

LCD Keypad Shield library for Arduino

1.0.1

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Chapter 1

LCD Keypad Shield library for Arduino

This is a LCD Keypad Shield library for Arduino which supports the following features:

- 2x16 LCD using `LiquidCrystal.h`.
- 5 pushbuttons connected to analog pin A0.
- Button debouncing.
- Backlight control (on/off).

Hardware

Any Arduino board, tested on Arduino UNO.

Example

Arduion IDE | Examples | Erriez [LCDKeypadShield](#):

- [LCDKeypadShield](#)

Documentation

- [Online HTML](#)
- [Download PDF](#)

Usage

Initialization

```
1 {c++}
2 #include <Arduino.h>
3 #include <LCDKeypadShield.h>
4
5 LCDKeypadShield shield;
```

Backlight control

Backlight on

```
1 {c++}
2 shield.backlightOn();
```

Backlight off

```
1 {c++}
2 shield.backlightOff();
```

Display control

All `LCDKeypadShield.h` functions can be used.

Clear display

```
1 {c++}
2 shield.clear();
```

Set cursor

```
1 {c++}
2 // First character first line
3 shield.setCursor(0, 0);
4
5 // First character second line
6 shield.setCursor(0, 1);
7
8 // Last character second line
9 shield.setCursor(15, 1);
```

Print text

```
1 {c++}
2 shield.print(F("Push the buttons"));
```

Button control

Get buttons

```
1 {c++}
2 LCDButtons button = shield.getButtons();
3 // Returned button enum:
4 //   ButtonNone
5 //   ButtonRight
6 //   ButtonUp
7 //   ButtonDown
8 //   ButtonLeft
9 //   ButtonSelect
```

Library dependencies

- Arduino's build-in `LiquidCrystal` library.

Library installation

Please refer to the [Wiki](#) page.

Other Arduino Libraries and Sketches from Erriez

- [Erriez Libraries and Sketches](#)

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

LiquidCrystal	
LCDKeypadShield	9

Chapter 3

Class Index

3.1 Class List

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

LCDKeypadShield	
LCD Keypad Shield class	9

Chapter 4

File Index

4.1 File List

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

LCDKeypadShield.cpp	
LCD Keypad Shield library for Arduino	11
LCDKeypadShield.h	
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Chapter 5

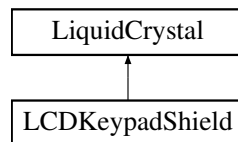
Class Documentation

5.1 LCDKeypadShield Class Reference

LCD Keypad Shield class.

```
#include <LCDKeypadShield.h>
```

Inheritance diagram for LCDKeypadShield:



Public Member Functions

- [LCDKeypadShield](#) ()
Constructor [LCDKeypadShield](#) class.
- [LCDButton](#) [getButtons](#) ()
Read buttons from one analog pin.
- void [backlightOn](#) ()
Turn backlight LED on.
- void [backlightOff](#) ()
Turn backlight LED off.

5.1.1 Detailed Description

LCD Keypad Shield class.

Definition at line 71 of file `LCDKeypadShield.h`.

5.1.2 Constructor & Destructor Documentation

5.1.2.1 LCDKeypadShield::LCDKeypadShield ()

Constructor [LCDKeypadShield](#) class.

This initializes the built-in LiquidCrystal library in 4-bit mode:

- RS, EN, D0, D1, D2 and D3 pins

Definition at line 47 of file LCDKeypadShield.cpp.

5.1.3 Member Function Documentation

5.1.3.1 LCDButton LCDKeypadShield::getButtons ()

Read buttons from one analog pin.

Returns

LCDButton enum

Definition at line 66 of file LCDKeypadShield.cpp.

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

- [LCDKeypadShield.h](#)
- [LCDKeypadShield.cpp](#)

Chapter 6

File Documentation

6.1 LCDKeypadShield.cpp File Reference

LCD Keypad Shield library for Arduino.

```
#include <pgmspace.h>
#include "LCDKeypadShield.h"
```

6.1.1 Detailed Description

LCD Keypad Shield library for Arduino.

Source: <https://github.com/Erriez/ErriezLCDKeypadShield> Documentation: <https://erriez.github.io/ErriezLCDKeypadShield>

6.2 LCDKeypadShield.h File Reference

LCD Keypad Shield library for Arduino.

```
#include <Arduino.h>
#include <LiquidCrystal.h>
```

Classes

- class [LCDKeypadShield](#)
LCD Keypad Shield class.

Macros

- `#define LCD_PIN_RS 8`
LCD RS pin.
- `#define LCD_PIN_EN 9`
LCD EN pin.
- `#define LCD_PIN_D0 4`
LCD D0 pin.
- `#define LCD_PIN_D1 5`
LCD D1 pin.
- `#define LCD_PIN_D2 6`
LCD D2 pin.
- `#define LCD_PIN_D3 7`
LCD D3 pin.
- `#define LCD_BACK_LIGHT_PIN 10`
LCD backlight pin.

Enumerations

- `enum LCDButton {`
 ButtonNone = 0, **ButtonRight** = 1, **ButtonUp** = 2, **ButtonDown** = 3,
 ButtonLeft = 4, **ButtonSelect** = 5 }
LCD buttons.

6.2.1 Detailed Description

LCD Keypad Shield library for Arduino.

Source: <https://github.com/Erriez/ErriezLCDKeypadShield> Documentation: <https://erriez.github.io/ErriezLCDKeypadShield>

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