Code Review for Lab 1

Stephen A. Edwards

Columbia University

Fall 2011

```c
#include "AT91SAM7L128.h"
#include "lcd.h"

//BEGIN {BEST GROUP FUNCTION}
//Abhinav Mishra
//Andrew Pope
//Yiming Ge
//Anna Teng
//Will VanArsdall
//END BEST GROUP

int strlen(const char *s)
{
  int n;

  for(n=0; *s!='\0';s++)
    n++;

  return n;
}

int main()
{
  lcd_init();

  char test[] = "test";
```

```c
    int len = 0;
    len = strlen(test);
    int x=0;

    while(1)
    {
      int i, t, j;
      t=x;

      for(i=0; i < len; i++)
      {
        lcd_put_char7(test[i],t%12);
        t++;
      }

      while(j<50000)
      {
         j+=1;
      }
      lcd_print7("                ");
      j=0;
      x++;
    }

    return 0;
}
```

```
/*Nicole Lewis, Feifei Kong, Vanshil Shah*/

#include "AT91SAM7L128.h"
#include "lcd.h"

int main()
{
  lcd_init();
  int i;
  int j;
  int n;
  char a[] = ("Empire State of Mind ");
  for(j=0;j<1000;j++){
  for(i=j; i<j+21; i++){
    lcd_put_char7(a[i % 21],i-j);
  }
  for(n=0; n<50000;n++){
  }
  }

  return 0;
}
```

```c
//Ankita Gore, Shikhar Kumar, Christina Huang
#include "AT91SAM7L128.h"
#include "lcd.h"
int main()
{
        lcd_init();
        char name1[] = "HELLO WORLD ABC123";
        char name2[14];
        int i, j, p;
        for (j=0;j<19;j++) {

                for (i=0;i<15;i++) {
                        if (i+j>17) {
                                name2[i]=" ";
                        }
                        else {
                                name2[i]=name1[i+j];
                        }
                }
                lcd_print7(name2);
                for (p=0;p<50000;p++) {
                }
        }
return 0;
}
```

```
//Alysia Sanchez ams2377
//Jessica Wang jlw2197
//Dong Yeop Kang dk2645
//Gabriela Melchior gdm2118

#include "AT91SAM7L128.h"
#include "lcd.h"

int main()
{
        lcd_init();

        int i;
        int j;
        int k;
        char myString[] = "SEAS              ";
        char temp;
        int length = 14;

        int size = strlen(myString);
                // Display on Calculator

        for( ; ; )
        {
                for(i = 0; i < length; i++)
                {
```

```c
                    // slowdown
                    for(k=0; k < 60000; k++)
                    {
                            j = k; // dummy
                            j++;
                    }

                    lcd_print7(myString);

                    // temp stores the last character of myString
                    // before it gets overwritten
                    temp = myString[size-1];

                    // Shift everything by 1
                    for (j = size - 1; j > 0; j--)
                    {
                            myString[j] = myString[j - 1];
                    }

                    // Put back the last character of myString
                    // into the beginning of the myString
                    myString[0] = temp;
            }
        }
  return 0;
}
```

```c
// Eric Leung, Michael Yan, Binna Han, Dimitri Dyatlov, Kevin Roark,
// Nick Duckwiler

#include "AT91SAM7L128.h"
#include "lcd.h"

int main()
{
  lcd_init();

        char name[] = "Badboyz";
        int l = 7;

        char printScreen[] = "                  ";

        char *pname = &name[0];

        int i;
        int n;
        int counter =1;
        while (1)
        {
                lcd_print7(printScreen);

                for (n = 0; n < 12; n++)
                {
```

```
                                    printScreen[n] = printScreen[n+1];
                        }
                        int x = 1;
                        while (x < 50000)
                                {
                                        x = x + 1;
                                }

                        if (*pname == '\0')
                        { printScreen[11] = " ";
                                                }
                        else
                        { printScreen[11] = *pname;
                          pname = pname + 1;
                        }
                        if (counter == 12)
                        {
                                pname = &name[0];
                                counter = 0;
                        }
                        counter=counter+1;
                }
        return 0;
}
```

```c
/* Stephen Edwards */
#include "AT91SAM7L128.h"
#include "lcd.h"
#define DELAY 50000
#define COLUMNS 12

int main()
{
  char message[] = "CS AND CE ARE FUN ";
  char *start, *cptr;
  int col, i;

  lcd_init(); *AT91C_WDTC_WDMR = AT91C_WDTC_WDDIS;

  for (;;) {
    for (start = message ; *start != '\0' ; start++) {
      cptr = start;
      for (col = 0 ; col < COLUMNS ; col++) {
        lcd_put_char7(*cptr++, col);
        if (*cptr == '\0') cptr = message; // wrap around
      }
      for (i = 0 ; i < DELAY ; i++) {}
    }
  }
  return 0;
}
```