

**Slcdxx.c API Guide**

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Name: LCD\_print

Parameters: None

Returns: None

Description: Print characters in txbuff onto LCD

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void LCD\_print(void)

Usage: Load ASCII characters to be displayed to *txbuff[]* Array and call LCD\_print() to send through serial port.

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Name: LCD\_Command

Parameters: LCD Command

Returns: None

Description: Send Single Byte LCD Command

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void LCD\_Command(char lcd\_command)

<u>lcd command</u>	<u>Usage</u>
BACKSPACE	Backspace one position to the left and clear the character
LCD_HOME	Send Cursor Home, LCD content retained
NEXT_LINE	Send Cursor to the beginning of the next line
LCD_CLR	Clear LCD screen and Send Cursor Home
CUR_LEFT	Move Cursor One Position to the left
CUR_RIGHT	Move Cursor One Position to the right
CUSTOM0	Print Custom Character 0 to LCD
CUSTOM1	Print Custom Character 1 to LCD
CUSTOM2	Print Custom Character 2 to LCD
CUSTOM3	Print Custom Character 3 to LCD
CUSTOM4	Print Custom Character 4 to LCD
CUSTOM5	Print Custom Character 5 to LCD
CUSTOM6	Print Custom Character 6 to LCD
CUSTOM7	Print Custom Character 7 to LCD

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Name: LCD\_Command\_2

Parameters: LCD Command

Returns: None

Description: Send Two Byte LCD Command

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## Silicon Craft Serial LCD API

void LCD\_Command\_2(char lcd\_command)

<u>lcd command</u>	<u>Usage</u>
U_CUR	Show Underlined Cursor
B_CUR	Show Blinking Cursor
HIDE_CUR	Hide Cursor
BACKLIGHT_ON	Turn On LCD Backlight
BACKLIGHT_OFF	Turn Off LCD Backlight
INIT_HGRAPH	Initialize LCD for Horizontal Graph Drawing
INIT_VGRAPH	Initialize LCD for Vertical Graph Drawing * ( Only on SC2004 )
INIT_CUSTOM	Initialize LCD for Custom Characters

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Name: LCD\_Command\_3

Parameters: LCD Command,parameter

Returns: None

Description: Send Three Byte LCD Command

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void LCD\_Command\_3(char lcd\_command,char parameter)

<u>lcd_command</u>	<u>Usage</u>	<u>Parameter</u>
BL_LEVEL	Set Backlight Brightness	0 to 254
AUTO_OFF	Set Backlight Auto Off Interval	0 to 255 seconds
SHOW_SCREEN	Show Saved Screen on LCD	0 to 10 ( for SC1602 ) 0 to 5 ( for SC2004 )
LTOR_GRAPH	Draw Left to Right Graph	1 to 80 ( for SC1602 ) 1 to 100 ( for SC2004 )
RTOL_GRAPH	Draw Right to Left Graph	1 to 80 ( for SC1602 ) 1 to 100 ( for SC2004 )
CLR_ROW	Clear Row	0 to 1 (for SC1602) 0 to 3 (for SC2004)
CLR_COLUMN	Clear Column	0 to 15 (for SC1602) 0 to 19 (for SC2004)
SET_OUTPUT	Set Output Port	0 to 7

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Name: LCD\_Set\_Cursor

Parameters: row,column

Returns: None

Description: Set LCD Cursor Position

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void LCD\_Set\_Cursor(char row,char column)

Usage: Move cursor to position specified by *row* and *column*

## Silicon Craft Serial LCD API

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Name: LCD\_Draw\_Vgraph

Parameters: column,height

Returns: None

Description: Set LCD Cursor Position

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Void LCD\_Draw\_Vgraph(char column,char height)

Usage: Draw Vertical graph of *height* ( 1 to 32 ) on column *column*

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Name: LCD\_Read\_Input

Parameters: Which Port

Returns: Port Value in Integer

Description: Set LCD Cursor Position

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int LCD\_Read\_Input(char port)

<u>Parameter</u>	<u>port</u>	<u>Return Value</u>
Analog Port 1	READ_A1	ADC value of Port 1
Analog Port 2	READ_A2	ADC value of Port 2
Analog Port 3	READ_A3	ADC value of Port 3
Analog Port 4	READ_A4	ADC value of Port 4
Input Port	READ_INPUT	Read Input Status of Input

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Name: rom\_to\_data\_copy

Parameters: destination ram pointer,destination Flash Pointer

Returns: None

Description: Copy Bytes from Flash to RAM

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void rom\_to\_data\_copy(char \*dest,char rom \*src)

```
{
    while (*src)
        *dest++ = *src++;
    *dest = '\0';
}
```

Usage: Copy text from ROM(Flash) to RAM

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Name: Hex\_to\_decimal

Parameters: destination ram pointer,destination Flash Pointer

Returns: decimal equivalent

Description: Copy Bytes from Flash to RAM

```
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## Silicon Craft Serial LCD API

`unsigned int Hex_to_decimal(unsigned int hex_value)`

Usage: Convert 16 bits HEX value to DECIMAL equivalent

Example:

Int dvalue;

```
dvalue = Hex_to_decimal(4660)
```

Result of this dvalue = 0x4660 in Hex

This is Useful when you want to convert an integer number to 4 Digit Binary Coded Decimal number. In this example 0 is Least Significant Digit and 4 is the most significant Digit.