

General URVE Pi

- Home Assistant
- I would like to create SSH connection with newly purchased URVE board PI. What is the root password for the initial connection
- Please let me know how to flash the OS without having access to windows.
- Do we have instruction to flash Android to URVE Pi?
- Booting from SD card

Home Assistant

Installation steps on SD Card

Currently it is possible to install home assistant on sd card due to the size of home assistant. Boot version should be from 2023.02.22. You can check boot date with command `uname -v`.

1. Format SD Card and create new partition

```
# format SD card (mmcblk1)
sudo su
sgdisk --zap-all /dev/mmcblk1
parted -s /dev/mmcblk1 mklabel gpt
parted -a opt -s /dev/mmcblk1 mkpart primary ext4 0% 100%
mkfs.ext4 -F /dev/mmcblk1
```

2. Mount created partition to /mnt/sd. Also create link between /mnt/sd and /var/lib/docker. In this case every docker container will be on sd card

```
# mount SD card to docker folder
mkdir -p /mnt/sd
mount /dev/mmcblk1 /mnt/sd
mkdir -p /mnt/sd/docker
mkdir -p /var/lib/docker
mount --bind /mnt/sd/docker /var/lib/docker
```

3. Add partitions to /etc/fstab for automounting

```
echo "/dev/mmcblk1 /mnt/sd ext4 defaults 0 0" | sudo tee -a /etc/fstab
echo "/mnt/sd/docker /var/lib/docker none defaults,bind 0 0" | sudo tee -a /etc/fstab
```

4. Install Home Assistant dependencies

```
# Install requirements
apt install apparmor jq wget curl udisks2 libglib2.0-bin network-manager dbus lsb-release systemd-journal-remote -y
curl -fsSL get.docker.com | sh
```

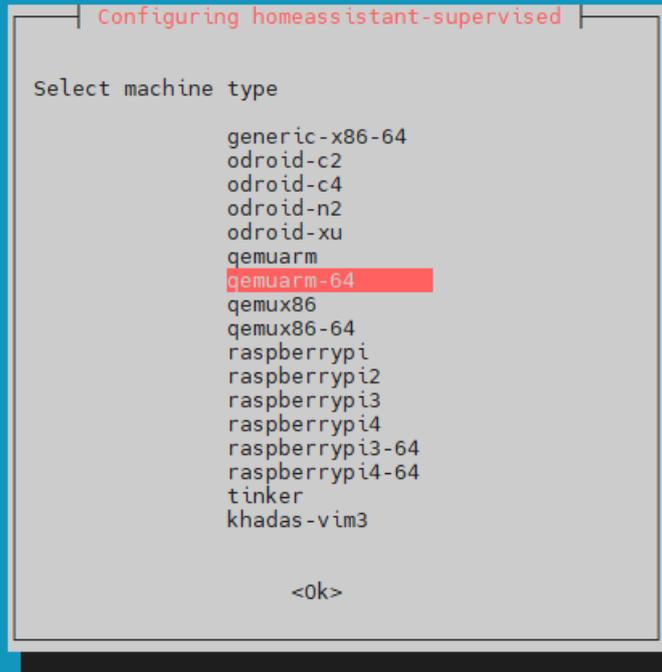
```
sync
```

5. Install *os-agent*. You can find newest version of *os-agent* here: <https://github.com/home-assistant/os-agent/releases/latest>

```
sudo wget https://github.com/home-assistant/os-agent/releases/download/1.5.1/os-agent_1.5.1_linux_aarch64.deb
sudo chmod 777 os-agent_1.5.1_linux_aarch64.deb
sudo apt install ./os-agent_1.5.1_linux_aarch64.deb -y
sudo rm -f ./os-agent_1.5.1_linux_aarch64.deb
```

6. Install home assistant supervisor. After first installation it will show error made by ipv6 support enabled. When asked about version select `qemuarm-64`

```
# Install home assistant supervisor
sudo wget https://github.com/home-assistant/supervised-installer/releases/latest/download/homeassistant-supervised.deb
sudo chmod 777 homeassistant-supervised.deb
sudo apt install ./homeassistant-supervised.deb -y
echo "{\"log-driver\": \"journald\", \"storage-driver\": \"overlay2\", \"ip6tables\": false, \"experimental\": true, \"log-opts\": {\"tag\": \"{{.Name}}\" }}" > /etc/docker/daemon.json
sudo systemctl start docker.socket
sudo systemctl start docker.service
sudo apt install ./homeassistant-supervised.deb -y
sync
```



7. Check if installation is completed with command mentioned below. Home Assistant creates 7 containers. Depending on your internet connection you have to wait at least few minutes.

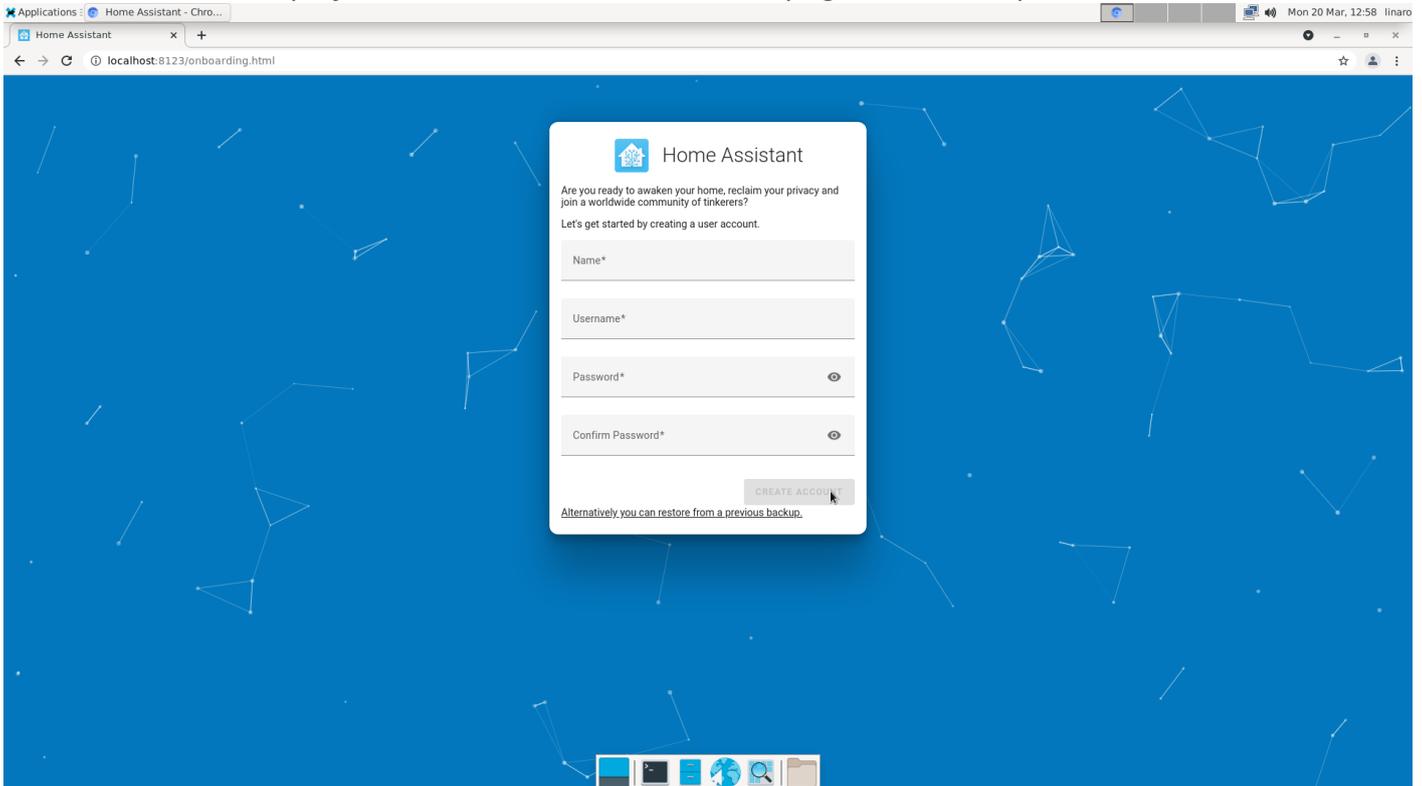
```
docker ps -a
```

```

root@linaro-alip:/mnt/sd# docker ps -a
CONTAINER ID   IMAGE                                     COMMAND                  CREATED        STATUS
5fdac7bb404c   ghcr.io/home-assistant/aarch64-hassio-supervisor:latest        "/init"          About a minute ago   Up About a minute
ed7a2a8b0074   ghcr.io/home-assistant/qemuarm-64-homeassistant:landingpage    "/usr/bin/landingpage"  About a minute ago   Up About a minute
f19d8af3b0a7   ghcr.io/home-assistant/aarch64-hassio-multicast:2022.02.0      "/init"          2 minutes ago       Up 2 minutes
0be68ac92dd2   ghcr.io/home-assistant/aarch64-hassio-observer:2021.10.0      "/init"          2 minutes ago       Up 2 minutes
5d9f91c3785c   ghcr.io/home-assistant/aarch64-hassio-audio:2022.07.0         "/init"          2 minutes ago       Up 2 minutes
c72a29c9a6ee   ghcr.io/home-assistant/aarch64-hassio-dns:2022.04.1           "/init"          3 minutes ago       Up 2 minutes
d8e8b1055362   ghcr.io/home-assistant/aarch64-hassio-cli:2022.11.0           "/init"          3 minutes ago       Up 3 minutes

```

8. After all these steps you can access Home Assistant page on default port 8123



I would like to create SSH connection with newly purchased URVE board PI. What is the root password for the initial connection

Default credentials:

Login: linaro

Password: linaro

Please let me know how to flash the OS without having access to windows.

You can use the flashing library on Linux: <https://github.com/rockchip-linux/rkdeveloptool>.

Do we have instruction to flash Android to URVE Pi?

The installation procedure for Android is the same as for Linux. More details in our user manual here: <https://urveboard.com/pi/files>.

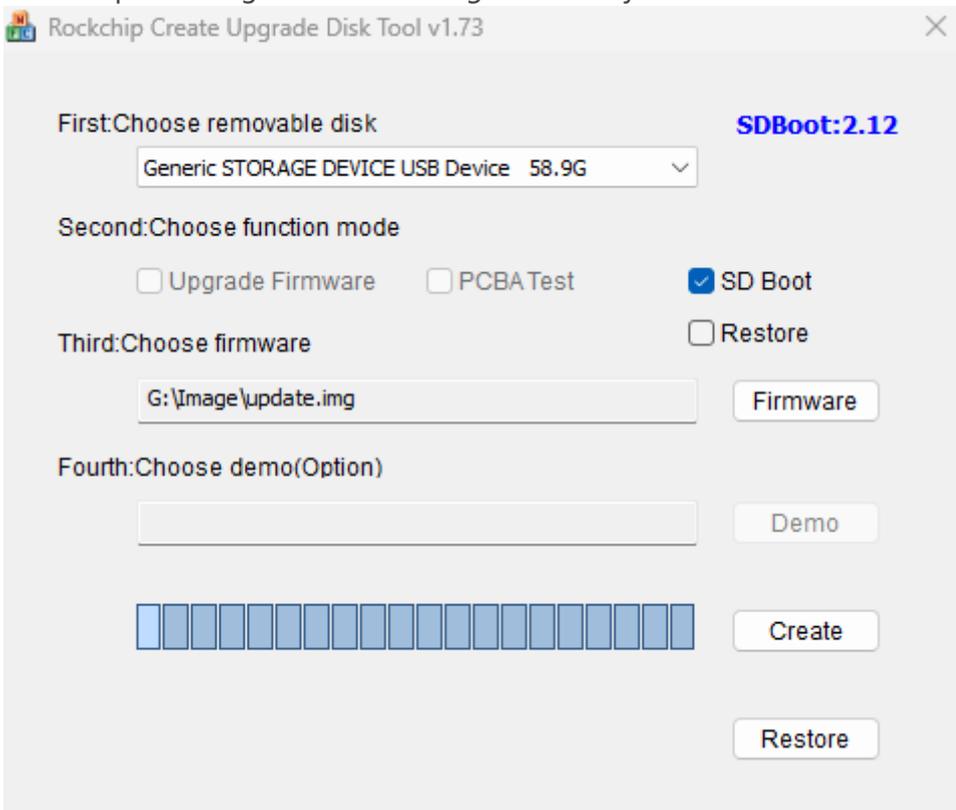
Booting from SD card

1. Download OS image

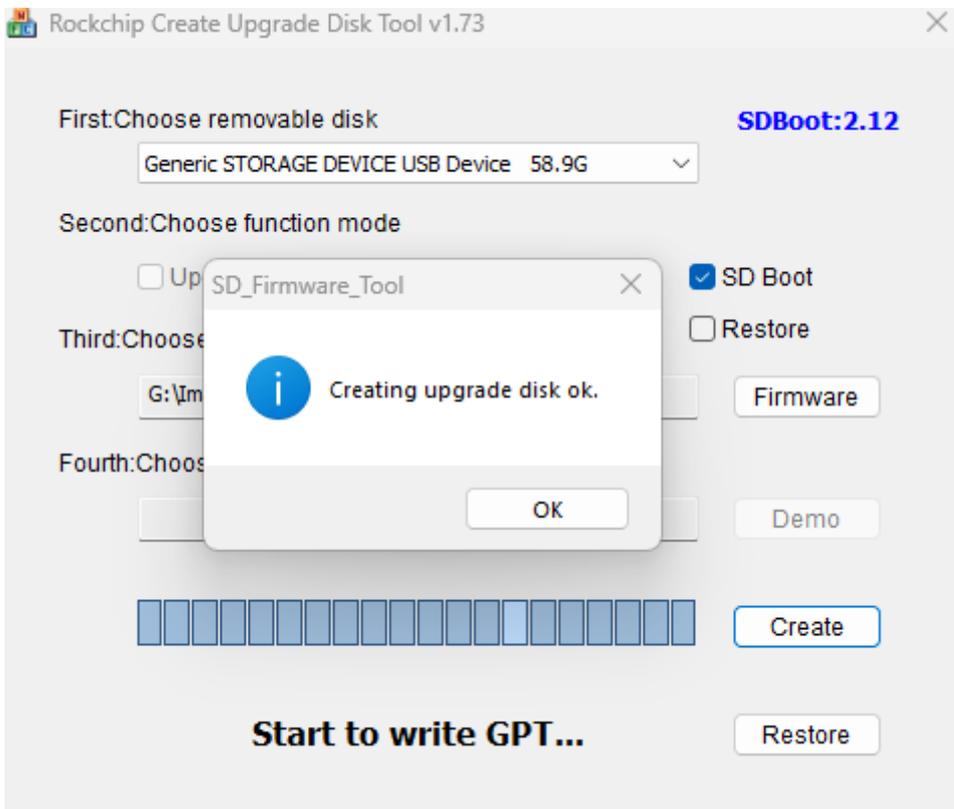
Go to urveboard.com and download *OS Image (Debian 11)*. Extract content of the archive. Open *SD_Firmware_Tool.exe* from *SDDiskTool_v1.73* directory.

2. Create bootable SD card

After opening the app select device and select *SD Boot* checkbox. If you keep default value *Upgrade Firmware*, this SD card will be in upgrade mode (it will upgrade existing system). Then select *update.img* located in *Image* directory and click *Create*.



If any error occurs for example *Writing Loader failed!*, you should ignore that error and click *Create* again. After few minutes you should see *Creating upgrade disk ok*.



3. Clear internal memory

Enter terminal of the device. Either via SSH connection or with debug UART ([Connecting to URVEPi Debug UART](#)). Use command below to clear partition table of internal memory.

```
dd if=/dev/zero of=/dev/mmcblk0 bs=512 count=1 && sync
```

WARNING this command is irreversible and will delete internal memory data.

4. Verify

You can check if it works by using command `lsblk`. You should see root partition (/) mounted from `mmcblk1p6`.