2DX4: Microprocessor System
PreLab 7

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As a future member of the engineering profession, the student is responsible for performing the required work in an honest manner, without plagiarism and cheating. Submitting this work with my name and student number is a statement and understanding that this work is our own and adheres to the Academic Integrity Policy of McMaster University and the Code of Conduct of the Professional Engineers of Ontario. Submitted by **[Junbo Wang wangj430 400249823]**

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1.

- Falling edge means that an interrupt is triggered when the input signal falls from a high level to a low level. (IS = 0, IEV = 0)

- Rising edge means that an interrupt is triggered when the input signal increases from a low level to a high level. (IS = 0, IEV = 1)

- Low level means that the interrupt is triggered when the input signal is low. (IS = 1, IEV = 0)

- High level means that the interrupt is triggered when the input signal is high. (IS = 1, IEV = 1)

2.

1. The device is armed with software.
2. Trigger flag is set by the hardware.
3. Interrupt priority is higher than current level executing.
4. Global interrupt enable bit (I) in the PRIMASK register is clear.
5. NVIC enable is set.

3.

To enable interrupts, the I bit in PRIMASK needs to be cleared, or we can do "Enable Interrupts()" in C language.

4.

1. Registers R0, R1, R2, R3, R12, LR, PC, PSR are pushed onto the software stack.
2. Program counter is set to Vector Address.
3. IPSR (interrupt program status register) is set to the corresponding number.
4. LR is set to 0xFFFFFFF9.