

## Install Raspi left Unnie Side

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## History

### **V 0.1.2 21.nov.2025**

WebCam Web-Interface with motion

### **V 0.1.1 30.jul.2025**

Ssh keys

### **V 0.1.0 24.jul.2025**

First try/First Creation

## Intro

### Goal

Use Raspi at master side for camera and Jenkins

### Setup 4 Raspi Imager

Setup Standard OS with desktop; without recommended Software.

Before burning image select:

Hostname: aekarina

SSH User: aegiselle

SSH Password: wlwpf1030

WIFI: nothing

TimeZone: Eu/Berlin

Keyboard; de

ssh key pub add

with ssh-rsa at Beginning and without comment at End

Attention: install with ssh key makes access without impossible

**Decision: don't use ssh-key here**

## Installation

### Generate keys

(Do it only once)

```
ssh-keygen -N "" -t rsa -f aegiselle_sshkey
```

### Raspi-config

- Display options
  - VNC Resolution
    - 1280x720
- Interface options
  - VNC
    - Enable Yes

Sudo reboot

### Preparations inside raspi

Call copy\_first.bat or

```
scp -i aegiselle_sshkey install_basics.sh install_jenkins.sh aegiselle_sshkey.pub  
watchmen.jar camera1.conf camera2.conf motion.conf  
aegiselle@aekarina.kwangya:~
```

Make scripts executable

```
ssh %USER%@%TARGET% chmod a+rwx *.sh
```

## ***Update System***

Execute install\_basics.sh script (as root)

```
apt update  
apt upgrade -y
```

```
apt install ca-certificates-java -y  
apt install default-jdk -y  
apt install libpangoft2-1.0-0 -y  
apt install libgles-dev -y
```

```
apt install mc -y
```

## **Jenkins**

Follow instructions from

<https://pkg.jenkins.io/debian/>

Step1

```
sudo wget -O /etc/apt/keyrings/jenkins-keyring.asc https://pkg.jenkins.io/debian/jenkins.io-2023.key
```

Step2

```
echo "deb [signed-by=/etc/apt/keyrings/jenkins-keyring.asc] https://pkg.jenkins.io/debian binary/" | sudo tee  
/etc/apt/sources.list.d/jenkins.list > /dev/null
```

Step3

```
sudo apt-get update  
sudo apt-get install fontconfig openjdk-17-jre (already in)  
sudo apt-get install jenkins
```

nach reboot erreichbar mit

<http://aekarina.kwangya:8080/>

Decision: don't move the port

nach port Umlegung erreichbar mit

<http://aekarina.kwangya>

Found initial password

Paste into browser

## Change HTTP Port of jenkins

Edit systemd config file in

```
/lib/systemd/system/jenkins.service
```

```
Environment="JENKINS_PORT=80"
```

```
AmbientCapabilities=CAP_NET_BIND_SERVICE
```

## First start of jenkins

Get initial password

```
sudo cat /var/lib/jenkins/secrets/initialAdminPassword
```

After initial password:

Install suggested plugins

Install first admin account

```
aegiselle
```

```
wlwpf1030
```

Not successful editing of

```
/etc/default/jenkinssudo
```

edit as root

```
HTTP_PORT=80
```

check

```
netstat -tan
```

## Video cameras local

Show with

```
ffplay -fs /dev/video0  
ffplay -fs /dev/video2
```

Why not 1 ???

## Video cameras Web-If

Install motion with

```
sudo apt install motion
```

create parameter dir

```
mkdir .motion
```

insert create files

```
.motion/motion.conf
```

.motion/camera0.conf  
.motion/camera2.conf

activate manually

    motion

by start problems

    sudo mkdir /var/log/motion  
    sudo chmod a+rwx /var/log/motion

template files after installation

    /etc/motion/motion.conf

template create in

    ~/.motion/motion.conf

Performance is weak; activate only manually

Autostart installation

Copy install files to

/etc/motion

## Preparation for usage as src development

sudo apt install code  
sudo apt install git

## Appendix

### *OpenSSH in Windows*

Location

c:\Windows\System32\OpenSSH

Ssh files:

09.04.2025 13:31	430.080 scp.exe
09.04.2025 13:31	457.728 sftp.exe
09.04.2025 13:31	602.624 ssh-add.exe
09.04.2025 13:31	553.984 ssh-agent.exe
09.04.2025 13:31	861.184 ssh-keygen.exe
09.04.2025 13:31	661.504 ssh-keyscan.exe
09.04.2025 13:31	514.048 ssh-pkcs11-helper.exe
09.04.2025 13:31	653.312 ssh-sk-helper.exe
09.04.2025 13:31	1.246.208 ssh.exe

## SSH to installation

On Computer A the client pack and raspi at kwangya installations are generated,  
More than one client pack are given users at Computers B and C.

The terminal accesses at B and C must be ready without more ssh actions.

Terminal access with a simple call of a prepared batch file.

Name of user and computer at B and C must be unimportant.

Users must NOT know what is ssh; they got a one click method to get a terminal.

No files at HOME\$/ssh on computers B and C.

Everything what is necessary to get terminal must be usage ready in the prepared client pack.

## **Fuck**

Bad permissions at windows after copying key files

## Questions

Jenkins in headless environment

How to know which video channels exists

## Options

### **Telnet server**

Install

```
sudo apt install telnetd xinetd
```

Edit create file as root

```
/etc/xinetd.d/telnet
```

content

```
service telnet
{
    disable     = no
    flags       = REUSE
    socket_type = stream
    user        = root
    wait        = no
    server      = /usr/sbin/telnetd
    log_on_failure += USERID
    port        = 23
}
```

Check with

```
sudo systemctl restart xinetd  
sudo systemctl status xinetd  
netstat -tan
```

## Info

Locatoion of .desktop files

/usr/share/applications

(created in raspi but empty)

/usr/local/share/applications

(not used in raspi)

~/.local/share/applications

(created in raspi but empty)

## **Links**

<https://specifications.freedesktop.org/desktop-entry-spec/desktop-entry-spec-latest.html>

<https://forums.raspberrypi.com/viewtopic.php?t=324883>

Hint for camera motion setup

[https://www.raspberrypi.com/documentation/computers/camera\\_software.html](https://www.raspberrypi.com/documentation/computers/camera_software.html)

<https://fatvalley.at/blog/videostreaming-von-raspi-mediamtx-zu-janus-webrtc-server>

## **Profiles**

### ***Other***