Setting Bits For Temperature and Square Wave Functionality

Temperature

#include"I2CDevice.h"

#include<iostream>

#include<sstream>

#include<fcntl.h>

#include<printf>

#include<temperature>

#include<stdio.h>

#include<iomanip>

#include<unistd.h>

#include<sys/ioctl.h>

#include<linux/i2c.h>

#include<linux/i2c-dev.h>

using namespace std;

/\*Read temperature from DS3231 using bit 5 on Control Register 0Eh\*/

int main()

float I2C Device:: getTemperature()

{

int user\_sec;

int temperature;

float fTemperature;

d.writeRegister(0x0, user\_sec);

char sec = d.readRegister(0x0);

printf(“sec: %d\n”, sec);

char ctl = d.readRegister(0xe);

ctl = ctl | (1 << 5); /\* sets bit 5 to 1(on)\*/

d.writeRegister(0xe, ctl);

return (fTemperature);

}

Square Wave Functionality

#include"I2CDevice.h"

#include<iostream>

#include<sstream>

#include<fcntl.h>

#include<stdio.h>

#include<printf>

#include<iomanip>

#include<unistd.h>

#include<sys/ioctl.h>

#include<linux/i2c.h>

#include<linux/i2c-dev.h>

using namespace std;

/\*Set bits 2,3,4 and 6 on Control Register 0Eh for Square Wave Functionality\*/

int main()

{

int user\_sec;

d.writeRegister(0x0, user\_sec);

char sec = d.readRegister(0x0);

printf(“sec: %d\n” , sec);

char ctl = d.readRegister(0xe);

ctl = ctl | (1 << 6); /\* sets bit 6 to 1(on)\*/

ctl = ctl | (1 << 4); /\* sets bit 4 to 1(on)\*/

ctl = ctl | (1 << 3); /\* sets bit 3 to 1(on)\*/

ctl = ctl | (0 << 2); /\* sets bit 2 to 0(off)\*/

d.writeRegister(0xe, ctl);

return 0;

}