MMS – MCD
Application Team

STM8L

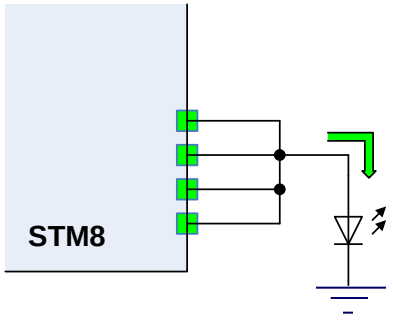
General Purpose Input Output (GPIO)

GPIO Features (1/2)

- **Up to 41 multifunction bi-directional I/O pins available in the 48 pin package**
  - All Standard I/Os are shared in 6 ports (GPIOA…GPIOF): All pins can be used in input or output except PA1 which can be used only as output (when NRST pin is configured in GPIO mode)
  - Up to 40 I/Os can be set-up as external interrupts
  - 25 mA for High-sink capable I/Os
  - 80 mA for one TIM_IR pin
  - True open drain for I2C pins: PC0 and PC1
  - Selectable output slope speed: 2MHz / 10MHz

GPIO Features (2/2)

- Each pin is individually configurable (Direction, configuration)
- Input modes: floating input with/without Interrupt and input pull-up with/without Interrupt
- Output modes: Push-pull with control of output speed and pseudo open-drain with control of output speed
- Unused I/O pins must be connected to fixed voltage levels. Either connect a pull-up or pull-down to the unused I/O pins.
- Effect of low power modes on GPIO:
  - No effect on I/O ports
  - External interrupts cause the device to exit from low power modes
  - External events cause the device to exit from WFE or low power wait modes
- When needed more current, more outputs can be connected together



GPIO Alternate function

- Alternate functions pins (like USARTx, TIMx, I2Cx, SPIx, …)
- To be able to use alternate function the pin has to be configured accordingly as push-pull, pull-up etc.
- The pin direction is configured by periphery automatically
- Remapping options to switch from default pin to some alternative one (L15x devices) by using REMAP register
  - SPI1 (MOSI, MISO, SCK, NSS)
  - USART1 (Rx, Tx, Ck)
  - TIM3 (Trig)
  - TIM2 (Trig)
  - ADC1 (Trig)

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