Car Control Application

ECUAL
- Button
- Motor

MCAL
- SW-PWM
- DIO
- TIMER

Hardware (Microcontroller)

CarApp

Car_Status_t **Car_init**(void);

Car_Status_t **Car_update**(void);

Motor

Mtr_Status_t **Mtr_init**(void);

Mtr_Status_t **Mtr_Run**(u8Mtr_channel **u8_MtrNum**,
    u8Mtr_direction_t **u8_direction,** u8Mtr_Spd_t **u8_speed);**

Button

Bttn_Status_t **Bttn_init**(void);

Bttn_Status_t **Bttn_getState**(u8Bttn_channel_t **u8_BttnNum**,
    u8Bttn_State_t ***pu8_state);**

Bttn_Status_t **Bttn_update**(u8Bttn_channel_t **u8_BttnNum**,
    u8Bttn_State_t ***pu8_state**

DIO

Dio_Status_t **Dio_init**(strDio_channelConfig_t ***strDio_channels**);

Dio_Status_t **Dio_setPin**(u8Dio_pinNum_t **u8_pinNum**);

Dio_Status_t **Dio_clearPin**(u8Dio_pinNum_t **u8_pinNum**);

Dio_Status_t **Dio_togglePin**(u8Dio_pinNum_t **u8_pinNum**);

Dio_Status_t **Dio_readPin**(u8Dio_pinNum_t **u8_pinNum**,
    u8Dio_pinState_t ***pu8_pinState);**

Timers

Gpt_Status_t **Gpt_init**(strGpt_channelConfig_t ***strGpt_channels**);

Gpt_Status_t **Gpt_Start**(u8Gpt_channel_t **u8_channelNum**,
    u32Gpt_value_t **u32_value);**

Gpt_Status_t **Gpt_Stop**(u8Gpt_channel_t **u8_channelNum**);

Gpt_Status_t **Gpt_getValue**(u8Gpt_channel_t **u8_channelNum**,
    u32Gpt_value_t ***pu32_value);**

Pwm

Pwm_Status_t **Pwm_init**(strPwm_channelConfig_t ***strPwm_channels**);

Pwm_Status_t **Pwm_Start**(u8Pwm_channel_t **u8_channelNum**,
    u32Pwm_freq_t **u32_freq,** u8Pwm_DC_t **u8_DC);**

Pwm_Status_t **Pwm_Stop**(u8Pwm_channel_t **u8_channelNum**);