

My Project

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Chapter 1

LICENSE

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Chapter 2

TLC59116

Arduino library to control the [TLC59116](#) PWM LED Driver chips.

Chapter 3

Class Index

3.1 Class List

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

TLC59116	7
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Chapter 4

Class Documentation

4.1 TLC59116 Class Reference

```
#include <TLC59116.h>
```

Public Member Functions

- [TLC59116](#) ()
- [TLC59116](#) (uint8_t addr)
- void [begin](#) ()
- void [analogWrite](#) (uint8_t channel, uint8_t brightness)
- void [displayNumber](#) (uint8_t number, uint8_t brightness)
- void [setPinMapping](#) (const uint8_t *)

4.1.1 Detailed Description

The [TLC59116](#) library drives a [TLC59116](#) PWM LED Driver chip over I2C. It allows the control of each output via functions that work the same as the normal Arduinop [analogWrite\(\)](#) function. There is also a pin mapping facility for displaying numeric values on a 7 segment display.

4.1.2 Constructor & Destructor Documentation

4.1.2.1 [TLC59116::TLC59116](#) ()

Create a new [TLC59116](#) board with the default address of 0

4.1.2.2 [TLC59116::TLC59116](#) (uint8_t *addr*)

Create a new [TLC59116](#) board with the default provided address

4.1.3 Member Function Documentation

4.1.3.1 void [TLC59116::analogWrite](#) (uint8_t *channel*, uint8_t *brightness*)

Set the channel (0-15) to the given brightness value (0-255)

4.1.3.2 void TLC59116::begin ()

Initialize the board, set all channels to 0, and apply the default pin mapping

4.1.3.3 void TLC59116::displayNumber (uint8_t *number*, uint8_t *brightness*)

Display the given number at the specified brightness using the current pin mapping

4.1.3.4 void TLC59116::setPinMapping (const uint8_t * *map*)

Load a new pin mapping.

Pin mappings are in the form of an 8-byte array with each byte representing the mapping for segments A to G and DP in that order. The upper nibble (4 bits) of each byte is the analog channel number for the left-hand digit. The lower nibble is the channel number for the right-hand digit.

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

- TLC59116.h
- TLC59116.cpp

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