

# KEYPAD\_module

## API DESIGN TABLE

FUNCTION NAME	KEYPAD_init				
ARGUMENTS	INPUT	Name	KEYPAD_config		
		Type	Ptr to KEYPAD_initTypeDef		
		Description	Selects KEYPAD pins, number of rows and number of columns		
	OUTPUT	NONE			
	INPUT/OUTPUT	NONE			
RETURN	E_OK	0			
	E_NOK	1			
DESCRIPTION	<u>Initialize the keypad pins and size</u>				

FUNCTION NAME	KEYPAD_getPressedKey			
ARGUMENTS	INPUT	NONE		
	OUTPUT	Name	KEYPAD_keyNumber	
		Type	U16	
		Description	Returns the pressed key number	
	INPUT/OUTPUT	NONE		
RETURN	E_OK	0		
	E_NOK	1		
DESCRIPTION	This function is called periodically every 30-50 millisecond to check if there is any button pressed in the keypad.			

## Data type table

Name	KEYPAD_initTypeDef		
Type	Structure		
Elements		Name	KEYPAD_rows
		Type	U8
		Description	The number of rows in the keypad
		Name	KEYPAD_cols
		Type	Array of LCD_portPin
		Description	The number of columns in the keypad
		Name	KEYPAD_pins
		Type	Array of KEYPAD_portPin
		Description	Selects the connected pins to KEYPAD. The number of elements is equal to cols * rows
Description	Configuration		

Name	KEYPAD_portPin		
Type	Structure		
Elements		Name	KEYPAD_PIN
		Type	DIO_pinTypeDef
		Description	SPECIFIES THE GPIO PIN TO BE CONFIGURED
		Name	KEYPAD_PORT
		Type	DIO_portTypeDef
		Description	Select if the pin is output or input
Description	Selects a specified pin for the keypad		