/bin/vncserver -kill :%i

[Install]
WantedBy=multi-user.target
```

```
sudo systemctl daemon-reload
sudo systemctl enable vncserver@1.service
```

Set GPU memory to maximum for fluent display

```
sudo raspi-config
#1. set GPU memory to 256 MB
#2. set boot to GUI + automatic login with user "pi"
#3. enable VNC server

sudo reboot
```

Add special user desktop user

The standard raspberry pi has sudo rights. He should not be accesible because the user is logged in into an open environment with mouse and keyboard.

```
sudo adduser --gecos "" -uid 4444 flcuser
```

```
usermod -a -G dialout,cdrom,audio,video,plugdev,input,netdev,spi,i2c,gpio flcuser #required for USB access for ex
```

Configure autologin for "flcuser" user

Change the name "pi" to "flcuser" each

```
vim /etc/systemd/system/autologin@.service  
vim /etc/lightdm/lightdm.conf
```

Version #2

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