

TIMER PSEUDOCODES

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PSEUDOCODE: programming timer0 in normal mode

- 1- Load the **TCNTO** register w/ initial count value.
- 2- Load the value into the **TCCR0** register, indicating which mode (8-bit/16-bit) is to be used and the **prescaler** option. When you select the **clock source**, the timer/counter starts to count, and each tick causes the content of the timer/counter to increment by **1**.
- 3- Keep monitoring the timer overflow flag (**TOV0**) to see if it is raised. Get out of the loop when **TOV0** becomes **high**.
- 4- Stop the timer by **disconnecting** the clock source, using the following instructions:
 - a- Clear the **TOV0** flag for the next round.
 - b- Go back to **step1** to load **TCNTO** again.

PSEUDOCODE: programming timer0 in CTC mode.

- 1- Load **OCRO**
- 2- Load **TCCR0** to set the mode & to start the timer0
 - a- As the timer (**TCCR0**) counts up: 00, 01, 02 ...
And reaches content of **OCRO**
 - b- One more clock makes it 0 and **OCFO=1**
- 3- Stop timer0
- 4- **OCFO** is set.