**Homework 1**

1. Describe the difference between volatile and non-volatile memory.

Indicate two types of memories which are volatile and two which are non-volatile.

1. Get the ATMega168 datasheet, go to the Register Summary section (about Section 35).

The list below includes SRAM Special Function Registers (SFR) or a bit within a SFR.

Identify the register name and SRAM address, and if it is a bit, find its bit position (bit0 to bit7).

* 1. SREG
  2. PORTB
  3. EEDR
  4. TCCR0B
  5. DDRC6
  6. EEPE

1. Write the AVR assembly code that will set all the bits to 1 into the following SRAM addresses: 0x0000, 0x0001 and 0x0002.
2. Write the AVR assembly code that will set all the bits to 1 into the following SRAM addresses: 0x0200, 0x0201 and 0x0202.