Requirements on LED Driver

Team X

Contents

Scope of document:

This document specifies requirements on the module LED Driver.

Functional overview:

The LED Driver provides the user with functions that can control LED.

The following expressions are used within the LED driver

Expression	Explanation
Port_num	Represents multiple DIO channels that are grouped by hardware and accessible synchronously. Example: Port A
Pin_num	Represents a single general-purpose digital input/output pin Example : PIN5

Functional Requirements:

Configuration and initialization:

1- [SRS_LED_800] The configuration and initialization of the pin structure for the LED driver.

Type:	**Valid**
Description:	The LED driver shall allow the static configuration of the following symbolic names: • port_num • pin_num
Rationale:	Basic functionality
Use cases	Write access to an LED port
Dependencies	General write behaviour
Supporting material	--

Normal operation:

1- [SRS_LED_801] The LED Driver shall provide a service turns on the LED

Type:	**Valid**
Description:	The LED Driver shall provide a service that turns on the LED.
Rationale:	Basic functionality
Use cases	--
Dependencies	General write behaviour
Supporting material	--

2- [SRS_LED_802] The LED Driver shall provide a service that turns off the LED

Type:	**Valid**
Description:	The LED Driver shall provide a service that turns off the LED.
Rationale:	Basic functionality
Use cases	--
Dependencies	General write behaviour
Supporting material	--

3- [SRS_LED_803] The LED Driver shall provide a service that toggles the LED

Type:	**Valid**
Description:	The LED Driver shall provide a service for toggling led, on and off, controlled by time, set by default to 500 ms but the user can change it.
Rationale:	Basic functionality
Use cases	--
Dependencies	General write behavior
Supporting material	Time