

Erriez RobotDyn Keypad 3x4 Analog library for Arduino

1.1.0

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Chapter 1

RobotDyn library for Arduino

This is a RobotDyn Keypad 3x4 with analog output library for Arduino.

Hardware

Any Arduino / ESP8266 / ESP32 board with an ADC (Analog Digital Converter).

Pins

Keypad	Any Arduino board	WeMos D1 & R2 / Node MCU	WeMos LOLIN32
VCC	5V (or 3.3V)	3V3	3V3
GND	GND	GND	GND
OUT	A0 (ANALOG pin)	A0 (ADC0)	A0 = SVP (GPIO36)

Example

Arduino IDE | Examples | Erriez RobotDyn Keypad 3x4 Analog:

- [PrintADC](#)
- [RobotDynKeypad3x4Analog](#)

Documentation

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

Usage

Initialization

```
1 {c++}
2 #include <ErriezRobotDynKeypad3x4Analog.h>
3
4 // Connect the keypad OUT pin to the ANALOG pin of an Arduino / ESP8266 / ESP32 board
5 #define KEYPAD_ANALOG_PIN    A0
6
7 // Create keypad object
8 RobotDynKeypad3x4Analog keypad(KEYPAD_ANALOG_PIN);
```

Get buttons

```
1 {c++}
2 // Read buttons:
3 // -1:    Buttons up
4 // 0..11: Button down
5 int keypadState = keypad.getButtons();
```

Library dependencies

- None.

Library installation

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

Other Arduino Libraries and Sketches from Erriez

- [Erriez Libraries and Sketches](#)

Chapter 2

Class Index

2.1 Class List

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

RobotDynKeypad3x4Analog	
RobotDyn Keypad 3x4 Analog class	7

Chapter 3

File Index

3.1 File List

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

ErriezRobotDynKeypad3x4Analog.cpp	
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Chapter 4

Class Documentation

4.1 RobotDynKeypad3x4Analog Class Reference

RobotDyn Keypad 3x4 Analog class.

```
#include <ErriezRobotDynKeypad3x4Analog.h>
```

Public Member Functions

- [RobotDynKeypad3x4Analog](#) (uint8_t analogPin, uint16_t maxAnalogValue=MAX_ANALOG_VALUE)
Constructor LCDKeypadShield class.
- int [getButtons](#) ()
Read buttons from one analog pin.

Protected Attributes

- uint16_t [_maxAnalogValue](#)
Max analog value.
- uint8_t [_analogPin](#)
Analog pin number.

4.1.1 Detailed Description

RobotDyn Keypad 3x4 Analog class.

Definition at line 51 of file ErriezRobotDynKeypad3x4Analog.h.

4.1.2 Constructor & Destructor Documentation

4.1.2.1 **RobotDynKeypad3x4Analog::RobotDynKeypad3x4Analog** (uint8_t *analogPin*, uint16_t *maxAnalogValue* = MAX_ANALOG_VALUE) [explicit]

Constructor LCDKeypadShield class.

Parameters

<i>analogPin</i>	Analog pin number
<i>maxAnalogValue</i>	Maximum value of the ADC value may be slightly different. This may be compensated, but was not needed during testing with several different boards.

Definition at line 63 of file ErriezRobotDynKeypad3x4Analog.cpp.

4.1.3 Member Function Documentation

4.1.3.1 `int RobotDynKeypad3x4Analog::getButtons ()`

Read buttons from one analog pin.

Returns

-1: Button up 0..11: Button down

Definition at line 75 of file ErriezRobotDynKeypad3x4Analog.cpp.

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

- [ErriezRobotDynKeypad3x4Analog.h](#)
- [ErriezRobotDynKeypad3x4Analog.cpp](#)

Chapter 5

File Documentation

5.1 ErriezRobotDynKeypad3x4Analog.cpp File Reference

RobotDyn Keypad 3x4 Analog library for Arduino.

```
#include "ErriezRobotDynKeypad3x4Analog.h"
```

5.1.1 Detailed Description

RobotDyn Keypad 3x4 Analog library for Arduino.

Source: <https://github.com/Erriez/RobotDynKeypad3x4Analog> Documentation: <https://erriez.github.io/RobotDynKeypad3x4Analog>

Experimental ADC keypad values +-----+-----+-----+-----+ | AVR | ESP8266 | ESP32 | Button | +-----+-----+
+-----+-----+ | 0 | 0 | 0 | None | +-----+-----+ | 490 | 467 | 1700 | 11 | | o OUT GND VCC o | | 510 | 490 |
1800 | 0 | +-----+-----+ | 540 | 515 | 1900 | 10 | | | | 570 | 546 | 2050 | 9 | | 1 2 3 | | 600 | 580 | 2170 | 8 |
| | 640 | 615 | 2300 | 7 | | 4 5 6 | | 680 | 660 | 2500 | 6 | | | | 730 | 700 | 2700 | 5 | | 7 8 9 | | 790 | 760 | 2940 |
4 | | | 850 | 825 | 3250 | 3 | | 10 0 11 | | 930 | 900 | 3700 | 2 | | o o | | 1023 | 990 | 4095 | 1 | +-----+-----+
+-----+-----+-----+-----+ TOP VIEW

5.2 ErriezRobotDynKeypad3x4Analog.h File Reference

RobotDyn Keypad 3x4 Analog library for Arduino.

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

Classes

- class [RobotDynKeypad3x4Analog](#)
RobotDyn Keypad 3x4 Analog class.

5.2.1 Detailed Description

RobotDyn Keypad 3x4 Analog library for Arduino.

Source: <https://github.com/Erriez/RobotDynKeypad3x4Analog> Documentation: <https://erriez.github.io/RobotDynKeypad3x4Analog>

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