SMALL OBERATING SYSTEM

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SPRINT
10

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LAYERD ARCHTICTURE
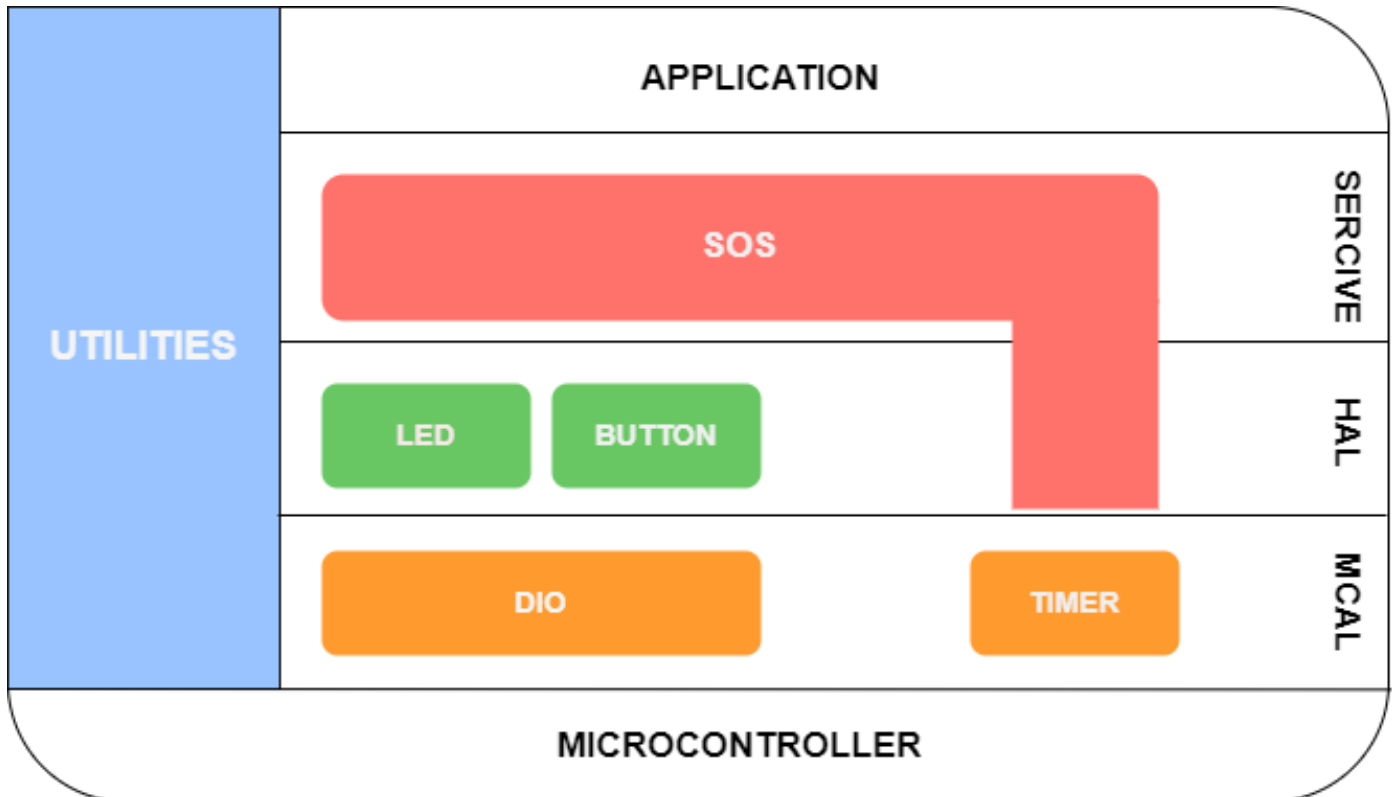
CLASS DIGRAM

SOS

- gl_start_stop_flag :uint8_t

- gl_task_time_flag :uint8_t

- str_tasks_database[number_of_tasks] : str_ tasks_data_t

+ sos_init (void) : enu_system_t

+ sos_denit (void) : enu_system_t

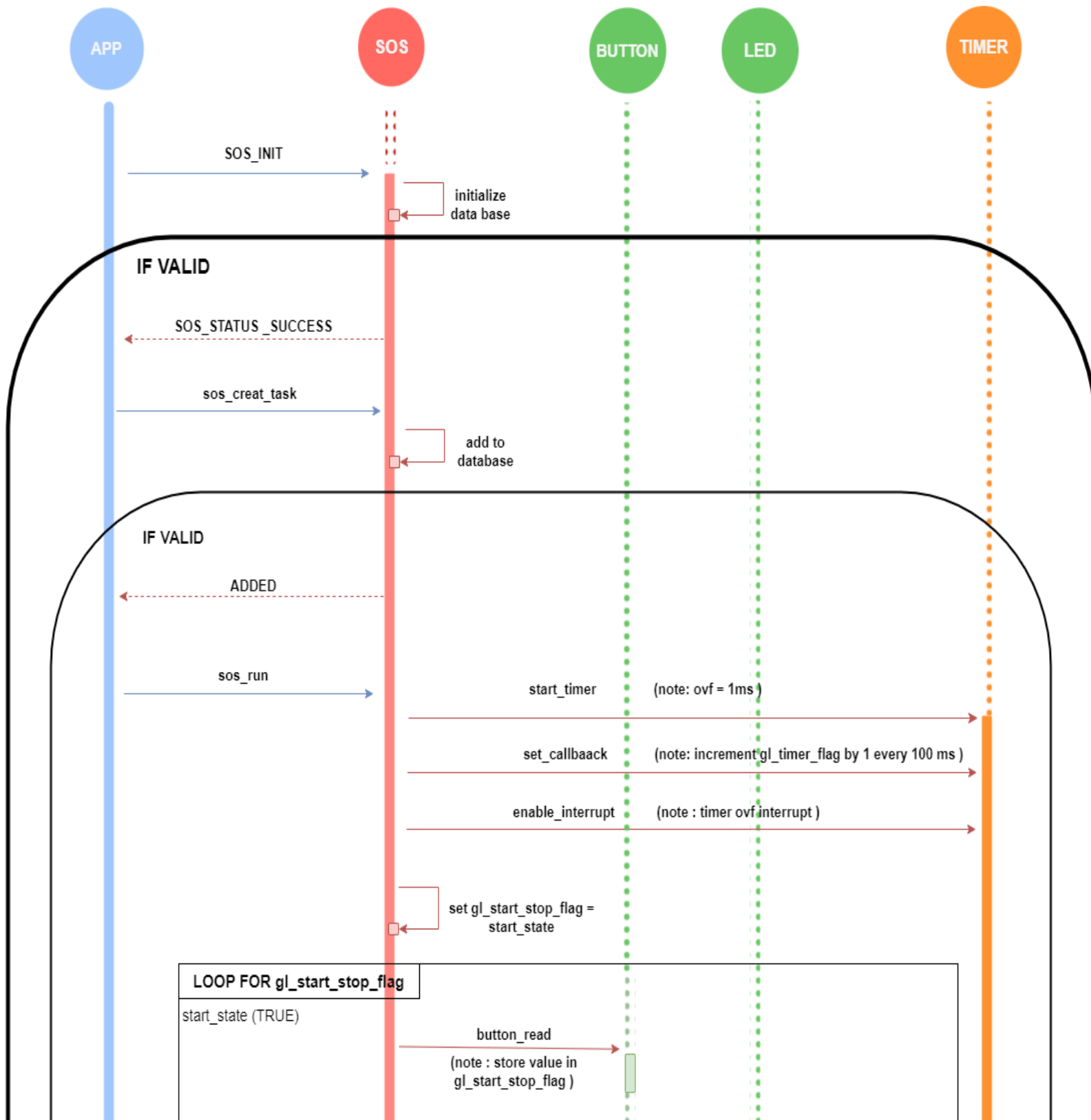+ sos_create_task (str_ tasks_data_t * str_task) : enu_system_t

+ sos_delete_task (uint8_t task_id , str_ tasks_data_t * str_modified_task) : enu_system_t
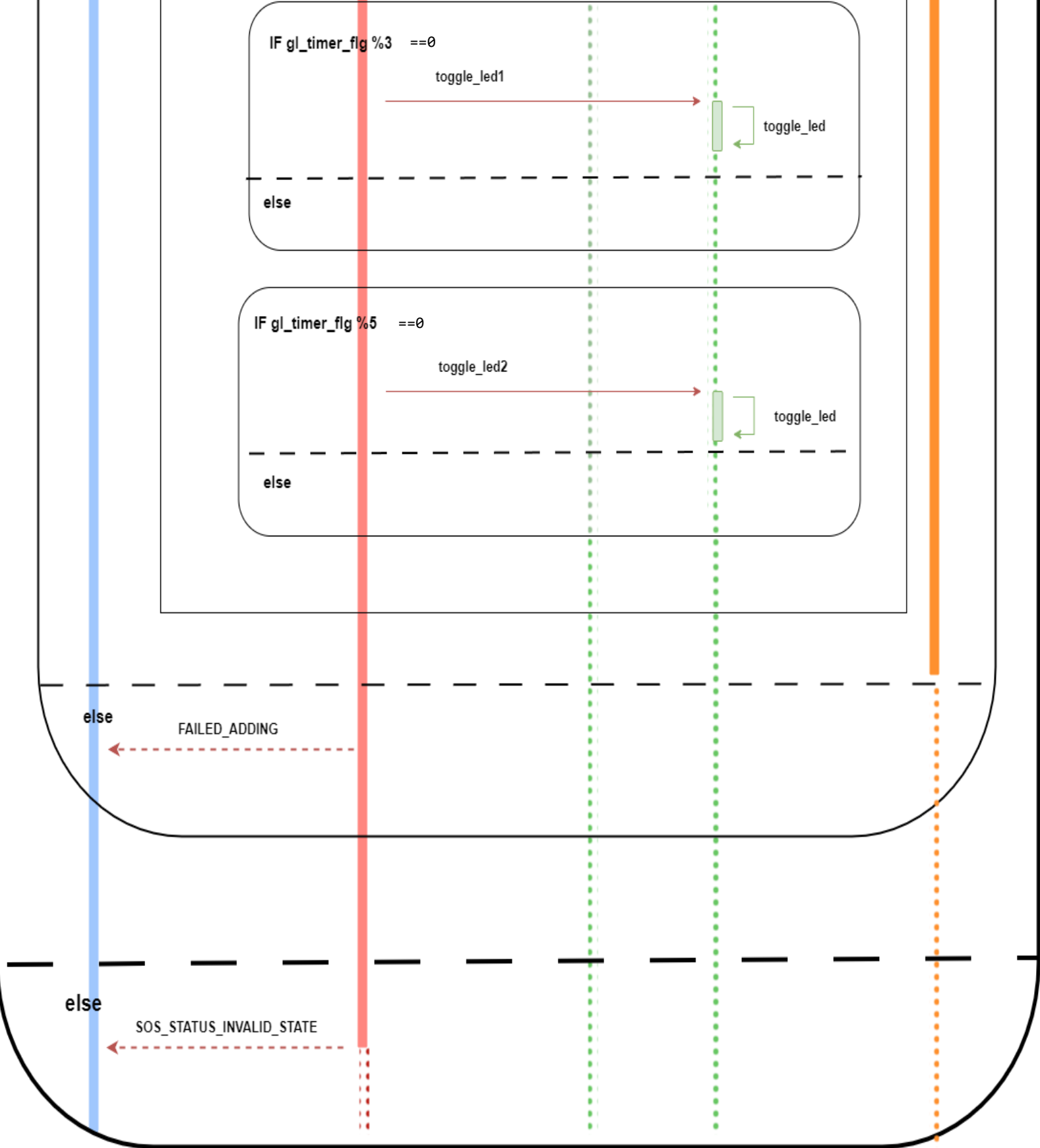
+ sos_modify (uint8_t task_id , str_ tasks_data_t * str_modified_task) : enu_system_t

+ sos_run (void) : enu_system_t

+ sos_disable (void) : enu_system_t

SEQUENCE DIGRAM

APP	SOS	BUTTON	LED	TIMER

SOS_INIT →

initialize
data base

IF VALID

← SOS_STATUS_SUCCESS

sos_creat_task →

add to
database

IF VALID

← ADDED

sos_run →

start_timer   (note: ovf = 1ms)

set_callbaack   (note: increment gl_timer_flag by 1 every 100 ms)

enable_interrupt   (note : timer ovf interrupt)

set gl_start_stop_flag =
start_state

LOOP FOR gl_start_stop_flag

start_state (TRUE)

button_read →

(note : store value in
gl_start_stop_flag)

IF gl_timer_flg %3   ==0

toggle_led1

toggle_led

else

IF gl_timer_flg %5   ==0

toggle_led2

toggle_led

else

else

FAILED_ADDING

else

SOS_STATUS_INVALID_STATE

STATE MACHINE