

## 1- Debootstrap

```
# This instructions use the default Linux's kernel dtb
# mochabin FS is an EXT4 clean partition mounted on
"/run/media/n0p/mochabin2-root"
# Use a M.2 SATA drive
# compiled kernel is on "linux" directory

sudo mount /run/media/n0p/mochabin2-root -o remount,rw,exec,dev
#sudo debootstrap --verbose --arch armhf --foreign --variant=minbase --
include=task-ssh-server, live-task-standard, util-linux, task-laptop testing
/run/media/n0p/mochabin2-root http://ftp.debian.org/debian/

# Choose a file you want to use
sudo debootstrap --verbose --arch armhf --foreign --variant=minbase --
include=task-ssh-server, hostapd, wpasupplicant, dialog, inetutils-ping, apt-
utils, util-linux, task-laptop, sudo, console-setup, console-setup-linux, openssh-
server, linux-base, pci.ids, libpci3, lsb-release, util-linux-locales, python3-
minimal, python3-debianbts, python3-requests, nano, python3, openssh-
server, python-apt-common, xauth, sudo, screen, iproute2, net-tools, inetutils-
tools, libqmi-utils, udev, python3-
pip, ssh, dnsmasq, dhcpcd5, udhcpc, nmap, traceroute, tshark, tcpdump, curl, wget, lsof,
htop, inetutils-ping, inetutils-ftp, inetutils-traceroute, kexec-tools, systemd-
sysv, wireguard-tools, firmware-linux-
free, nftables, zstd, 7zip, usbutils, pciutils, kmod, bash-completion, bind9-
host, apt-listchanges, bzip2, dbus, file, gettext-base, groff-base, krb5-
locales, libc-l10n, liblockfile-bin, libnss-systemd, locales, lsof, man-
db, manpages, less, ncurses-term, libnss-myhostname, netcat-openbsd, openssh-
client, perl, python3, telnet, traceroute, xz-
utils, tmux, iw, ffmpeg, imagemagick, minicom, openvswitch-common, openvswitch-
switch, bridge-utils, lxc, docker, docker-compose, fping, build-
essential, git, zlib1g-dev, gpsd, gpsd-clients, gpsd-tools, iperf3 testing
/run/media/n0p/mochabin2-root http://ftp.debian.org/debian/

sudo chmod o+w /run/media/n0p/mochabin2-root/boot
cp linux/arch/arm64/boot/Image /run/media/n0p/mochabin2-root/boot/
cp linux/arch/arm64/boot/dts/marvell/armada-7040-mochabin.dtb
/run/media/n0p/mochabin2-root/boot/
sudo chown -R root:root /run/media/n0p/mochabin2-root/boot/*
sudo chmod o-w /run/media/n0p/mochabin2-root/boot
sudo chmod o+w /run/media/n0p/mochabin2-root/lib
mkdir -p /run/media/n0p/mochabin2-root/lib/modules/
cp -R linux/chroot/lib/modules/* /run/media/n0p/mochabin2-root/lib/modules/
sudo chown -R root:root /run/media/n0p/mochabin2-root/lib/modules
sudo chmod o-w /run/media/n0p/mochabin2-root/lib
```

## 2- MOCHABIN's uboot

```
# change the default bootcmd from eMMC to SCSI (SATA)
setenv bootcmd 'scsi scan; scsi dev 0; ext4load scsi 0:1 $kernel_addr_r
$image_name; ext4load scsi 0:1 $fdt_addr_r $fdt_name; setenv bootargs $console
root=/dev/sd1 rw rootwait net.ifnames=0 biosdevname=0; booti $kernel_addr_r
- $fdt_addr_r'
```

```
setenv fdt_name /boot/armada-7040-mochabin.dtb
saveenv
boot
```

### 3- Inside MOCHABIN's linux

```
/debootstrap/debootstrap --second-stage
bash

echo mochabin0 > /etc/hostname
# change root password and add an user
passwd
adduser user

# set systemd as the init process after the kernel boots
ln -s /usr/bin/systemd /etc/init

# install Debian's standard packageset
tasksel install standard

# user systemd to manage the network
systemctl enable systemd-networkd

# disable unconfigured (for now) services)
systemctl disable --now ovs-vswitchd
systemctl disable --now ovssdb-server
systemctl disable --now dnsmasq
systemctl disable --now dhcpcd

# add eth0 network configuration:

echo [Match] > /etc/systemd/network/10-eth0.network
echo Name=ethx >> /etc/systemd/network/10-eth0.network
echo [Link] >> /etc/systemd/network/10-eth0.network
echo Multicast=yes >> /etc/systemd/network/10-eth0.network
echo [Network] >> /etc/systemd/network/10-eth0.network
echo DHCP=yes >> /etc/systemd/network/10-eth0.network

# umount, sync filesystem and then reboot into a full Debian

mount -t proc /proc proc
echo u > /proc/sysrq-trigger
echo s > /proc/sysrq-trigger
echo b > /proc/sysrq-trigger
```