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- Section 26.5.9 "PWM mode", pages 985f
    - Shows details of how CCRx works, which implements the duty-cycle.
  - [STM20] STM, "Timer lab: PWM generation using HAL library", part of the course "STM32CubeIDE Basics", 2020
    - Shows how to use STM32CubeIDE to generate code for a dimmable LED.
    - A video, and slides
      - Video: <https://www.youtube.com/watch?v=-AFCcfzK9xc>
      - Video description has a link to the slides.
    - The video is part of the STM course "STM32CubeIDE Basics":
      - <https://www.youtube.com/playlist?list=PLnMKNibPkDnFCosVVv98U5dCulE6T3Iy8>
  - [STM21a] STM, "STM32F767xx ... Datasheet", DS11532 Rev 7, February 2021
    - Clock and timers specified on pages 1 and 18
  - [STM21b] STM, "STM32 cross-series timer overview", Application note AN4013, June 2021
    - Section 2.5 "Timer in PWM mode", page 15f
      - Describes how to configure the timer for PWM mode.
      - In the phrase, "To configure the timer in this mode:", the term "this mode" has an ambiguous antecedent (page 16). "This mode" refers to PWM-mode as a whole, not to just PWM mode 2.
  - [STMa] STM, "STM32L4 - Timers : Advanced-control, general-purpose, and basic timers", Revision 2.0, undated.
    - Errors:
      - The equations for duty-cycle and PWM-resolution are incorrect.
      - I posted an error-description here:
        - <https://community.st.com/s/question/0D53W00001Gia5QSAR/an-stm-tutorial-on-timers-has-errors-regarding-pwm-mode-for-stm32-mcus>
    - Presentation slides:
      - [https://www.st.com/resource/en/product\\_training/STM32L4\\_WDG\\_TIMERS\\_GPTIM.pdf](https://www.st.com/resource/en/product_training/STM32L4_WDG_TIMERS_GPTIM.pdf)
    - Relevant sections:
      - Counting period management, page 6
      - PWM calculations, pages 31-33
      - Dimmable LEDs, pages 31-33
- ## 4.2 Other sources
- STM, "General-purpose timer cookbook for STM32 microcontrollers", Application note AN4776, July 2019
    - Notes: advanced topics
  - vuquangtrong, "Timers and their modes"
    - <https://www.codeinsideout.com/blog/stm32/timer/>
    - Notes:
      - A tutorial for STM32 timers. Includes a dimmable LED.
      - I haven't read it, but it might be good.

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