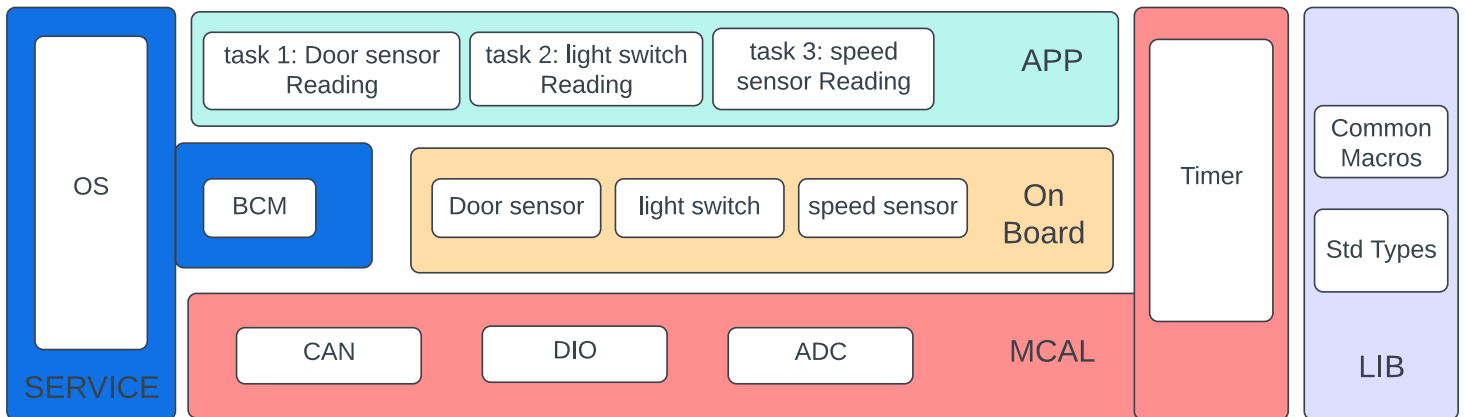


Static Design

ECU 1



Full Detailed APIs:

Name	DIO Pin Init
Description	Pin initialization
Syntax	void DIO_pin_init(DIOPort_t Port, DIOPin_t Pin , DIODIR_t dir)
Parameters (in)	Port, Pin, direction
Parameters (out)	None
Return Value	void

Name	DIO Pin read
Description	Read pin value
Syntax	Uint8 DIO_pin_init(DIOPort_t Port, DIOPin_t Pin)
Parameters (in)	Port, Pin
Parameters (out)	None
Return Value	uint8

Name	DIO Pin write
Description	write pin value
Syntax	void DIO_pin_init(DIOPort_t Port, DIOPin_t Pin , uint8 val)
Parameters (in)	Port, pin, val
Parameters (out)	None
Return Value	void

Name	Timer Init
Description	Initializing timer
Syntax	Void Timer_Init(Timer_Config* config)
Parameters (in)	config
Parameters (out)	None
Return Value	void

Name	Timer delay
Description	Timer delay in ms
Syntax	Void Timer_delay_m (uint32 delayValue)
Parameters (in)	delayValue
Parameters (out)	None
Return Value	void

Name	Timer delay callback
Description	Timer delay in ms with callback
Syntax	Void Timer_delay_m_call (uint32 delayValue , callbackPtr* callbackFunc)
Parameters (in)	delayValue, callbackFunc
Parameters (out)	None
Return Value	void

Name	ADC Init
Description	ADC initialization
Syntax	Void ADC_Init(uint8 ADC_Channel, ADC_Config* config)
Parameters (in)	ADC_Channel, config
Parameters (out)	None
Return Value	void

Name	ADC Get Value
Description	Getting the ADC value
Syntax	Uint8 ADC_Read(uint8 ADC_Channel)
Parameters (in)	ADC_Channel
Parameters (out)	None
Return Value	Uint8

Name	CAN Init
Description	CAN initialization
Syntax	Void CAN_Init(CAN_Config_t* Config)
Parameters (in)	Config
Parameters (out)	None
Return Value	void

Name	CAN Send
Description	Sending 1 byte of data
Syntax	Void CAN_Send(uint8 data)
Parameters (in)	Data
Parameters (out)	None
Return Value	void

Name	CAN recieve
Description	Receiving 1 byte of data
Syntax	Uint8 CAN_Recieve(void)
Parameters (in)	void
Parameters (out)	None
Return Value	Uint8

Name	Door sensor init
Description	Initializing the door sensor
Syntax	Void doorSen_init(void)
Parameters (in)	void
Parameters (out)	None
Return Value	void

Name	Door sensor read
Description	Reading the door sensor value
Syntax	Uint8 doorSen_read(void)
Parameters (in)	void
Parameters (out)	None
Return Value	Uint8

Name	Speed sensor init
Description	Initializing the speed sensor
Syntax	Void speedSen_init(void)
Parameters (in)	void
Parameters (out)	None
Return Value	Void

Name	speed sensor read
Description	Reading the speed sensor value
Syntax	Uint16 doorSen_read(void)
Parameters (in)	void
Parameters (out)	None

Return Value	Uint16
---------------------	--------

Name	Light switch init
Description	Initializing the light switch
Syntax	Void lightSwitch_init(void)
Parameters (in)	void
Parameters (out)	None
Return Value	Void

Name	Light switch read
Description	Reading the light switch value
Syntax	Uint8 lightSwitch_read(void)
Parameters (in)	void
Parameters (out)	None
Return Value	Uint8

Name	Send data
Description	Sending 1 byte of data and choosing the protocol
Syntax	Void sendData(uint8 data , BCM_protocol_t protocol)
Parameters (in)	Data , protocol
Parameters (out)	None
Return Value	void

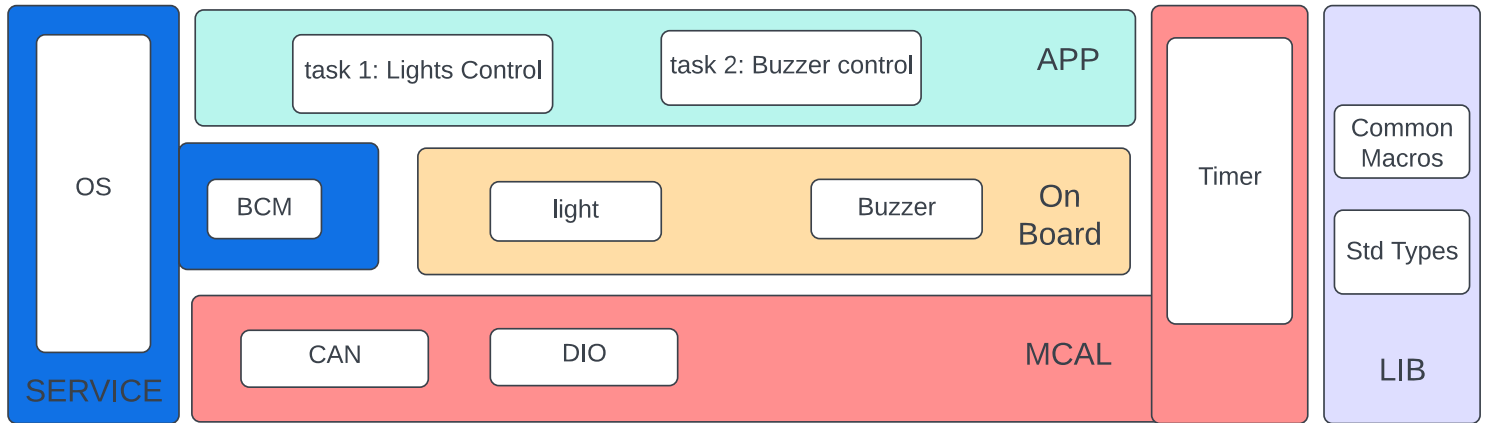
Name	Receive data
Description	receiving 1 byte of data and choosing the protocol
Syntax	Uint8 receiveData(BCM_protocol_t protocol)
Parameters (in)	protocol
Parameters (out)	None
Return Value	Uint8

Name	Door sensor task
Description	Reading and sending the door sensor value
Syntax	void doorSen_task(void)
Parameters (in)	void
Parameters (out)	None
Return Value	void

Name	speed sensor task
Description	Reading and sending the speed sensor value
Syntax	void speedSen_task(void)
Parameters (in)	void
Parameters (out)	None
Return Value	void

Name	Light switch task
Description	Reading and sending the Light switch state
Syntax	void LightSwitch_task(void)
Parameters (in)	void
Parameters (out)	None
Return Value	void

ECU 2



MCAL and SERVICE drivers are common with ECU 1.

Name	Lights init
Description	Initializing the lights
Syntax	Void lights_init(void)
Parameters (in)	void
Parameters (out)	None
Return Value	Void

Name	Lights state
Description	Reading the light's state
Syntax	Uint8 static volatile lights_state;
Parameters (in)	None
Parameters (out)	None
Return Value	None

Name	Lights write
Description	Changing the lights state
Syntax	Void lights_write (uint8 state)
Parameters (in)	State
Parameters (out)	None
Return Value	Void

Name	buzzer init
Description	Initializing the buzzer
Syntax	Void buzzer_init(void)
Parameters (in)	void
Parameters (out)	None
Return Value	Void

Name	Buzzer state
Description	Reading the buzzer's state
Syntax	Uint8 static volatile buzzer_state;
Parameters (in)	None
Parameters (out)	None
Return Value	None

Name	buzzer write
Description	Changing the buzzer state
Syntax	Void buzzer_write (uint8 state)
Parameters (in)	State
Parameters (out)	None
Return Value	Void

Name	Lights task
Description	Controlling the lights state
Syntax	void lights_task(void)
Parameters (in)	void
Parameters (out)	None
Return Value	void

Name	Buzzer task
Description	Controlling the buzzer state
Syntax	void buzzer _task(void)
Parameters (in)	void
Parameters (out)	None
Return Value	void