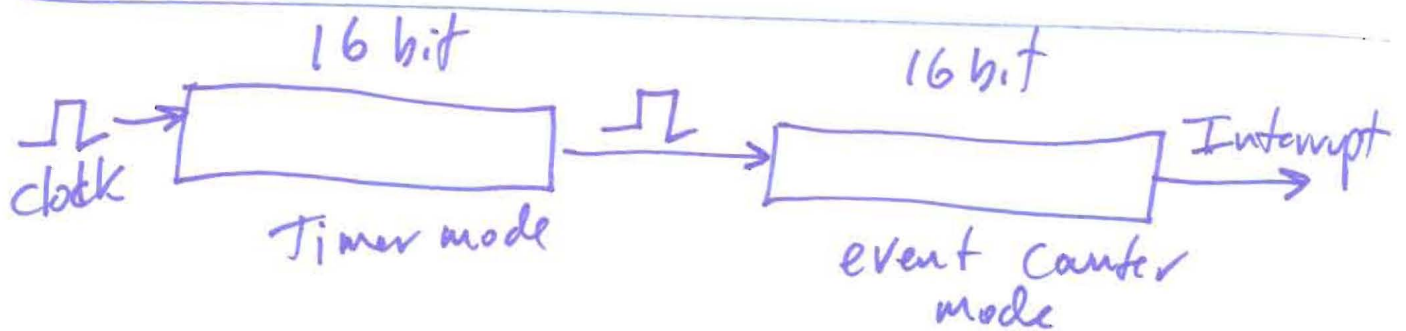


ECGR4101/S101 Extra Notes - Lecture 19

⚡ for labs, use these when you compile your final version of code

(1)



$$\frac{65,535 * 65,535 \text{ cycles}}{1} * \frac{1 \text{ second}}{12,000,000 \text{ cycles}} * \frac{32}{1} =$$

$$11452 \text{ sec} =$$

$$190.88 \text{ min} =$$

$$3.18 \text{ hr} =$$

If you use a third timer,

208490 hrs

8687 days

23.78 years

ECGR4101/5101 - LECTURE 19 - Extra Notes

to get 1.024 seconds - exactly - (2)

what would you do?

Settings

* timer (AO) reg?

* event (AI) counter?

* 12 MHz clock.

* Set the "divider" - P1, f2, f8, f32?

$$\text{if } f1 \rightarrow = \frac{12,000,000 \text{ cycles}}{1 \text{ sec}} * 1.024 \text{ sec} * \frac{1 \text{ "tick"}}{1 \text{ cycle}}$$

$$= 12,288,000 \text{ "ticks"}$$

$$= 65,535 * 65,535 = \text{over 4 billion}$$

→ So one is

12,288, the other is 1000

ECGR4101/S101 - Lecture 19

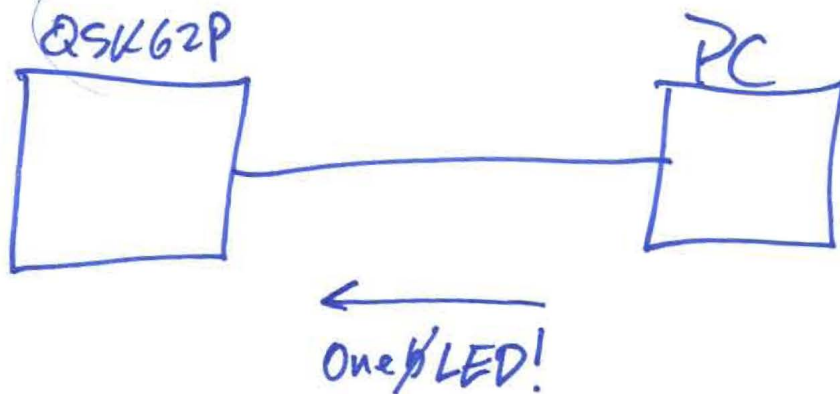
To use peripherals:

1. Set up Control regs
2. (Optional) Set up interrupts (disable all interrupt temporarily)
3. Start peripheral

Test Question?

End of Notes 13-28

Lab 5



Notes 12 - Queues

Do nothing with received chars until you see "!" → Receive ISR

Receive ISR will set a flag

Main Pgm → process the chars in the queue