

OS
service

APP Layer

Sensor Manager

Comm Manager (BCM)

Switch driver

Speed sensor
driver

Door Sensor
driver

Comm Handler

CAN controller
driver

MCAL

Modules :

- Sensor Manager
- Comm Manager (BCM)
- Switch driver
- Speed sensor driver
- Door Sensor driver
- Comm Handler
- CAN controller driver
- DIO
- OS service

Sensor Manager

Name	Arguments	Return	Type	Re-enterrunt	Asynchnous
InitSensor ()	Sensor_type sensor	Status_type(OK or Er)	Init	Y	N
Get_digitalSensor_st()	Sensor_type sensor	DigitalStatus_type (On/Off)	Getter	Y	N
Get_AnlgSensor_st ()	Sensor_type sensor	AngStatus_type (uint16)	Getter	Y	N

Comm Manager

Name	Arguments	Return	Type	Re-enterrun t	Asynchnous
InitComm ()	commProtocol_type type (enum)	Status_type	Init	Y	N
Tx_msg()	commProtocol_type type, char* TxBuffer	Status_type	Setter	Y	Y
Rx_msg()	commProtocol_typetype , char * RxBuffer	Status_type	Getter	Y	Y

Door Sensor

Name	Arguments	Return	Type	Re-enterrunt	Asynchronous
Get_Door_st()	void	DigitalStatus_type (On/Off)	Getter	Y	N

Speed Sensor

Name	Arguments	Return	Type	Re-enterrunt	Asynchronous
Get_Speed ()	void	AngStatus_type (uint16)	Getter	Y	N

Comm Handler

Name	Arguments	Return	Type	Re-enterrunt	Asynchronous
InitComm ()	commProtocol_type type(enum), CommType ext_intr (enum)	Status_type	Init	Y	N
Tx_msg()	commProtocol_type type(enum), CommType ext_intr, char* TxBuffer	Status_type	Setter	Y	Y
Rx_msg()	commProtocol_typetype (enum), CommType ext_intr, char * RxBuffer	Status_type	Getter	Y	Y

DIO

Name	Arguments	Return	Type	Re-enterrunt	Asynchronous
InitModule ()	void	Status_type	Init	Y	N
Set_Pin ()	Port_type port (enum), Pin_type pin(enum)	Status_type	Setter	Y	N
Clr_Pin ()	Port_type port (enum), Pin_type pin(enum)	Status_type	Setter	Y	N
MaskPort ()	Port_type port(enum) , uint8 mask	Status_type	Setter	Y	N
GetPin ()	Port_type port(enum) , Pin_type pin(enum)	PinStatus	Getter	Y	N
GetPort ()	Port_type port(enum)	PortStatus	Getter	Y	N

Folder structure

