## Systick Driver

Version 1.0.0

Generated by Doxygen 1.8.13

## **Contents**

1	GPI	D_DRIV	ER												1
2	Data	Structi	ure Index												3
	2.1	Data S	tructures				 	 	 	 	 	 			3
3	File	Index													5
	3.1	File Lis	st				 	 	 	 	 	 			5
4	Data	Structi	ure Docur	nentati	on										7
	4.1	gpio_c	onfig_t Str	uct Ref	erence	e	 	 	 	 	 	 			7
		4.1.1	Detailed	Descrip	otion		 	 	 	 	 	 			7
		4.1.2	Field Doo	cument	ation		 	 	 	 	 	 			7
			4.1.2.1	mode			 	 	 	 	 	 			7
			4.1.2.2	mux			 	 	 	 	 	 			7
			4.1.2.3	outpu	t_spee	ed .	 	 	 	 	 	 			8
			4.1.2.4	outpu	t_type		 	 	 	 	 	 			8
			4.1.2.5	pin .			 	 	 	 	 	 			8
			4.1.2.6	resist	or		 	 	 	 	 	 			8

ii CONTENTS

5	File	Docum	entation		9
	5.1	gpio_ir	nterface.h	File Reference	9
		5.1.1	Detailed	Description	10
		5.1.2	Function	Documentation	10
			5.1.2.1	gpio_init()	10
			5.1.2.2	gpio_pin_read()	11
			5.1.2.3	gpio_pin_toggle()	12
			5.1.2.4	gpio_pin_write()	13
			5.1.2.5	gpio_register_read()	14
			5.1.2.6	gpio_register_write()	14
	5.2	gpio_s	tm32f411.	c File Reference	15
		5.2.1	Detailed	Description	16
		5.2.2	Macro D	efinition Documentation	17
			5.2.2.1	AFLHRy_WIDTH	17
			5.2.2.2	MODERy_WIDTH	17
			5.2.2.3	NUM_GPIO_PORTS	17
			5.2.2.4	OSPEEDRy_WIDTH	17
			5.2.2.5	OTYPERy_WIDTH	17
			5.2.2.6	PINS_PER_PORT	17
			5.2.2.7	PUPDRy_WIDTH	17
		5.2.3	Function	Documentation	18
			5.2.3.1	gpio_init()	18
			5.2.3.2	gpio_pin_read()	19
			5.2.3.3	gpio_pin_toggle()	19
			5.2.3.4	gpio_pin_write()	20
			5.2.3.5	gpio_register_read()	21
			5.2.3.6	gpio_register_write()	22
		5.2.4	Variable	Documentation	23
			5.2.4.1	ACTIVE_GPIO_PINS	23
	5.3	gpio_s	tm32f411_	_config.c File Reference	23

CONTENTS

	5.3.1	Detailed	Description	. 23
	5.3.2	Function	Documentation	. 24
		5.3.2.1	gpio_config_get()	. 24
	5.3.3	Variable	Documentation	. 24
		5.3.3.1	ACTIVE_GPIO_PINS	. 24
5.4	gpio_s	tm32f411_	_config.h File Reference	. 25
	5.4.1	Detailed	Description	. 26
	5.4.2	Enumera	ation Type Documentation	. 26
		5.4.2.1	gpio_mode_t	. 26
		5.4.2.2	gpio_mux_t	. 27
		5.4.2.3	gpio_output_speed_t	. 27
		5.4.2.4	gpio_output_type_t	. 27
		5.4.2.5	gpio_pin_state_t	. 28
		5.4.2.6	gpio_pin_t	. 28
		5.4.2.7	gpio_resistor_t	. 28
	5.4.3	Function	Documentation	. 28
		5431	apio config get()	28

## **Chapter 1**

## **Systick Driver**

A general wrapper around systick and systick-like features to allow for general timekeeping and timeout functionality to other elements of the hal

2 Systick Driver