

# 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

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 . . . . .	<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>	
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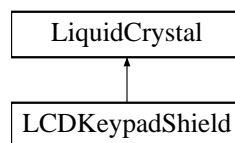
# Class Documentation

### 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>



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