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Overview

GPIO pins can be leveraged to use as a on/off signal for both input and output, and PWM. Uses include reading a button, a motion sensor, driving a LED or a buzzer.

Package gpio defines the interfaces.

GPIO registry

Package gpioreg permits enumerating all the available GPIO pins currently available.

On a Raspberry Pi 3, the following are synonyms, use the form you prefer:

- Runtime discovery:
  - `gpioreg.ByName("11")` : gpio number
  - `gpioreg.ByName("GPIO11")` : gpio name as defined per the bcm238x CPU driver
  - `gpioreg.ByName("P1_23")` : board header `P1` position `23` name as defined by the rpi board driver
  - `gpioreg.ByName("SPI0_CLK")` : function clock on SPI bus 0
- Using global variables:
  - `rpi.P1_23` to select the pin via its *position on the board*
  - `bcm283x.GPIO11` for the pin as defined by the CPU

Pin registry

Package pinreg permits enumerating all the available pin headers. This includes non-GPIO pins like ground, 3.3V and 5V pins, etc.

Examples

- Toggle a LED
- Read button presses
- Detect motion via a PIR
- Make noise with a buzzer

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