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/*
 * RS232_Send.c
 *
 * Created: 9/10/2015 9:25:23 pm
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 */

#include <avr/io.h>
#include <util/delay.h>

// PDO (pin14) RXD, PD1 (pin15) TXD
//#define F_CPU 8000000UL

unsigned char name[] = {'D','i','m','i','t','r','i','o','s',' ','P','o','r','l','i','d','a','s',10,13};
unsigned char i;

void USART_Init( unsigned int baud ) // Initialization routine
{
    UBRRH = (unsigned char)(baud>>8); // Set baud rate
    UBRRL = (unsigned char)baud; //

    UCSRB = (1<<RXEN)|(1<<TXEN); // Enable receiver and transmitter

    // UCSRC = (1<<URSEL)|(0<<USBS)|(3<<UCSZ0); // Set frame format: 1 stop bit, 8 data, asynchronous
    // // operation & no parity (by default)
}

void USART_Transmit( unsigned char data ) // Transmite routine
{
    while ( !( UCSRA & (1<<UDRE) ); // Wait for empty transmit buffer

    UDR = data; // Put data into buffer, sends the data
}

int main(void)
{
    DDRC = 0b00000000; // Port C inputs
    PORTC = 0b11111111; // Enable pull up resistors
    USART_Init(8); // Clock 8MHz: 51->9600, 34->14400, 25->19200,
    // 16->28800*, 12->38400, 8->57600, 6->76800,
    // 3->115200** (*Error magnitude)

    while (1)
    {
        while ((PINC == 0b11111110) | (PINC == 0b11111101)) // Check buttons 0 & 1
        {
            _delay_ms(10);
            switch (PINC) // command "switch" example
            {
                case 0b11111110: // Button 0 pressed
                    for (i = 0; i < 20; i++)
                    {
                        _delay_us(10);
                        USART_Transmit(name[i]); // Send my name
                    }
                }
            }
        }
    }
}

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//      }
//      while (PINC == 0b11111110);          // Wait if button is still pressed
//      break;
//
//      case 0b11111101:                      // Button 1 pressed
//      USART_Transmit(12);                  // Clear screen
//      while (PINC == 0b11111101);          // Wait if button is still pressed
//      break;
//    }
//  }
}
```