
6-digit-7-Segment-Arduino Documentation

Release 1.0

6-digit-7-Segment-Arduino

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1	How to install & include the library	3
1.1	1. Download via LibraryManger	3
1.2	2. Include Library	3
1.3	3. See Examples	3
2	How to use the library	5
2.1	Class Dokumentation	5
2.2	What's about displayResorce[6][2]	6
2.3	Example	7
3	How to connect the Display	9

Welcome to the documentaion of my [6-digit-7-Segment Arduino-Library](#) - Help yourself!

If you have a quastion please do not hesitate and [ask me!](#) :-)

SohnyB^{ohny}

How to install & include the library

1.1 1. Download via LibraryManger

- Open Arduino IDE
- goto Sketch - Include Library - Manage Libraries...
- install six-digit-seven-segment

1.2 2. Include Library

- add library Sketch - Include Library - six-digit-seven-segment
- check how to use

1.3 3. See Examples

- goto File - Examples - Display_6-digit-7-Segment
- If you have a quastion please do not hesitate and [ask me!](#) :-)

How to use the library

2.1 Class Dokumentation

class **SegmentDisplay**

6-digit-7-Segment-Arduino-Library

A Arduino-Library that allows you to easily controll a 6-digit 7-Segment Multiplex Matrix (e.g. E60301-L-O-0-W) with a 8-Bit-Shiftregister (e.g. M74HC595)

Author SohnyBohny

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Public Functions

SegmentDisplay (int *latchPin*, int *clockPin*, int *dataPin*, int *digit1*, int *digit2*, int *digit3*, int *digit4*, int *digit5*, int *digit6*, int *punkt*)

Constructor: all Pins will be set.

Parameters

- *latchPin* - this int saves the latchPin used for ShiftRegister
- *clockPin* - this int saves the clockPin used for ShiftRegister
- *dataPin* - this int saves the dataPin used for ShiftRegister
- *digit1* - this int saves the kathode of digit1 of the display
- *digit2* - this int saves the kathode of digit2 of the display
- *digit3* - this int saves the kathode of digit3 of the display
- *digit4* - this int saves the kathode of digit4 of the display
- *digit5* - this int saves the kathode of digit5 of the display
- *digit6* - this int saves the kathode of digit6 of the display
- *punkt* - this int saves the anode of the punkt of the display

void **showString** (String *string*)
show a String on Display

Parameters

- *string* - String showing on the Display

bool **isLegal** (char *check*)
check if charakter is legal

Return bool - true if legal

Parameters

- *char* - to check

void **showChar** (char *displayResorce*[6][2], int *delayTime*)
to talk with the display

Parameters

- *displayResorce*[6][2] - the char array contains the numbers showing on the Display
- *delayTime* - this int contains the time while the numbers are showed

void **updateShiftRegister** (byte *b*)
update the 8-Bit ShiftRegister

Parameters

- *b* - this byte contains the information: state of the pins

This documentation was built using [ArduinoDocs](#).

2.2 What's about displayResorce[6][2]

First dimension	
Call	Output
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
C	
F	
Continued on next page	

Table 2.1 – continued from previous page

First dimension	
Call	Output
o	
A	
b	
C	
d	
E	
F	
G	
H	
I	
J	
L	
U	
c	
h	
n	
O	
r	
t	
u	
p	
y	

2.3 Example

```

#include <SegmentDisplay.h>
int latchPin = 9; // Shiftregister
int clockPin = 10;
int dataPin = 8;

int digit1 = 6; // cathode of the digits
int digit2 = 1;
int digit3 = 2;
int digit4 = 3;
int digit5 = 4;
int digit6 = 5;
int punkt = 7; // anode of the DP

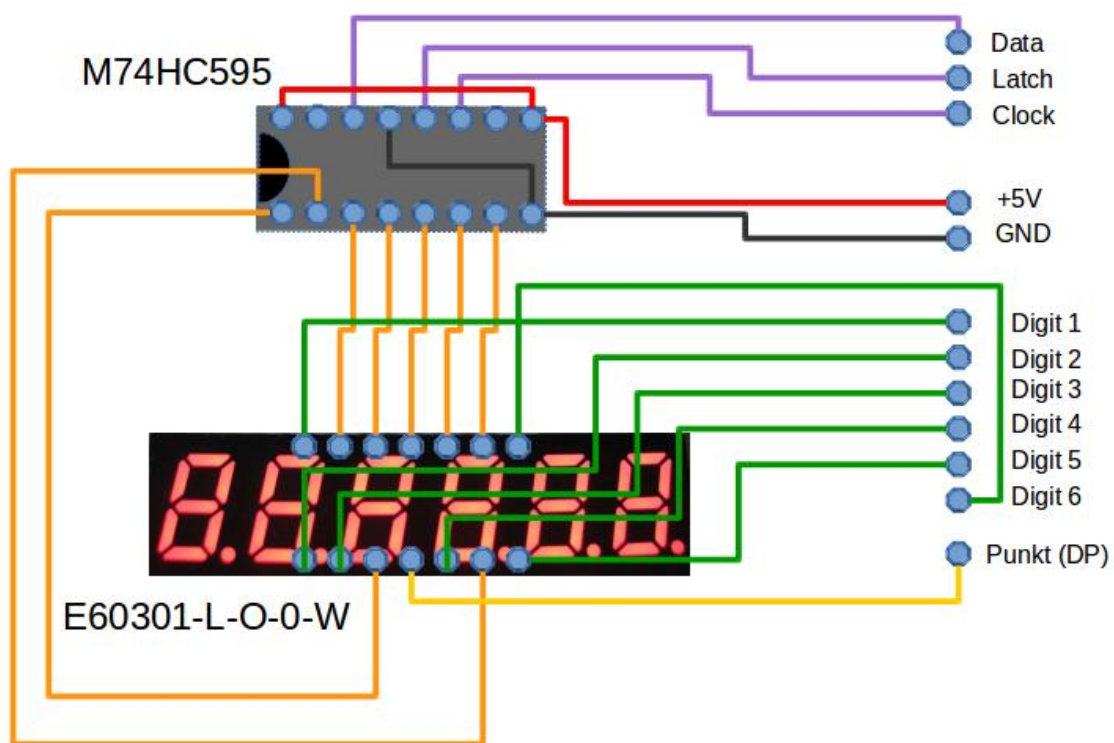
SegmentDisplay segmentDisplay(latchPin, // tell the library the pins -> pinMode will be called
                              clockPin,
                              dataPin,
                              digit1,
                              digit2,
                              digit3,
                              digit4,
                              digit5,
                              digit6,
                              punkt);

void setup() {
}

```

```
void loop() {  
  
    char tempTest[6][2] = {  
        {'1', '.'},  
        {'2', 'X'},  
        {'3', '.'},  
        {'4', 'X'},  
        {'5', '.'},  
        {'6', 'X'}  
    };  
  
    segmentDisplay.showChar(tempTest , 1000); // call display to show "1.23.45.6" for 1s  
}
```

How to connect the Display



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SegmentDisplay (C++ class), [5](#)
SegmentDisplay::isLegal (C++ function), [6](#)
SegmentDisplay::SegmentDisplay (C++ function), [5](#)
SegmentDisplay::showChar (C++ function), [6](#)
SegmentDisplay::showString (C++ function), [5](#)
SegmentDisplay::updateShiftRegister (C++ function), [6](#)