### Documentation



#### TABLE OF CONTENTS

► Home.md

## Home.md

### Installation

Install through LEDControl Setup.exe. About 400 MB harddrive space is needed. Matlab Runtime 2024 or Matlab R2024 is required.

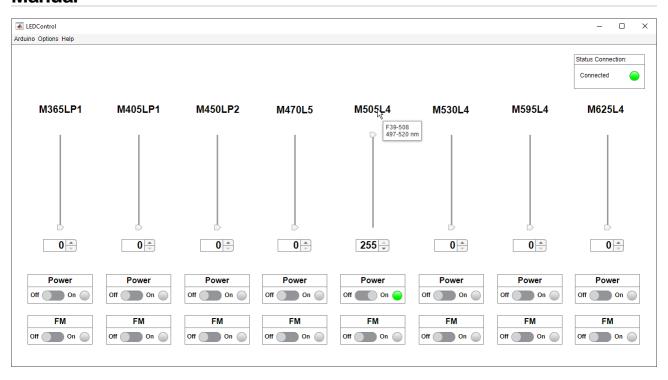
After finishing the installation a console should pop, which installs the all necessary tools for the arduino CLI.

If the installation was successfull a directory named ArduinoCLI exists under the drive C. If not you need to setup the Arduioni CLI urself:

- 1. Download Arduino CLI 0.33.0 as mentioned in the above page and extract to 'C:\ArduinoCLI'
- 2. Open command terminal from the above location and execute following commands:

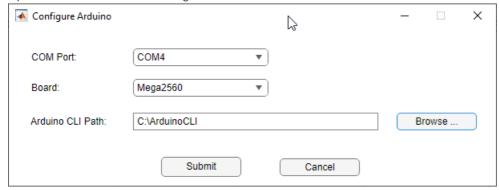
```
arduino-cli config init --overwrite --dest-file arduino-cli.yaml arduino-cli config set directories.data data --config-file arduino-cli.yaml arduino-cli config set directories.user user --config-file arduino-cli.yaml arduino-cli config set directories.downloads downloads --config-file arduino-cli.yaml arduino-cli core install arduino:avr@1.8.3 --config-file arduino-cli.yaml
```

#### **Manual**



#### **Connect to Arduino**

• Open the connection window through the menu bar: Arduino => Connect



• Set board to "Mega2560" and the Arduino CLI path to C:\ArduinoCLI. (If you installed the CLI into another directory choose

that one)

 Set the COM port to the port belonging to the Arduino. If you don't know the COM Port you can use the list\_com\_ports.bat script to see all used COM ports on the computer.

```
■ list_com_ports

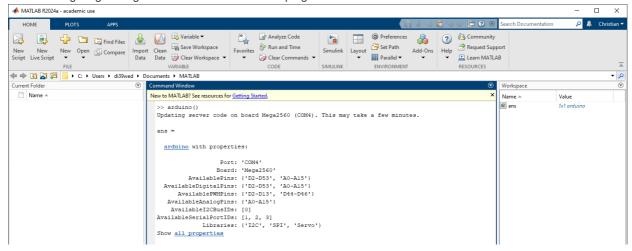
Listing all available devices on COM ports...

Port: COM4 - Arduino Mega 2560 (COM4)

Done.

Drücken Sie eine beliebige Taste . . . ■
```

After setting all the options and pressing submit the programm will connect to the Arduino. If the connection has not been
established after one minute an error occured, most likely with the onboard programming of the arduino. To fix this open
Matlab R2024 and enter "arduino()" in the console. Wait for a connection to be established. A successfull connection will be
shown through a green light in the connection status top right.



• Close Matlab and try to connect again.

# **Settings**

 If for any reasons the pin layout of the arduino unit changes the pin options menu can be used to change the pins used for controlling the LEDs.



The displayed LEDs and their data can be changed through the LED\_list.csv setting data, which is located under:
 C:\Users\Public\Documents\LEDControl

