Booting off USB Drive

⊙ TonidoPlug runs Linux; hence technically you can install other software (limited by memory size and process speed). However, we don't offer any kind of technical support if you attempt to do this. When you install other software we recommend you to boot the TonidoPlug from either external USB drive or SATA disk. If you install software on flash and brick the device CodeLathe is not responsible for it.

Procedure

Follow the steps outlined here, if you like to boot your plug with an USB drive and customize the plug environment. Remember, installing any software on the plug booted from a USB drive doesn't void the warranty. The reason is that all the changes you make to the plug environment is saved only in your USB drive and the internal flash remains unaffected.

- Connect the USB drive to TonidoPlug. The USB drive will be auto mounted on /media/usb0. Stop samba server and unmount the USB drive before proceeding. To do this SSH to the TonidoPlug and run the following commands.

```
root@TonidoPlug:~# /etc/init.d/samba stop root@TonidoPlug:~# umount /media/disk1part1/
```

- Make sure the external USB drive is not mounted anywhere else. Check the output of the following command.

```
root@TonidoPlug:~# mount
rootfs on / type rootfs (rw)
tmpfs on /lib/init/rw type tmpfs (rw,nosuid,mode=0755)
/proc on /proc type proc (rw,noexec,nosuid,nodev)
sysfs on /sys type sysfs (rw,noexec,nosuid,nodev)
varrun on /var/run type tmpfs (rw,nosuid,mode=0755)
varlock on /var/lock type tmpfs (rw,noexec,nosuid,nodev,mode=1777)
udev on /dev type tmpfs (rw,mode=0755)
tmpfs on /dev/shm type tmpfs (rw,nosuid,nodev)
devpts on /dev/pts type devpts (rw,noexec,nosuid,gid=5,mode=620)
tmpfs on /var/cache/apt type tmpfs (rw,noatime)
```

As you can see the USB hard drive (usually /dev/sdaX) is not mounted anywhere else

- Format the USB drive partition. You are about to create EXT3 file system on the USB drive partition. Warning: This command will wipe all the data on the partition.

```
root@TonidoPlug:~# mkfs.ext3 /dev/sda1
```

Note: If you have multiple partitions in your USB drive, you have to always use the first partition, because the TonidoPlug will boot only from the first partition of the external drive.

- Once the formatting is completed, mount the partition on a temporary directory

```
root@TonidoPlug:~# mount /dev/sda1 /media/disk1part1/
```

- Download the root and modules tar ball from TonidoPlug site and place in the newly created ext3 partition.

TonidoPlug 2 (You would need only rootfs.tar.gz, which includes the files from modules.tar.gz)

```
root@TonidoPlug:~# cd /media/disk1part1
root@TonidoPlug:/media/disk1part1# wget http://www.tonido.com/downloads/plug2/rootfs.tar.gz
```

TonidoPlug 1 (Use following code)

```
root@TonidoPlug:~# cd /media/disk1part1
root@TonidoPlug:/media/disk1part1# wget http://www.tonido.com/downloads/plug/rootfs.tar.gz
root@TonidoPlug:/media/disk1part1# wget http://www.tonido.com/downloads/plug/modules.tar.gz
```

- Please make sure the checksum of the files match the following values.

TonidoPlug 2

```
 root@TonidoPlug:/media/disk1part1# md5sum  rootfs.tar.gz
2f02407d8161acc42ccac0e6815f04c5   rootfs.tar.gz
```

TonidoPlug 1

```
 root@TonidoPlug:/media/disk1part1# md5sum  rootfs.tar.gz
958a32161e1daf1c79d88b1c6f6e85bf  rootfs.tar.gz
 root@TonidoPlug:/media/disk1part1# md5sum  modules.tar.gz
c2b89c8dd681656427b27a2fc1db725f  modules.tar.gz
```

- Untar the downloaded tar file onto the ext3 partition.

```
root@TonidoPlug:/media/disk1part1# tar zxvf rootfs.tar.gz
root@TonidoPlug:/media/disk1part1# tar zxvf modules.tar.gz
```

- Now stop tonido and copy the tonido directory from your existing internal flash disk.

```
 root@TonidoPlug:/media/disk1part1# initctl emit tstop
 root@TonidoPlug:/media/disk1part1# cp -dpr /root/app /media/disk1part1/root
```

- Now everything is ready. You can unmount the drive and reboot the plug. Leave the USB hard disk on the plug itself. When the plug reboots, it should reboot off the USB drive.

```
 root@TonidoPlug:/media/disk1part1# cd /root
 root@TonidoPlug:~# umount /media/disk1part/
 root@TonidoPlug:~# reboot
```

- You can ensure that the plug has booted on the external HDD by using the following command.

```
 root@TonidoPlug:~# df -h
 Filesystem          Size  Used Avail Use% Mounted onrootfs
 3.8G  669M  2.9G  19% /
```

ⓘ Note: You can see that we have booted the plug of the 4GB USB stick. If you see 512MB then probably you are still booting of the internal flash.

Warning

 Not all USB disks or sticks are compatible for booting the plug. If your plug is not booting with the USB disk you've used then please repeat the procedure with a different USB disk.