

```

#include <avr/io.h>
#include "usart.h"

#define UP_S 'A'
#define DOWN_S 'C'
#define LEFT_S 'D'
#define RIGHT_S 'B'
#define STOP 'F'

void init_pins()
{
    //motoare
    DDRC |= (1 << PC0);
    DDRC |= (1 << PC1);
    DDRC |= (1 << PC2);
    DDRC |= (1 << PC3);

    DDRD |= (1 << PD7);

    sei();
}

void turn_left()
{
    PORTC |= (1 << PC1);
    PORTC &= ~(1 << PC0);
    PORTC |= (1 << PC2);
    PORTC &= ~(1 << PC3);
}

void turn_right()
{
    PORTC |= (1 << PC0);
    PORTC &= ~(1 << PC1);
    PORTC |= (1 << PC3);
    PORTC &= ~(1 << PC2);
}

void forward()
{
    PORTC |= (1 << PC0);
    PORTC &= ~(1 << PC1);
    PORTC |= (1 << PC2);
    PORTC &= ~(1 << PC3);
}

void backward()
{
    PORTC |= (1 << PC1);
    PORTC &= ~(1 << PC0);
    PORTC |= (1 << PC3);
}

```

```

        PORTC &= ~(1 << PC2);
    }

void stop()
{
    PORTC &= ~(1 << PC0);
    PORTC &= ~(1 << PC1);
    PORTC &= ~(1 << PC3);
    PORTC &= ~(1 << PC2);
}

ISR(USART0_RX_vect) {
    char c = USART0_receive();

    switch (c) {
        case UP_S:
            forward();
            break;

        case DOWN_S:
            backward();
            break;

        case RIGHT_S:
        case RIGHT_L:
            turn_right();
            break;

        case LEFT_S:
        case LEFT_L:
            turn_left();
            break;

        case STOP:
            stop();
            break;
    }
}

int main(void)
{
    init_pins();
    USART0_init();
    PORTD |= (1 << PD7);

    while(1) {}
    cli();

    return 0;
}

```