

硬件:imx6 ads7846电阻屏

系统:android7.1

LCD显示屏的坐标原点为左上角(800,600),触摸屏的坐标原点为右下角(xmin,ymin)

1.通过驱动打印原始的坐标值

```
static void ads7846_report_state(struct ads7846 *ts)
```

获取坐标原点和最大值分别为(xmin,ymin)(xmax,ymax)

```
u16 ymin=480,ymax=3520;
```

```
u16 xmin=270,xmax=3750;
```

2.坐标变换,经过坐标变换使LCD的坐标原点和触摸屏的坐标原点重合

```
1  #define LCD_X 800
2  #define LCD_Y 600
3      x = LCD_X*(x-xmin)/(xmax-xmin);
4      y = LCD_Y-LCD_Y*(y-ymin)/(ymax-ymin);
5
6      input_report_abs(input, ABS_X, x);
7      input_report_abs(input, ABS_Y, y);
```

3.配置文件

getevent获取触摸屏的input device name

```
add device 3: /dev/input/event1
```

```
name: "ADS7846_Touchscreen"
```

增加配置文件

```
device/fsl/imx6/imx6.mk
```

device/fsl/common/input/eGalax_Touch_Screen.idc:system/usr/idc/ADS7846_Touchscreen.idc

内容为

touch.deviceType = touchScreen

touch.orientationAware = 1

touch.size.calibration = none

touch.orientation.calibration = none

5 .dtsi

```
+&ecspi2 {
+     fsl,spi-num-chipselects = <1>;
+     cs-gpios = <&gpio2 26 GPIO_ACTIVE_LOW>;
+     pinctrl-names = "default";
+     pinctrl-0 = <&pinctrl_ecspi2>;
+     status = "okay";
+
+     tsc2046: tsc2046@0 {
+         pinctrl-names = "default";
+         pinctrl-0 = <&tsc2046_irq_pins>;
+         status = "okay";
+         spi-max-frequency = <50000>;
+         reg = <0>;
+         compatible = "ti,tsc2046";
+         interrupt-parent = <&gpio4>;
+         interrupts = <10 2>;
+         pendown-gpio = <&gpio4 10 0>;
+         irq = <&gpio4 10 GPIO_ACTIVE_LOW>;
+
+         ti,x-min = /bits/ 16 <0>;
```

```
+         ti,x-max = /bits/ 16 <800>;
+         ti,y-min = /bits/ 16 <0>;
+         ti,y-max = /bits/ 16 <600>;
+         ti,x-plate-ohms = /bits/ 16 <500>;
+         ti,y-plate-ohms = /bits/ 16 <400>;
+         ti,pressure-max = /bits/ 16 <255>;
+
+
+     };
+};

+     pinctrl_ecspi2: ecspi2grp {
+         fsl,pins = <
+             MX6QDL_PAD_EIM_RW__GPIO2_I026           0x100b1
+             MX6QDL_PAD_EIM_CS1__ECSPI2_MOSI         0x100b1
+             MX6QDL_PAD_EIM_OE__ECSPI2_MISO          0x100b1
+             MX6QDL_PAD_EIM_CS0__ECSPI2_SCLK         0x100b1
+
+         >;
+     };

+     tsc2046_irq_pins: tsc2046_irq_pinsgrp {
+         fsl,pins = <
+             MX6QDL_PAD_KEY_COL2__GPIO4_I010         0x1b0b1
+
+         >;
+     };
```
