+5V

R8
1k

ISP
CON1
PFW2×3

+5V

0V

+5V

VCC
20

Vdd   Vdd

R1 68 R2 33 R3 33   R4 68 R5 33 R6 33

Note: Resistor values
are for 5 VDC power
supply only and must be
adapted for different
supply voltages.

RS232

PL2
B 2
A 1

R7
10k

U3
BC847C
C
B
E

D
3.9V

PA2 (RESET/dW)   1

PA0 (XTAL1)   5

PA1 (XTAL2)   4

Osram LRTG G6TG D1   Osram LRTG G6TG D2

DB-9 female connector:
A --> pin 5
B --> pin 3

0V   0V

RxD   2   PD0 (RXD)   PB0 (AIN0/PCINT0)   12
       3   PD1 (TXD)   PB1 (AIN1/PCINT1)   13
       6   PD2 (CKOUT/XCK/INT0) PB2 (OC0A/PCINT2)   14
       7   PD3 (INT1)   PB3 (OC1A/PCINT3)   15
       8   PD4 (T0)   PB4 (OC1B/PCINT4)   16
       9   PD5 (OC0B/T1)   PB5 (MOSI/DI/SDA/PCINT5) 17
      11   PD6 (ICP)   PB6 (MISO/DO/PCINT6) 18
                             PB7 (UCSK/SCK/PCINT7) 19

SW1 down
SW2 up
SW3 speed

R9
0

0V

GND
10

0V

ATtiny2313V-10SI   U2

ULN2003
Uce (@ Ic = 50 mA) 0.8 V

Osram LRTG G6TG
Ured   2.1 V
Ugreen 3.2 V
Ublue   3.2 V

0V

GND
8

7   10 R1
6   11 G1
5   11 B1
4   12 B2
         13 R2
2   14 G2
1   15 A
Diodes   16 B

U1
ULN2004
SM   9

PL7 1 A
     2 B

Vdd

Supply

PL1
B 2
A 1

D4

C2
10 µF

J1

in   out
8   1
GND
2 3 6 7
U4
78L05

+5V

C1
100 nF

Total current consumption
(without LEDs): < 15 mA.

max. 28 V DC

0V

Note: If using a regulated 5 VDC power
supply, omit U4 and close J1.

1 G1 1
2 R1 2
3 B1 3
4 VDD 4
5 VDD 5
PL3   PL4

1 G2 1
2 R2 2
3 B2 3
4 VDD 4
5 VDD 5
PL5   PL6