

Erriez LCD Keypad Shield library for Arduino  
1.0.1

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# Contents

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



# 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 . . . . .	<a href="#">9</a>





## Chapter 3

# Class Index

### 3.1 Class List

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

<a href="#">LCDKeypadShield</a>	
LCD Keypad Shield class . . . . .	9



## Chapter 4

# File Index

### 4.1 File List

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

<a href="#">LCDKeypadShield.cpp</a>	
LCD Keypad Shield library for Arduino . . . . .	11
<a href="#">LCDKeypadShield.h</a>	
LCD Keypad Shield library for Arduino . . . . .	11



## Chapter 5

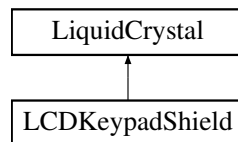
# Class Documentation

### 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 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>



# Index

getButtons  
    LCDKeypadShield, [10](#)

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

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