MOTOR

BUTTONS

PWM

TIMER

DIO

ECUCAL

MCAL

Microcontroller

Application

MCAL APIs

* DIO

E\_status DIO\_init(ST\_DIO\_config\_t\* configurations);

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\* configurations); E\_status TIMER\_start(uint64\_t ticks);

E\_status TIMER\_read(uint8\_t \*value);

E\_status TIMER\_set(uint8\_t value);

E\_status TIMER\_checkStatus(uint8\_t \*status);

* PWM

E\_status PWM\_init(ST\_PWM\_config\_t\* configurations); E\_status PWM\_start(EN\_frequency\_t frequency, EN\_duty\_t E\_status dutyCycle); PWM\_stop(void);

ECUAL APIs

* BUTTON

E\_status Button\_init(EN\_BTN\_config\_t configurations);

E\_status Button\_GetState(uint8\_t\* status);

E\_status Button\_Update(void);

* MOTOR

E\_status MOTOR\_init(void);

E\_status MOTOR\_SetDirection(EN\_DIR\_t Direction);

E\_status MOTOR\_SetSpeed(EN\_Speed\_t DutyCycle);

E\_status MOTOR\_Stop(void);

* APP

E\_status CAR\_init(void);

E\_status CAR\_update(void);