

Islamic University of Gaza

Computer Engineering



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Embedded Systems

Homework #1

Student Name Akram Hatem Abo Jbara

Student No.: 120200602

Instructor Name: Eng. Amal Abo Jaser

Day: Saturday

Date: 16/Nov/2024

Implement a system that takes two buttons as input, if the first one is clicked you should shine 4 LEDs (the four LEDs should be connected to PORT2), then if you click the second one you should turn all the LEDs off.

Code:

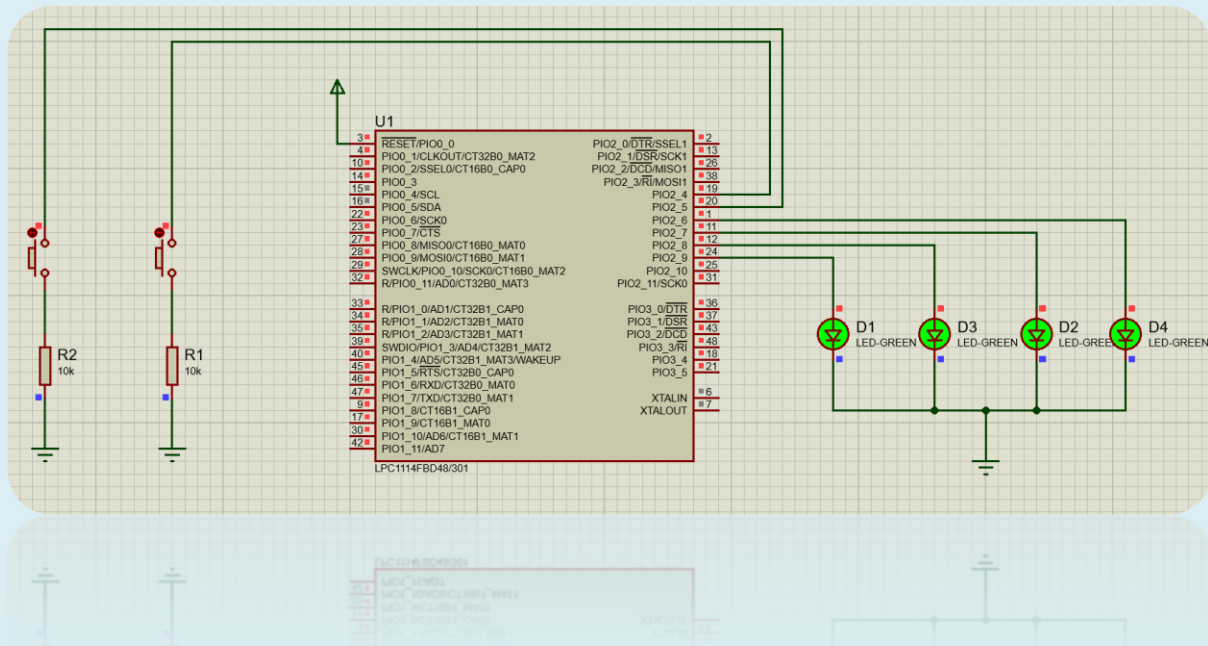
```
#define GPIO2DIR *((volatile unsigned long*)0x50028000)
#define GPIO2DATA *((volatile unsigned long*)0x50023FFC)
int main (void){

    GPIO2DIR &= 0b001111;
    GPIO2DIR |= 0b1111000000;

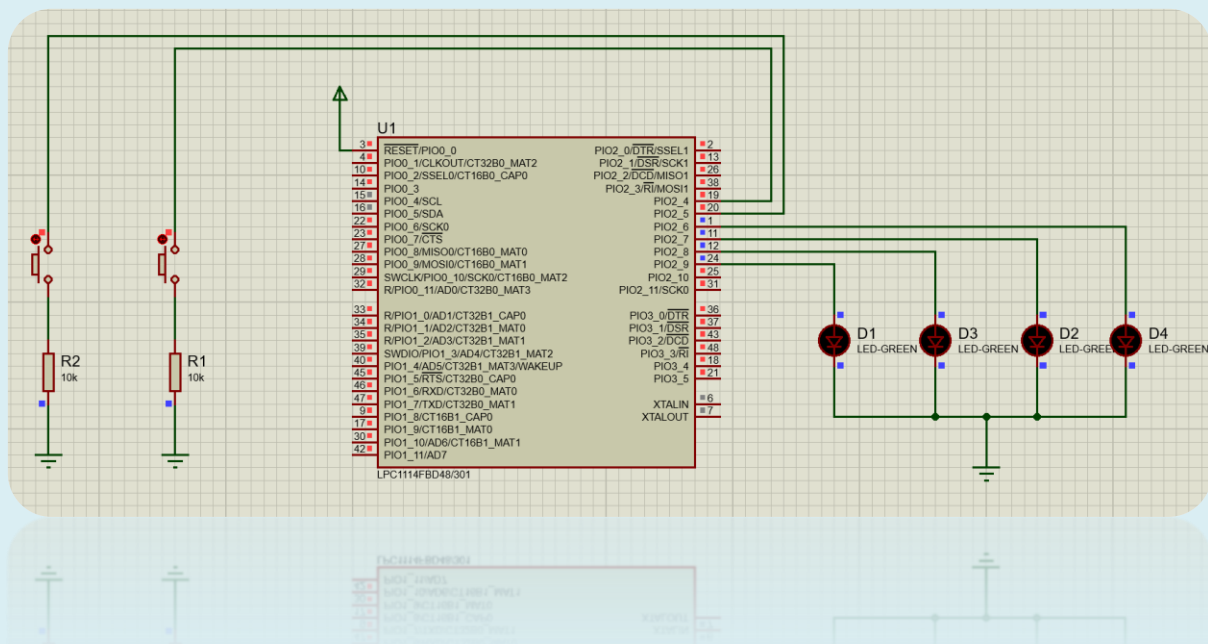
    while (1){
        if(GPIO2DATA& 0b010000){
            GPIO2DATA |= 0b1111000000;
            while(GPIO2DATA& 0b010000);
        }

        if(GPIO2DATA& 0b100000){
            GPIO2DATA &= 0b000011111;
            while(GPIO2DATA& 0b100000);
        }
    }
    return 0;
}
```

When pushing the first button:



When pushing the second button:



Thank You