

EDM Yocto Pre-built Image Installation Guide

Rev 2.1 20150917



TechNexion

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1. Support Hardware

These are the systems covered in this guide:

System-on-Modules:

- EDM1-CF-IMX6
- EDM1-CF-IMX6SX
- EDM2-CF-IMX6

Carrier Boards:

- EDM1-FAIRY
- EDM1-GOBLIN
- EDM2-ELF
- Toucan-0700

2. Download Yocto Pre-Built image

Please visit Technexion download page:

<http://www.technexion.com/index.php/support/edm/edm1-cf-imx6>

The screenshot shows a web browser window with the URL <http://www.technexion.com/index.php/s>. The page title is "EDM1-CF-IMX6 + EDM1-FAIRY Android JellyBean". Below the title, there are three sections of download links:

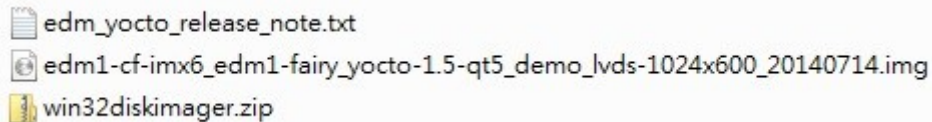
- EDM1-CF-IMX6 + EDM1-FAIRY Android JellyBean**
 - Description: Android JellyBean 4.3 for EDM1-CF-IMX6 including .apk for CAN/Serial/GPIO control
 - Revision: VER. 4.3
 - Date: 10 July 2014
 - Source: Android Jellybean (4.3) Sourcecode for EDM1-CF-IMX6
 - Demo HDMI: Android Jellybean (4.3) runtime demo image for EDM1-CF-IMX6 and EDM1-FAIRY with HDMI output
 - Demo 7" Touchscreen: Android Jellybean (4.3) runtime demo image for EDM1-CF-IMX6 and EDM1-FAIRY with 7 inch touchscreen
- EDM1-CF-IMX6 + EDM1-FAIRY Yocto 1.5**
 - Description: Yocto is not a distribution but a way to build your own embedded Linux. We created a runtime image for evaluation purposes for EDM1-CF-IMX6 and EDM1-FAIRY that incorporates a desktop and Qt 5 demo's
 - Revision: VER. 1.5
 - Date: 14 July 2014
 - Source: Yocto 1.5 Sourcecode for EDM1-CF-IMX6
 - Documentation: Documentation and tools to install and configure Qt5 in Yocto
 - Demo HDMI: Yocto 1.5 runtime demo image for EDM1-CF-IMX6 and EDM1-FAIRY with HDMI output
 - Demo 7" Touchscreen: Yocto 1.5 runtime demo image for EDM1-CF-IMX6 and EDM1-FAIRY with 7 inch touchscreen
- EDM1-CF-IMX6 + EDM1-FAIRY Ubuntu 12.04**
 - Description: Ubuntu runtime image with HDMI output for EDM1-CF-IMX6 and EDM1-FAIRY
 - Revision: VER. 12.04
 - Date: 22 August 2014
 - Demo HDMI: Ubuntu runtime demo image for EDM1-CF-IMX6 and EDM1-FAIRY with HDMI output
 - Demo 7" Touchscreen: Ubuntu runtime demo image for EDM1-CF-IMX6 and EDM1-

A red arrow points to the Yocto 1.5 section, and a red box highlights the "Demo HDMI" and "Demo 7" Touchscreen" links in that section.

Select the download link of Yocto pre-built image for HDMI or 7-inch LVDS display panel.

3. Make eMMC installer

Unzip the file you download.



There are three files:

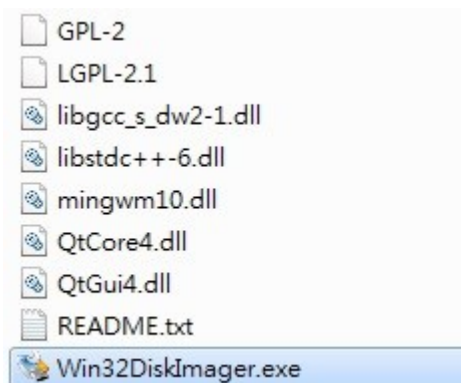
edm_yocto_release_note.txt

edm1-cf-imx6_edm1-fairy_yocto-1.5-qt5_demo_lvds-1024x600_2014xxxx.img

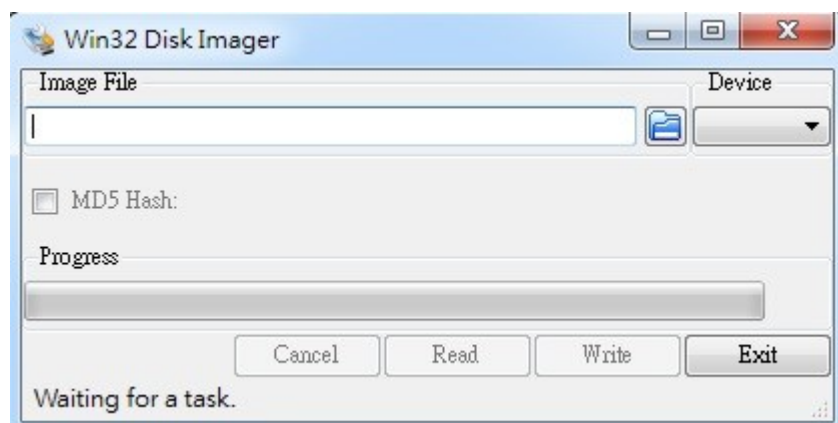
win32diskimager.zip

If your PC runs Windows OS:

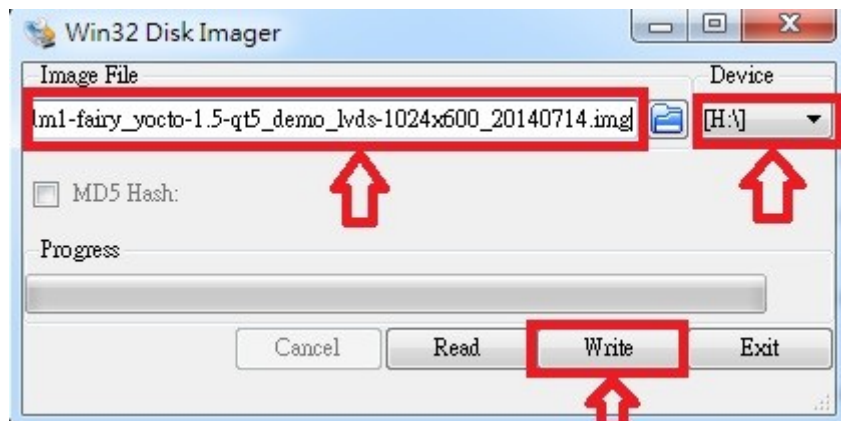
Please unzip the win32diskimager.zip:



Execute **Win32DiskImager.exe**.



Prepare a microSD card. Insert this microSD card into the card reader of PC.



Choose microSD you insert as “Device”.

Select the “**edml-cf-imx6_edml-fairy_yocto-1.5-qt5_demo_lvds-1024x600_2014xxxx.img**” as “Image File”.

Then, press “Write”. **Win32DiskImager** will flash yocto installer image into microSD card.

If your PC runs Ubuntu OS:

Prepare a microSD card. Insert this microSD card into the card reader of PC.

Use 'dd' command to flash yocto installer image into microSD card.

```
$ sudo dd if=edml-cf-imx6_edml-fairy_yocto-1.5-qt5_demo_lvds-1024x600_2014xxxx.img of=/dev/sd<partition> bs=1M && sync
```

Or

Use “imageWriter” tool.

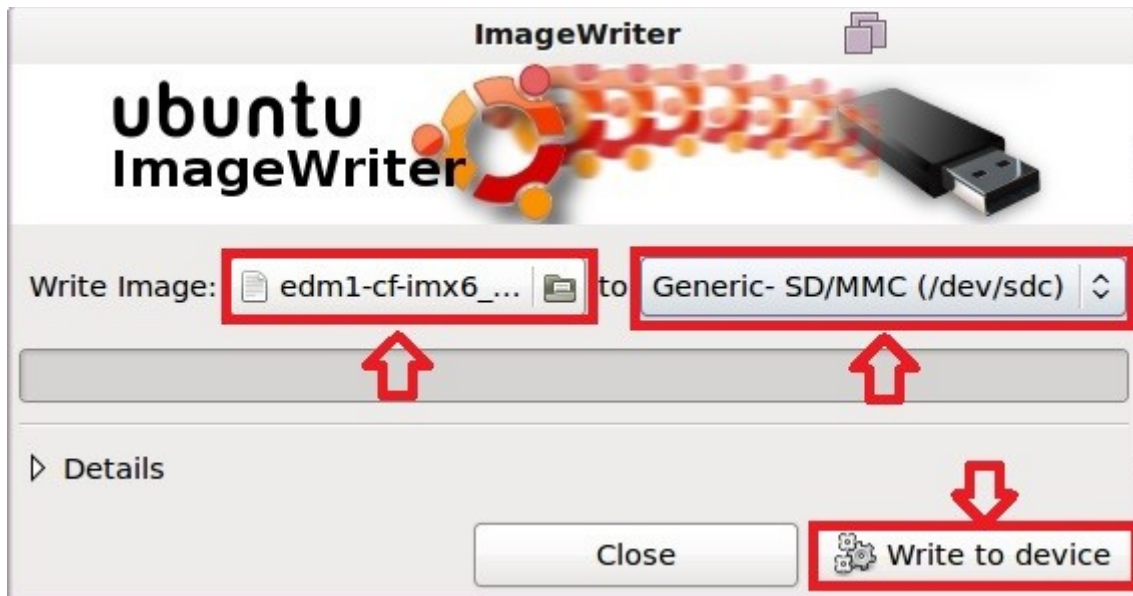
<https://apps.ubuntu.com/cat/applications/precise/usb-imagewriter/>

Install “imageWriter”:

```
sudo apt-get install usb-imagewriter
```

Execute “imageWriter”:

```
sudo imagewriter
```



Choose microSD you insert as “Device”.

Select the “**edm1-cf-imx6_edm1-fairy_yocto-1.5-qt5_demo_lvds-1024x600_2014xxxx.img**” as “Write Image”.

Then, press “Write to device”. **imagewriter** will flash Yocto installer image into microSD card.

4. Run eMMC installer image on target board

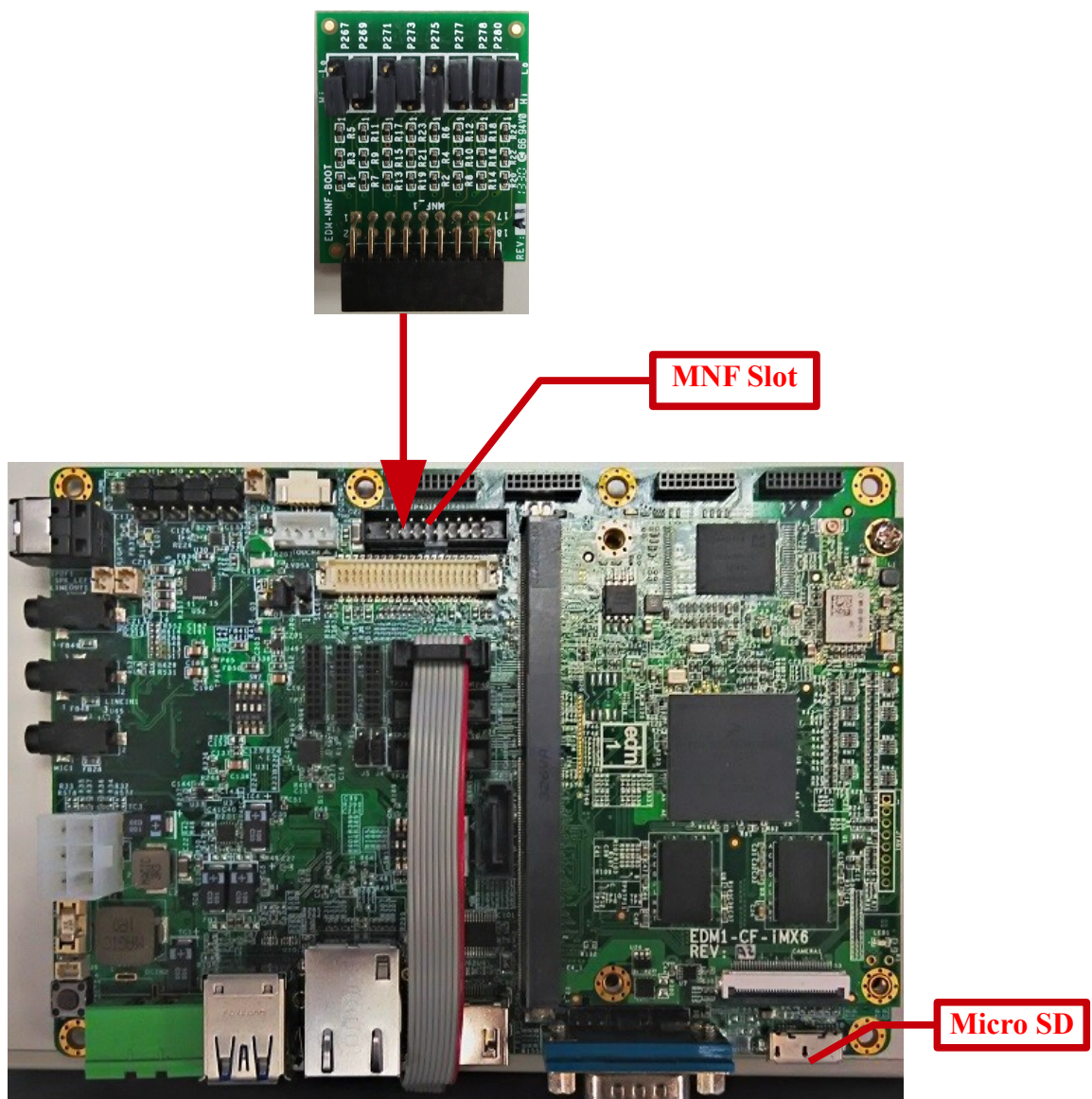
4.1 Set up boot mode

Run eMMC installer image will install OS image into eMMC of CPU module.

For EDM1-FAIRY/EDM1-GOBLIN/EDM2-ELF:

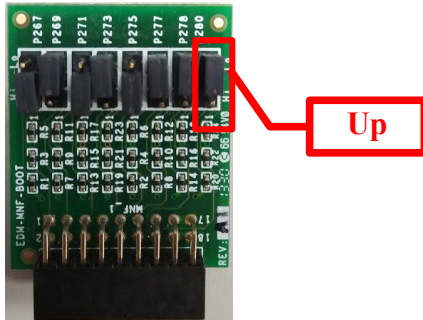
Plug “EDM-MNF-BOOT PCB” into MNF slot on EDM1-Fairy baseboard.
It will cause EDM1-Fairy boot from external microSD card instead of eMMC.
Then, insert MicroSD card with yocto installer image inside into EDM1-Fairy baseboard.

EDM-MNF-BOOT PCB

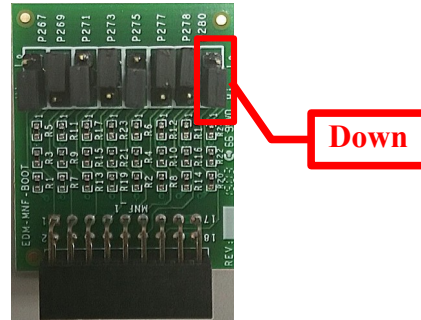


Note: The rightmost jumper of EDM-MNF-BOOT PCB is different for EDM1-CF-IMX6 and EDM1-CF-IMX6SX.

For EDM1-CF-IMX6



For EDM1-CF-IMX6SX



For Toucan-0700:

There is on-board eMMC on EDM1-CF-IMX6 CPU module. Run installer on SD card will install pre-built image into eMMC.

Insert the SD card into Toucan baseboard. Hold down “S1” and press “RST” button.

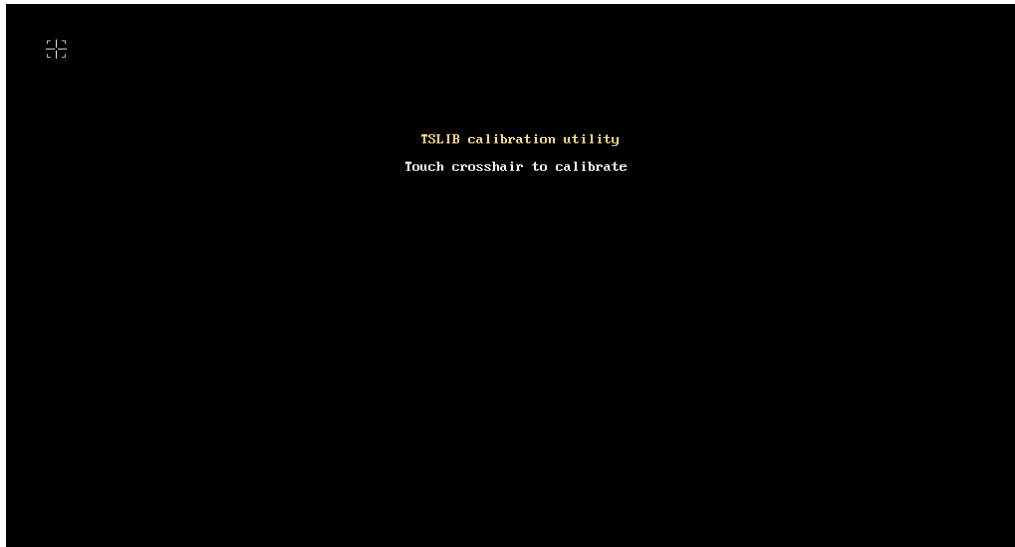
(PS. Hold down “S1” button will switch the boot mode to SD card. Then press “RST”, the board will reboot from SD card.)



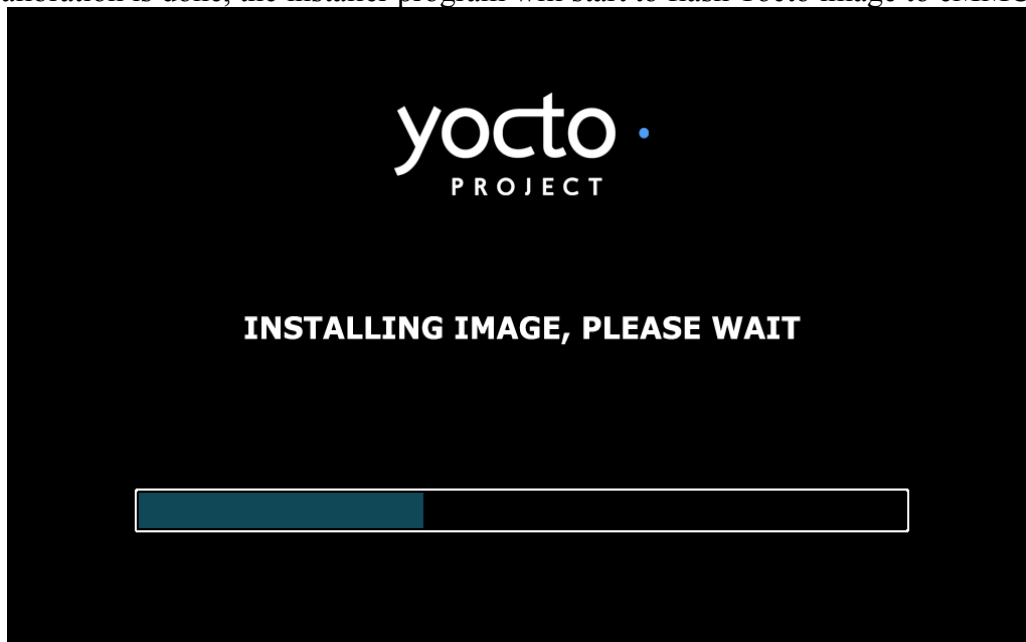
Then, power on target board.

4.2 Resistive touch calibration

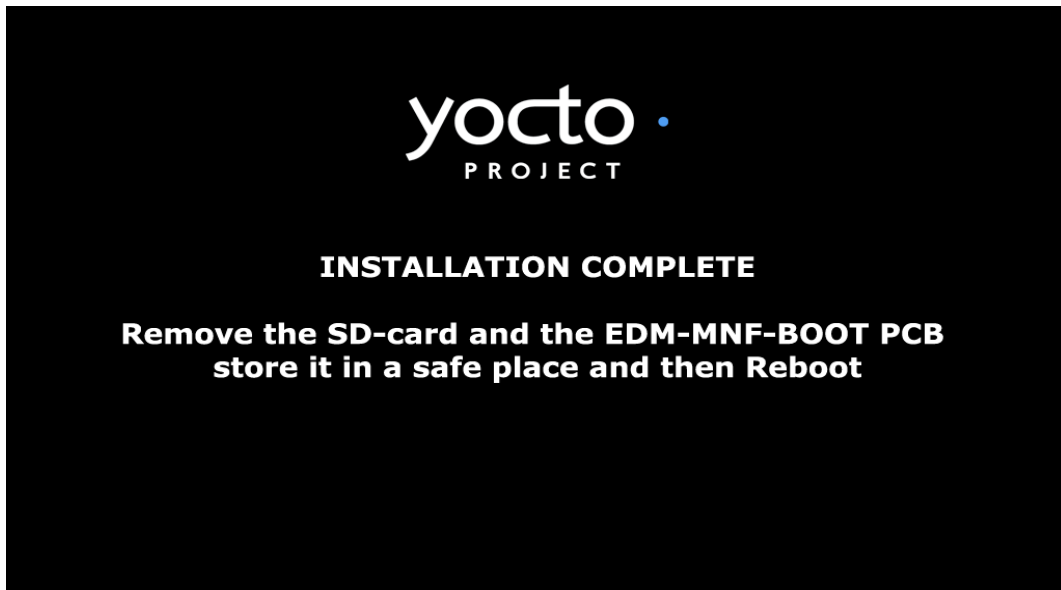
If the touch panel is resistive touch panel, installer program will enter into calibration mode first. (Capacitive touch panel(eGalax multitouch panel) doesn't require to be calibrated.)



After calibration is done, the installer program will start to flash Yocto image to eMMC.



Please wait until the installation complete.



Please remove microSD card and “EDM-MNF-BOOT PCB” !!!
After removing “EDM-MNF-BOOT PCB”, EDM1-Fairy board will boot from eMMC.

Then, reboot.
You will see the boot message.