

Erriez RobotDyn Keypad 3x4 Analog library for Arduino

1.0.0

Generated by Doxygen 1.8.11

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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 <Arduino.h>
3 #include <ErriezRobotDynKeypad3x4Analog.h>
4
5 // Connect the keypad OUT pin to the ANALOG pin of an Arduino / ESP8266 / ESP32 board
6 #define KEYPAD_ANALOG_PIN A0
7
8 // Create keypad object
9 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 | |
| RobotDyn Keypad 3x4 Analog library for Arduino | 9 |
| ErriezRobotDynKeypad3x4Analog.h | |
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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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