The cm3 can be put into usb storage mode where boot files are sent from the usb cable plugged into the debug port on the fin. We use that to run uboot on the cm3. Then run balenaOS from a usb storage device.

Step 1: Use etcher to Flash balenaOS (dev image!) on a usb storage device
Step 2: Clone https://github.com/raspberrypi/usbboot
Step 3: Make a folder `boot` inside the `usbboot` folder you just cloned.
Step 4: Copy the files from the `resin-boot` partition of the usb storage device you just flashed balenaOS on into the `boot` folder inside `usbboot`
Step 5: Run rpiboot and leave this terminal running

i.e.

```
$ git clone --depth=1 https://github.com/raspberrypi/usbboot

$ cd usbboot

$ sudo apt-get install libusb-1.0-0-dev

$ make

$ mkdir boot

$ sudo cp /media/resin-boot/* /path/to/usbboot/boot

$ sudo ./rpiboot -d boot -l
```

Step 6: Plug in usb storage device into fin
Step 7: Plug a serial cable into the fin serial header pins. (or piuart with power off) (and run screen/minicom)
Step 8: Connect micro usb cable from laptop debug cable into fin
Step 9: Connect power cable into fin power port

The terminal running rpiboot should show some info loading files etc
You should see u-boot output on the serial port.

At this point u-boot was loaded from the `boot` folder and is now running.

The micro usb cable plugged into debug port holds the usb power rail low.
Step 10: unplug micro usb cable from debug port
Step 11: modify u-boot to try to boot from usb instead of default mmc.
Run in uboot shell

```
U-Boot> env set resin_uboot_device_types usb

U-Boot> usb reset

resetting USB...

USB0:   scanning bus 0 for devices...

Error: smsc95xx_eth address not set.

4 USB Device(s) found
```

```
        scanning usb for storage devices... 1 Storage Device(s) found
U-Boot> boot
```

The fin should now boot from USB.
NOTE: IF YOU HAVE A WORKING FIN. i.e if the emmc is fine and has balenaOS in it. I'd recommend removing the resin-image file in the boot partition. i.e. boot the fin normally from mmc. Run
`rm /mnt/boot/resin-image`
This will prevent u-boot/initramfs scripts from finding balenaOS on the eMMC. Otherwise even though the usb storage device is pointed at. Some scripts loop through all devices with mmc as a priority and find balenaOS and boot from mmc.