**LED STRING ANIMATION\_PO5\_CYRS**

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1. Document Status:

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| Version | Author | Date | Status |
| 1.4 | Mohanad Sallam | 4/2/2020 | Draft |

# Document History:

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| Version | Author | Date | Change Description |
| 1.0 | Menna Mostafa | 23/1/2020 | Initial Creation for  Structure of strings of LEDs used to provide Tail and TI functions based on some input signals. |
| 1.1 | Youssef Kamal | 25/1/2020 | As mentioned in review sheet.   * Changing document sequence. * Changing status section * Changing the header of the requirements section |
| 1.2 | Menna Mostafa | 29/1/2020 | Change Req\_2 & Req\_3 according to the review. |
| 1.3 | Youssef Kamal | 29/1/2020 | Adding Input Signal to Block Diagram |
| 1.4 | Mohanad Sallam | 4/2/2020 | Changing block diagram and removing unused tittles |

# Project Description:

This project consists of strings of LEDs in a certain pattern. The LEDs turn on/off based on input signals. The LEDs structure consists of two parts Tail and TI. Each Part will be activated according to the corresponding switches.

At Startup Mode there are two options (Modes):

* **First mode**: LEDs shall be ON from L6 to L1, then from R1 to R6 and vice versa, and then all LEDs are ON and OFF.
* **Second mode**: LEDS from R1 to R6 are ON LED by LED and also the left branch at the same time, and then repeat the scenario again.

## Project Functionalities:

Strings of LEDS are used to provide Tail and TI functions based on some input signals.

## Block diagram:



# Requirements description:

Req \_ LED STRING ANIMATION\_PO5\_CYRS\_001-V01 \_ Imp # HW&SW

At startup, **WELCOME** **mode** shall be one of the following modes:

First mode:

LEDS from L6 to L1 will be ON then from R1 to R6 will be ON.

Then all LEDS will be OFF.

Then from R6 to R1 will be ON then L1 to L6 will be ON.

Then all LEDS will be OFF.

Then all LEDS are ON and OFF.

Second mode:

LEDS from R1 to R6 are ON LED by LED and at same time L1 to L6 are ON LED by LED.

Then repeat this scenario again.

Req \_ LED STRING ANIMATION\_PO5\_CYRS\_002-V02 \_ Imp # SW

Tail LEDs will be ON if Tail switch is ON and will be OFF if Tail switch is OFF.

Req \_ LED STRING ANIMATION\_PO5\_CYRS\_003-V02 \_ Imp # SW

When TI switch is ON then TI function will be activated, LEDS from R1 to R6 or from L1 to L6 will be activated and if TI switch is OFF then TI function will be deactivated.