**Why can’t you use both pins PA0 and PC0 for external interrupts at the same time?**

You can’t use both PA0 and PC0 for external interrupts at the same time because they are multiplexed onto EXTI0. Only one or the other can be selected at a time.

**What software priority level gives the highest priority? What level gives the lowest?**

The highest priority level is -3, which is the non-maskable interrupt. The lowest priority on the other hand (for this microcontroller at least) is 3.

**How many bits does the NVIC have reserved in its priority (IPR) registers for each interrupt (including non-implemented bits)? Which bits in the group are implemented**

The NVIC has 8 bits reserved in its priority registers for each interrupt. However, this microcontroller only implements the two MSB bits within this register, with everything else [5:0] being read as zeroes.

**What was the latency between pushing the Discovery board button and the LED change (interrupt handler start) that you measured with the logic analyzer? Make sure to include a screenshot in the post-lab submission.**

A screenshot of a computer

Description automatically generated

Using a counter going up to 3,000,000 for a more visible delay, the latency between pushing the button and seeing the LED change is approximately 130 microseconds.