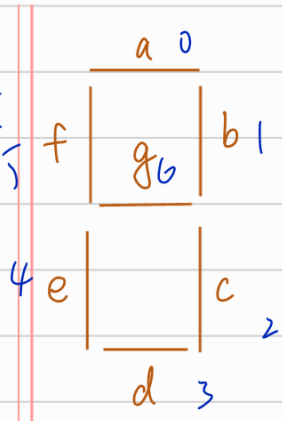
tGPIO_E




| | g | e | d | b | a | f | dp | c | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 82 |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | ee |
| 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 07 |
| 3 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 46 |
| 4 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 6a |
| 5 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 52 |
| 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 12 |
| 7 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | e2 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 02 |
| 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 42 |

a=f7
b=ef
c=fe
d=df
e=bf
f=fb
g=7f

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | f7 |
| g | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7f |
| d | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | df |

tGPIO_C 位置

單色 LED

左 右

0xe000 0xd000 0xb000 0x7000

七段

0xFF80 0xFF40 0xFF20 0xFF10

歸0: 0x ff 00

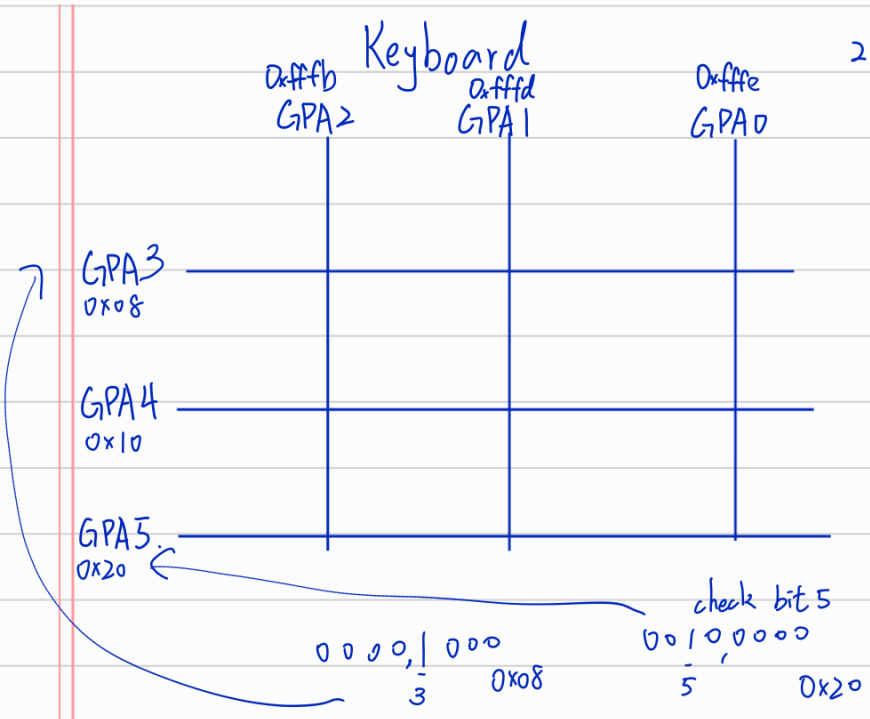
↑ ↑

單色LED 七段

tGPIO_A

多色 LED

| Red | Green | blue |
|---|---|---|
| 0xb000 | 0xd000 | 0xe000 |




2 bits 同時 = 0 ⇒ 亮

tGPIO_A

```
unit32_t  u32Reg;
unit32_t  u32Reg_temp;

u32Reg = (unit32_t) &GPIOA->PIN + (0*0x40)
u32Reg_temp = inpw(u32Reg);
```

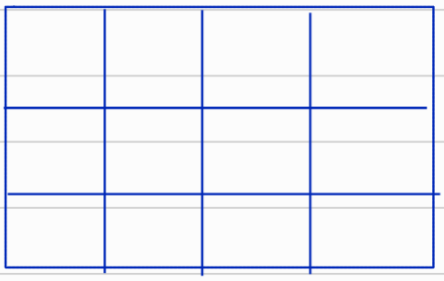
DrvSYS_Delay(1000000000) 防彈跳 (keyboard 彈回)

a _ _ _

g _ _ _

d _ _ _

A



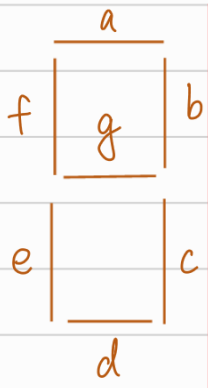
pnt = A[i,j]

→ = A[i,j+1]

status 1 → 亮

0 → 暗

A[i,j] = ~A[i,j]




| | g | e | d | b | a | f | dp | c | |
|---|---|---|---|---|---|---|---|---|---|
| A | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 22 |
| b | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1a |
| C | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 93 |
| d | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0e |
| E | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 03 |
| F | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 33 |
| g | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 42 |
| h | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 3a |
| 三 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 57 |
| J | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 86 |