```c
/*
 * Description: Program to light up a single LED.
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 * Date:        03/12/2014
 *
 * Remember:
 *  Compile:    gcc -c singleLED.c
 *  Link:       gcc -o myApp singleLED.o gb_common.o
 *  Execute:    sudo ./myApp
 */

#include <stdio.h>
#include "gb_common.h"

int main(int argc, char **argv)
{
    // write out instructions
    printf("These are the connections for the LEDs test:\n");
    printf("\n");
    printf("Connect a wire from GP25 in J2 -to- B1 in J3\n");
    printf("\n");
    printf("Connect a jumper on B1-out. \n");
    printf("\n");
    printf("When ready hit enter.\n");
    (void) getchar();

    // setup I/O lines
    // 1. mapping IO on hardware
    setup_io();

    // 2. set line 25 as output line
    INP_GPIO(25);
    OUT_GPIO(25);

    // light up LED

    // first turn off output line 25 - GPIO_CLR0 selects which output pins
    // will be set up 0
    GPIO_CLR0 = (1<<25);
    printf("The LED should be off. Press enter to switch it on.\n");
    getchar();

    // now send a high output on line 25 - GPIO_SET0 selects which
    // output pins will be set up 1
    GPIO_SET0 = (1<<25);
    printf("The LED should be on. Press enter to finish the program.\n");

    // wait...
    getchar();

    // reset I/O lines
    // 1. switch off LED
    GPIO_CLR0 = (1<<25);

    // 2. restore I/O hardware line configuration
    restore_io();

    return 0;
}

```