

ADC

Note: Any function referenced here is in the *peripherals/adc.h* file, except otherwise stated

Before any further action to the GPIOs, the first thing that must happen is the enabling of the GPIO clock. This is done through the function

```
void enableADCClocks()    (#include "/clock/clock.h")
```

Continuous mode

To start the ADC in continuous mode, call the function

```
void startContinuousConversion(uint8_t sequence[], uint8_t seq_len);
```

where

- sequence: Is the sequence with which the ADC inputs are sampled
- seq_len: Is the length of the aforementioned sequence

General

To read the data of the last ADC conversion, call the following function, which is blocking and waits until the conversion has ended.

```
uint16_t readDataConverted();
```

It returns the value of the last conversion.

GPIOs

Note: Any function referenced here is in the *peripherals/gpio.h* file, except otherwise stated

Before any further action to the GPIOs, the first thing that must happen is the enabling of the GPIO clock. This is done through the function

```
void enableGpioClocks()    (#include "/clock/clock.h")
```

Then, the pin must be configured with the following function

```
void configPin(uint8_t port, uint8_t pin, uint8_t gpio_mode);
```

where

- port: Sets the register to be used, e.g. GPIOA for PORTA etc.
- pin: Sets the specific pin to be configured, e.g. GPIO_PIN_1 for pin 1
- mode: Sets the mode, which takes the following values
 - OUTPUT_PUSH_PULL: For output mode with push-pull configuration
 - OUTPUT_OPEN_DRAIN: For output mode with open-drain configuration
 - ALT_FUNC_PUSH_PULL: For output mode with push-pull configuration
 - ALT_FUNC_OPEN_DRAIN: For output mode with open-drain configuration
 - ANALOG: For input mode with analog
 - FLOATING_INPUT: For floating input
 - INPUT_PULL_UP_DOWN: For input with pull-up/pull-down resistors

To set a pin we call

```
void setPin(uint8_t port, uint8_t pin, uint8_t value);
```

where

- port: Sets the register to be used, e.g. GPIOA for PORTA etc.
- pin: Sets the specific pin to be configured, e.g. GPIO_PIN_1 for pin 1
- value: Is the value to set (0 for low or 1 for high)