Installing Linux to the NXP i.MX RT1060 EVK Board

1. Download a bootable Linux image from the Emcraft web site:
https://emcraft.com/jdownloads/imxrt1060/emcraft.imxrt106x-evk.img. This is a composite image that contains U-Boot, Linux kernel and root file system as well as a target-specific configuration file.

2. On a Linux PC, plug in an SD Card, either directly or using an USB-to-SD card converter. Any SD/SDHC Card of 16 MB or more in density should work. Do the following:

2.1. Find out a `/dev/sdX` device the system has assigned to your SD Card:

```
$ dmesg | tail
e.g.: ...
    sd 1:0:0:0: [sdb] 3909632 512-byte logical blocks: (2.00GB/1.86GiB)
    sd 1:0:0:0: [sdb] Cache data unavailable
    sd 1:0:0:0: [sdb] Assuming drive cache: write through
    sdb: sdb1 sdb2
```

2.2. Install the bootable Linux image to the `/dev/sdX` device assigned to your SD Card. Note that you need to specify the whole device as the destination for the `dd` command (i.e. do not install the image to a partition). For instance:

```
$ sudo dd if=emcraft.imxrt106x-evk.img of=/dev/sdb
```

2.3. Safely remove SD Card, from the desktop GUI or from the command line:

```
$ sync
```

2.4. Un-plug the SD Card.

3. Optionally, customize the installation for your i.MX RT1060 target. You need to do that in case you want to connect to the Linux shell on the target over Ethernet via secure shell. Do the following:

3.1. Plug the SD Card back to the Linux PC. It will be detected as a partitioned storage device:

```
$ dmesg | tail
e.g.: ...
    sd 1:0:0:0: [sdb] 3909632 512-byte logical blocks: (2.00GB/1.86GiB)
    sd 1:0:0:0: [sdb] Cache data unavailable
    sd 1:0:0:0: [sdb] Assuming drive cache: write through
    sdb: sdb1
```

3.2. Mount the first partition on the SD Card. For instance:

```
$ sudo mount /dev/sdb1 /mnt
```

3.3. Edit the `mxrt106x-evk.ini` file on the SD using your favorite editor. Specifically, set the IP address and netmask of the i.MX RT1060 board to values that make sense for your LAN. For instance:

```
$ vi /mnt/mxrt106x-evk.ini
…
setenv ipaddr 172.17.44.111
setenv netmask 255.255.0.0
```

3.4. Save the changes to the `mxrt106x-evk.ini` file, safely remove SD Card:

```
$ sudo umount /mnt
$ sync
```

3.5. Un-plug the SD Card.

4. Configure the NXP i.MX RT1060 EVK board for booting from SD Card. Set the boot selection jumpers as follows:
SW7.1-4=1010.
Insert the SD Card to the SD Card holder on the NXP EVK board.

5. Power on the EVK board. The splash-screen logo will be displayed on the LCD immediately. The GUI demo will start on the LCD within several seconds. Interact with the GUI using the touch screen.

6. If you have configured the EVK board for your local LAN as described at Step 3 above, you can hook it up to your Ethernet LAN with an Ethernet cable. Connect to the EVK board over secure shell (`ssh`) using the IP address you specified for your target.
Login: **`root`**, password: **`123`**.
At this point, you have access to the Linux root shell on the i.MX RT1060.