

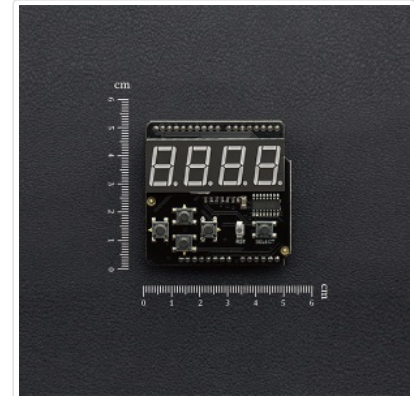
# LED Keypad Shield V1.0 SKU:DFR0382

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## Introduction

The LED Keypad Shield is an Arduino expansion shield with a 4 digit 8 segment digital tube display (common cathode). It has 5 buttons that can be used as menu select buttons or control buttons. It uses I2C to drive the digital tube for an easy user experience.



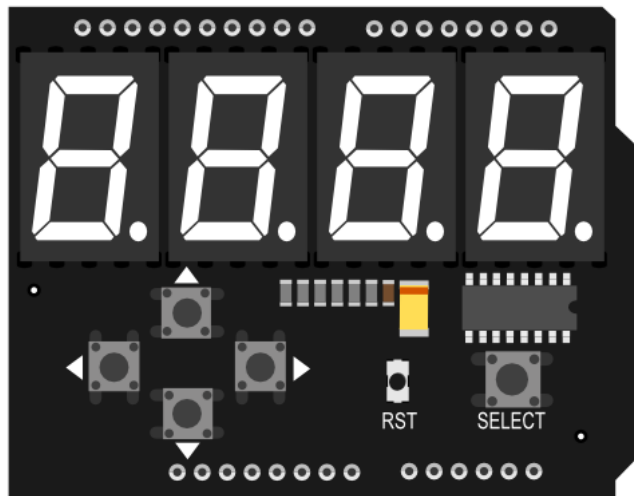
(/wiki/index.php/File:DFR0382.jpg)

LED Keypad Shield V1.0 SKU:DFR0382

## Specification

- Arduino compatible
- Working voltage: 5V
- 4 digit 8 segment common cathode digital tube (0.56 inch)
- 5 input buttons (Driving pin: A0)
- Size: 53 \* 54mm/2.05 \* 2.12inches

## Pin Definition



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PIN Name	Description
Analog Pin 0	Button (select, top, right, bottom, left)
SCL(A5)	I2C clock line
SDA(A4)	I2C data line
RST	Reset

## Tutorial

### Requirements

- **Hardware**
  - UNO x1
  - LED Keypad Shield x1
- **Software**
  - Arduino IDE V1.6.5 [Click to Download Arduino IDE from Arduino® \(https://www.arduino.cc/en/Main/Software\)](https://www.arduino.cc/en/Main/Software)

### Connection Diagram

This module's pin alignments allow it to stack directly on top of an Arduino UNO or similar microcontroller

## Sample Code

Please install the following libraries for this code to function.

LedKeypad Arduino library ([https://github.com/Arduinolibary/DFRobot\\_LED\\_Keypad\\_Shield/raw/master/LedKeypad.zip](https://github.com/Arduinolibary/DFRobot_LED_Keypad_Shield/raw/master/LedKeypad.zip)) About Library installation. (<https://www.arduino.cc/en/Guide/Libraries#UxU8mdzF9H0>)

```
#include <LedKeypad.h>

char brightness =0;
char buf[5]="2456";

void setup() {
  ledkeypad.begin(); /*Enable*/
  ledkeypad.setBrightness(0);/*Sets the brightness Level*/
  ledkeypad.display(2015);/*Display data*/
  delay(5000);
  ledkeypad.display(buf);/*Display character for testing*/
  for(int i=0;i<4;i++){/*for testing*/
    ledkeypad.dotShow(i);
    delay(1000);
    ledkeypad.dotVanish(i);
  }
}

void loop() {
  unsigned char keyValue=0;
  keyValue = ledkeypad.getKey();/*Get key value*/
  switch(keyValue){
    case KEY_DOWN:
      buf[0]++;
      if(buf[0] > '9')
        buf[0] = '0';
      ledkeypad.display(0,buf[0]);
      break;

    case KEY_LEFT:
      buf[1]++;
      if(buf[1] > '9')
        buf[1] = '0';
      ledkeypad.display(1,buf[1]);
      break;

    case KEY_UP:
      buf[2]++;
      if(buf[2] > '9')
        buf[2] = '0';
      ledkeypad.display(2,buf[2]);
      break;

    case KEY_RIGHT:
      buf[3]++;
      if(buf[3] > '9')
        buf[3] = '0';
      ledkeypad.display(3,buf[3]);
      break;

    case KEY_SELECT:
      brightness++;
      if(brightness > 7)
        brightness = 0;
      ledkeypad.setBrightness(brightness);
      break;

    default:
      break;
  }
}
```

## Result

The sample code is a simple clock for the module. Using the input buttons the time can be adjusted. Key functions are as follows:

button	function
down	The first digital tube +1
left	The second digital tube +1
up	The third digital tube +1

right	The fourth digital tube +1
select	adjusting brightness

## More

- LED Keypad Arduino Library ([https://github.com/Arduinolib/DFRobot\\_LED\\_Keypad\\_Shield/raw/master/LedKeypad.zip](https://github.com/Arduinolib/DFRobot_LED_Keypad_Shield/raw/master/LedKeypad.zip))
- Schematic ([https://github.com/Arduinolib/DFRobot\\_LED\\_Keypad\\_Shield/raw/master/LED%20Keypad%20shield%20V1.0.pdf](https://github.com/Arduinolib/DFRobot_LED_Keypad_Shield/raw/master/LED%20Keypad%20shield%20V1.0.pdf))



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