```c
#include
#include

#define DS_PORT    PORTC
#define DS_PIN     0
#define ST_CP_PORT PORTC
#define ST_CP_PIN  1
#define SH_CP_PORT PORTC
#define SH_CP_PIN  2

#define DS_low()   DS_PORT&=~_BV(DS_PIN)
#define DS_high()  DS_PORT|=_BV(DS_PIN)
#define ST_CP_low()   ST_CP_PORT&=~_BV(ST_CP_PIN)
#define ST_CP_high()  ST_CP_PORT|=_BV(ST_CP_PIN)
#define SH_CP_low()   SH_CP_PORT&=~_BV(SH_CP_PIN)
#define SH_CP_high()  SH_CP_PORT|=_BV(SH_CP_PIN)

//Определение функций
//=====================
void ioinit(void);
void output_led_state(unsigned char __led_state);
//=====================

int main (void)
{
    ioinit(); //Установка линий ввода вывода и значений по умолчанию

    while(1)
    {
        /*
         Образец выводимых данных для показа скачущего огонька

         10000000
         01000000
         00100000
         00010000
         00001000
         00000100
         00000010
         00000001
         00000010
         00000100
         00001000
         00010000
         00100000
         01000000
        */

        for (int i=7;i>=0;i--)
        {
           output_led_state(_BV(i));
           _delay_ms(100);
        }

        for (int i=1;i<7;i++)
        {
           output_led_state(_BV(i));
           _delay_ms(100);
        }
    }
}


void ioinit (void)
{
    DDRC  = 0b00000111; //1 = вывод, 0 = ввод
    PORTC = 0b00000000;
}

void output_led_state(unsigned char __led_state)
{
    SH_CP_low();
    ST_CP_low();
    for (int i=0;i<8;i++)
    {
       if (bit_is_set(__led_state, i))
           DS_high();
       else
           DS_low();


       SH_CP_high();
       SH_CP_low();
    }
    ST_CP_high();
}
```