

Howto restore the emmc on the beagle black

This howto is to cover a rare case where the BBB's emmc (internal SDcard) becomes corrupted in some way and does not allow the Allstar image to boot. While most boot problems would be due to a bad SDcard it also appears that if a user deletes files in the emmc boot partition or removes this partition altogether Allstar could fail to boot. This is not something you do accidentally. You would have to consciously mount the emmc partition and make changes. Also it would be extremely rare but the emmc could become corrupted and cause this same problem. Fortunately a few simple steps will in most cases correct this problem. I want to emphasize that it would be a very rare occurrence to have this problem, however the following instructions would also be useful if you might want to write a different image to the emmc on your BBB.

The beagle black came with Angstrom Linux pre-installed on the internal emmc on rev B boards. Starting with rev. C boards Debian was installed. You can upgrade a B board to Debian on the emmc or recover a damaged emmc by doing the following simple commands. First you have to be able to boot from the microSD card. If BBB Allstar version 1.1 or 1.2.1 does not boot then you may need to download and burn a microSD card with a version of Angstrom or Debian to execute the following commands -

Angstrom has xz installed and I believe Debian does also. If you are using Archlinux you will have to download the xz compression tool:

```
pacman -S xz
```

You may need to use -Sy to do this if you get an error with just -S

Now you need to get the Debian image - as of 11/21/2014 this was a good download. If this does not work you will need to get the url of the current Debian download. You should always use the latest download if you can. The latest images are available here:

```
http://beagleboard.org/latest-images
```

Select and copy the url of the compressed image and paste it in the command line after wget like this:

```
wget http://debian.beagleboard.org/images/bone-debian-7.5-2014-05-14-2gb.img.xz
```

Once downloaded you can proceed to extract the image and write it to the emmc

```
xz -cdv bone-debian-7.5-2014-05-14-2gb.img.xz > /dev/mmcblk1
```

This will show a progress bar and when done you can delete the file that was downloaded in the wget above. You will then be able to boot without an SD card installed into Debian on the emmc. This should also fix any boot problems you may have had with the Archlinux Allstar microSD card boot.