Project 1
High speed parallel Transceiver

Connection of the High speed parallel Transceiver
Code for the High speed parallel Transceiver
Project 2
Serial Transceiver

Connection of the Serial Transceiver
Code for the Serial Transceiver

```
;--------- Transceiver ---------
;
INCLUDE 89C51.inc
ORG 00H
LJMP MAIN
ORG 23H
LJMP SERIAL ;jump to serial ISR
ORG 30H
MAIN:
    MOV P2, #FFH ; P2 is input port
    MOV P1, #00H
    MOV TMOD, #20H ; timer 1 is auto reload (mode 2)
    MOV TH1, #FDH ; adjusts 9600 baud rate
    MOV SCON, #50H ;Serial 8-bit, start, stop, ron enabled
    SETB E3 ;enable serial int .
    SETB EA ;enable global int.
    SETB TR1 ;start timer 1
AGAIN:
    MOV A,P2 ;read data from port 1
    MOV SBUF,A ;sending data via serial port
    CALL DELAY
    SJMP AGAIN ;staying in loop

;----------- serial ISR -----------

SERIAL:
    JB TI,TRANS ;jump if sending is completed
    MOV A,SBUF ; receive data from serial
    MOV P1, A ; Output received data via P1
    CLR RI ;clear RI for new receiving via serial port
    RETI ;return from ISR

TRANS:
    CLR TI ;clear Ti for new sending via serial port
    RETI ;return from ISR

DELAY:
    MOV R6,#0FFH
WAIT2: MOV R5,#0FFH
WAIT1: DJNZ R5,WAIT1
        DJNZ R6,WAIT2
RET
END
```