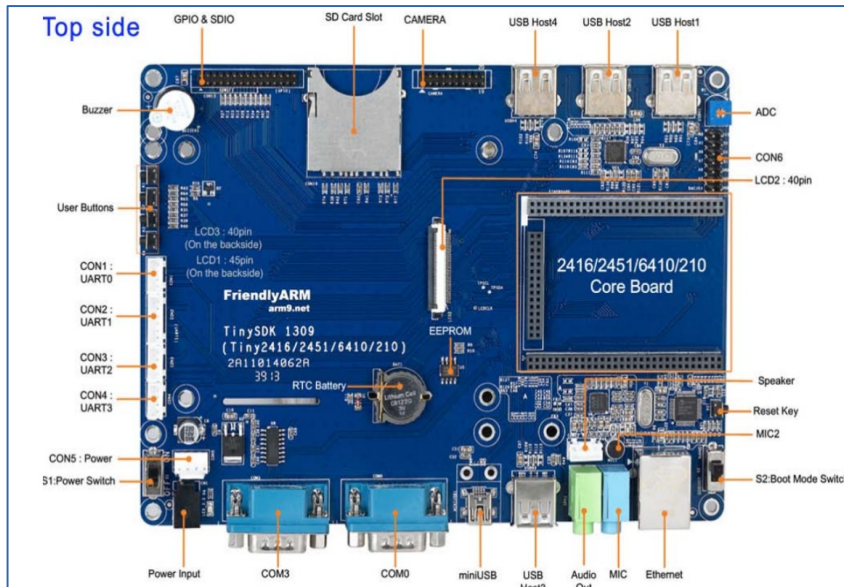


# Process for GPIO Testing

Development Kit → Schematic of the development kit



Tiny6410SDK-1111-PCB

Tiny6410A		Tiny6410B	
VDD5V	A1	A2	GND
VD23	A3	A4	VD22
VD21	A5	A6	VD20
VD19	A7	A8	VD18
VD15	A9	A10	VD14
VD13	A11	A12	VD12
VD11	A13	A14	VD10
VD7	A15	A16	VD6
VD5	A17	A18	VD4
VD3	A19	A20	VD2
VDEN	A21	A22	PWM1
VSYN	A23	A24	HSYN
VCLK	A25	A26	GPE0
VBUS	A27	A28	OTGDRV_VBUS
OTGID	A29	A30	EINT8
OTGDM	A31	A32	USBDM
OTGDP	A33	A34	USBOP
TSXP	A35	A36	TSXM
TSYP	A37	A38	TSYM
AIN0	A39	A40	AIN1
WIFI_IO	A41	A42	WIFI_PD
SD1_CLK	A43	A44	SD1_CMD
SD1_nCD	A45	A46	SD1_nWP
SD1_DAT0	A47	A48	SD1_DAT1
SD1_DAT2	A49	A50	SD1_DAT3
DACOUT0	A51	A52	PWM0
EINT0	A53	A54	EINT1
EINT2	A55	A56	EINT3
EINT4	A57	A58	EINT5
EINT19	A59	A60	EINT20
		OM3	B1
		M_nRESET	B3
		RTSn1	B5
		TXD0	B7
		TXD1	B9
		TXD2	B11
		TXD3	B13
		SPIM_OSI	B15
		SPICLK	B17
		I2CSCL	B19
		SD0_CLK	B21
		SD0_nCD	B23
		SD0_DAT0	B25
		SD0_DAT2	B27
		AC97_BITCLK	B29
		AC97_SYNC	B31
		AC97_SDI	B33
		LADDR0	B35
		LADDR2	B37
		nCS1	B39
		nWAIT	B41
		LnWE	B43
		LDATA0	B45
		LDATA2	B47
		LDATA4	B49
		LDATA6	B51
		LDATA8	B53
		LDATA10	B55
		LDATA12	B57
		LDATA14	B59
		B2	OM4
		B4	VDDRTC
		B6	CTSn1
		B8	RXD0
		B10	RXD1
		B12	RXD2
		B14	RXD3
		B16	SPIMISO
		B18	SPICS
		B20	I2CSDA
		B22	SD0_CMD
		B24	SD0_nWP
		B26	SD0_DAT1
		B28	SD0_DAT3
		B30	AC97_RSTn
		B32	AC97_SDO
		B34	EINT12
		B36	LADDR1
		B38	LADDR3
		B40	EINT7
		B42	nRESET
		B44	LnOE
		B46	LDATA1
		B48	LDATA3
		B50	LDATA5
		B52	LDATA7
		B54	LDATA9
		B56	LDATA11
		B58	LDATA13
		B60	LDATA15

Connector information

Device driver

Modify menuconfig script

Compile and build device driver module

Upload the device driver module and user application program to the target platform

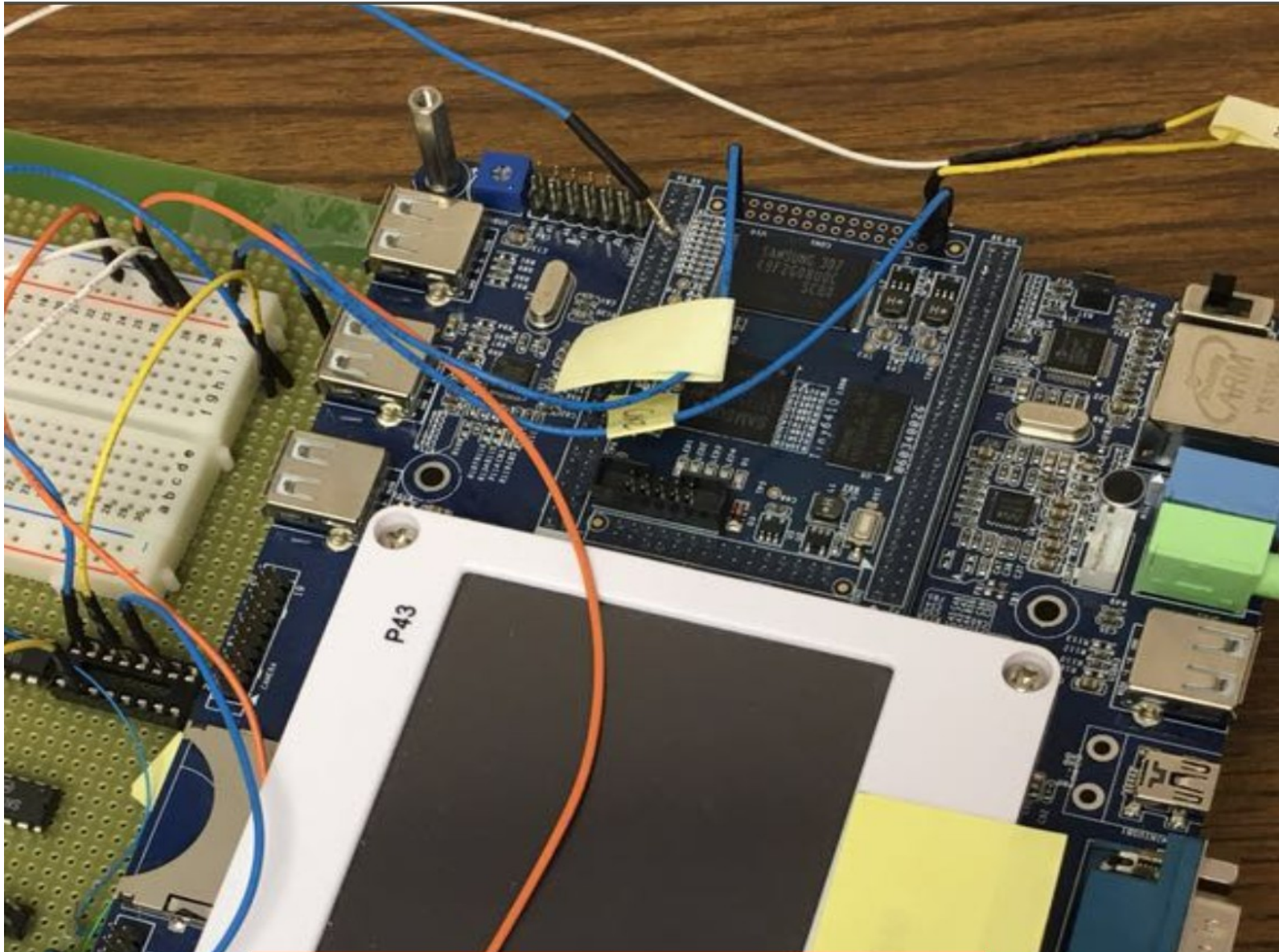
\$insmod device-driver.ko

Then run the user application program

User space: user application program, compile and build the executable

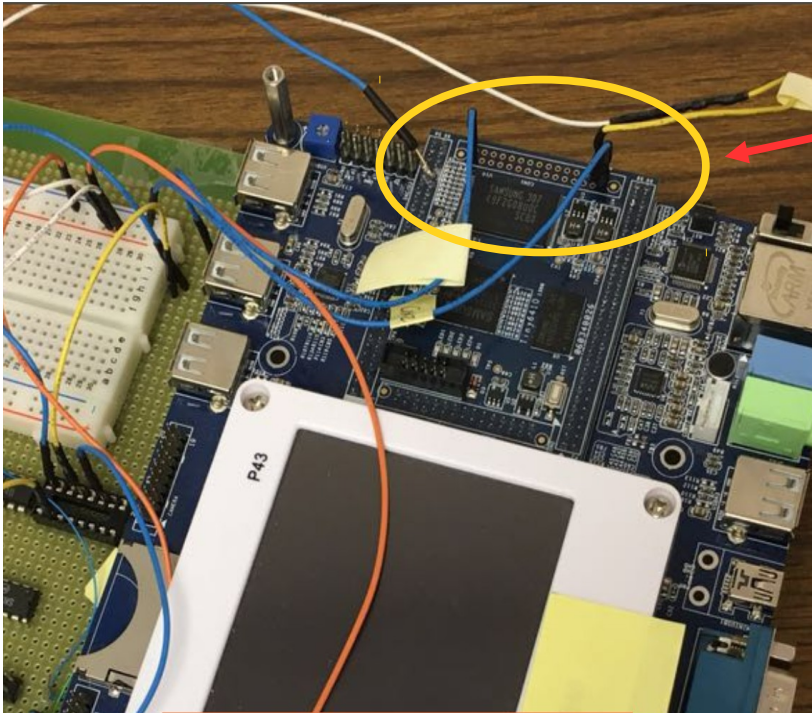
Kernel space: Device driver example code from source distribution

# Hardware Pin Connections For HW1





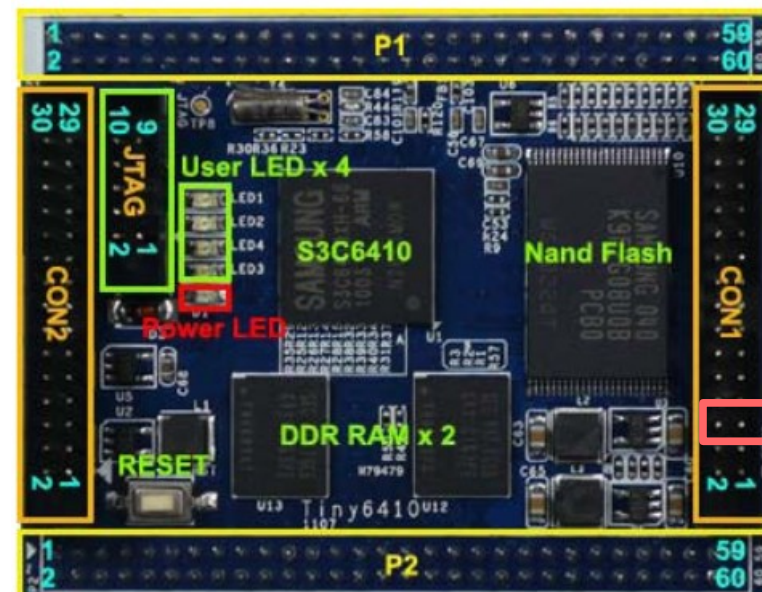
# Identify GPP Port From CON1 Connector



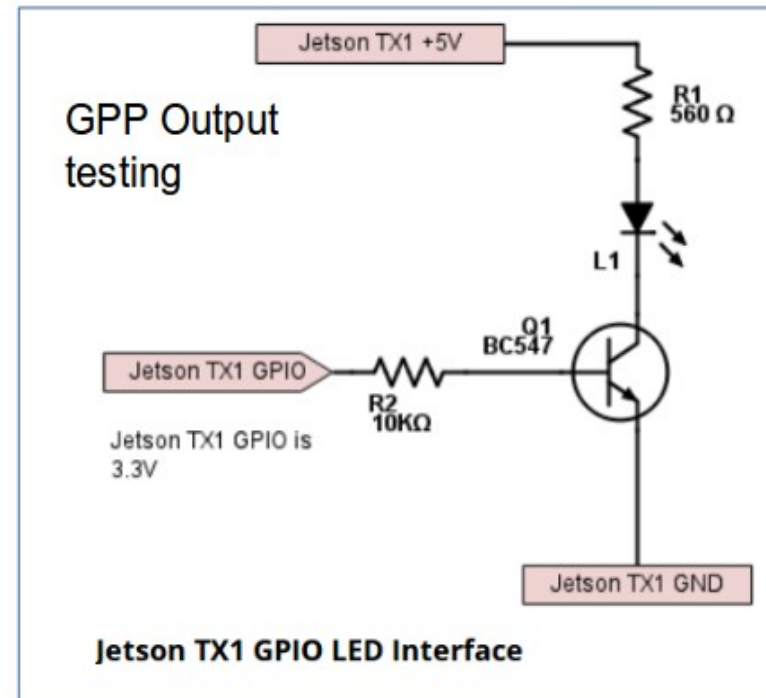
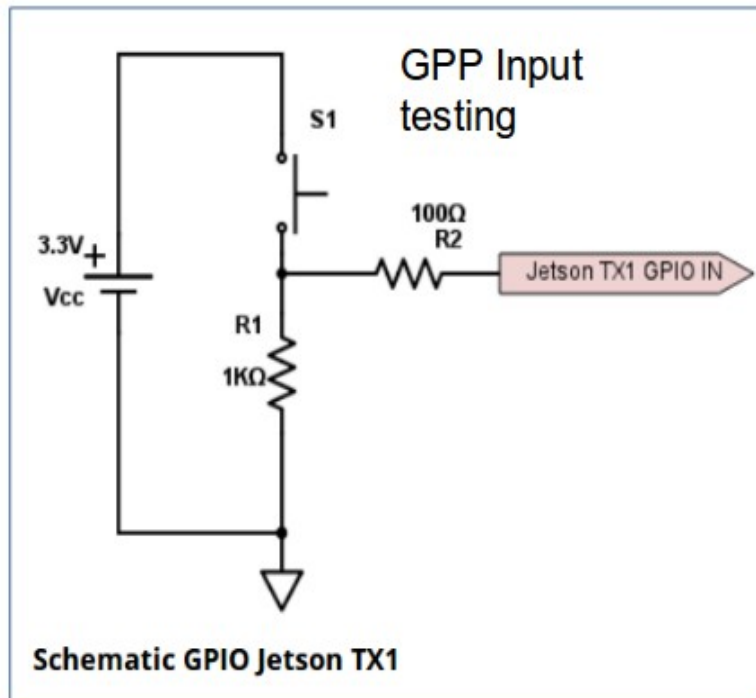
CON1.5	GPE3		CON1.6	GPE4
CON1.7	GPM0		CON1.8	GPM1
CON1.9	GPM2		CON1.10	GPM3
CON1.11	GPM4		CON1.12	GPM5
CON1.13	GPQ1		CON1.14	GPQ2
CON1.15	GPQ3		CON1.16	GPQ4
CON1.17	GPQ5		CON1.18	GPQ6
CON1.19	SPICLK0		CON1.20	SPIMISO0
CON1.21	SPICS0		CON1.22	SPIMOSI0
CON1.23	EINT6		CON1.24	EINT9
CON1.25	EINT11		CON1.26	EINT16
CON1.27	EINT17		CON1.28	AIN2
CON1.29	AIN3		CON1.30	DACOUT1

Example:

GPE3/CON1-5	Output
GPE4/CON1-6	Input



# GPP Input/Output Testing CKT

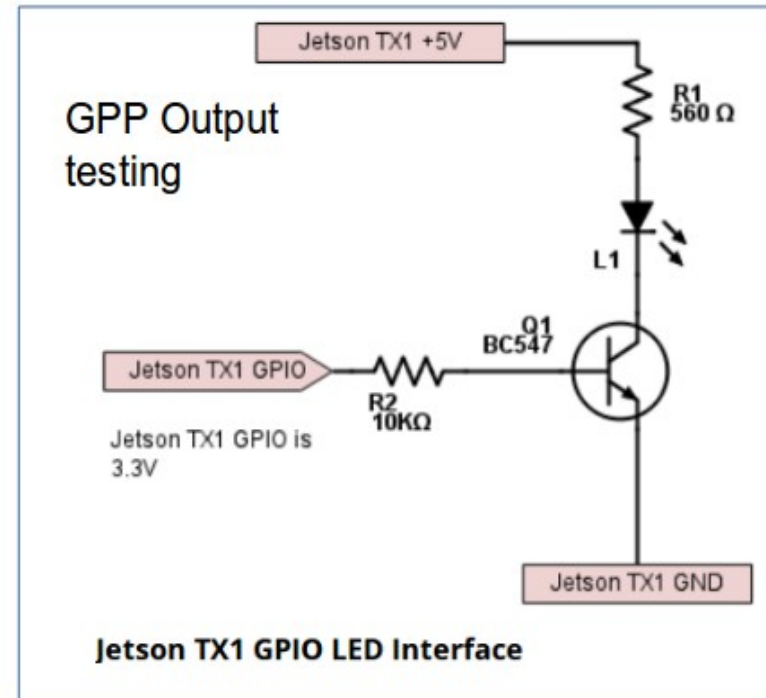
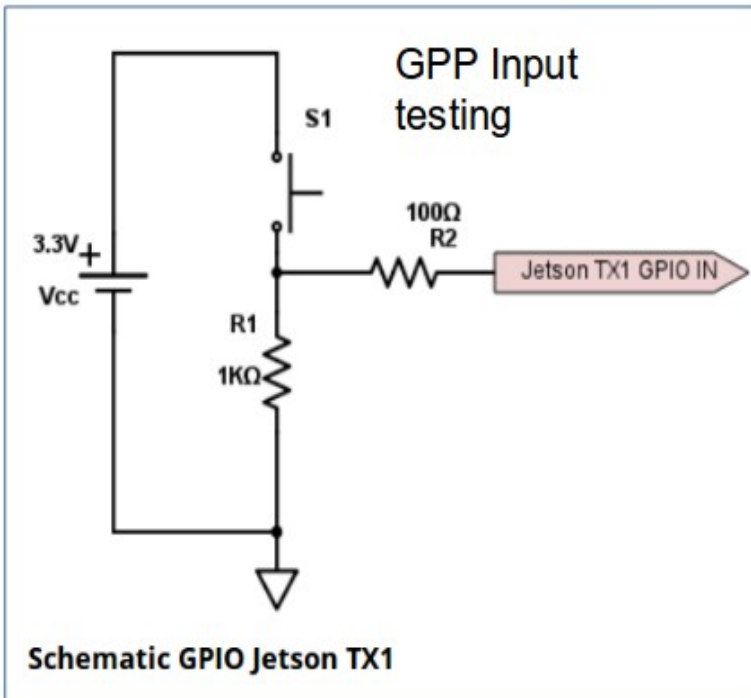


<http://www.jetsonhacks.com/2015/12/29/gpio-interfacing-nvidia-jetson-tx1/>

Example:

- (1) Design the input testing circuit, calculating the resistor R1 and R2;
- (2) Modify the output testing circuit by removing transistor, so the circuit only uses LED, then calculate the resistor in serial with the LED.

# GPP Input/Output Testing CKT



<http://www.jetsonhacks.com/2015/12/29/gpio-interfacing-nvidia-jetson-tx1/>