DESN2000
(Computer Engineering)

Interrupts

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Interrupts

• Theory covered on whiteboard
How to support interrupt?

1. Stop the current code
2. Service the interrupt request (i.e. turn on the LED)
3. Resume the previous code

Figure from: Yifeng Zhu, Embedded Systems with ARM Cortex-M Microcontrollers in Assembly Language and C
How to support interrupt?

Figure from: Yifeng Zhu, Embedded Systems with ARM Cortex-M Microcontrollers in Assembly Language and C

- Enable and disable a specific interrupt
- Which one service first (interrupt priority)
- How to locate the corresponding ISR?
- How to resume the code that has been suspended?
Interrupts

Figure from: Yifeng Zhu, Embedded Systems with ARM Cortex-M Microcontrollers in Assembly Language and C
Interrupts Vector Table

Figure from: Yifeng Zhu, Embedded Systems with ARM Cortex-M Microcontrollers in Assembly Language and C
External Interrupt (EXTI) Sources

Figure from: Yifeng Zhu, Embedded Systems with ARM Cortex-M Microcontrollers in Assembly Language and C
Interrupts

• Example covered as live demo
Interrupts in C and Assembly


• Interrupts - chapter 11
Course feedback so far
Project!

https://webcms3.cse.unsw.edu.au/DESN2000/24T2/resources/98744