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SOFTWARE DESIGN REPORT

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SPRINTS

INTRODUCTION

This Report Contain Three Tasks

- 1 - Design Lcd Driver Depend On Non-blocking Theory
- 2 - Design Keypad Driver Depend On Non-blocking Theory
- 3- Write Pseudo Code For Lcd & Keypad Drivers

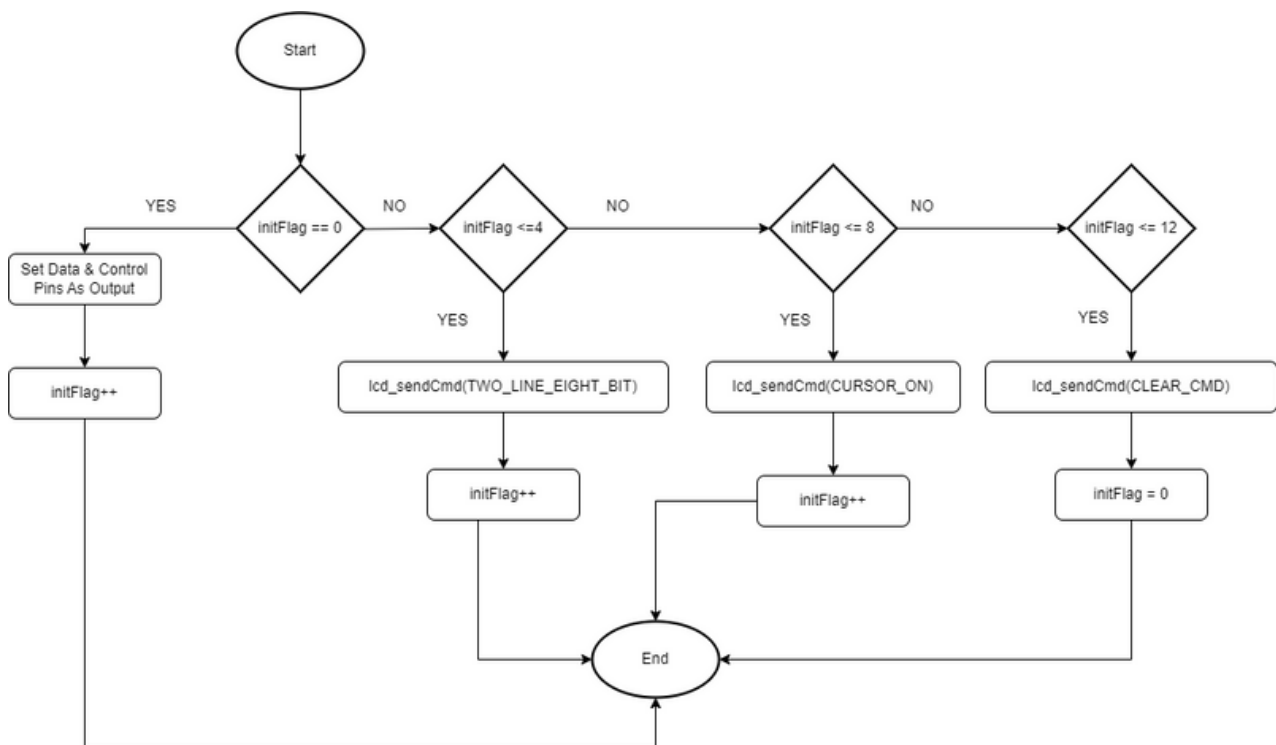
LCD DRIVER APIS

1 - void LCD_vInit(void)

1.1 - Description : This Function Initialize lcd With Its Configuration According To Its Data Sheet To Be Ready For Use

1.2 - Arguments : void

1.3 - Return : void



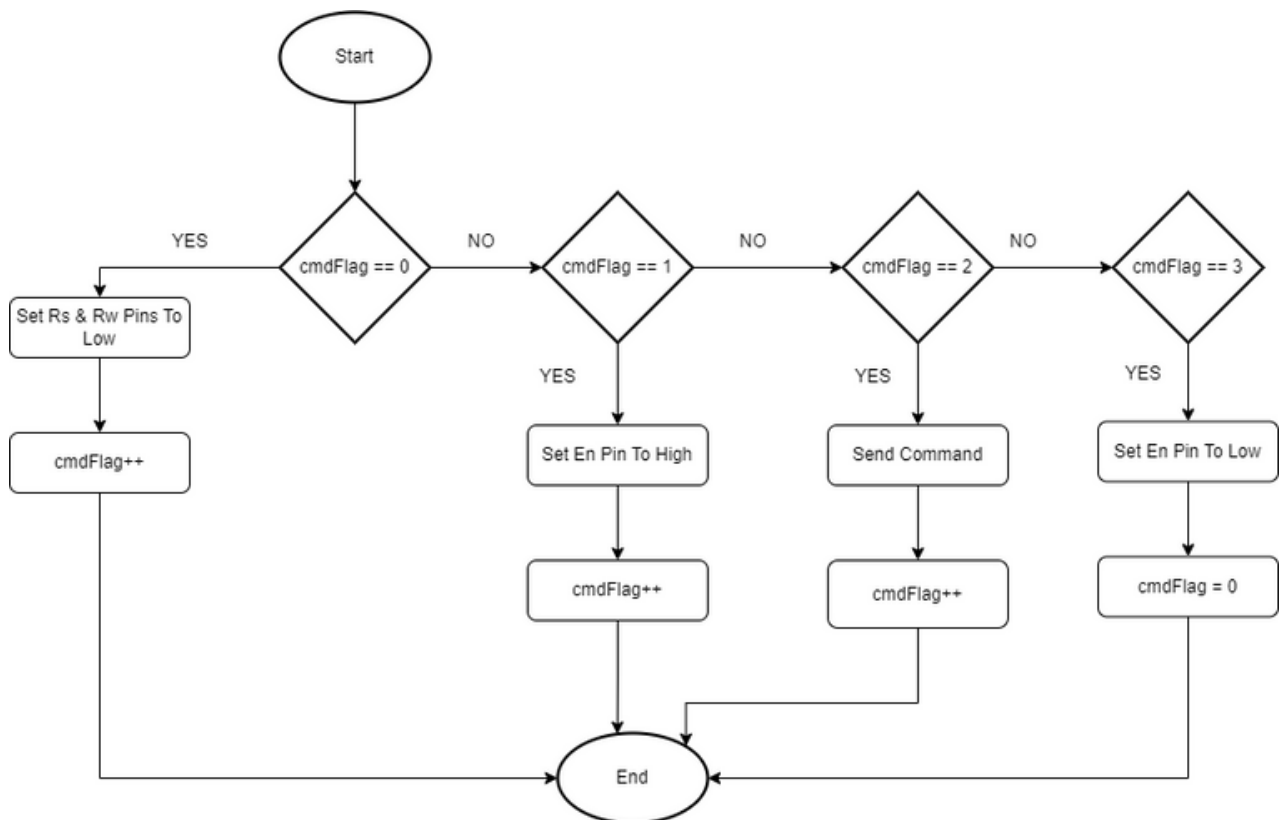
LCD DRIVER APIS

2 - void LCD_vSendCmd(Uchar8_t Command)

2.1 - Description : This Function Send Command On Data Pins

2.2 - Arguments : Uchar8_t Command

2.3 - Return : void



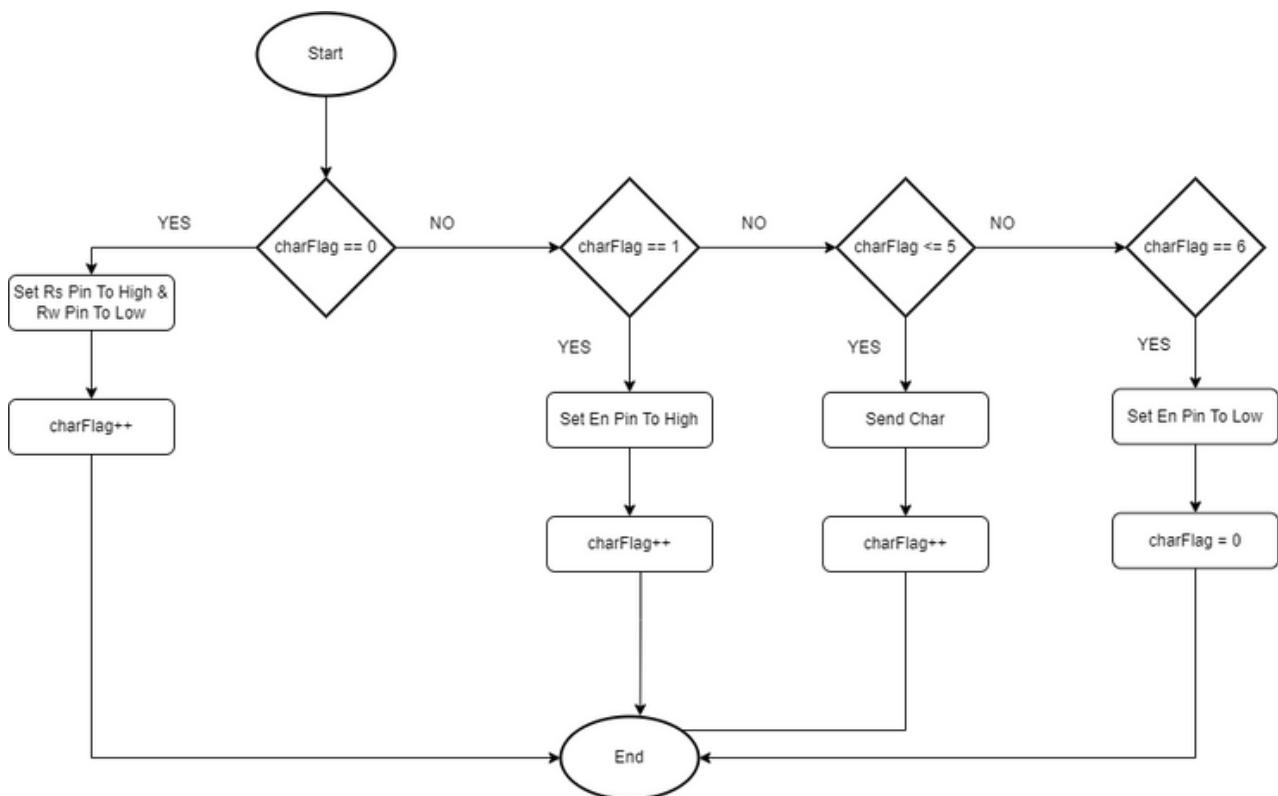
LCD DRIVER APIS

3 - void LCD_vDisplayChar(Uchar8_t Char)

3.1 - Description : This Function Send Cahr On Data Pins

3.2 - Arguments : Uchar8_t Char

3.3 - Return : void



LCD DRIVER APIS

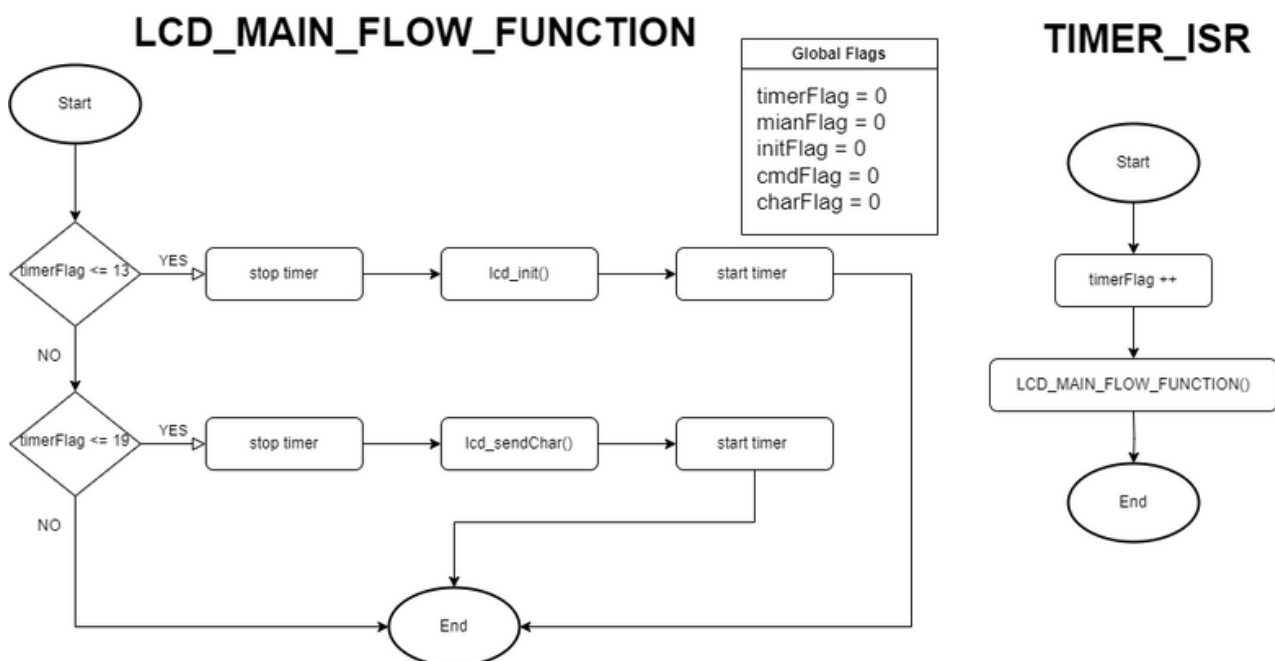
4 - void LCD_vMainFlow(void)

4.1 - Description : This Function Call After Every Timer Trigger To Handle Flow Of Lcd

4.2 - Arguments : void

4.3 - Return : void

5 - ISR Of Timer()



Note : If You Want To Send Char Only Without Initialize Lcd Set timerFlag To Be = 14

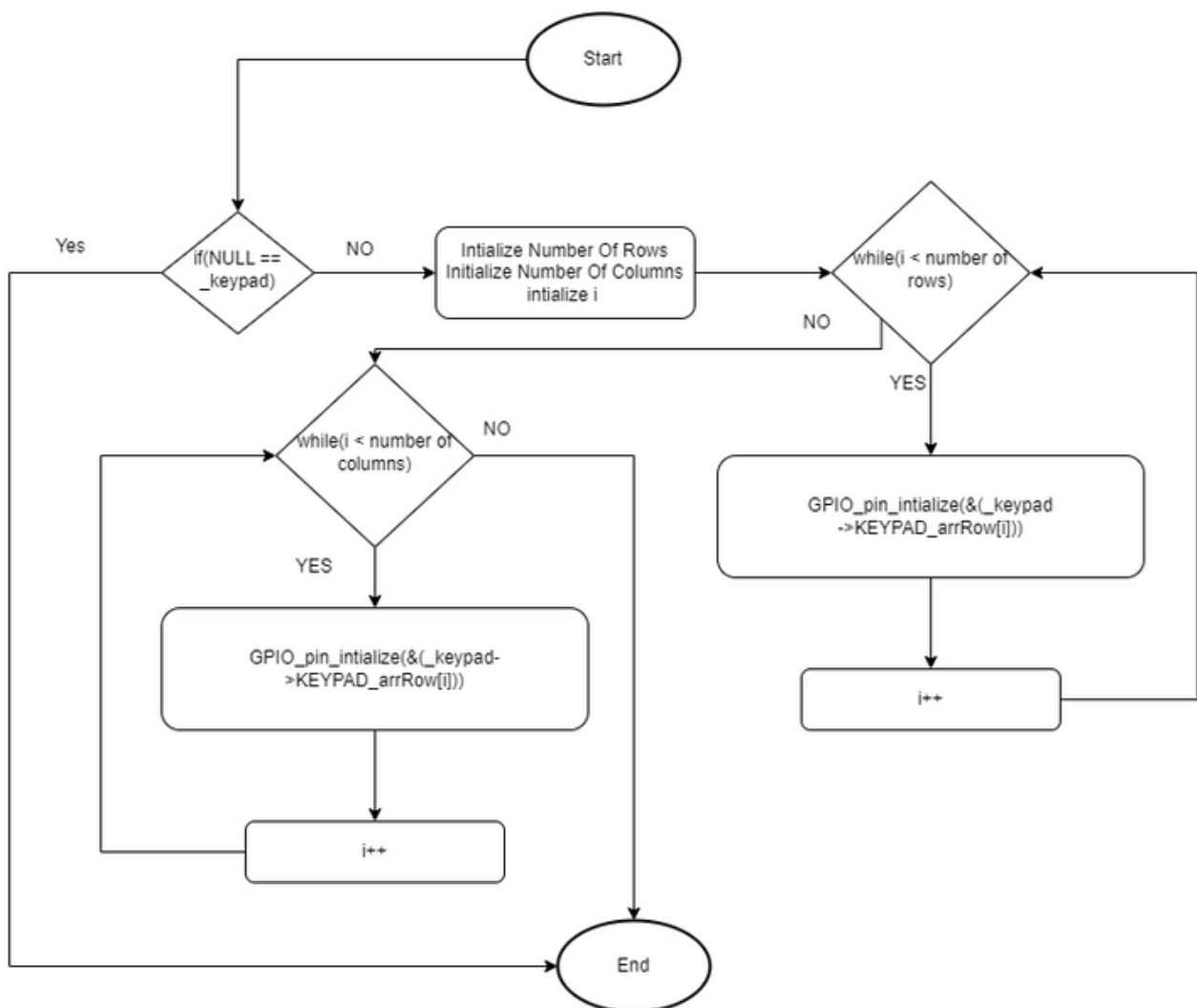
KEYPAD DRIVER APIS

1 - void KEYPAD_init(ST_KEYPAD_cfg_t *_keypad)

1.1 - Description : This Function Call To Initialize Keypad Pins

1.2 - Arguments : ST_KEYPAD_cfg_t *_keypad Struct Of Keypad CFG

1.3 - Return : void



KEYPAD DRIVER APIS

2 - void KEYPAD_scanningPressedBtn(ST_KEYPAD_cfg_t *_keypad, Uchar8_t *pressedBtnVal)

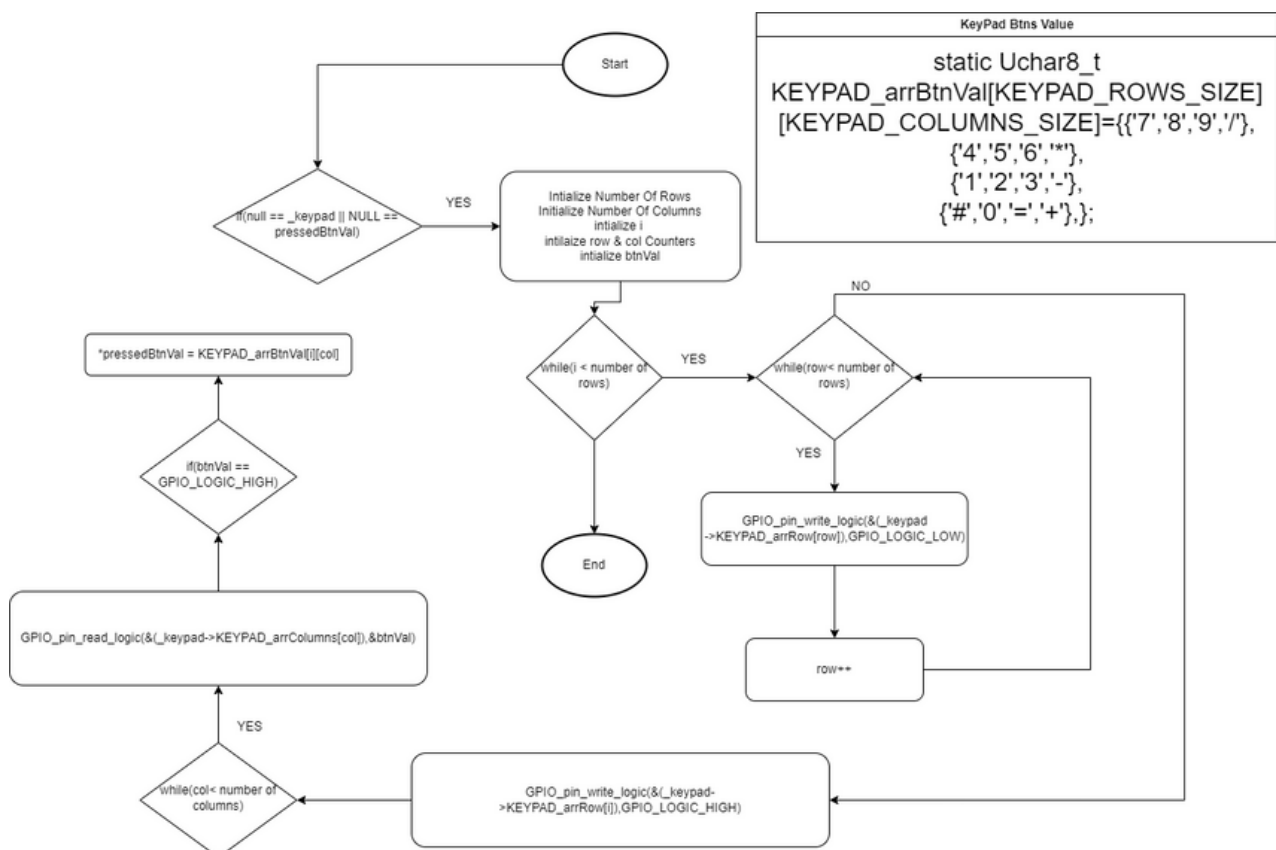
1.1 - Description : This Function Call To Get The Value Of Pressed Button In The Keypad

1.2 - Arguments :

1.2.1 - ST_KEYPAD_cfg_t *_keypad : Struct Of Keypad Config

1.2.2 - Uchar8_t *pressedBtnVal : Variable Will Return In It The Value Of The Pressed Button In The Keypad

1.3 - Return : void



KEYPAD DRIVER APIS

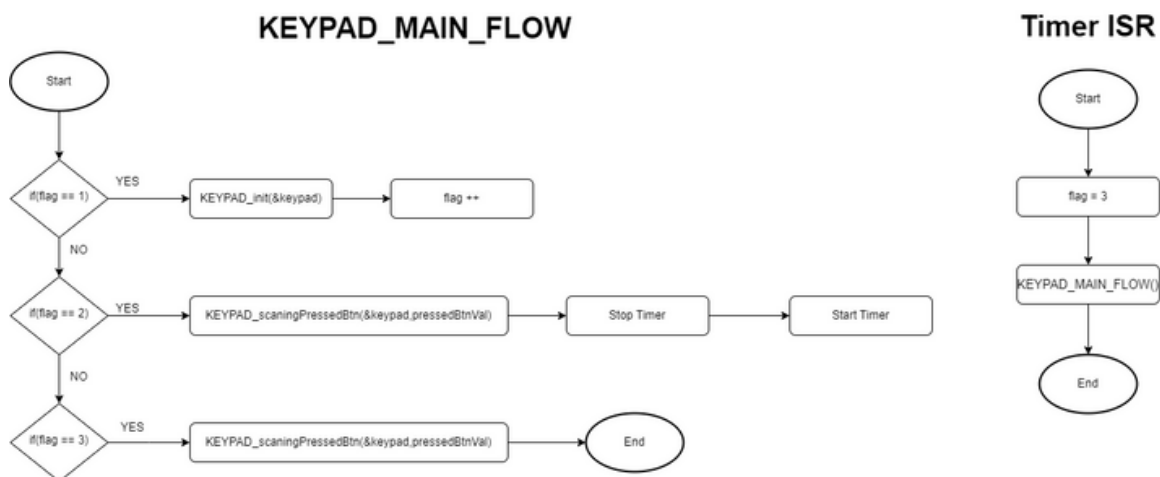
3 - void KEYPAD_MainFlow(void)

1.1 - Description : This Function Handle The Flow Of Keypad States

1.2 - Arguments : void

1.3 - Return : void

4 - Timer ISR()



**Add Note : If You Want To Scan Button Value Only
Without Initialize Keypad Set flag To Be = 2**