Make an SSH enabled firmware image

Install latest python
Install home-brew: https://brew.sh/

```
brew install dtc
```

Download kikgen https://github.com/TheKikGen/MPC-LiveXplore

Copy mpcimg and original Akai's official USB firmare image to Desktop.
Open Terminal and type the following to move to the Desktop:

```
cd Desktop
```

Now run the following to decompress the MPC firmware update img

```
python3.10 mpcimg extract MPC-2.11.6-Update.img Extracted.img

python3.10 mpcimg extract mpc-2.11.9.33-update.img Extracted.img
```

Launch Linux (virtual machine works fine)

Copy the extracted img to Linux Desktop.

Make the mount point:

```
sudo mkdir /mnt/disk1
```

Mount the extracted img file - this example is using parallels:

```
sudo mount /home/parallels/Desktop/rootfs_Extracted.img /mnt/disk1
```

Open the GUI file editor (Nautilus) as root - this will give you full root editing privilages:

```
sudo nautilus
```

In Nautilus, double click **/mnt/** folder and enter **disk1** to make the required file edits.

Find **/etc/shadow** double click to open and delete the password for root, leaving 8 colons. Leave all other entires untouched. Should look like this:

```
root::::::::
daemon:*:::::::
bin:*:::::::
sys:*:::::::
sync:*:::::::
mail:*:::::::
www-data:*:::::::
operator:*:::::::
nobody:*:::::::
```

```
dbus:*:::::::
sshd:*:::::::
systemd-timesync:*:::::::
```

Save the file and close it. Go to **/etc/ssh/sshd_config** and change the following lines:

```
PermitRootLogin yes
PasswordAuthentication yes
uncomment (remove #) PermitEmptyPasswords yes
```

Return to Terminal (new window if required) and run the following to make the sym link (all one line)

```
sudo ln -s '/usr/lib/systemd/system/sshd.service' '/mnt/disk1/etc/systemd/system/multi-user.target.wants/'
```

Now go to **etc/systemd/system/multi-user.target.wants/** and double check if the **sshd.service** file is created.

Now unmount disk1:

```
sudo umount /mnt/disk1/
```

Copy the edited extracted img to Mac desktop

In Mpc image maker, run the following to compress the img:

```
python3.10 mpcimg make-mpc rootfs_Extracted.img MPC-2.11.6-Update.img 2.11.6.6
python3.10 mpcimg make-mpc rootfs_Extracted.img mpc-2.11.9.33-update.img 2.11.9.33


```

You can run a general check if you wish

```
python3.10 mpcimg  info MPC-2.11.6-Update.img
```

Install firmware using the standard USB disk updating process (**MENU > PREFERENCES > INFO > UPDATE > USB Drive**).

After boot up, connect MPC to your local network - I prefer ethernet (I use a USB to Lan stick on my MPC Live). Go to **MENU > PREFERENCES > ETHERNET** and check your IP address. Or check the traffic map in your route's admin page for IP address. Also think about assigning your MPC a static ip address.

You can now connect to your MPC via SFTP using an app like Cyberduck, using the MPC ip address, username: root, no password