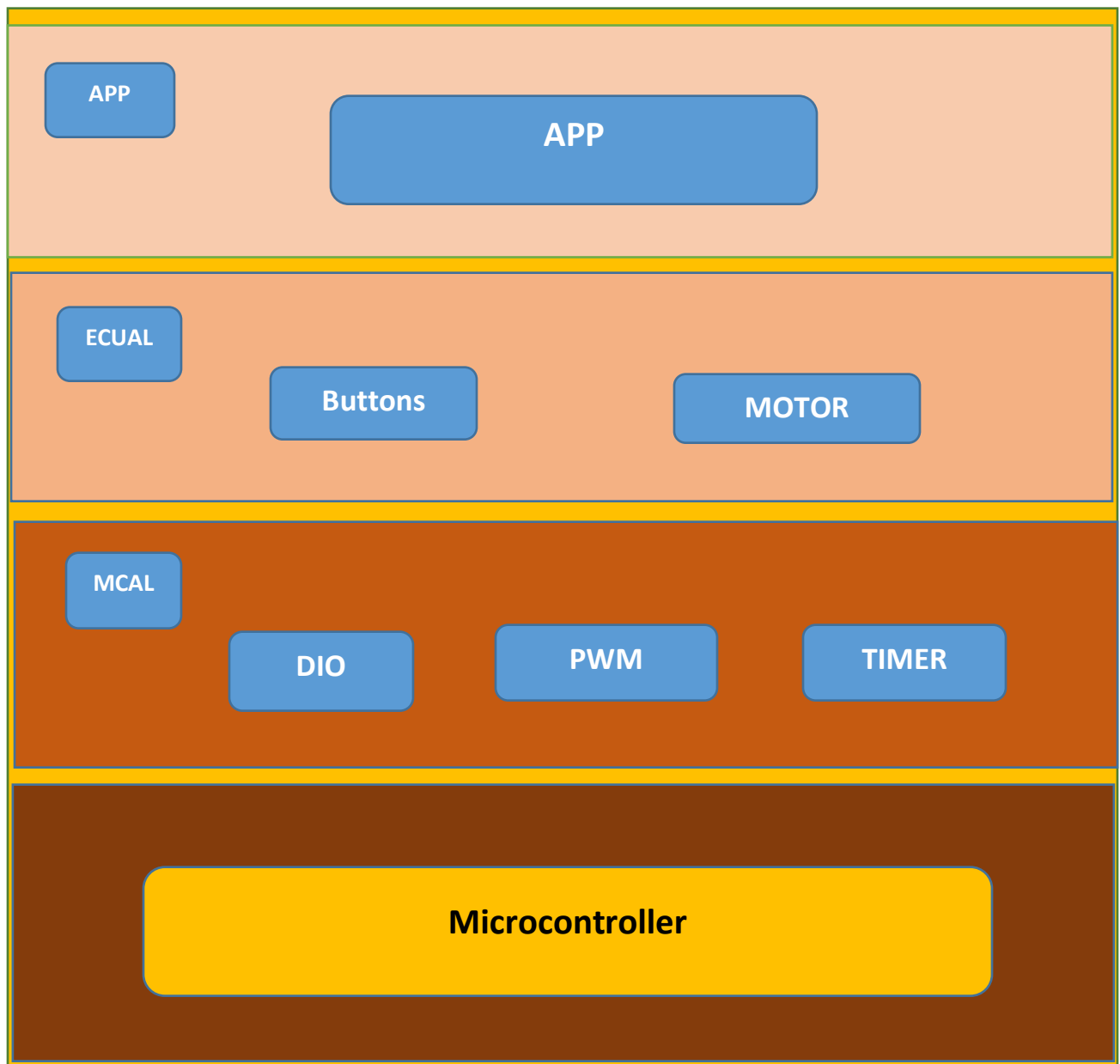


Static Design for Car Control System



MCAL APIs

- DIO APIs

```
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 APIs

```
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 APIs

```
E_status PWM_init(ST_PWM_config_t* configurations);  
E_status TIMER_Start(EN_frequency_t frequency, EN_duty_t dutycycle);  
E_status TIMER_Steering(EN_sterring_t steering);  
E_status TIMER_Stop(void);
```

ECUAL APIs

- Buttons APIs

```
E_status Button_init(EN_BTN_config_t configurations);  
E_status Button_GetState(uint8_t* status);
```

- MOTOR APIs

```
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 APIs

```
E_status CAR_init(void);  
E_status CAR_update(void);
```