1. Download and extract the toolchain:

$ wget <https://developer.arm.com/-/media/Files/downloads/gnu/11.2-2022.02/binrel/gcc-arm-11.2-2022.02-x86_64-aarch64-none-linux-gnu.tar.xz>

$ tar xJf gcc-arm-11.2-2022.02-x86\_64-aarch64-none-linux-gnu.tar.xz

$ export CROSS\_COMPILE=$(pwd)/gcc-arm-11.2-2022.02-x86\_64-aarch64-none-linux-gnu/bin/aarch64-none-linux-gnu-

2. Download the kernel sources:

$ git clone <https://git.linaro.org/landing-teams/working/qualcomm/kernel.git> -b release/db820c/qcomlt-5.15

3. Download the initramfs from the Linaro web site: go to <https://fileserver.linaro.org/s/45ZSCgrqb6XtD9H> , click ‘Download’ button, move the downloaded file into the same working dir

4. Prepare the kernel build

$ mkdir build

$ cd build

$ make -C ../kernel O=$(pwd) ARCH=arm64 db820c\_defconfig

5. Build the kernel

$ make -C ../kernel O=$(pwd) ARCH=arm64 Image.gz dtbs -j $(nproc)

5a. Alternatively build the kernel and modules:

$ make -C ../kernel O=$(pwd) ARCH=arm64 Image.gz dtbs modules -j $(nproc)

and then install modules if they were built:

$ rm -rf ../modules

$ make -C ../kernel O=$(pwd) ARCH=arm64 -j $(nproc) INSTALL\_MOD\_PATH=../modules modules\_install

6. Build the booting image

$ export CMDLINE='maxcpus=2 root=/dev/sda1 rootwait console=tty0 console=ttyMSM0,115200n8'

$ cat arch/arm64/boot/Image.gz arch/arm64/boot/dts/qcom/apq8096-db820c.dtb > Image-dtb

$ mkbootimg --kernel Image-dtb --cmdline "$CMDLINE" --ramdisk ../initramfs-firmware-dragonboard820c-image-qcom-armv8a.cpio.gz --base 0x80000000 --pagesize 2048 --output ../boot.img

7. Try the resulting boot image:

$ fastboot boot ../boot.img

8. Or flash it to your board:

$ fastboot flash boot ../boot.img