AVR-lab01

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# Contents

1 Idea of the project

Here I would like to describe the idea of the project. See sample source code of the file test.asm as described in [1]

```
1   .include "m8def.inc"
2   .equ TABLE_BEGIN = 0x00
3   Initialization:
4           ; stack pointer initialization
5           ldi R17, high(RAMEND)
6           ldi R16, low(RAMEND)
7           out SPH, R17
8           out SPL, R16
9           ;set port A as output
10          ldi R16, 0xFF
11          out DDRA, R16
12          ldi R30, low(Table<<1) ;save LSB of the Table address
13          ldi R31, 8 ; offset set to 9th character (end of the table)
14          add R30, R31
15          ldi R31, high(Table<<1) ;save MSB of the Table address
16          mov R19, R30 ; save table offset
17          rjmp Loop
18
19  Back:
20          mov R30, R19 ; set the initial offset to the table
21  Loop:
22          lpm R18, Z ; load to program memory
23          tst R18 ; check if R18 does not have TABLE_BEGIN
24          breq Back ; if so return the initial table offset
25          out PORTA, R18 ; if not then display table content
26          dec R30 ; and decrement pointer in a table
27          rjmp Petla
28
29  Table: .DB TABLE_BEGIN, 0xFE, 0xFD, 0xFB, 0xF7, 0xEF, 0xDF, 0xBF, 0x7F
30          ; at the beginning of the table there is value 0x00 that would
31          ; point to the initial table offset
```

2 Schematics
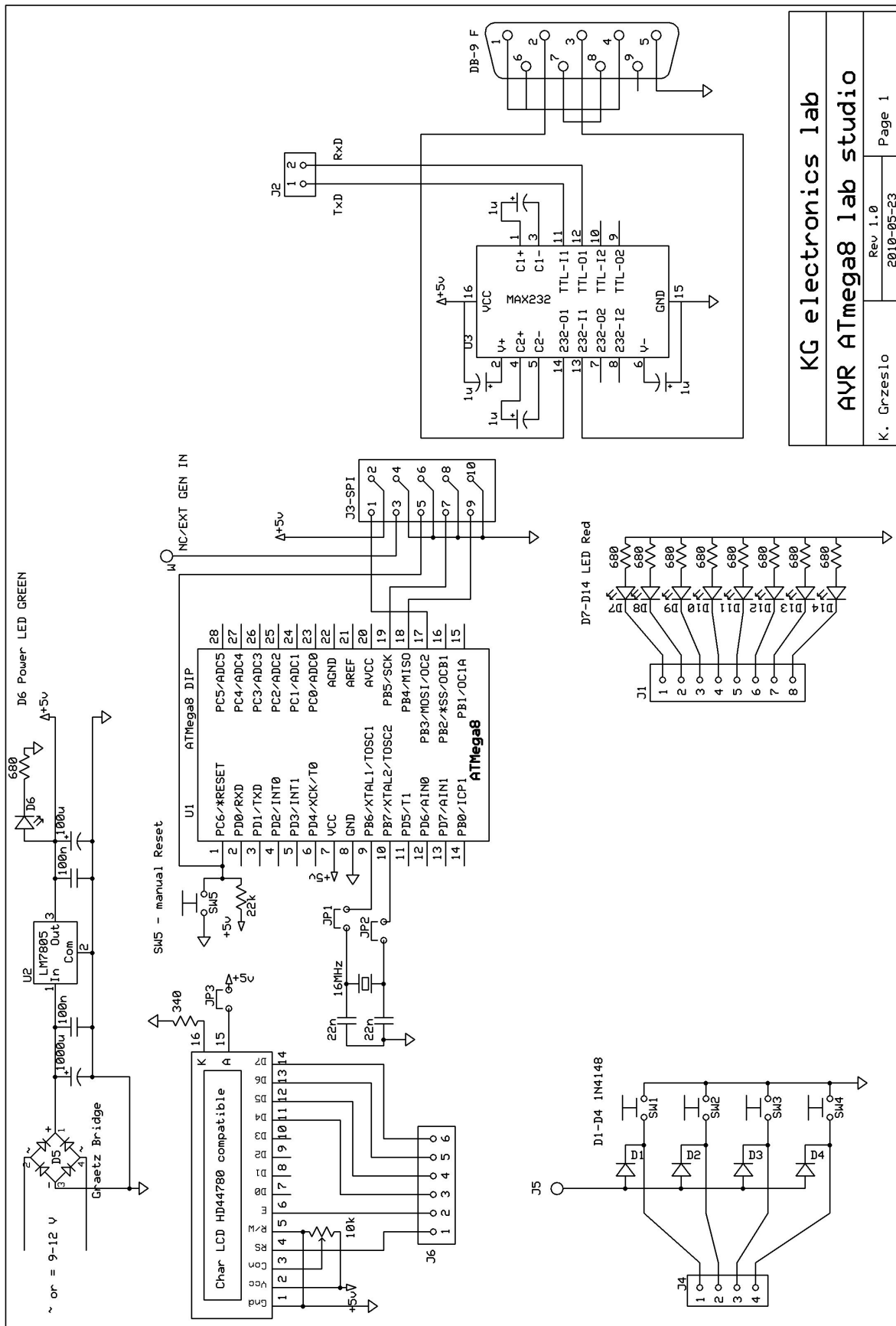
References

[1] J. Doe: *Title*, 1st Edition, ISBN XX-XXXXX-XX-X, JDoe Editions, Imagineland 2010.