# 泰山派飞书文档

https://lceda001.feishu.cn/wiki/NSTSwCZPain5odkf0mscUdCpn0u

# 环境安装

## WSL2安装Ubuntu

https://lceda001.feishu.cn/wiki/UntHwSEbKiHI46kPMYecmp4BnXf

https://lceda001.feishu.cn/wiki/IvKwwCzsPiDI8Vk2ijbccVthnZc

## Ubuntu环境

apt-get install -y git make git-core gnupg flex bison gperf build-essential zip curl zlib1g-dev libgl1-mesa-dev gcc-multilib g++-multilib libc6-dev-i386 lib32ncurses5-dev x11proto-core-dev libx11-dev lib32z1-dev libxml2-utils xsltproc unzip bc imagemagick ccache schedtool libssl-dev libncursesw5-dbg libncursesw5-dev libncurses5 libncursesw5 libncursesada5-dev libncurses5-dbg libncurses5-dev libncursesada-doc libncursesada5 libncurses-dev libncurses-gst libncurses5-dev clang

sudo apt install -y git make openjdk-8-jdk git-core gnupg flex bison gperf build-essential zip curl zlib1g-dev libgl1-mesa-dev gcc-multilib g++-multilib libc6-dev-i386 lib32ncurses5-dev x11proto-core-dev libx11-dev lib32z1-dev libxml2-utils xsltproc unzip bc imagemagick ccache schedtool libssl-dev libncurses5-dev clang

# 安卓编译

cd u-boot && ./make.sh rk3566 && cd ../kernel && make clean && make distclean && make ARCH=arm64 tspi_defconfig rk356x_evb.config android-11.config && make ARCH=arm64 tspi-rk3566-user-v10.img -j16 && cd .. && source build/envsetup.sh && lunch rk3566_tspi-userdebug && make installclean -j16 && make -j16

## 单独编译u-boot

cd u-boot && ./make.sh rk3566

## 单独编译kernel

cd ./kernel && make clean && make distclean && make ARCH=arm64 BOOT_IMG=../rockdev/Image-rk3566_tspi/boot.img tspi-rk3566-user-v10.img -j32

make ARCH=arm64 BOOT_IMG=../rockdev/Image-rk3566_tspi/boot.img tspi-rk3566-user-v10.img -j32

编译完成后在kernel目录会生成boot.img我们可以单独烧入boot.img来生效kernel的修改
https://lceda001.feishu.cn/wiki/CF38wAxs1irt0zkPxOXcWJuCnDd

### android单独编译

source build/envsetup.sh && lunch rk3566_tspi-userdebug
特殊情况千万不要make clean因为clean以后在编译要很久，如果我们发现修改没有生效通常installclean后再编译就好了
make installclean -j$(nproc) && make -j$(nproc)
./mkimage.sh

## 打包生成update.img固件

./mkimage.sh
./build.sh -u
运行命令后会把镜像输出到下列目录：SDK/rockdev/Image-rk3566_tspi# ls

# MaskRom刷机

在实际开发过程中我们Loader模式我们使用的更多，MaskRom模式主要是用来救砖的。也就是当你boot都损坏的情况才会去使用。进入MaskRom方法，先断开typec给开发板断电，泰山派开发板MicroHDMI附近有两个触点，使用镊子短接这两个触点，然后进行上电操作，当烧录软件中出现“发现一个MASKROM设备”后松开镊子。

### 救砖

https://www.bilibili.com/read/cv32776338/

# 串口连接

波特率1500000
https://blog.csdn.net/bug_love/article/details/136177167

# 文件

## 屏幕设备树

/kernel/arch/arm64/boot/dts/rockchip/tspi-rk3566-dsi-v10.dtsi

/kernel/drivers/input/touchscreen/gt9xx/gt9xx.c

# 陀螺仪

资料下载：https://pan.baidu.com/s/1SV7U-QikbDxYOLPoqlnuFA 提取码：1234

https://blog.csdn.net/Industio_CSDN/article/details/129882703

## dts

layout调整方向

### 驱动

/kernel/include/linux/sensor-dev.h

/kernel/drivers/input/sensors/sensor-dev.c

/kernel/drivers/input/sensors/accel/mpu6500_acc.c

/kernel/drivers/input/sensors/gyro/mpu6500_gyro.c

/kernal/include/linux/mpu6500.h

### 内核驱动配置

/arch/arm64/configs/rockchip_linux_defconfig

```
CONFIG_MPU6500_ACC=y
CONFIG_GYRO_MPU6500=y
```

### Android 中的 sensor 相关宏配置

/device/rockchip/rk356x/BoardConfig.mk

```
BOARD_GRAVITY_SENSOR_SUPPORT := true
BOARD_COMPASS_SENSOR_SUPPORT := false
BOARD_GYROSCOPE_SENSOR_SUPPORT := true
BOARD_PROXIMITY_SENSOR_SUPPORT := false
BOARD_LIGHT_SENSOR_SUPPORT := false
BOARD_PRESSURE_SENSOR_SUPPORT := false
BOARD_TEMPERATURE_SENSOR_SUPPORT := false
BOARD_USB_HOST_SUPPORT := true

```

# 引脚定义

kernel/include/dt-bindings/pinctrl/rockchip.h

# 相机

\kernel\drivers\media\i2c\ov5695.c

\hardware\rockchip\camera\etc\camera\camera3_profiles_rk356x.xml

```
  <sensor.orientation value="90"/>
```

https://usermanual.wiki/Document/camerahal3usermanual20.954814665.pdf