LCD_5110_SPI

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Chapter 1

Nokia LCD 5110 SPI

Library for Nokia 5110 LCD with hardware SPI

Developed with `embedXcode`

Author

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Date

Jan 12, 2013

Version

105

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See Also

ReadMe.txt for references

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

LCD_5110_SPI
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Chapter 3

File Index

3.1 File List

Here is a list of all documented files with brief descriptions:

LCD_5110_SPI.h
: Library for Nokia 5110 display 11

LCD_5110_SPI_main.ino
: Main sketch 12

Terminal12.h . . . . . **??**

Terminal6.h . . . . . **??**

Chapter 4

Class Documentation

4.1 LCD_5110_SPI Class Reference

Class for Nokia 5110 screen.

`#include <LCD_5110_SPI.h>`

Public Member Functions

- LCD_5110_SPI ()

  Constructor with default pins.
- LCD_5110_SPI (uint8_t pinChipSelect, uint8_t pinDataCommand, uint8_t pinReset, uint8_t pinBacklight, uint8_t pinPushButton)

  Constructor with specific pins.
- void begin ()

  Initialise.
- String WhoAmI ()

  Request information about the screen.
- void clear ()

  Clear the screen.
- void setBacklight (boolean flag=true)

  Switch backlight.
- void setFont (uint8_t font=0)

  Select font.
- uint8_t fontX ()

  Font size, x-axis.
- uint8_t fontY ()

  Font size, y-axis.
- void text (uint8_t x, uint8_t y, String s)

  Draw ASCII text (row and line coordinates)
- boolean getButton ()

  Get button state.

4.1.1 Detailed Description

Class for Nokia 5110 screen.

4.1.2 Constructor & Destructor Documentation

4.1.2.1 LCD_5110_SPI::LCD_5110_SPI ( )

Constructor with default pins.

Note

Default pins for LaunchPad MSP430G2553 / StellarPad LM4F
P2_2 / PA_7 = Chip Select
P2_3 / PA_2 = Data/Command
P1_0 / PB_5 = Reset
P2_1 / PA_6 = Backlight
PUSH2 / PUSH2 = Push 2 Button

4.1.2.2 LCD_5110_SPI::LCD_5110_SPI (uint8_t *pinChipSelect,* uint8_t *pinDataCommand,* uint8_t *pinReset,* uint8_t *pinBacklight,* uint8_t *pinPushButton*)

Constructor with specific pins.

Parameters

pinChipSelect	Chip Select pin number
pinData-Command	Data Command pin number
pinReset	Reset pin number
pinBacklight	Backlight pin number
pinPushButton	Push Button pin number

4.1.3 Member Function Documentation

4.1.3.1 uint8_t LCD_5110_SPI::fontX ( )

Font size, x-axis.

Returns

horizontal size of current font, in pixels

4.1.3.2 uint8_t LCD_5110_SPI::fontY ( )

Font size, y-axis.

Returns

vertical size of current font, in pixels

4.1.3.3 boolean LCD_5110_SPI::getButton ( )

Get button state.

Returns

true=pressed, otherwise false

Note

in case the button is pressed, debounce is checked

4.1.3.4 void LCD_5110_SPI::setBacklight (boolean *flag* = `true`)

Switch backlight.

Parameters

flag	default=true backlight on, false off

4.1.3.5 void LCD_5110_SPI::setFont (uint8_t *font* = `0`)

Select font.

Parameters

font	default=0=small, 1=large

4.1.3.6 void LCD_5110_SPI::text (uint8_t *x*, uint8_t *y*, String *s*)

Draw ASCII text (row and line coordinates)

Parameters

x	row number, x-axis
y	line number, y-axis
s	text string

4.1.3.7 String LCD_5110_SPI::WhoAmI ( )

Request information about the screen.

Returns

string with hardware version

The documentation for this class was generated from the following files:

- LCD_5110_SPI.h
- LCD_5110_SPI.cpp

Chapter 5

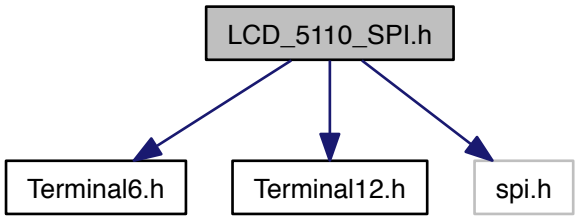
File Documentation

5.1 LCD_5110_SPI.h File Reference

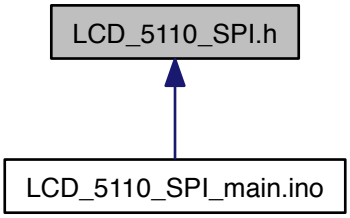
Library for Nokia 5110 display.

```
#include "Terminal6.h"
#include "Terminal12.h"
#include "spi.h"
```

Include dependency graph for LCD_5110_SPI.h:



This graph shows which files directly or indirectly include this file:



Classes

- class LCD_5110_SPI

  Class for Nokia 5110 screen.

5.1.1 Detailed Description

Library for Nokia 5110 display. Ported to LM4F120 by Bryan Schremp (bajabug@gmail.com) 11/10/2012

Uses GLCD fonts

Push button 2 to turn backlight on / off

Developed with embedXcode

Author

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Date

Jan 12, 2013

Version

release 105

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http://embeddedcomputing.weebly.com

See Also

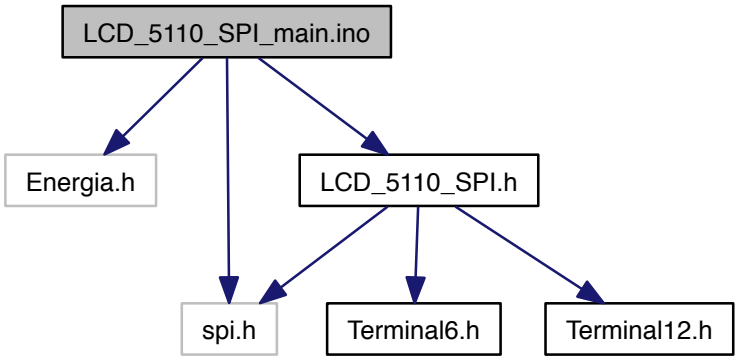
- Ported to LM4F120 by Bryan Schremp (bajabug@gmail.com) 11/10/2012
  http://forum.stellarisiti.com/topic/330-lcd-5110-lm4f120-sample-sketch-stellarpad
- Fonts generated with MikroElektronika GLCD Font Creator 1.2.0.0
  http://www.mikroe.com

5.2 LCD_5110_SPI_main.ino File Reference

Main sketch.

```
#include "Energia.h"
#include "spi.h"
#include "LCD_5110_SPI.h"
```

Include dependency graph for LCD_5110_SPI_main.ino:



Functions

- void **setup** ()
- void **loop** ()

Variables

- boolean backlight = false
- uint8_t **k** = 0

5.2.1 Detailed Description

Main sketch. Example for library for Nokia 5110 LCD with hardware SPI

Developed with embedXcode

Author

Rei VILO
embedXcode.weebly.com

Date

Jan 12, 2013

Version

105

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See Also

ReadMe.txt for references

5.2.2 Variable Documentation

5.2.2.1 boolean backlight = false

P._. / PB_4 = SCK (2) = Serial Clock P._. / PB_7 = MOSI (2) = Serial Data

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