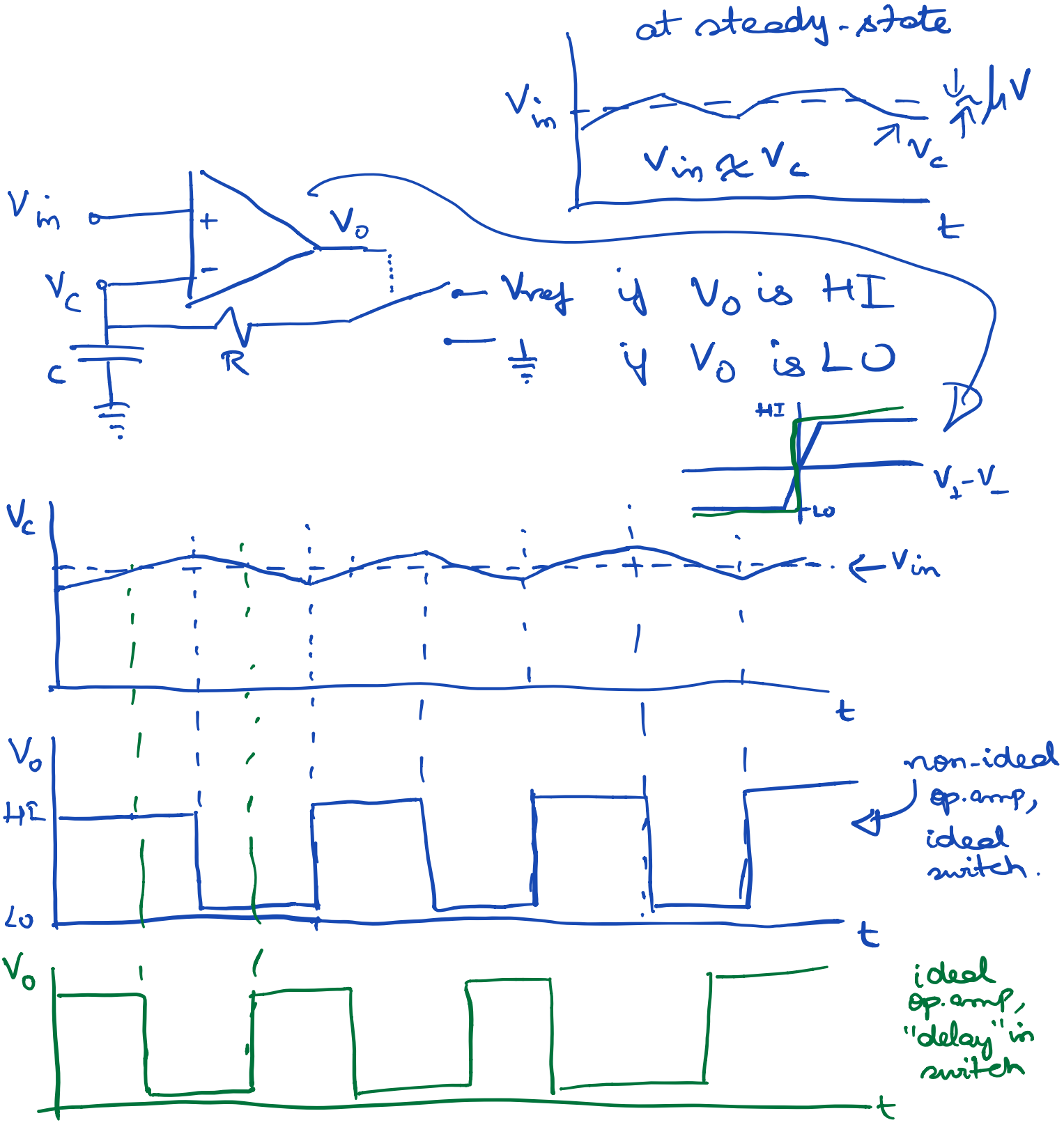
15.01.2019

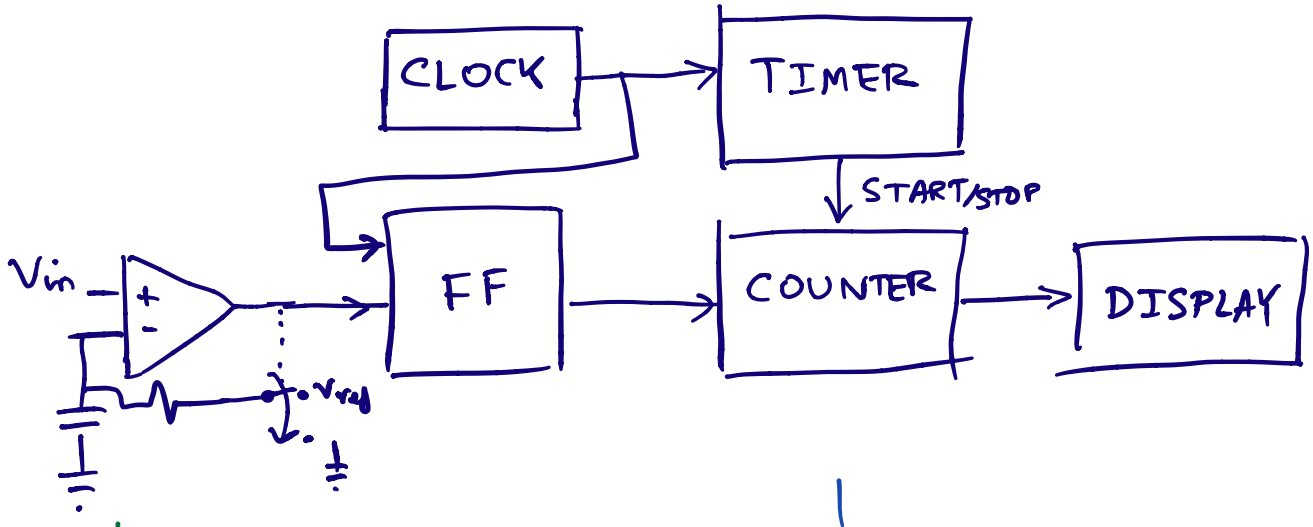
ELL 301

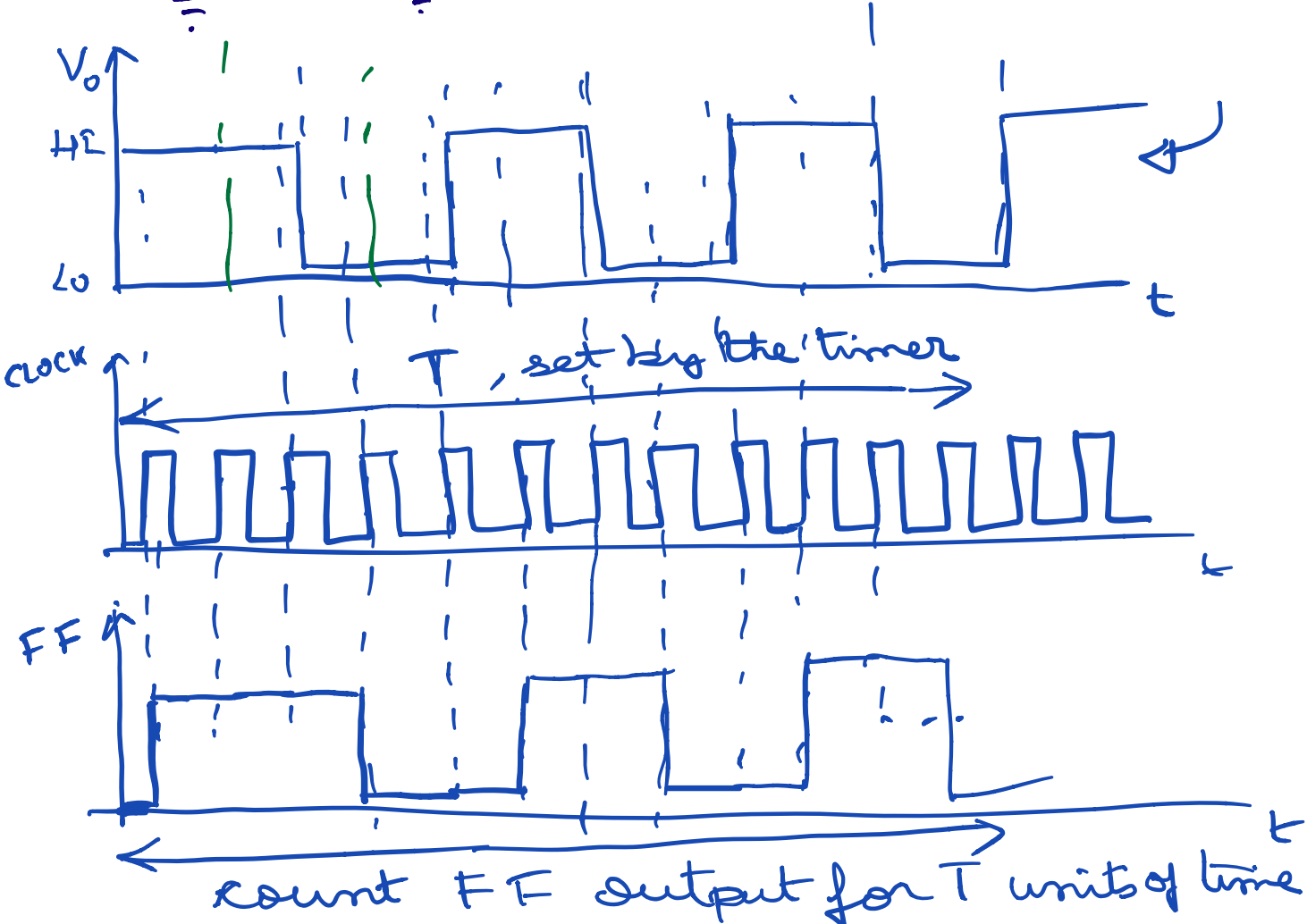
Timing diagram of Delta-Pulse Modulated ADC (& how to convert analog V_{in} to digital)



From last lecture, $\frac{V_{in}}{V_{ref}} = \frac{t}{T}$, relative duration that the switch is in high state.

How to get t/T ?





Does this give the ratio $\frac{t}{T}$?

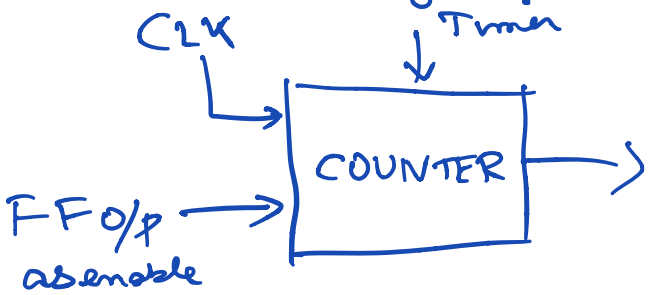
In time T, there are N = 12 clock pulses

In time T, how many counts for the ——??

counter, n = 3

As per above diagram,

alternate diagram



will count more.

Question: Shouldn't it be counting the total number of pulses in the "HI" state to correspond to t?