LED SEQUENCE V 2.0
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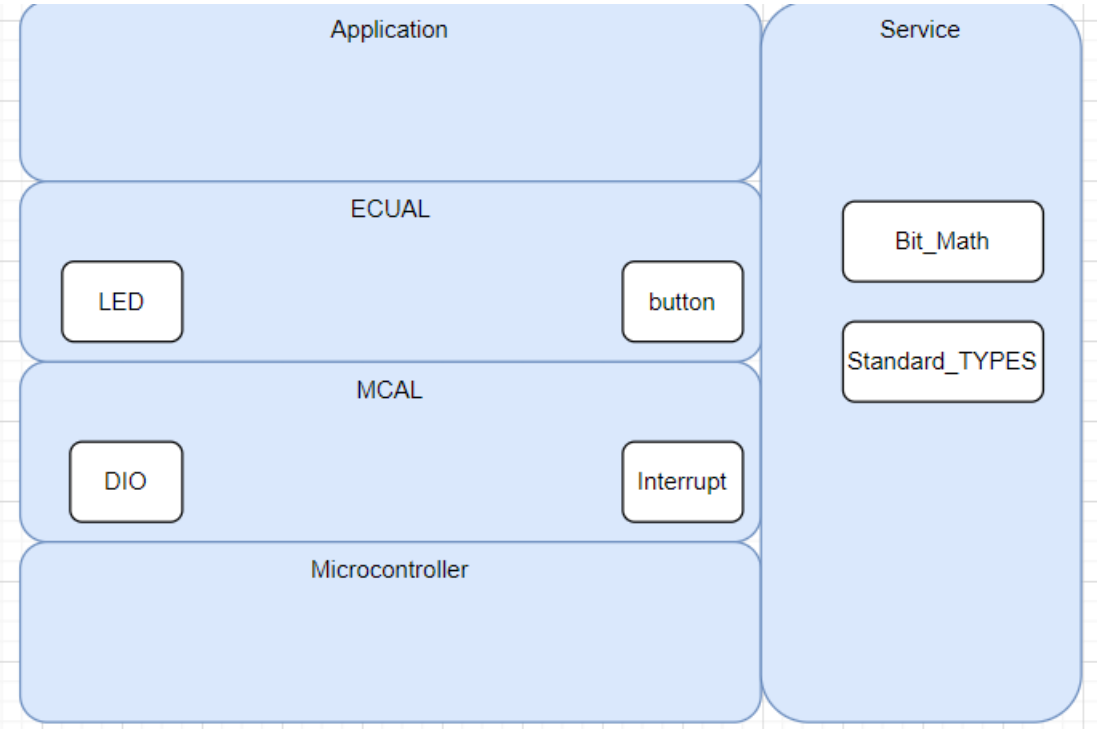
Project Description

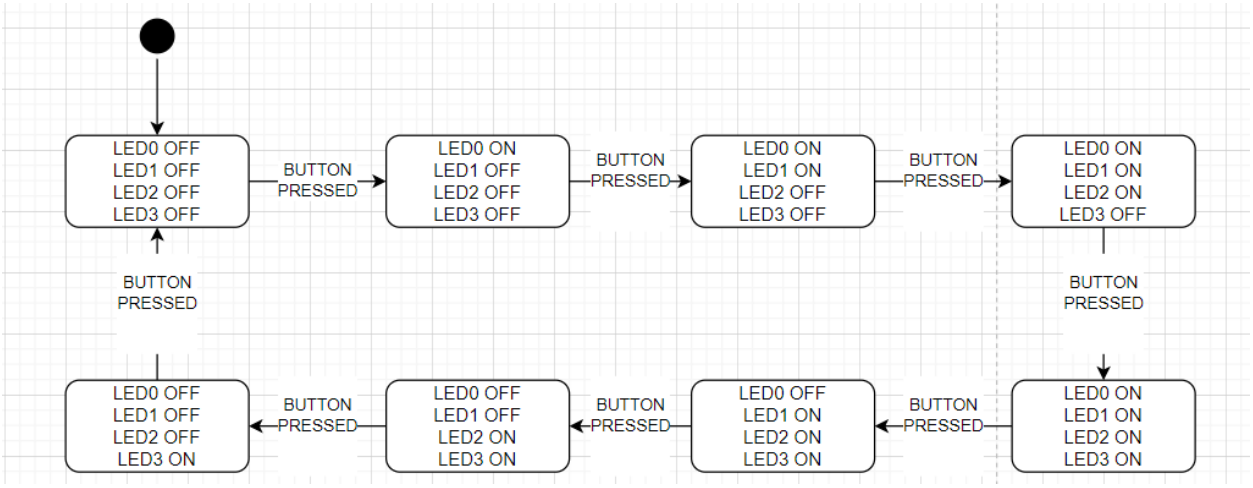
Its led sequence program that's follows the next sequence :

1. Initially (OFF, OFF, OFF, OFF)
2. Press 1 (ON, OFF, OFF, OFF)
3. Press 2 (ON, ON, OFF, OFF)
4. Press 3 (ON, ON, ON, OFF)
5. Press 4 (ON, ON, ON, ON)
6. Press 5 (OFF, ON, ON, ON)
7. Press 6 (OFF, OFF, ON, ON)
8. Press 7 (OFF, OFF, OFF, ON)
9. Press 8 (OFF, OFF, OFF, OFF)
10. Press 9 (ON, OFF, OFF, OFF)

LAYERD ARCHITECTURE

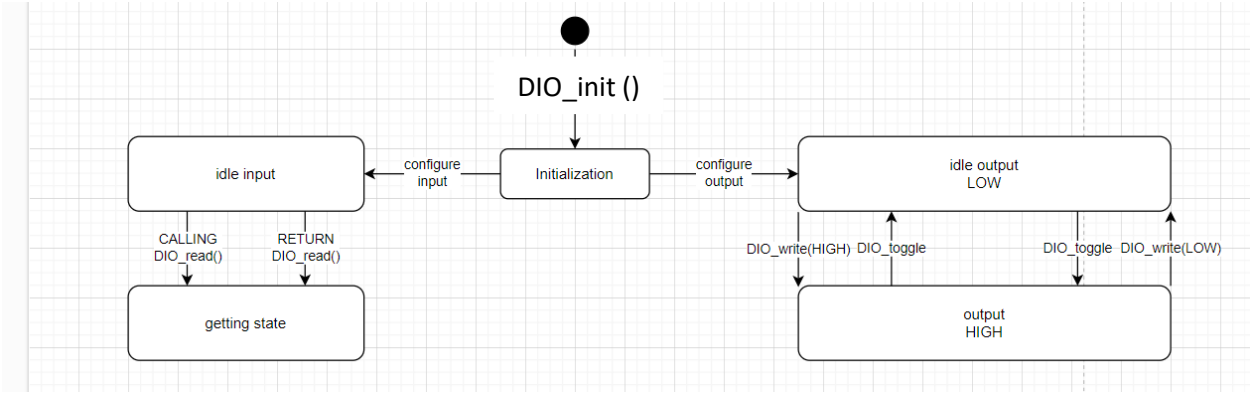


STATE MACHINE DIGRAM

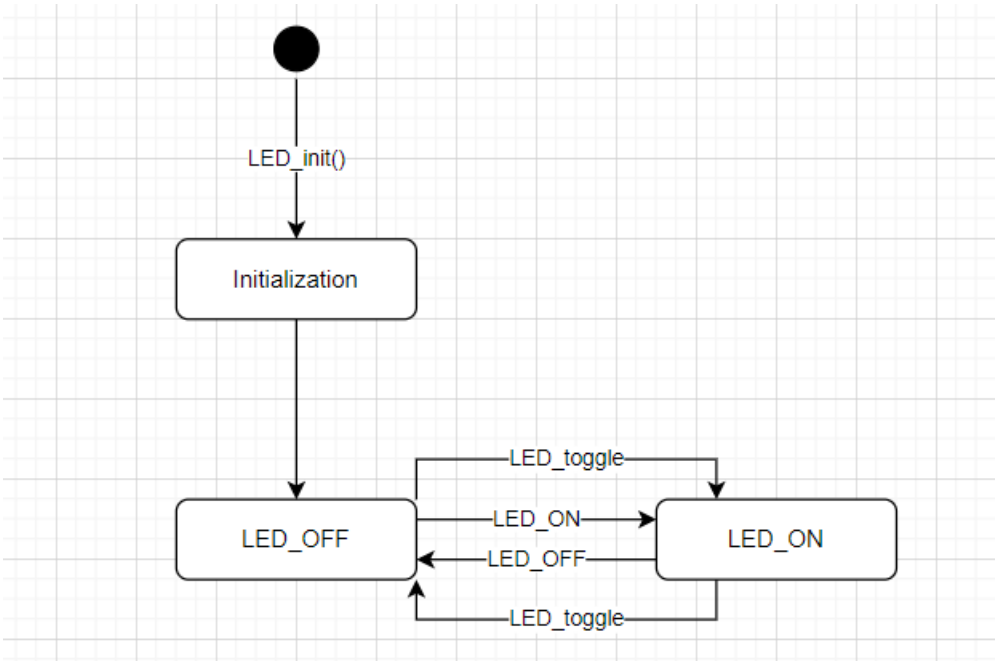


DRIVERS APIS STATE MACHINE

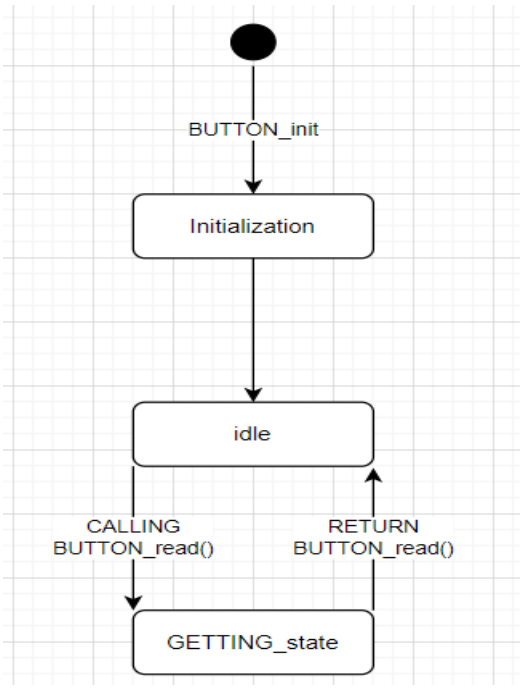
DIO



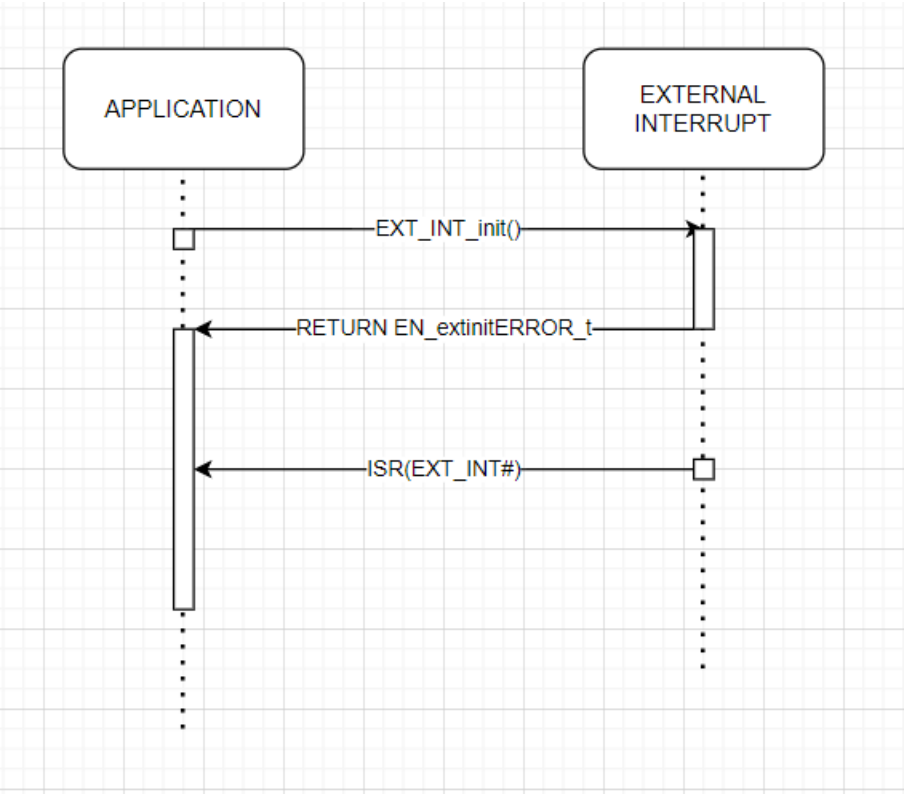
LED


LED_init()
Initialization
LED_toggle
LED_OFF
LED_ON
LED_ON
LED_OFF
LED_toggle

BUTTON


BUTTON_init
Initialization
idle
CALLING
BUTTON_read()
RETURN
BUTTON_read()
GETTING_state

INTURREPT



Programs APIs

```
1-INTERRUPT_ERROR_TYPE EXT_INT_Enable(EXInterruptSource_type interrupt);
2-INTERRUPT_ERROR_TYPE EXT_INT_Disable (EXInterruptSource_type interrupt);
3-INTERRUPT_ERROR_TYPE EXT_INT_TriggerEdge (EXInterruptSource_type interrupt,
TriggerEdge_type edge );
4-EN_dioError_t DIO_init(uint8_t portNumber, uint8_t pinNumber, uint8_t direction);
5-EN_dioError_t DIO_write(uint8_t portNumber, uint8_t pinNumber, uint8_t value);
6-EN_dioError_t DIO_toggle(uint8_t portNumber, uint8_t pinNumber);
7-EN_dioError_t DIO_read(uint8_t portNumber, uint8_t pinNumber, uint8_t *value);
8-EN_ledError_t LED_init(uint8_t ledPort,uint8_t ledPin);
9-EN_ledError_t LED_on(uint8_t ledPort,uint8_t ledPin);
10-EN_ledError_t LED_off(uint8_t ledPort,uint8_t ledPin);
11-EN_ledError_t LED_toggle(uint8_t ledPort,uint8_t ledPin);
12-void APP_initModules(void);
13-void APP_ledSequenceV2 (void);
```