Submitted by
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ESP PROJECT 2

README

To use the file simply insmod the i2c_flash.ko file and the main_2.c file. The user side code (main_2.c) does the following steps:

1. FLASHSETP to page 256
2. FLASHGETP to get page number 256 back again. This checks FLASHGETP ioctl system call

3. Writes 400 pages from page number 256. To ease correction, each page is filled with a string that has its page number. This checks multiple page write and overlap from 512th page to 0th page

4. FLASHSETP to page 256
5. Read all 512 pages starting from page number 256. A total of 112 pages are not written to so they will show data that was already existing on the EEPROM
6. FLASHGETS TO CHECK STATUS of read complete

7. FLASHERASE. A FLASHERASE writes the ASCII value of 1 into all the pages of the EEPROM.

Note:

I have used sleep to halt the code so as to ease viewing the data printed on the terminal.

The code is a direct run. No input arguments required.

The file common_data.h is used to share the #defines between the device driver and the user space code.

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CONNECTIONS:

EEPROM

Pin1(A0), Pin 2(A1) , Pin 4(Vss) to Gnd. (Black in schematic)

Pin 3(A2): to Vcc (Red in schematic)

Pin 5(SDA): to SDA of Galileo. Also Pin 5 to Resistor that goes to Vcc(Not Shown). (Green in schematic)

Pin 6(SCL): to SCL of Galileo. Also Pin 6 to Resistor that goes to Vcc. (Yellow in schematic)

Pin 7(WP): (Write Protection) Not Connected

Pin 8(Vcc): Vcc. (Red in schematic)

BUSY_LED

Also Pin 5 to Resistor that goes to Vcc. Pin 8(PWM) to resistor to LED(Anode) to Gnd (Cathode).

SCHEMATIC:

(Vcc and Gnd provided are by Galileo)