```c
#define F_CPU                   16000000UL

#include <avr/io.h>
#include <util/delay.h>
#include <avr/interrupt.h>
#include <stdlib.h>
#include <string.h>
#include <stdbool.h>
#include <stdint.h>

#include "UART_Bluetooth.h"
#include "nrf24.h"

void initIO();
void initRF();
char messageTest[] = "UART TESTING COMMANDS! \n";

int main(void)
{
    sei();  // Interrupts on
    initBluetoothUart();
    initIO();
    initRF();
    setupReceiveMode();
    while (1)
    {
        while(!commandAvailable);
        processReceivedLine();
        setupReceiveMode();
    }
}


void initIO(){
    /*
        Input/Output pin initialization
        1 : OUTPUT | 0 : INPUT | 0b76543210 Bit order
        HC-05
            TX          : PD0 (RX ATMEGA)   |   INPUT
            RX          : PD1 (TX ATMEGA)   |   OUTPUT
            KEY/ENABLE  : PD2               |   OUTPUT
            STATE       : PC5               |   INPUT
        nRF24L01
            CE   : PC0                      |   OUTPUT
            CSN  : PC1                      |   OUTPUT
            MISO : PD0 (MSPIM MISO ATMEGA)  |   INPUT
            MOSI : PD1 (MSPIM MOSI ATMEGA)  |   OUTPUT
            SCK  : PD4 (MSPIM XCK)          |   OUTPUT
    */
    DDRD = 0b11111110;
    DDRB = 0b00101001;
    DDRC = 0b11011111;
```

```
53      bit_clear(PORTD, BIT(2));
54  }
55
56  void initRF(){
57      uint8_t tx_address[5] = {0xE7,0xE7,0xE7,0xE7,0xE7};
58      uint8_t rx_address[5] = {0xD7,0xD7,0xD7,0xD7,0xD7};
59
60      nrf24_init();
61
62      /* Channel #112 , payload length: 32 */
63      nrf24_config(112,32);
64
65      /* Set the device addresses */
66      nrf24_tx_address(tx_address);
67      nrf24_rx_address(rx_address);
68  }
69
70
71
72
73
```