National Telecommunication Institute

keypad module

Naruto team

Supervisor:

Ahmed EL kady

Mahmoud Ali

Contents

Introduction

This documentation for keypad module in MCAL layer for atmega32 microcontroller using structural methodology by creating instance of keypad and doing necessary operation on that insatance.

First section for defining new data types to use them in function.

First data types

Name	keypad_t
Variable name	U8 pin_t row[4];
Variable name	pin_t col[4];
Description	New data type for keypad is struct contain 4 pins in array for rows and for pins in array for columns

Functions

Name	ECU_KEYPAD_init
INPUT	keypad_t * keypad
RETURN	ErrorStateType ret
Description	Function to initialize the keypad with its pin's direction and state. take pointer to keypad_t

Name	ECU_KEYPAD_Get_Key
INPUT	keypad_t * keypad
INPUT	u8 * ret_val
RETURN	ErrorStateType ret
Description	Function to read the key pressed from user and return at via pointer to u8