**Set a bit**

bit\_fld |= (1 << n); n=2

11111011 bit\_fld

00000100 (1 << n)

11111111 result

**Clear a bit**

bit\_fld &= ~(1 << n); n=2

11111111 bit\_fld

11111011 (1 << n) (00000100 = invert 11111011)

11111011 result

**Toggle a bit //Shift of bit**

bit\_fld ^= (1 << n); n=3

101010101 bit\_fld

000001000 (1<<n)

101011101 result

**Test a bit**

bit\_fld & (1 << n); n=2

11111111 bit\_fld

00000100 (1 << n)

00000100 result

**Define input/output**

DDRC = 0x0F; is equivalent to DDRC = 0b00001111;

This means that the pins PC0…PC3 are output pins (can be manipulated using PORTC) and pins PC4…PC7 are input pins (whose levels determine the value of PINC).