Set Two Alarms

**Alarm 1**

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent

permitted by applicable law.

Last login: Wed Mar 1 22:03:51 2023 from 192.168.7.1

debian@beaglebone:~$

sudo apt install i2c-tools.

/\*this will make LED 3 flash for the whole of the 59th minute every hour\*/

#define AlarmClocks\_h

#include"I2CDevice.h"

#include<linux/i2c.h>

#include<linux/i2c-dev.h>

#include <DS3231.h>

#include <stdio.h>

#include "leds.h"

#include <time.h>

#include<iostream>

#include<fstream>

#include<string>

#include<unistd.h>

using namespace std;

int main()

{

time\_t now =time (0);

int h1= tm\_hour; /\*For hours\*/

int m1=tm\_min; /\*For minutes\*/

int s1= tm\_sec; /\*For seconds\*/

if m1 = 59

{

cd /sys/class/leds

ls

cd beaglebone\:green\:usr3

echo timer > trigger

echo 120 > delay\_on

echo 120 > delay\_off

{

else continue

}

}

return 0;

}

**Alarm 2**

/\*this will make an LED connected to GPIO 4 flash for the whole of the 16th \*minute every hour\*/

#include"I2CDevice.h"

#include<linux/i2c.h>

#include<linux/i2c-dev.h>

#include <DS3231.h>

#include <stdio.h>

#include "leds.h"

#include <time.h>

#include<iostream>

#include<fstream>

#include<string>

#include<unistd.h>

#define GPIO\_NUMBER “4”

#define GPIO4\_PATH "/sys/class/gpio/gpio4/"

#define GPIO\_SYSFS "/sys/class/gpio/"

void writeGPIO(char filename[], char value[])

{

FILE\* fp;

fp = fopen(filename, "w+");

fprintf(fp, "%s", value);

fclose(fp);

}

using namespace std;

int main()

{

time\_t now =time (0);

int h1=tm\_hour; /\*For hours\*/

int m1=tm\_min; /\*For minutes\*/

int s1=tm\_sec; /\*For seconds\*/

if m1 = 16

{

cd /sys/class/gpio

ls

echo 4 > export

ls

cd gpoi4

ls

echo out > direction

echo 1 > value

cat direction

writeGPIO(GPIO\_SYSFS "export", GPIO\_NUMBER);

usleep(100000); /\*delay for 100ms\*/

writeGPIO(GPIO4\_PATH "direction", "out");

{

else continue;

writeGPIO(GPIO4\_PATH "value", "0");

}

}

}

return 0;

}