# Moving Car System Design

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Sprint

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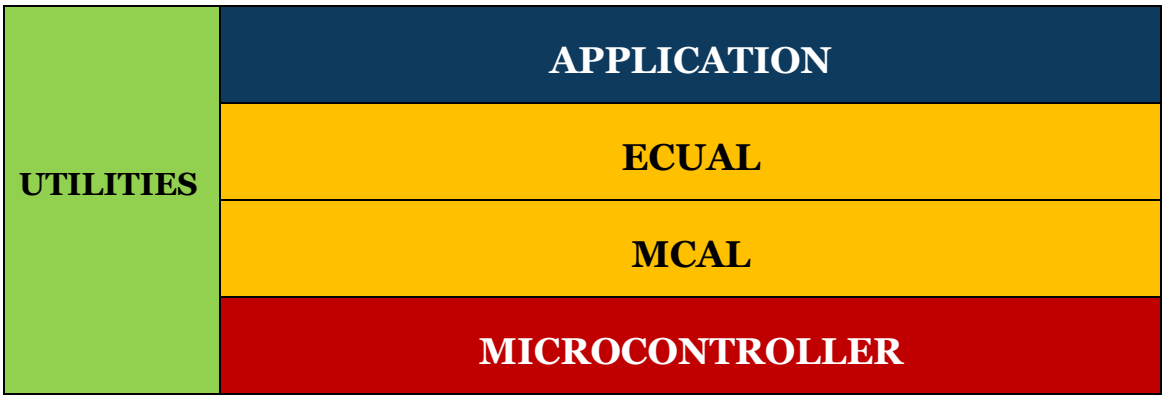
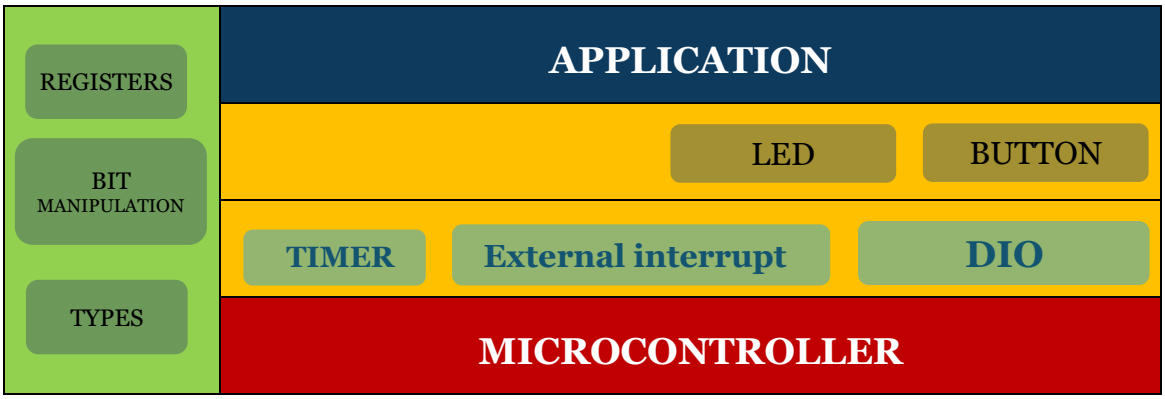
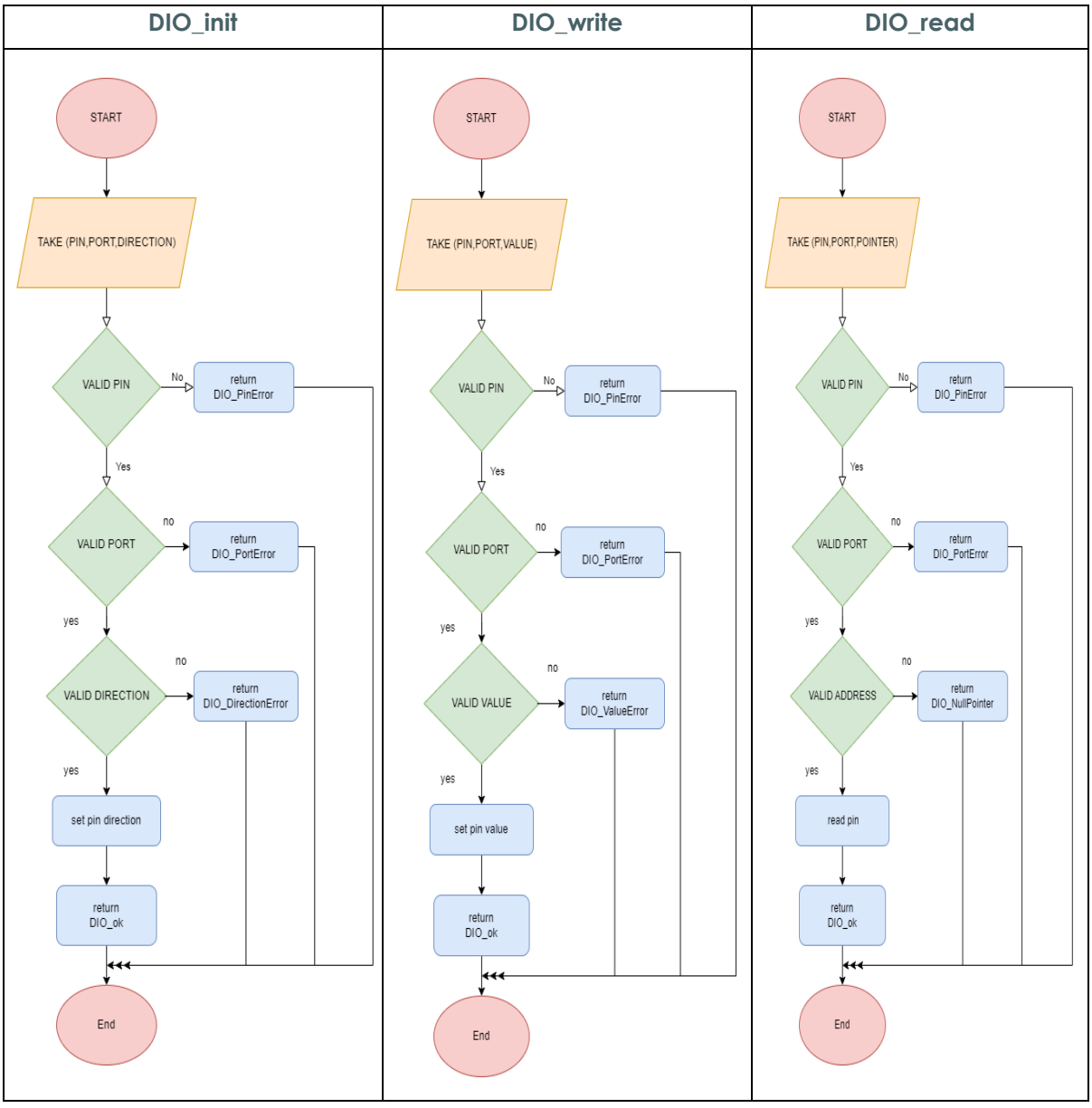
# LAYERD ARCHTICTURE



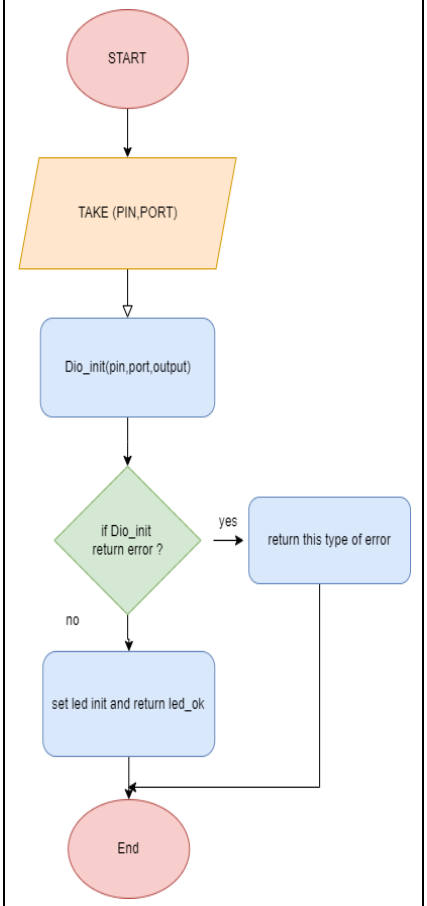
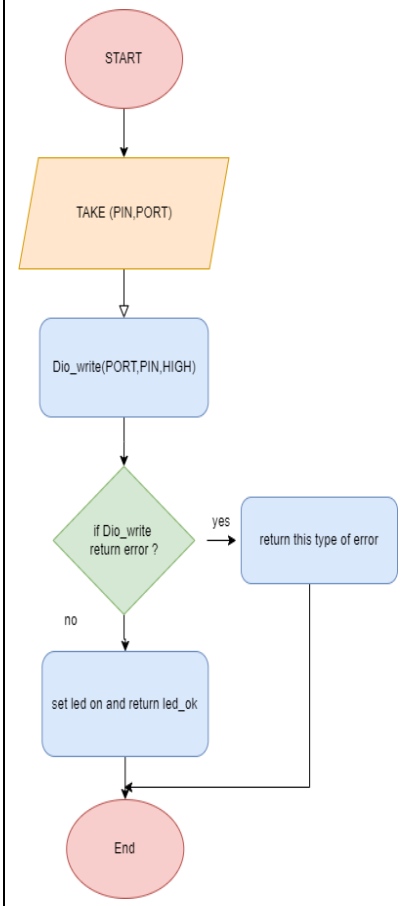
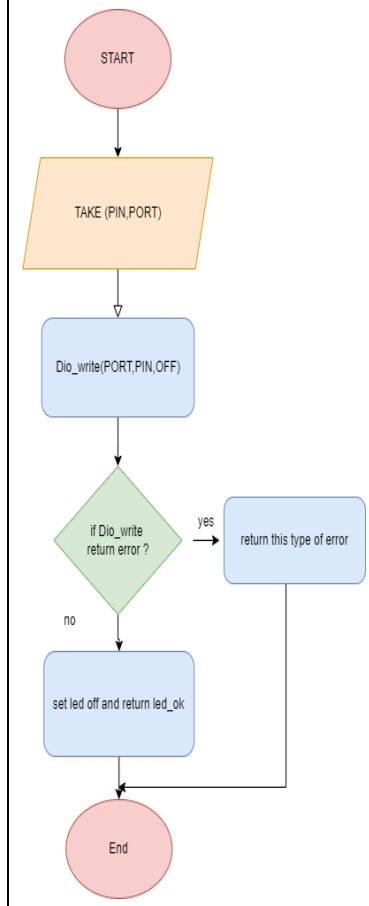
## DIO DRIVER

```
Dio_ErrorStatus DIO_init(PORT_NUM PortNum, PIN_NUM PinNum , PIN_DIR direction);
Dio_ErrorStatus DIO_write(PORT_NUM PortNum, PIN_NUM PinNum , uint8_t value);
Dio_ErrorStatus DIO_read(PORT_NUM PortNum, PIN_NUM PinNum , uint8_t* value);
```



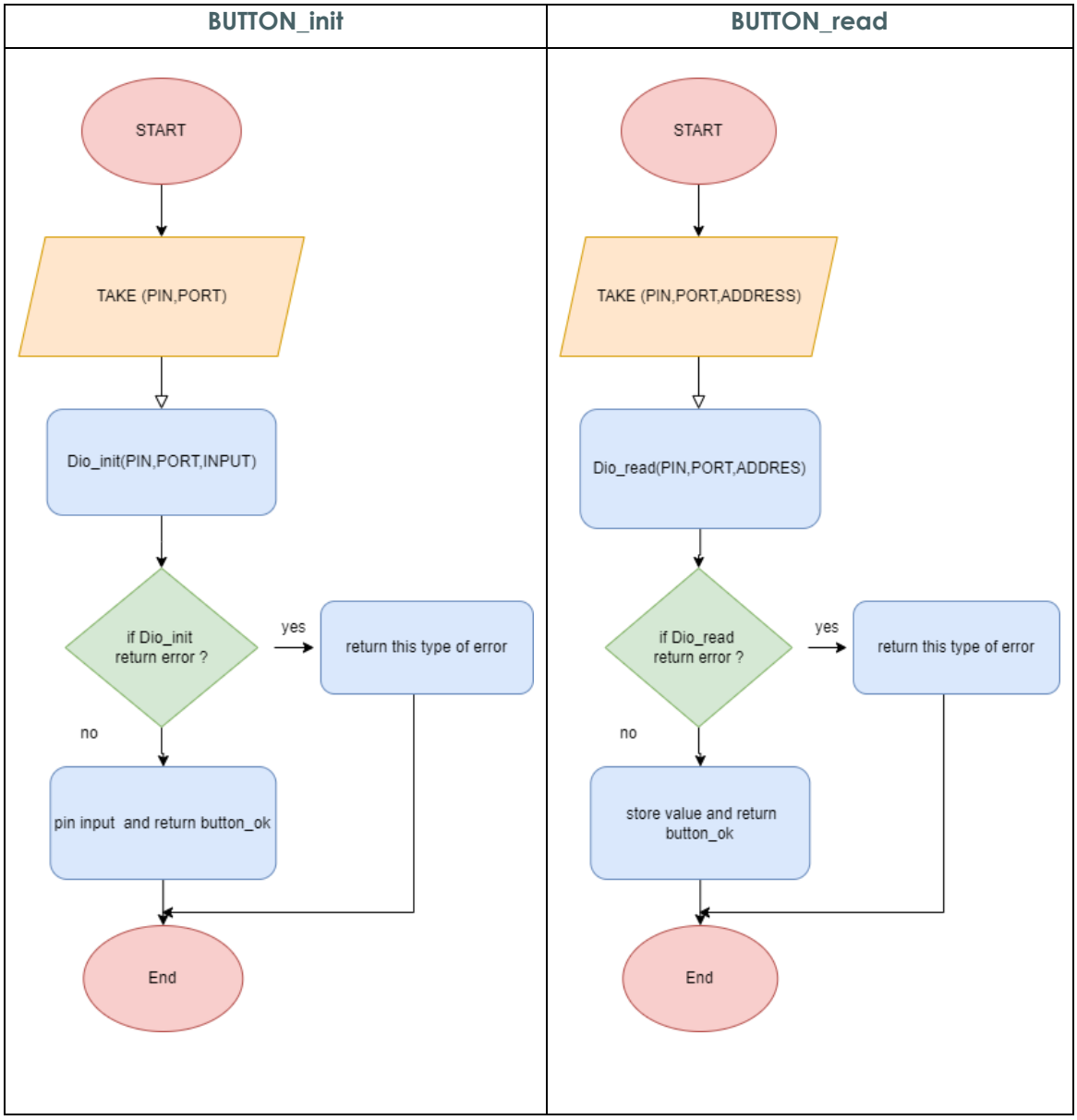
## LED DRIVER

```
Dio_ErrorStatus LED_init(PORT_NUM portNum , PIN_NUM pinNum);
Dio_ErrorStatus LED_on (PORT_NUM portNum , PIN_NUM pinNum);
Dio_ErrorStatus LED_off(PORT_NUM portNum , PIN_NUM pinNum);
```

| LED_init | LED_on | LED_off |
|---|---|---|
|  |  |  |

## BUTTON DRIVER

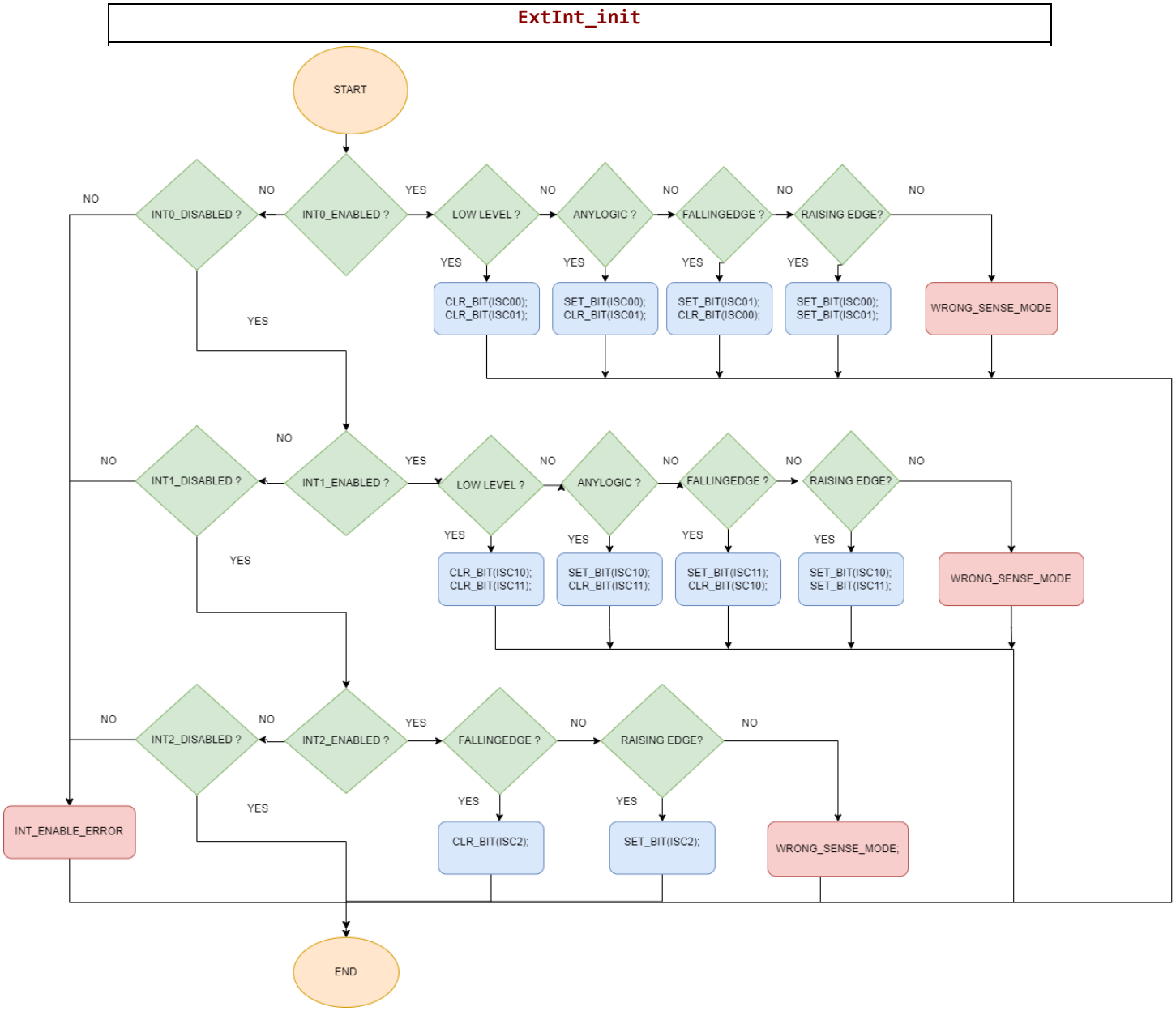
```
Dio_ErrorStatus BUTTON_init(PORT_NUM portnum ,PIN_NUM pinnum);
Dio_ErrorStatus BUTTON_read(PORT_NUM portnum ,PIN_NUM pinnum, uint8_t *value);
```



## EXTERNAL INTERRUPT DRIVER

```
Ext_intErrorStatus ExtInt_init();
```

NOTE: ALL INTERRUPT CONFIGURATIONS ARE IN `Ext_IntCnfg.h`



## TIMER DRIVER

```
Timer_ErrorStatus TIMER_init(Timer_Mode mode);
Timer_ErrorStatus TIMER_start(Timer_Prescaler prescaler);
void TIMER_stop(void);
Timer_ErrorStatus TIMER_setIntialValue(uint8_t value);
Timer_ErrorStatus TIMER_OvfNum(uint32 overflow);
\
```

| TIMER_0_init | TIMER_0_start | TIMER_OvfNum |
|---|---|---|