How to add GPIO bit-bang i2c device to Linux kernel?

1. Check Kernel configuration   
#define CONFIG\_I2C\_GPIO y   
#define CONFIG\_I2C\_MSM y   
  
  
2. Configure GPIOs at Modem side for general purpose, in/out...   
You should edit TLMMBsp.c at modem side.   
  
  
\*3. ~ 7. You should add/modify "kernel/arch/arm/mach-msm/board-xxxxx.c" 

3. Make i2c\_gpio\_platform\_data   
 static struct i2c\_gpio\_platform\_data

**ALRAN\_i2c\_gpio\_data** = {   
 .sda\_pin = 91, // GPIO pin number for SDA   
 .scl\_pin = 90, // GPIO pin number for SCL   
 };   
  
  
4. Make platform\_device   
 static struct platform\_device **ALRAN\_i2c\_gpio\_device** = {   
 .name = "i2c-gpio",   
 .id = 3, // do not be same with the another i2c\_gpio\_device   
 .dev = {   
 .platform\_data = &**ALRAN\_i2c\_gpio\_data**, // made at step 3.   
 },   
 };   
  
  
5. Add devices array for initdata   
 static struct platform\_device

\***devices**[] \_\_initdata = {   
 <snip>   
 &**ALRAN\_i2c\_gpio\_device**,   
 <snip>   
  
  
  
6. Add i2c client information   
 static struct i2c\_board\_info

**ALRAN\_i2c\_devices**[] = {   
 {   
 I2C\_BOARD\_INFO("ALRAN",0x4A>>1), // 0x4A is your device address   
 },   
 };   
  
  
7. Register i2c client to board\_init function   
 static void \_\_init

**msm7x2x\_init**(void){   
 <snip>   
 i2c\_register\_board\_info(3, ALRAN\_i2c\_devices, ARRAY\_SIZE(ALRAN\_i2c\_devices));   
 <snip>   
 }   
It's just for i2c client board.