
Nanoshield_LCD Documentation

Release 1.0

Nanoshield_LCD

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This is the Arduino library to access the LCD Nanoshield.

- Source code: https://github.com/circuitar/Nanoshield_LCD
- Documentation: <http://nanoshield-lcd.readthedocs.org/>
- Reference Board: [LCD Nanoshield](#) from [Circuitar](#)

Library features include:

- Same functions available in the vanilla LCD library available in the Arduino IDE ([LiquidCrystal](#))

In addition:

- Turns backlight on
- Turns backlight off

To install, just click **Download ZIP** and install it using **Sketch > Include Library... > Add .ZIP Library** in the Arduino IDE.

The following [examples](#) are provided:

- [LCDTest](#) shows the common usage of the library.

Class Documentation

class **Nanoshield_LCD**

Inherits from Print

Public Functions

Nanoshield_LCD (byte *a0* = 1, byte *a1* = 1, byte *a2* = 1)

Constructor.

Creates an object to access one LCD Nanoshield

See *begin()*

Parameters

- *a0*: The 1st LSB of the LCD address in the I2C bus.
- *a1*: The 2nd LSB of the LCD address in the I2C bus.
- *a2*: The 3rd LSB of the LCD address in the I2C bus.

void **begin** ()

Initializes the module.

Initialize the Wire library, join the I2C bus as a master, configure GPIO pins, perform LCD reset by instruction in 4-bit mode, set as two lines, 5x8 characters and to, when writing, increment address and do not shift the display.

void **clear** ()

Clears all the characters from display.

void **home** ()

Sets the cursor to initial position.

void **setCursor** (uint8_t *col*, uint8_t *row*)

Sets the cursor position.

Parameters

- `col`: The cursor column.
- `row`: The cursor row.

`size_t write (uint8_t data)`

Writes a special character.

Writes a character pre-specified with *createChar()*.

Return Always returns 1.

Parameters

- `data`: The code of the character to write.

`void cursor ()`

Set the cursor as visible.

`void noCursor ()`

Hides the cursor.

`void blink ()`

Set the cursor as blinking.

`void noBlink ()`

Sets the cursor as not blinking.

`void display ()`

Turns the display on.

`void noDisplay ()`

Turns the display off.

`void backlight ()`

Turns backlight on.

`void noBacklight ()`

Turns backlight off.

`void scrollDisplayLeft ()`

Scrolls all the content on display to left.

`void scrollDisplayRight ()`

Scrolls all the content on display to right.

`void autoscroll ()`

Scrolls the display as needed while writing data.

`void noAutoscroll ()`

Do not scroll the display as needed while writing data.

`void leftToRight ()`

Moves the cursor to right when writes a character.

`void rightToLeft ()`

Moves the cursor to left when writes a character.

void **createChar** (uint8_t *num*, uint8_t *data*[])

Creates a special character.

Creates a special character based on a byte vector of 8 elements. Each element represents a line of the character and must be composed of five bits, one for each column. If the bit is 1, so that pixel will be on, if the bit is zero, so that pixel will be off.

Parameters

- *num*: A code to index the character from 0 to 7.
- *data*: The vector representation of the character.

void **printPadded** (long *l*, int *w*, char *pad* = ' ', int *base* = DEC)

Print a long integer, left padding it with spaces or zeroes.

Parameters

- *l*: The long integer to print.
- *w*: Minimum width to print.
- *pad*: Character to use for padding (default = ' ').
- *base*: Number base to use when printing (default = DEC = 10).

This documentation was built using [ArduinoDocs](#).

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