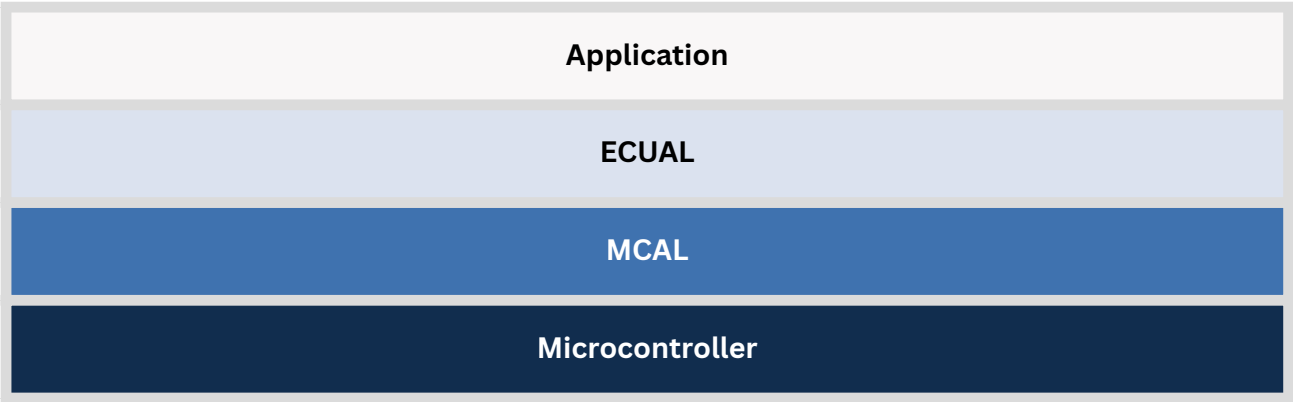


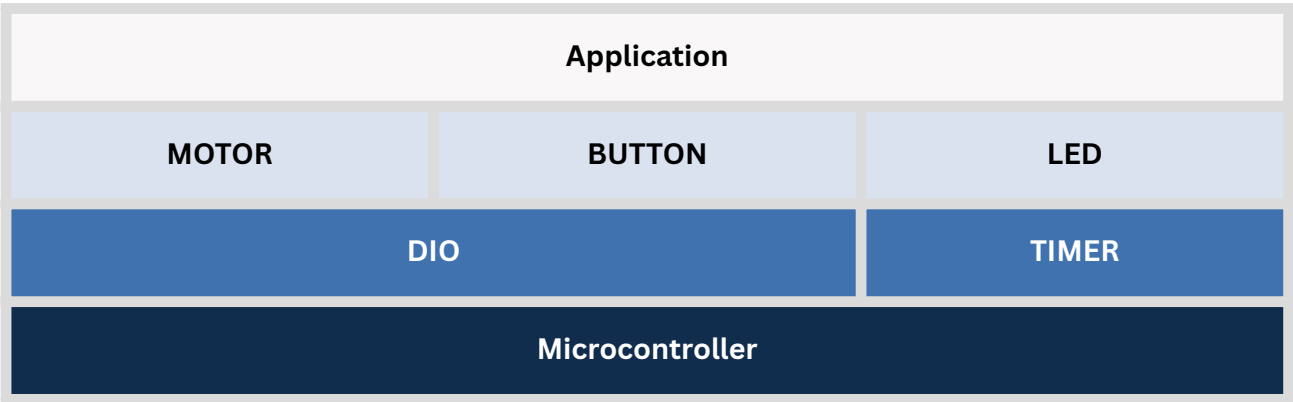
Moving Car System Design

Tarek Gohry

Layered Architecture



Modules/Drivers



APIs

Motor Driver Module APIs:

- void init_motor(int motor_id);
- void set_motor_speed(int motor_id, int speed);
- void set_motor_direction(int motor_id, int direction);

LED Driver Module APIs:

- void init_led(int led_id);
- void turn_on_led(int led_id);
- void turn_off_led(int led_id);
- uint8_t led_GetState(uint8_t buttonId);

Button Driver Module APIs:

- void init_button(int button_id);

- void button_start_pressed(void);
- void button_stop_pressed(void)
- uint8_t button_GetState(uint8_t buttonId);

Timer Driver APIs:

- void timer_init(void);
- void timer_start(uint16_t interval_ms);
- void timer_stop(void);
- uint8_t timer_GetState(uint8_t buttonId);

DIO APIs:

- void DIO_Init(void);
- void DIO_SetDirection(uint8_t pin, uint8_t direction);
- void DIO_SetState(uint8_t pin, uint8_t state);
- uint8_t DIO_GetState(uint8_t pin);