

1. ECU1

1. Function as a whole

SWC: Read sensors

SWC: send sensor readings via CAN.

OS					
OS	SWC Send Status Msg (uses CAN) <shared_data>	SWC Read sensor data <shared_data>			App
OS	Comm. Manager				Service
OS	Comm. Handler				HAL
OS		Timer	CAN	DIO	MCAL

2. ECU2

1. How do I handle data reception from CAN?

Shared buffer? Wait on shared buffer? Single bytes (only 3 bits are required).

No need for a buffer?

Data size is small and is sent periodically. It is ok if the data from a CAN msg is dropped.

2. How to handle CAN message reception?

ISR / Callback? Probably. Overwrite the same variable.

3. Function as a whole

CAN ISR → calls callback function → stores data in shared variable.

SWC: read shared variable (state combinations) and turn lights and buzzer on/off according to state machine.

OS					
OS	SWC				App
OS	Comm. Manager				Service
OS	Comm. Handler				HAL
OS		Timer	CAN	DIO	MCAL

3. c

4. c