**Application**

**ECUAL**

**BUTTONS**

**MOTOR**

**MCAL**

**DIO**

**PWM**

**TIMER**

**Microcontroller**

**APPLICATION**

**APP APIs**

* **E\_status CAR\_init(void);**

**ECUAL APIs**

**BUTTON**

* **E\_status Button\_Init(ST\_ButtonConfig\_t \* config);**
* **E\_status Button\_getState(uint8\_t\* u8\_state);**
* **E\_status Button\_Update(void);**

**MOTOR**

* **E\_status MOTOR\_init(void);**
* **E\_status MOTOR\_setDirection(EN\_Direction\_t dir);**
* **E\_status MOTOR\_setSpeed(EN\_Speed\_t duty);**
* **E\_status MOTOR\_Stop(void);**

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**DIO**

* **E\_status DIO\_init(ST\_DIO\_config\_t\* config);**
* **E\_status DIO\_write(uint8\_t port, EN\_pins pin, uint8\_t data);**
* **E\_status DIO\_read(uint8\_t port, EN\_pins pin, uint8\_t \*data);**
* **E\_status DIO\_toggle(uint8\_t port, EN\_pins pin);**

**TIMER**

* **E\_status TIMER\_init(ST\_TIMER\_config\_t\* config);**
* **E\_status TIMER\_read(EN\_Timer\_t timer, uint16\_t \*value);**
* **E\_status TIMER\_set(uint8\_t value);**
* **E\_status TIMER\_checkState(EN\_Timer\_t timer, uint8\_t \*state);**

**PWM**

* **E\_status PWM\_init(ST\_PWM\_config\_t\* config);**
* **E\_status PWM\_start(EN\_frequency\_t freq, EN\_duty\_t duty)**
* **E\_status PWM\_stop(void);**

**MCAL APIs**