



量产工具升级及相关问题处理

- ❖ 福州瑞芯微电子有限公司
- ❖ 2012.02.20 杨云、陈美友

Flash分区情况

www.rock-chips.com

Address		
0x00000000	0x00002000	parameter
0x00002000	0x00004000	misc
0x00004000	0x00008000	kernel
0x00008000	0x00010000	Boot
0x00010000	0x00018000	Recovery
0x00018000	0x00118000	backup
0x00118000	0x00152000	Cache
0x00152000	0x00252000	Userdata
0x00252000	0x00254000	Kpanic
0x00254000	0x00354000	System
0x00354000		user

parameter

www.rock-chips.com

- ❖ FIRMWARE_VER:0.2.3
- ❖ MACHINE_MODEL:Full AOSP on Rk29sdk
- ❖ MACHINE_ID:007
- ❖ MANUFACTURER:RK29SDK
- ❖ MAGIC: 0x5041524B
- ❖ ATAG: 0x60000800
- ❖ MACHINE: 2929
- ❖ CHECK_MASK: 0x80
- ❖ KERNEL_IMG: 0x60408000
- ❖ CMDLINE: quiet console=ttyS1,115200n8n androidboot.console=ttyS1
init=/init initrd=0x62000000,0x800000
mtdparts=rk29xxnand:0x00002000@0x00002000(misc),0x00004000@0x00
004000(kernel),0x00008000@0x00008000(boot),0x00008000@0x0001000
0(recovery),0x000BE000@0x00018000(backup),0x0003a000@0x000D600
0(cache),0x00100000@0x00110000(userdata),0x00002000@0x00210000(
kpanic),0x000B0000@0x00212000(system),-@0x002C2000(user)

Parameter修改

www.rock-chips.com

- ❖ 例如:
- ❖ $0x000B0000 @ 0x00212000(\text{system})$
- ❖ $\wedge \quad \quad \wedge \quad \quad \wedge$
- ❖ 分区大小 分区地址 分区名称

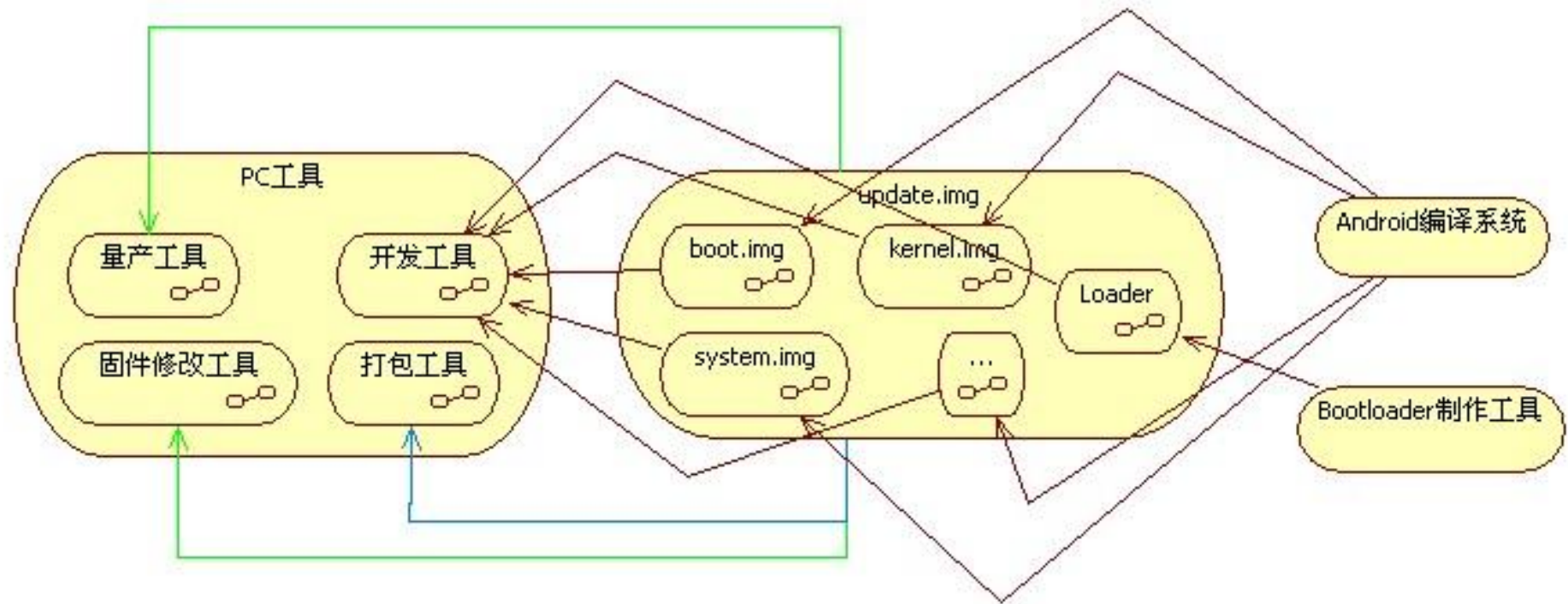
- ❖ 其中，分区大小、分区地址的单位为Sector(512Bytes)。上面system分区的大小为 $0xB0000 * 512 / 1024 / 1024 = 352\text{MB}$

- ❖ 当修改了其中某个分区后，所有在它后面的分区的地址都要顺序往前或往后移。

- ❖ **注意点：**
- ❖ 1. 分区的大小要以4MB对齐！
- ❖ 2. 分区总大小不能超过flash的总长度

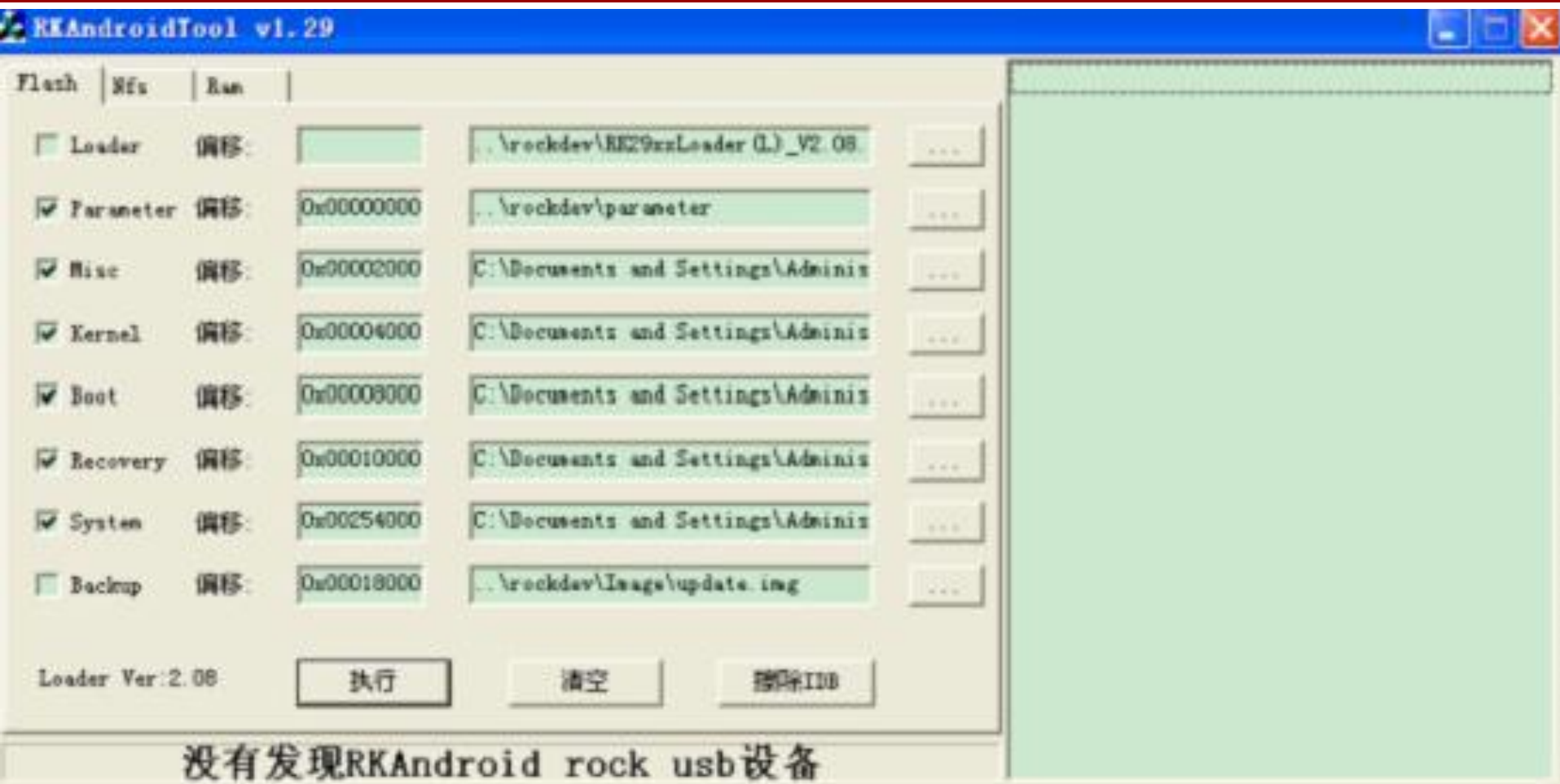
工具系统

www.rock-chips.com



烧写工具

www.rock-chips.com



烧写常见错误

www.rock-chips.com

❖ 常见错误:

- ❖ 烧写失败的日志在工具目录\log目录\

❖ I 下载Boot失败

- ❖ 检查DDR是否没有焊接好
- ❖ 检查loader是否与设备匹配

❖ I 测试设备失败

- ❖ 重启设备，再尝试

❖ I 写入ID_BLOCK失败

- ❖ 短接Flash进入Maskrom设备状态,擦除IDB后重启设备，再试。

❖ I 下载文件失败

- ❖ 请使用屏蔽性好的usb连接线，确认连接线两端的usb口是否松动,连接pc 后置usb端口，再试。

❖ 注意点:

- ❖ Parameter修改后，要重新载入parameter，或者重启烧写工具。

Update.img打包

www.rock-chips.com

- ❖ ***Afptool -pack ./ Image\update.img***
- ❖ ***RKImageMaker.exe -RK29 RK29xxLoader(L)_V2.08.bin Image\update.img update.img -os_type:androidos***

❖ 命令格式

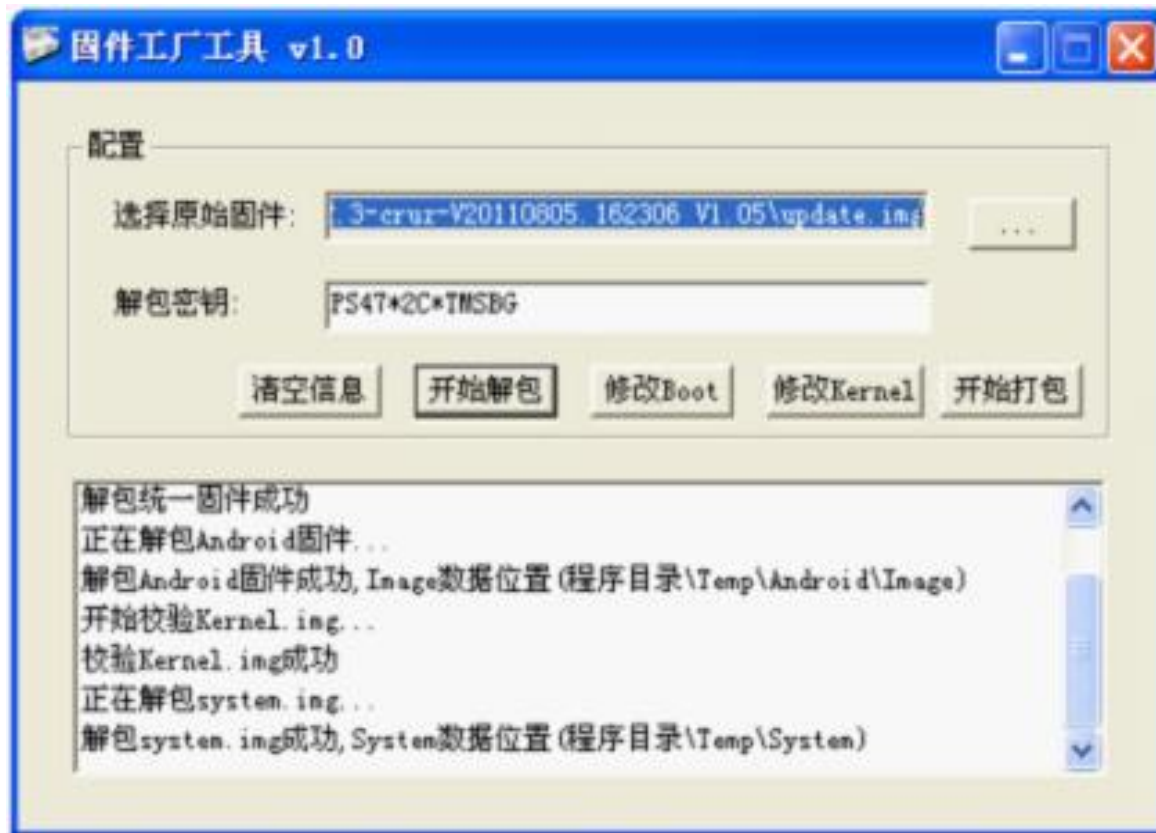
- ❖ **RKImageMaker <-芯片类型> <Boot文件路径> <旧Image固件路径> <新Image固件保存路径> [固件系统类型]**

❖ 参数说明

- ❖ **芯片类型:**表示固件支持的芯片,可以指定下列值:-RK28|-RK281X|-RKCROWN|-RKNANO|-RK29
- ❖ **Boot文件路径:**通过BootMerger工具打包出来的Boot文件
- ❖ **旧Image固件路径:**通过RK28image.exe或者AFPTool.exe生成的Img文件
- ❖ **新Image固件路径:**指定保存新Image固件的路径
- ❖ **固件系统类型:**可以指定下列值:RKOS|ANDROIDOS,不指定此参数时默认RKOS

固件工厂工具

www.rock-chips.com



固件工厂工具

www.rock-chips.com

- ❖ 利用该工具，可以对我司发布的
update.img进行开机logo，系统资源，进行
替换，对apk进行删减。定制自己需要的固
件版本。
- ❖ RK固件工厂使用说明v2.33.pdf

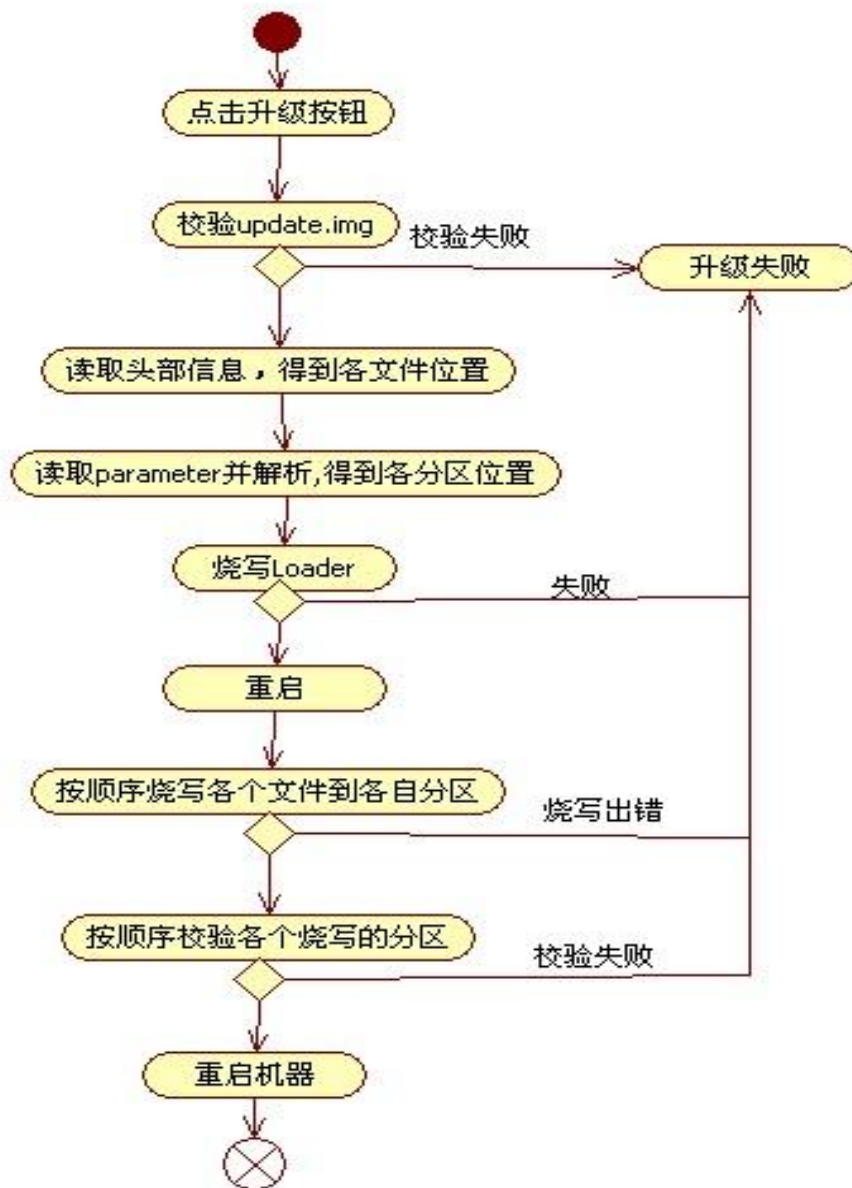
量产工具

www.rock-chips.com



烧写流程

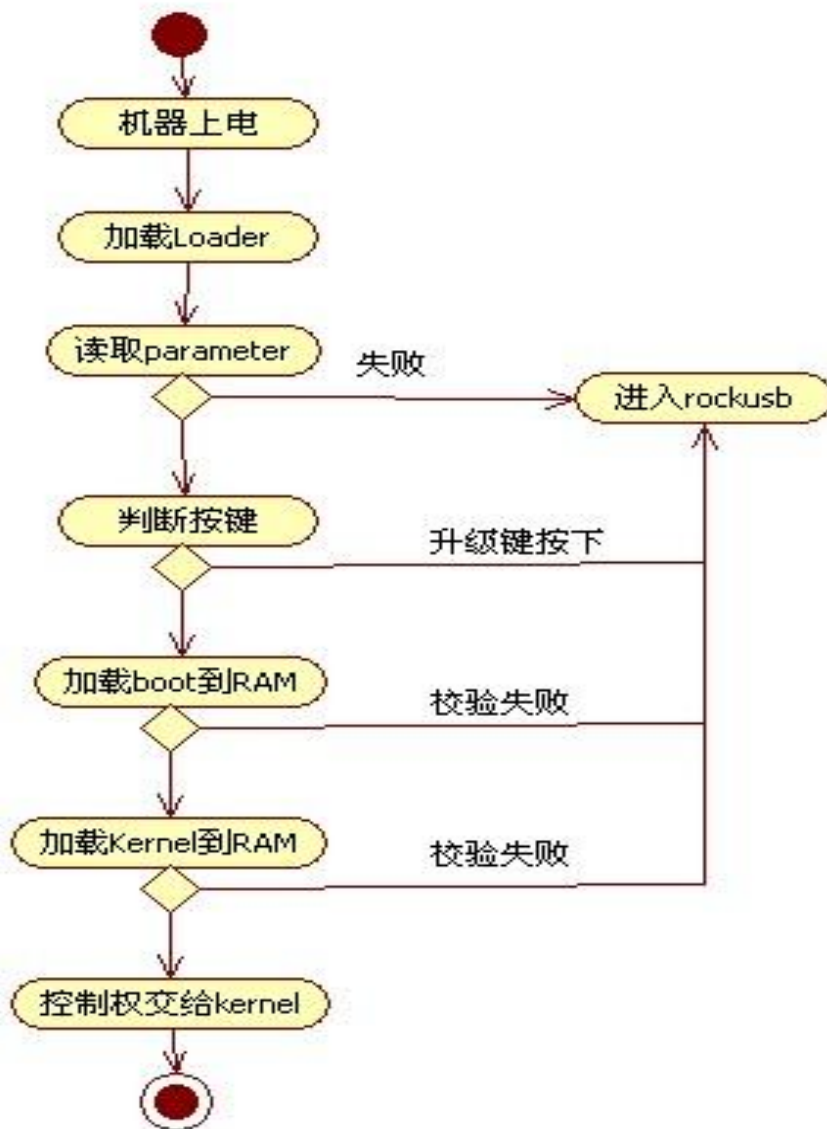
www.rock-chips.com



烧写成功后
系统无法启动
?

开机加载流程

www.rock-chips.com



烧写成功后系统无法启动

www.rock-chips.com

- ❖ 1.可以根据系统提示的UI进行判断
- ❖ 2.看log

烧写成功后系统无法启动

www.rock-chips.com

- ❖ [33.675755] EXT3-fs: barriers not enabled
- ❖ [33.680798] EXT3-fs (mtdblock5): using internal journal
- ❖ [33.686100] kjournald starting. Commit interval 5 seconds
- ❖ [33.692112] EXT3-fs (mtdblock5): mounted filesystem with ordered data mode
- ❖ [33.699268] init: vfat_check(/dev/block/mtdblock9): /sbin/e2fsck not found (skipping checks)
- ❖ [34.106611] FAT-fs (mtdblock9): invalid media value (0xe1)
- ❖ [34.112271] FAT-fs (mtdblock9): Can't find a valid FAT filesystem
- ❖ [35.615669] init: cannot find '/system/bin/servicemanager', disabling 'servicemanager'
- ❖ [35.623903] init: cannot find '/system/bin/vold', disabling 'vold'
- ❖ [35.630418] init: cannot find '/system/bin/netd', disabling 'netd'
- ❖ [35.636678] init: cannot find '/system/bin/debuggerd', disabling 'debuggerd'
- ❖ [35.644244] init: cannot find '/system/bin/rild', disabling 'ril-daemon'
- ❖ [35.651040] init: cannot find '/system/bin/surfaceflinger', disabling 'surfaceflinger'
- ❖ [35.659017] init: cannot find '/system/bin/app_process', disabling 'zygote'
- ❖ [35.666364] init: cannot find '/system/bin/drmserver', disabling 'drm'
- ❖ [35.672992] init: cannot find '/system/bin/mediaserver', disabling 'media'
- ❖ [35.679900] init: cannot find '/system/bin/dbus-daemon', disabling 'dbus'
- ❖ [35.686714] init: cannot find '/system/bin/installd', disabling 'installd'
- ❖ [35.693621] init: cannot find '/system/etc/install-recovery.sh', disabling 'flash_recovery'
- ❖ [35.702007] init: cannot find '/system/bin/keystore', disabling 'keystore'
- ❖ [35.708923] init: property (null) has no value for writing to /sys/class/android_usb/android0/iManufacturer
- ❖ [35.718754] init: property (null) has no value for writing to /sys/class/android_usb/android0/iProduct
- ❖ [35.728807] init: cannot find '/system/bin/sh', disabling 'console'

❖ question ?

A blue-toned background image featuring a fountain pen and a USB connector resting on a document with blurred text.

❖ Thank You !