# **Lab-6**

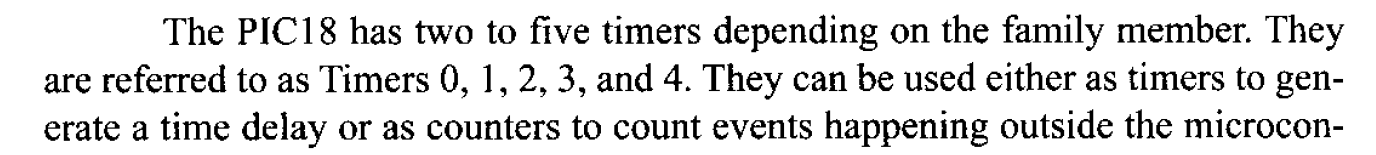
**PIC Timer Programming microcontroller using assembly language**

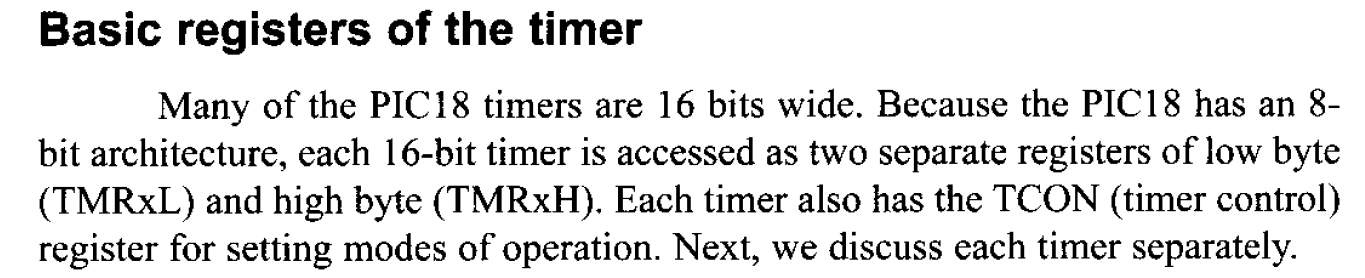
**Objective:**

In this lab students will learn

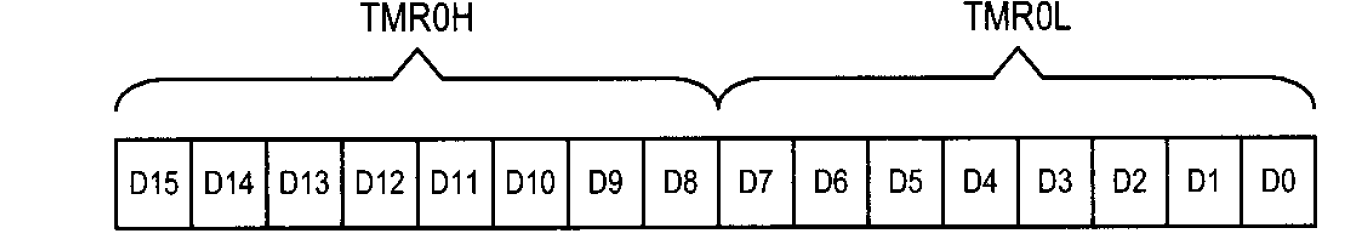
* How many timers are there in PIC18f4550
* How timers are used for introducing delays.

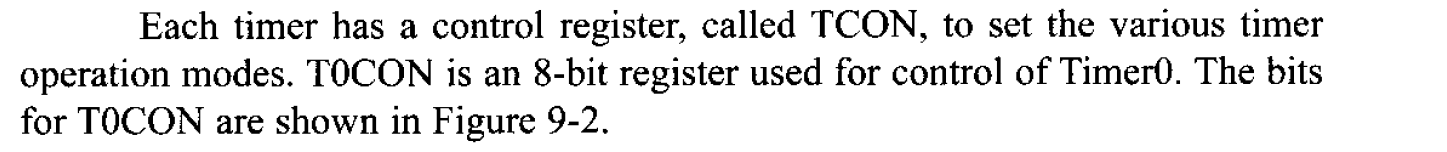
**Theory**

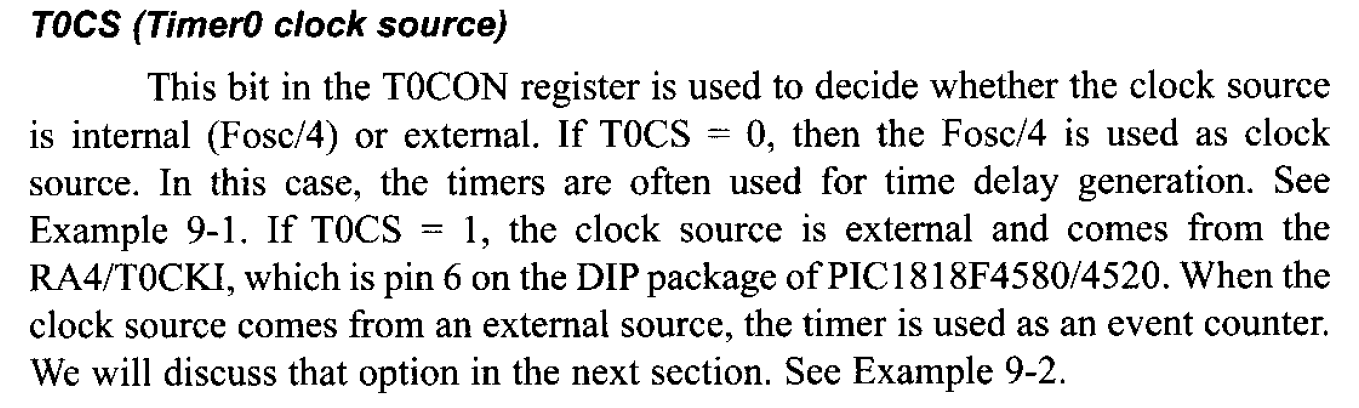
 

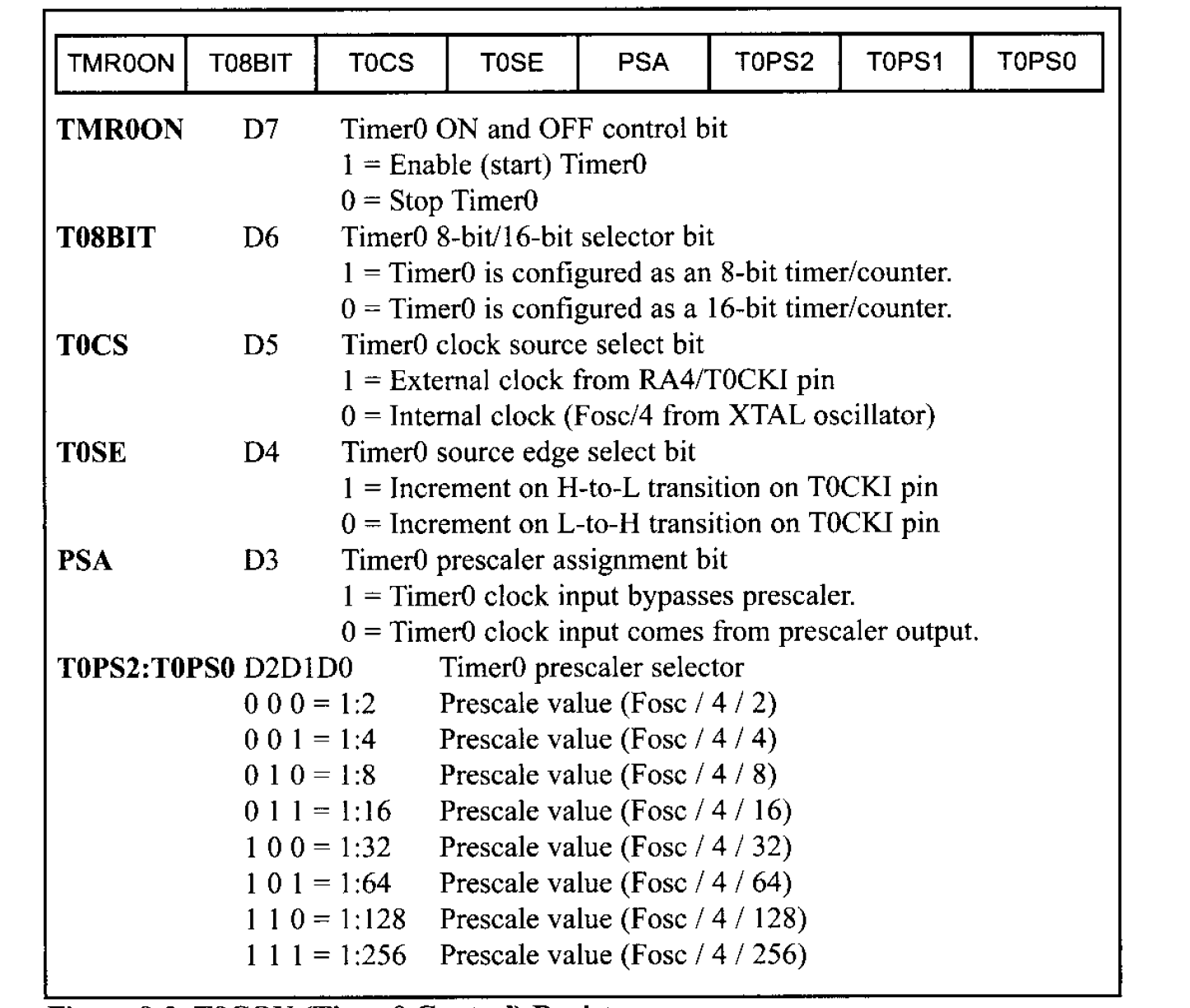


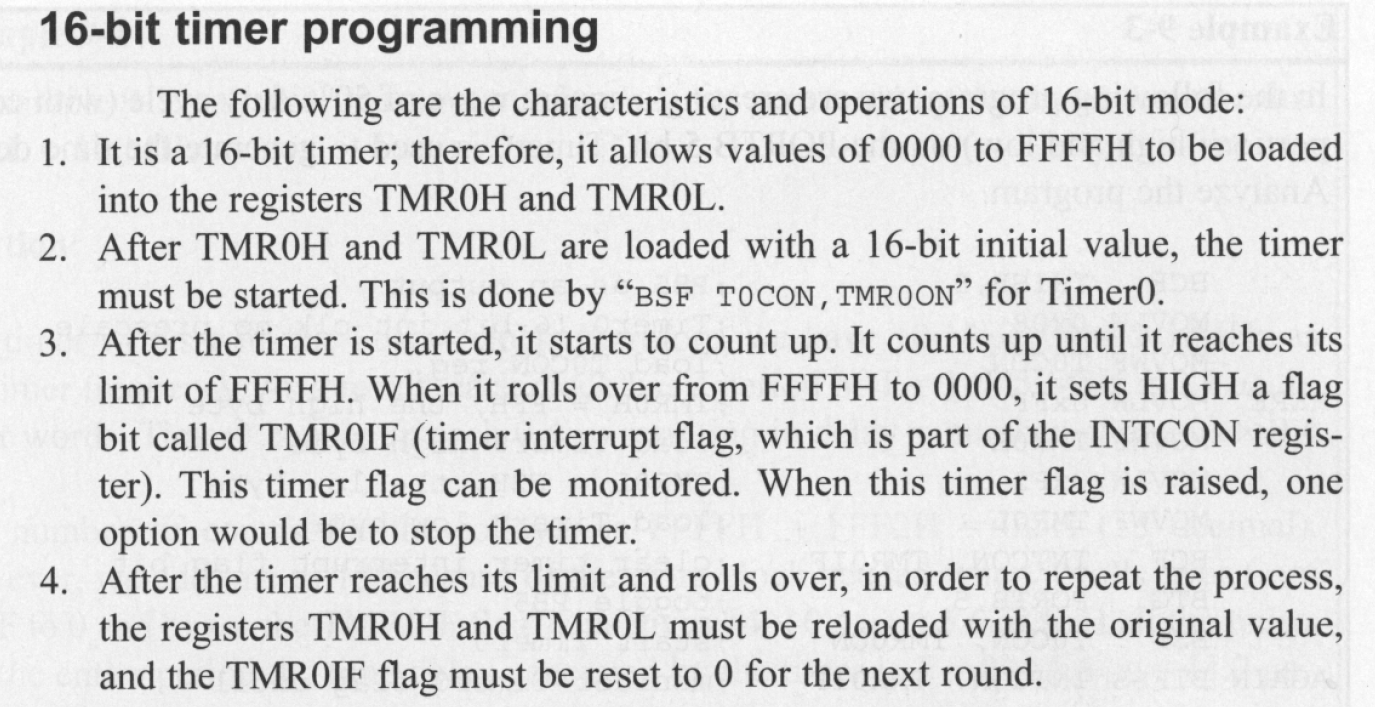
**Timer0 register and programming**



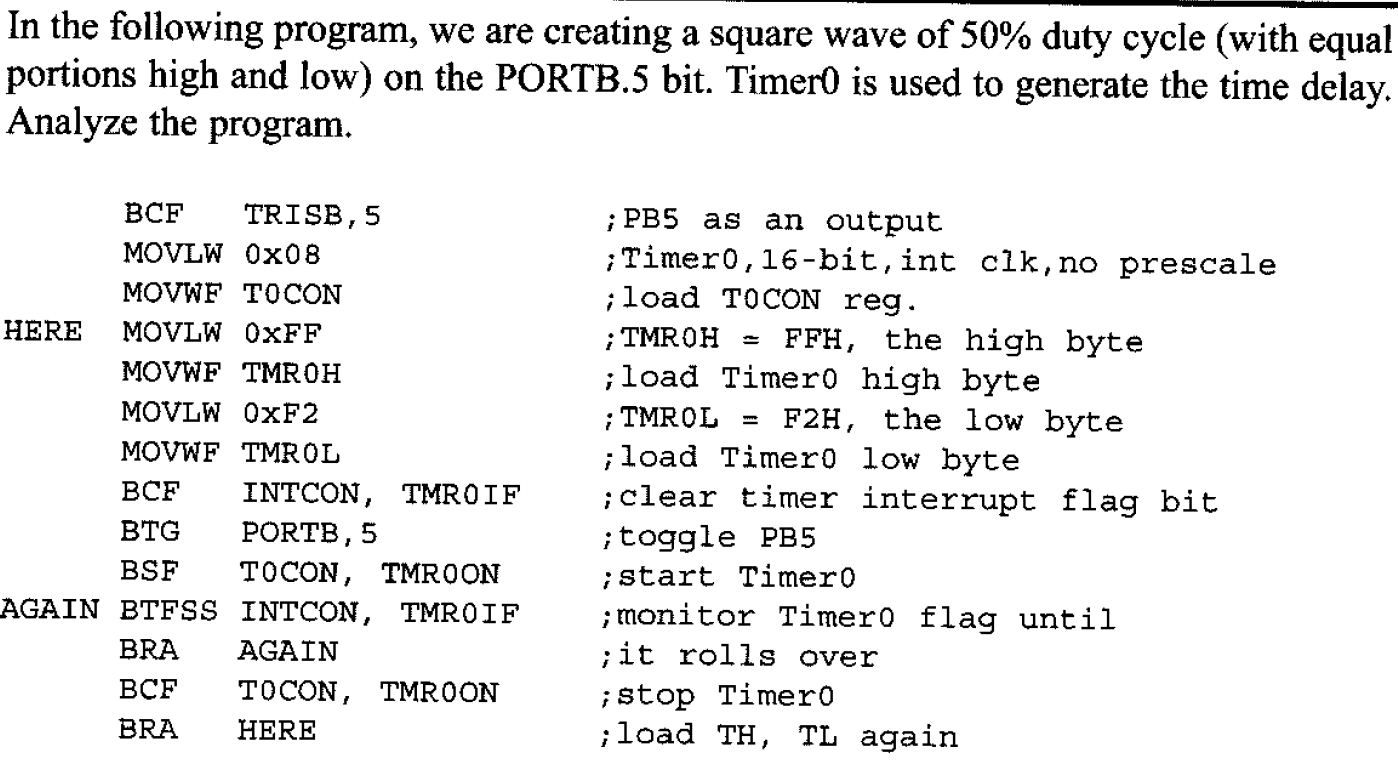








**Lab Exercise**



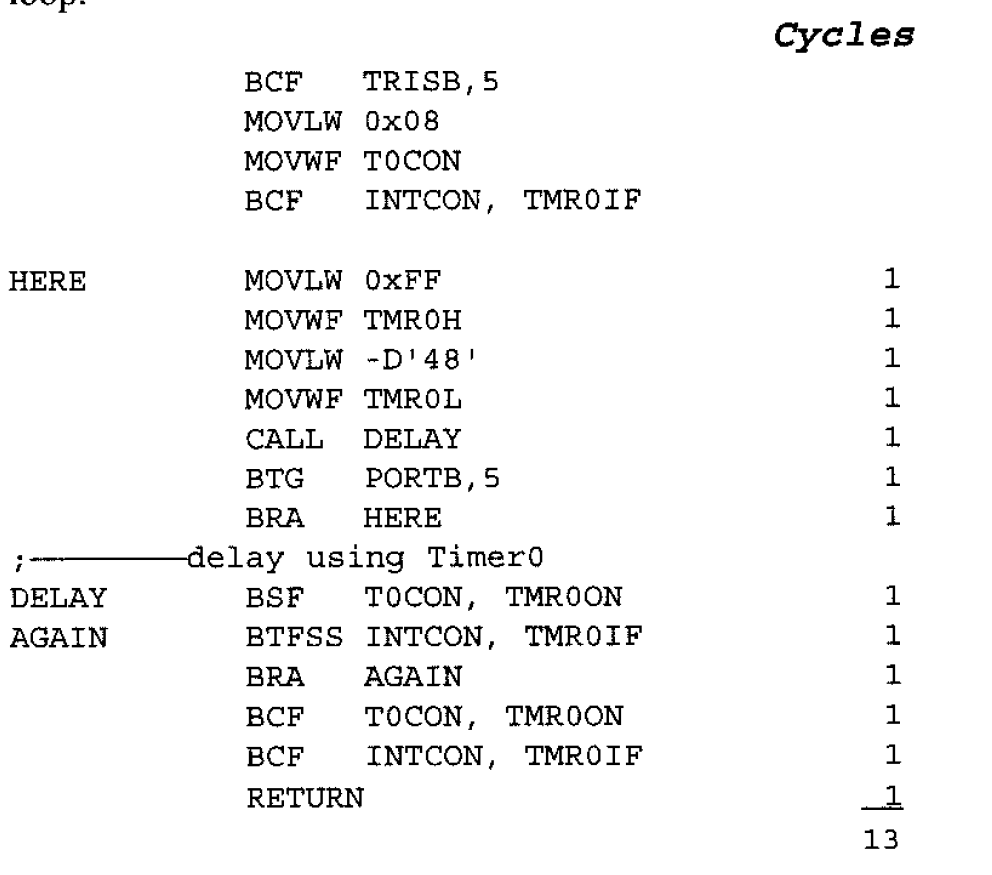
**Also calculate the delay introduced.**

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**Write down the steps for programming the timer in 16 bit mode.**

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**Calculate the frequency of square waveform generated at pin PORTB.5**



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**Write a program to generate a square waveform with a period of 20msec on pin PORTB.3**

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**Generate a square waveform of 3KHz frequency on pin PORTB.3**

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**Compare the 8-bit and 16-bit timer mode of PIC microcontroller**

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**What is the minimum frequency that you can generate using 16-bit timer mode?**

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