

Assignment 3

① Interrupt is an affair that indicates the ~~CPU~~ ^{μP} to take prompt action, when an interrupt happens, the ^{μP} usually ~~hold~~ holds its current task and starts executing the corresponding handler then it resumes the old task.

Polling is an affair that informs the CPU that a system needs its attention, it is a constant action to find out whether the system is working efficiently and properly.

- ②
- 1- Finish the execution of current instruction
 - 2- Save the address of "next PC" in stack.
 - 3- Save the status of all current interrupts internally
 - 4- Jump to the interrupt vector table,
 - 5- Get the ISR address from interrupt vector table and start executing the ISR given by interrupt vector table,
 - 6- Upon the execution of the RETI, the Interrupted Program is restarted by stored PC.

3] Reset, External hardware interrupt 0 (INT0)

Timer 0 interrupt (TF0), External hardware interrupt 1 (INT1), Timer interrupt (TF1), Serial Comm interrupt (RI and TI)

4] Level - Triggered interrupt when level is 0 as long as level is 0 μP continue interrupt

- Edge-triggered interrupt when level is changed (down or up) so each interrupt need down or up edge