Software API user guide for 1.77" TFT LCD

For BeInMotion (v1.0)

LCD Size: 160 X 128 pixel

1) void *LCD_init* (unsigned long *address*);

    a. **Description**: This function initialize the LCD

    b. **Parameter** :

        i. *address* : LCD base address define in Qsys system

2) int *LCD_print_string* (int *horiz_offset*,

                int *vert_offset*,

                int *color*,

                char **font*,

                char *string*[]

                );

    a. **Description** : Print string define in string[] character array on LCD on specific location.

    b. **Parameter :**

        i. *horiz_offset*: Horizontal address for string first character.

        ii. *Vert_offset***:** Vertical address for string first character.

        iii. *color*   :   String Color

        iv. **font*   :   Font array

        v. *String[]*   :   Character String to be print on LCD

3) void *LCD_draw_line* (int *horiz_start*,

                int *vert_start*,

                int horiz_end,

                int *vert_end*,

                int *width*,

                int color

                );

    a. **Description** : This function draws line on LCD as per location for start and end position mentioned.

b. **Parameter** :

    i. *horiz_start* : Line horizontal pixel starting location

    ii. *vert_start* : Line vertical pixel starting location

    iii. *horiz_end* : Last horizontal pixel location

    iv. *vert_end* : Last vertical pixel location

    v. *width* : Line Pixel width

    vi. color : Line Colour (RGB)

4) void ***LCD_set_pixel***(int *horiz*,

                int *vert*,

                unsigned int *color*

          );

a. **Description**: Set any specific pixel with specific color.

b. **Parameter** :

    i. horiz : Pixel horizontal location

    ii. vert : Pixel vertical location

    iii. color : Color

5) void **LCD_draw_circle**(int *Hcenter*,

                int *Vcenter*,

                int *radius*,

                int *color*,

                char *fill*

           );

a. **Description** : This function draw circle with specified radius

b. **Parameter** :

    i. *Hcenter :* Centre pixel horizontal location for circle

    ii. *Vcenter :* Centre pixel vertical location for circle

    iii. *radius :* Circle radius in pixel

    iv. *color :* Circle line color

    v. *fill :* if '1' then circle filled with color mentioned other wise only circle line will be draw.

6) int *LCD_draw_round_corner_box* (

int *horiz_start*,

int *vert_start*,

int *horiz_end*,

int *vert_end*,

int *radius*,

int *color*, int *fill*

);

a. **Description**: Draw round corner box

b. **Parameter**:

i. *horiz_start :* Box starting horizontal pixel location

ii. *vert_start :* Box starting vertical pixel location

iii. *horiz_end :* Box last horizontal pixel location

iv. *vert_end :* Box last vertical pixel location

v. *radius :* Box corner radius

vi. *color :* Box line color

vii. *fill :* Fill Box internal area with color if '1'

7) int *LCD_draw_box* (int *horiz_start*,

int *vert_start*,

int *horiz_end*,

int *vert_end*,

int *color*,

int *fill*

);

a. **Description** : Draw box with right angle corner

b. **Parameter** :

i. *horiz_start* : Box starting horizontal pixel location

ii. *vert_start :* Box starting vertical pixel location

iii. *horiz_end :* Box last horizontal pixel location

iv. *vert_end :* Box last vertical pixel location

v. *color :* Box line color

vi. *fill :* Box internal area filled with color if *fill* is '1'