

LCD Keypad Shield library for Arduino
1.0.0

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Contents

1	LCD Keypad Shield library for Arduino	1
2	Hierarchical Index	3
2.1	Class Hierarchy	3
3	Class Index	5
3.1	Class List	5
4	File Index	7
4.1	File List	7
5	Class Documentation	9
5.1	LCDKeypadShield Class Reference	9
5.1.1	Detailed Description	9
5.1.2	Constructor & Destructor Documentation	9
5.1.2.1	LCDKeypadShield()	10
5.1.3	Member Function Documentation	10
5.1.3.1	getButtons()	10
6	File Documentation	11
6.1	LCDKeypadShield.cpp File Reference	11
6.1.1	Detailed Description	11
6.2	LCDKeypadShield.h File Reference	11
6.2.1	Detailed Description	12
Index		13

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

Examples | Erriez [LCDKeypadShield](#):

- [Demo](#)

Usage

Initialization

```
{c++}
#include <Arduino.h>
#include <LCDKeypadShield.h>

LCDKeypadShield shield;
```

Backlight control

Backlight on

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

Backlight off

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

Display control

All `LCDKeypadShield.h` functions can be used.

Clear display

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

Set cursor

```
{c++}  
// First character first line  
shield.setCursor(0, 0);  
  
// First character second line  
shield.setCursor(0, 1);  
  
// Last character second line  
shield.setCursor(15, 1);
```

Print text

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

Button control

Get buttons

```
{c++}  
LCDButtons button = shield.getButtons();  
// Returned button enum:  
//   ButtonNone  
//   ButtonRight  
//   ButtonUp  
//   ButtonDown  
//   ButtonLeft  
//   ButtonSelect
```

Library dependencies

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

Documentation

- [Doxygen online HTML](#)
- [Doxygen PDF](#)

Library installation

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

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	
LCD Keypad Shield library for Arduino	11

Chapter 5

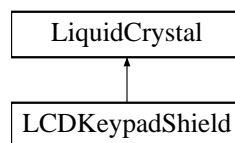
Class Documentation

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 70 of file LCDKeypadShield.h.

5.1.2 Constructor & Destructor Documentation

5.1.2.1 LCDKeypadShield()

```
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 46 of file LCDKeypadShield.cpp.

5.1.3 Member Function Documentation

5.1.3.1 getButtons()

```
LCDButton LCDKeypadShield::getButtons ( )
```

Read buttons from one analog pin.

Returns

LCDButton enum

Definition at line 65 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>

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>

Index

getButtons
 LCDKeypadShield, [10](#)

LCDKeypadShield, [9](#)
 getButtons, [10](#)
 LCDKeypadShield, [9](#)

LCDKeypadShield.cpp, [11](#)
LCDKeypadShield.h, [11](#)