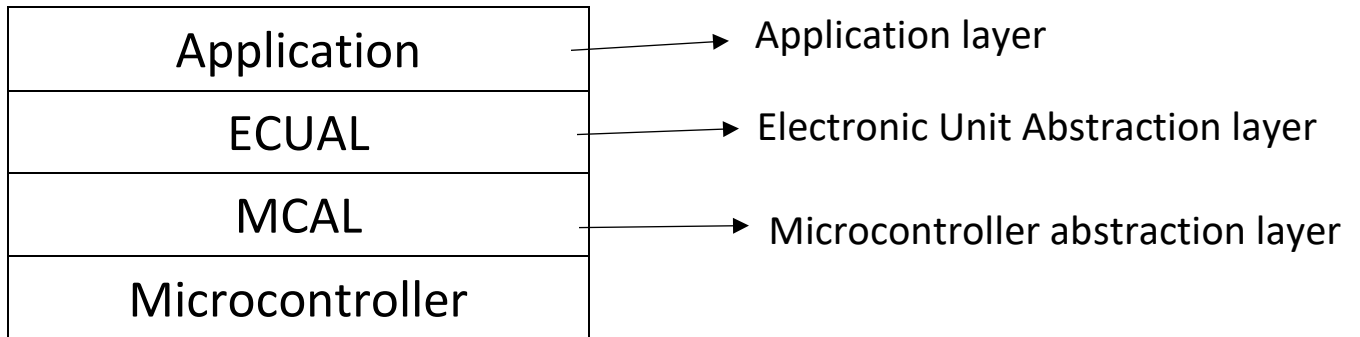
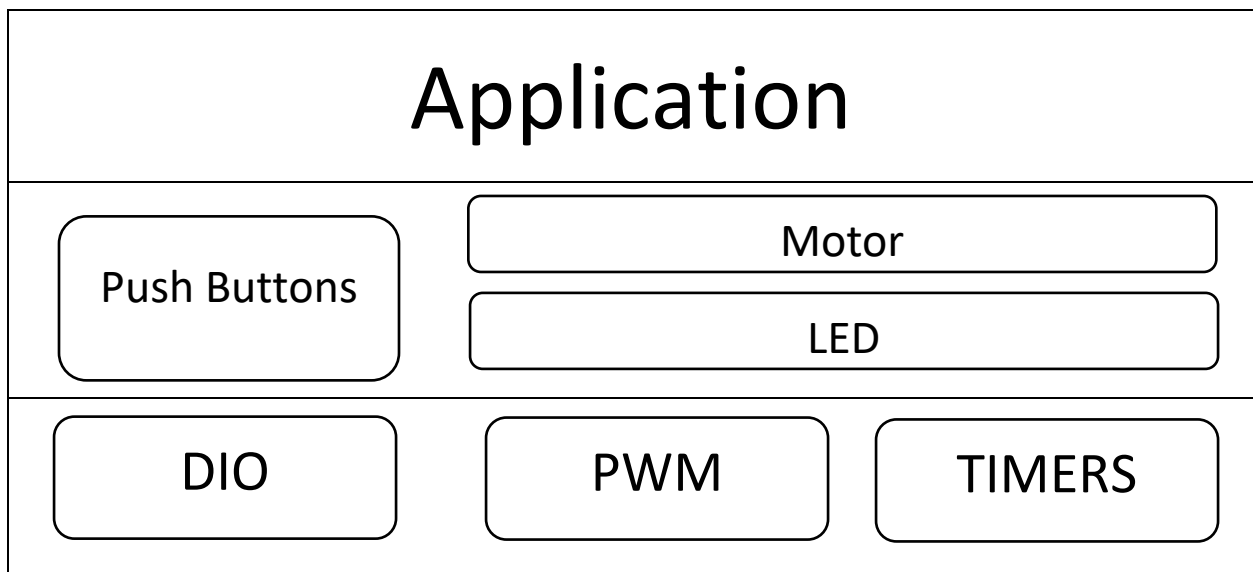


Layered architecture



System Modules



Module Name APIs

DIO

APIs

```
void DIO_init(ST_DIO_config_t* configurations);  
void DIO_write(uint8_t port, EN_pins pin, uint8_t data);  
void DIO_read(uint8_t port, EN_pins pin, uint8_t data);  
void DIO_toggle(uint8_t port, EN_pins pin);
```

PWM

APIs

```
void PWM_init(ST_PWM_config_t* configurations);  
void PWM_start(En_frequency_t frequency, EN_duty_t dutyCycle);  
void PWM_stop(void);
```

TIMER

APIs

```
void TIMER_init(ST_TIMER_config_t* configurations);  
void TIMER_start(uint64_t ticks);  
void TIMER_read(uint8_t *value);  
void TIMER_set(uint8_t value);  
void TIMER_checkStatus(uint8_t *status);
```

Motor APIs

```
void move_fwd(void);  
void move_bwd(void);  
void stop(void);  
void right(void);  
void left(void);
```

LED APIs

```
void LED_on(EN_LEDs LED);  
void LED_off(EN_LEDs LED);
```