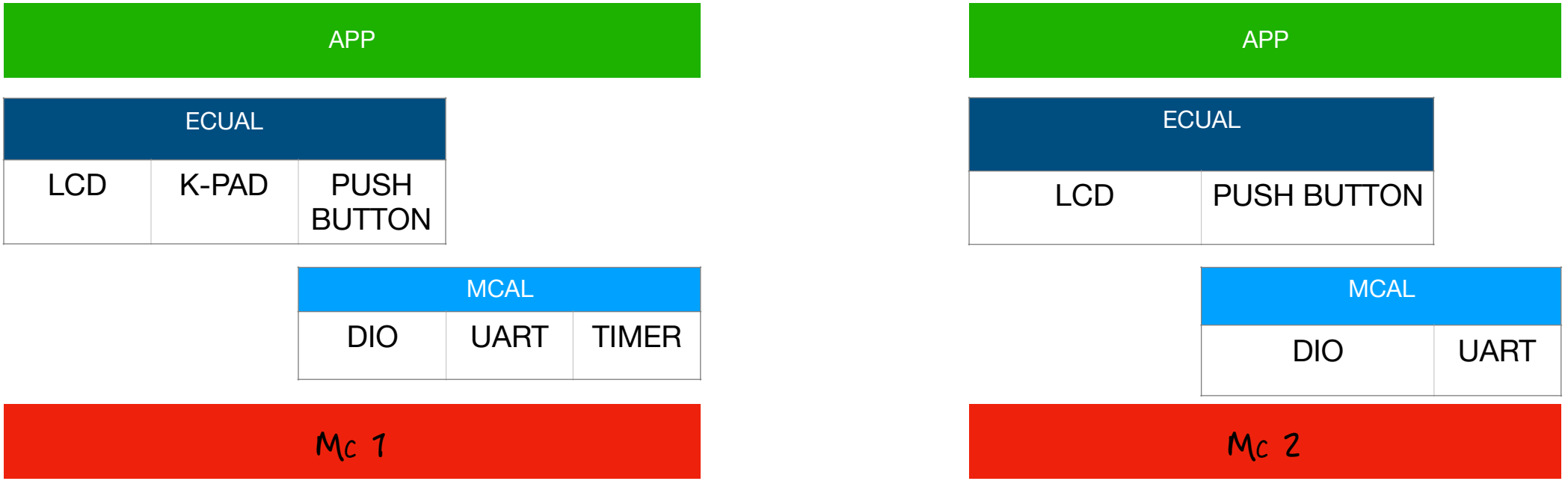
Vehicle State Estimator

Static Architecture:



DIO_init(void);

Description	Function to initialize the DIO driver.
I/P	—
O/P	—
I/O	—
Return	enum

TIMER_init(void);

Description	Function to initialize the TIMER driver.
I/P	—
O/P	—
I/O	—
Return	enum

LCD_init(void);

Description	Function to initialize the LCD driver.
I/P	—
O/P	—
I/O	—
Return	enum

DIO_write(enum,uint8);

Description	Function to set or clear a certain bit in any register.
I/P	enum and Unsigned character
O/P	—
I/O	—
Return	enum

TIMER_delay(uint8, double);

Description	Function to configure timer control registers.
I/P	Unsigned character and double
O/P	—
I/O	—
Return	enum

LCD_sendCommand(uint8);

Description	Function to send a command to the LCD.
I/P	Unsigned character
O/P	—
I/O	—
Return	enum

DIO_read(enum,uint8 *);

Description	Function to check if a specific bit is cleared or set in any register and return the value.
I/P	enum
O/P	A pointer to character
I/O	—
Return	enum

KEYPAD_Key(uint8 *);

Description	Function to detect the pressed keypad key.
I/P	—
O/P	A pointer to character
I/O	—
Return	enum

LCD_displayString(const char *);

Description	Function to display a string.
I/P	A pointer to character
O/P	—
I/O	—
Return	enum

UART_init(void);	
Description	Function to initialize the UART driver.
I/P	—
O/P	—
I/O	—
Return	enum

UART_sendByte(const uint8);	
Description	Function to send data by UART.
I/P	Unsigned character
O/P	—
I/O	—
Return	enum

UART_recieveByte(uint8 *);	
Description	Function to receive data from UART.
I/P	—
O/P	A pointer to character
I/O	—
Return	enum

PBUTTON_getStatus(enum,uint8 *);	
Description	Function to check if the SWITCH is pressed or not.
I/P	enum
O/P	A pointer to character
I/O	—
Return	enum