Date: 2023/11/15
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Version: 1.0
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arduino-cli for Nicla boards in Windows 10

arduino-cli installation

Download latest release

Pre-built binaries for all the supported platforms are available for download from the links below.

If you would like to use the **arduino-cli** command from any location:

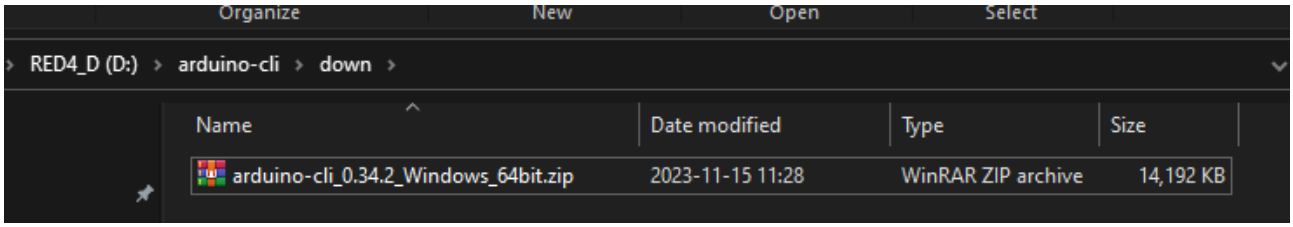
- extract the downloaded file to a directory already in your PATH
- or add the arduino-cli installation path to your PATH environment variable.

Platform		
Linux	32 bit	64 bit
Linux ARM	32 bit	64 bit
Linux ARMv6	32 bit	
Windows exe	32 bit	64 bit
Windows msi		64 bit
macOS		64 bit
macOS ARM		64 bit

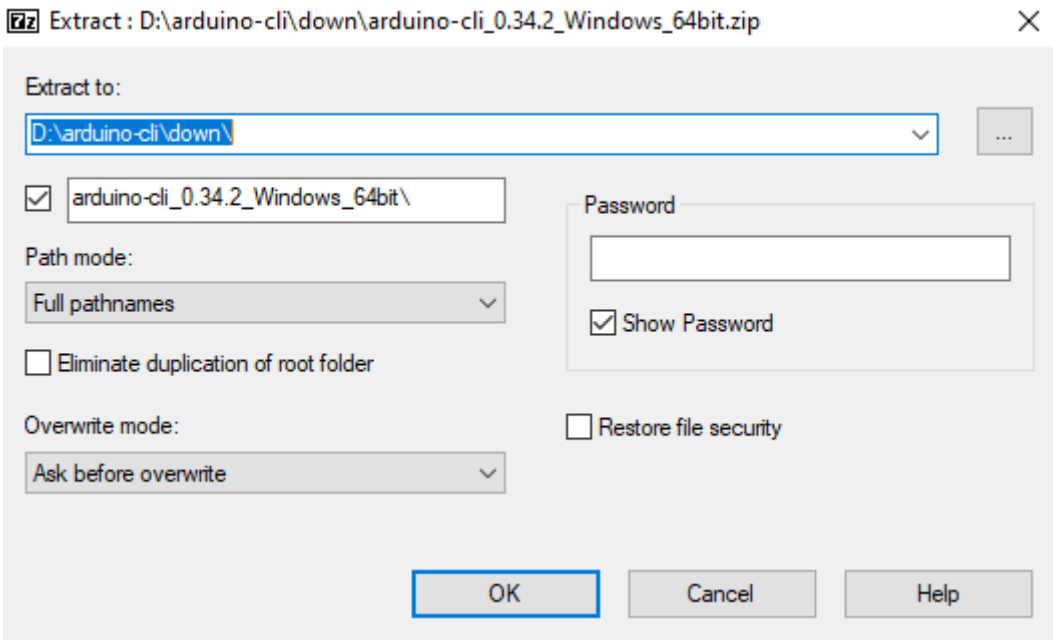
Win versions:

- https://downloads.arduino.cc/arduino-cli/arduino-cli_latest_Windows_64bit.zip
- https://downloads.arduino.cc/arduino-cli/arduino-cli_latest_Windows_64bit.msi

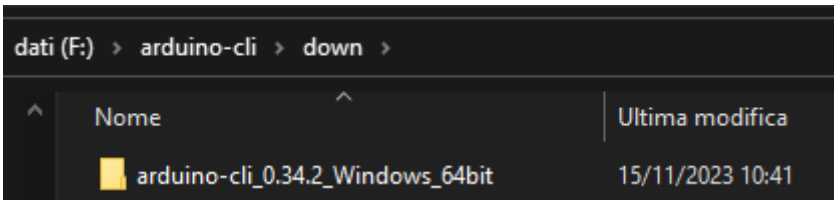
Install using arduino-cli_0.34.2_Windows_64bit.zip

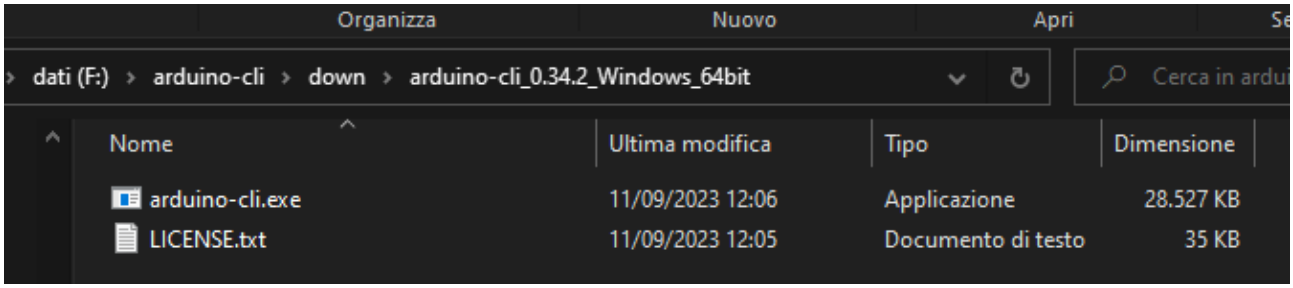


Extract file. For example, use 7zip to extract the archives



Press Ok



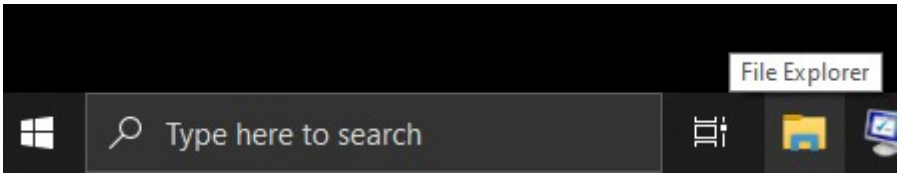


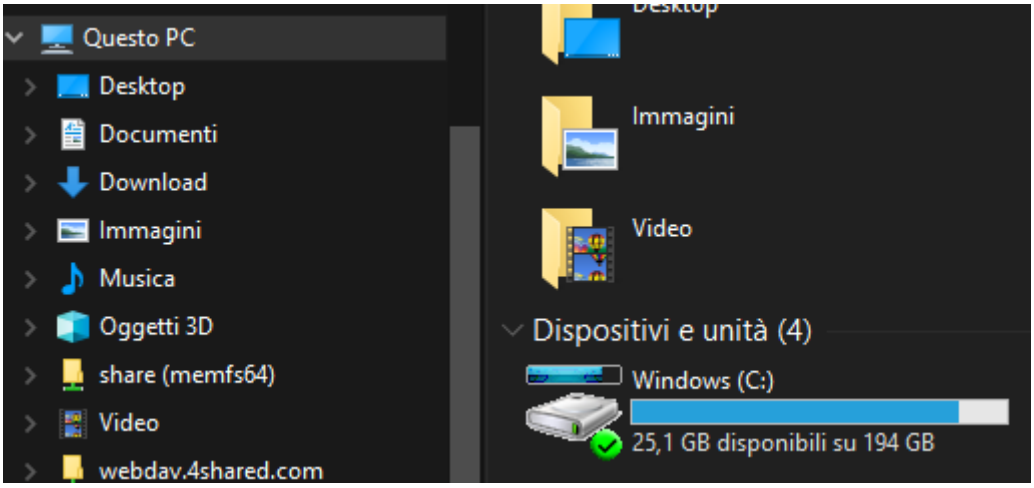
To run arduino-cli, you must copy arduino-cli.exe in a directory (for example c:\arduino-cli)

Create the c:\arduino-cli directory

Open File Explorer in Taskbar (the win **taskbar** is located at the bottom of the screen).

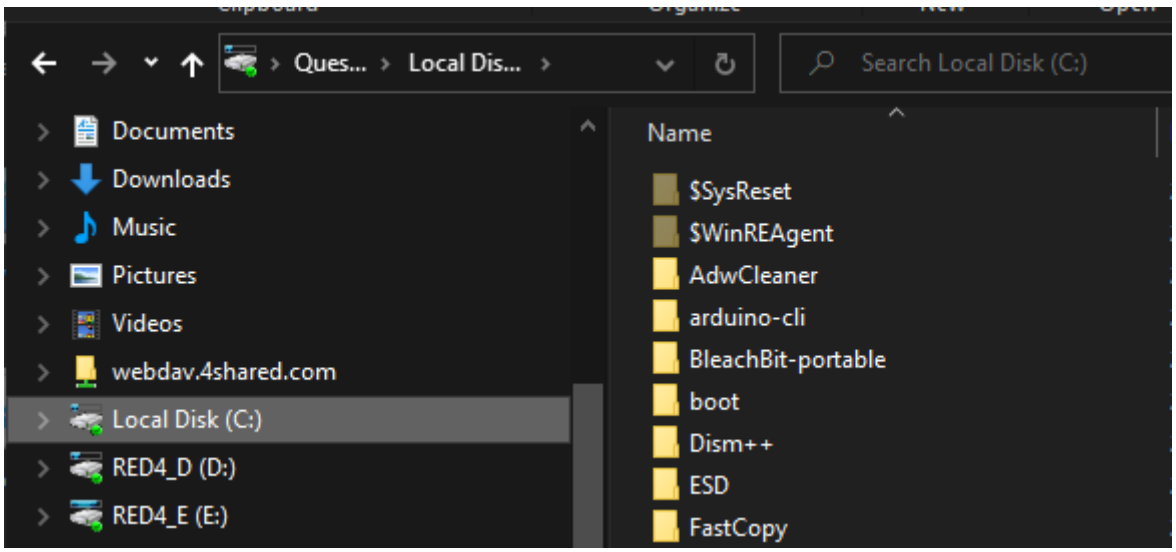
Press the ‘File Explorer’ icon.



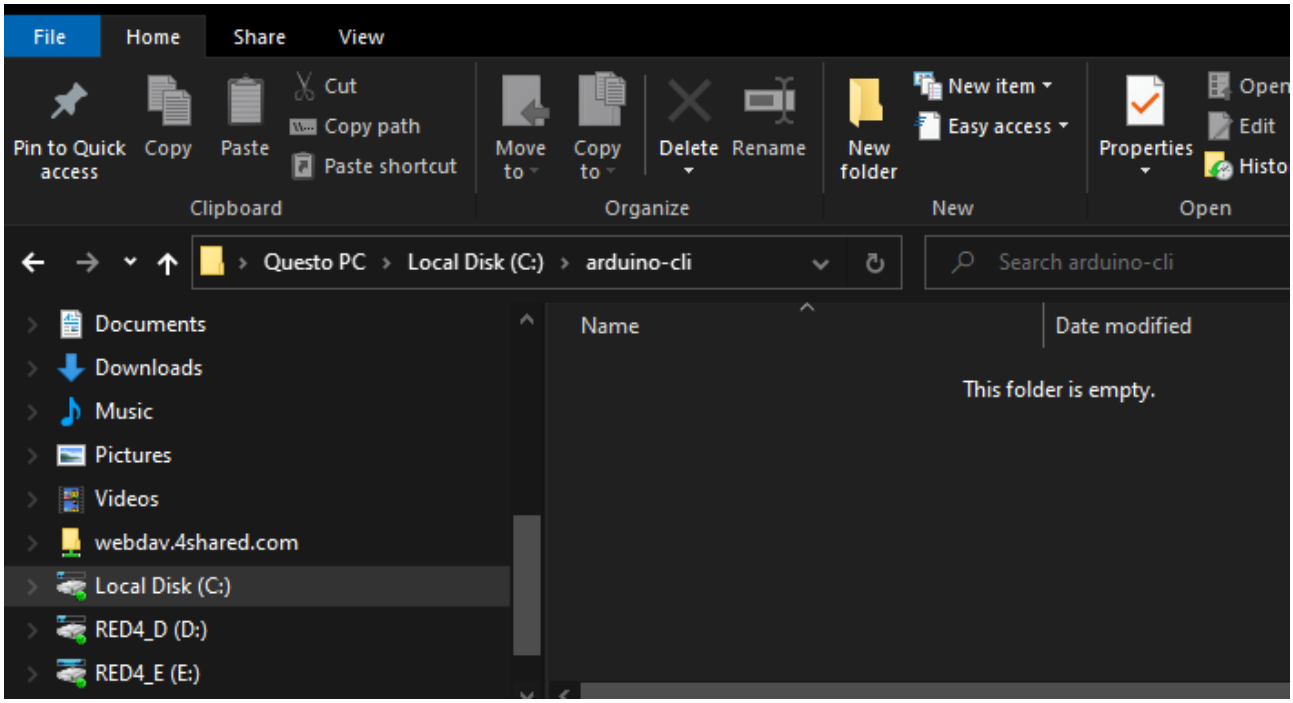


Select disk (C:)

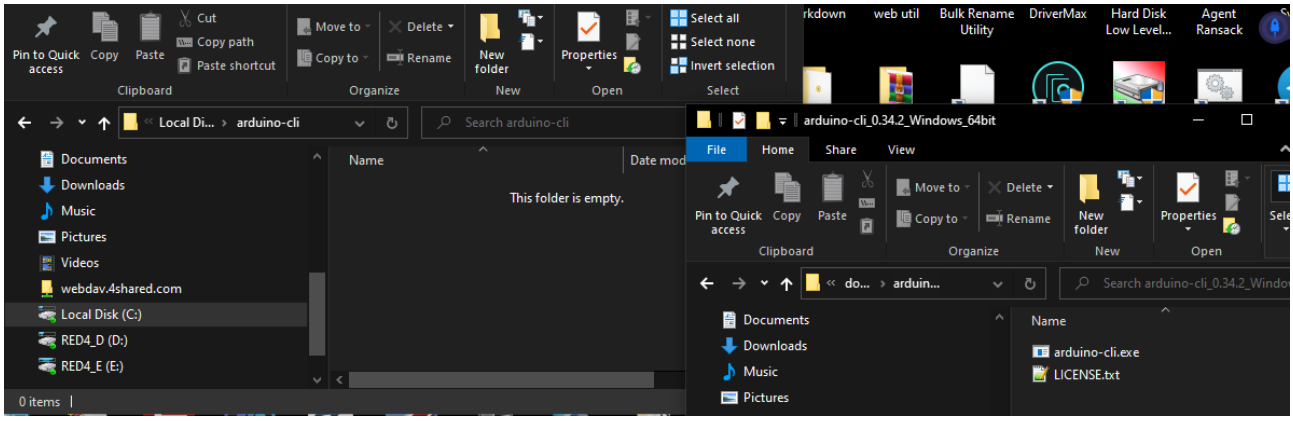
Press Right Button Mouse -> Select –> New –> Folder –> Write ‘arduino-cli’

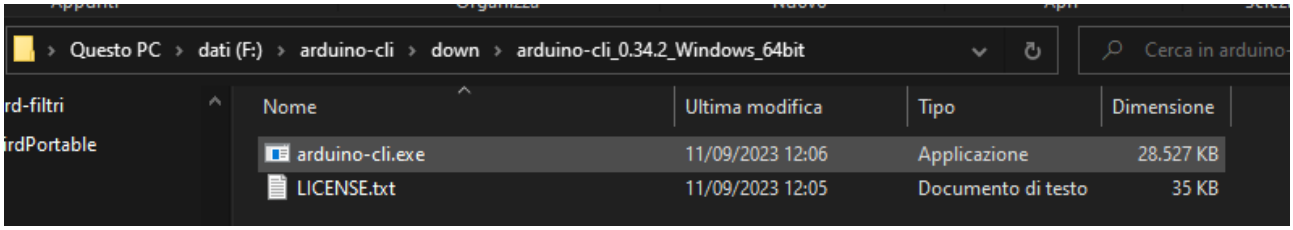


Double click on arduino-cli folder

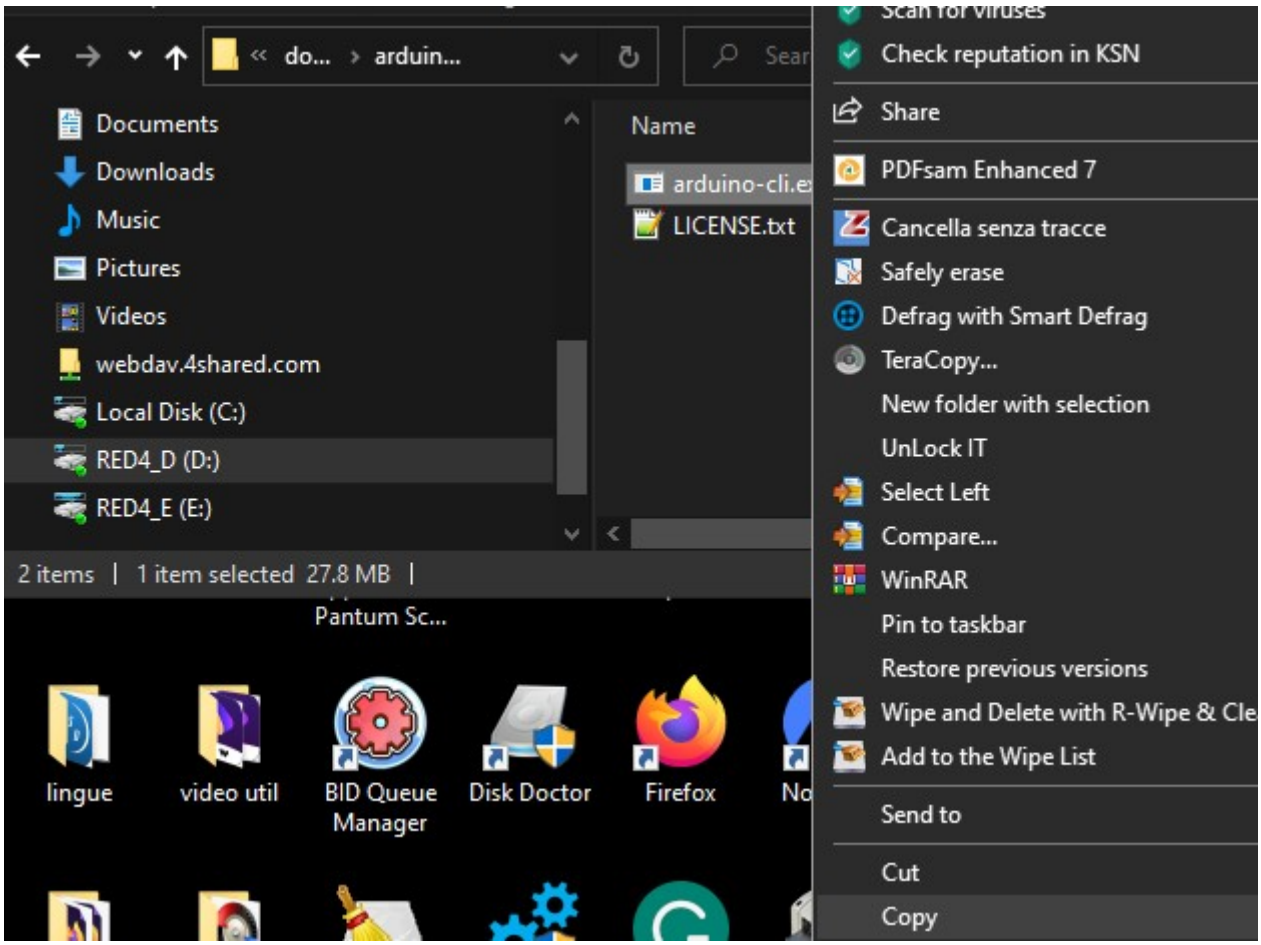


Now, using Explorer, reopen the folder where the arduino-cli is extracted

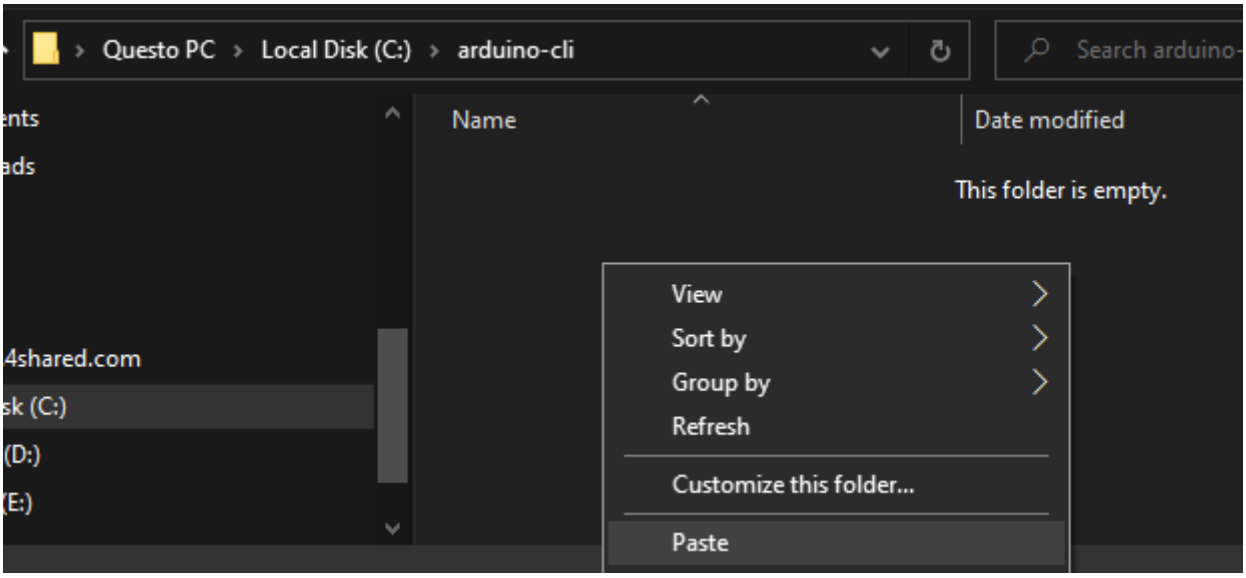




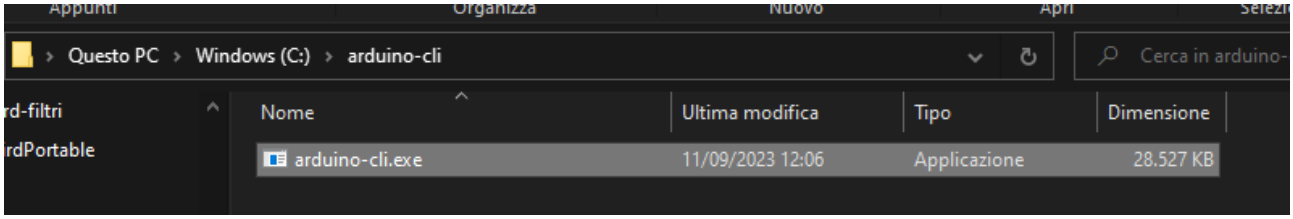
Select file arduino-cli, right click and select Copy



and paste to destination folder

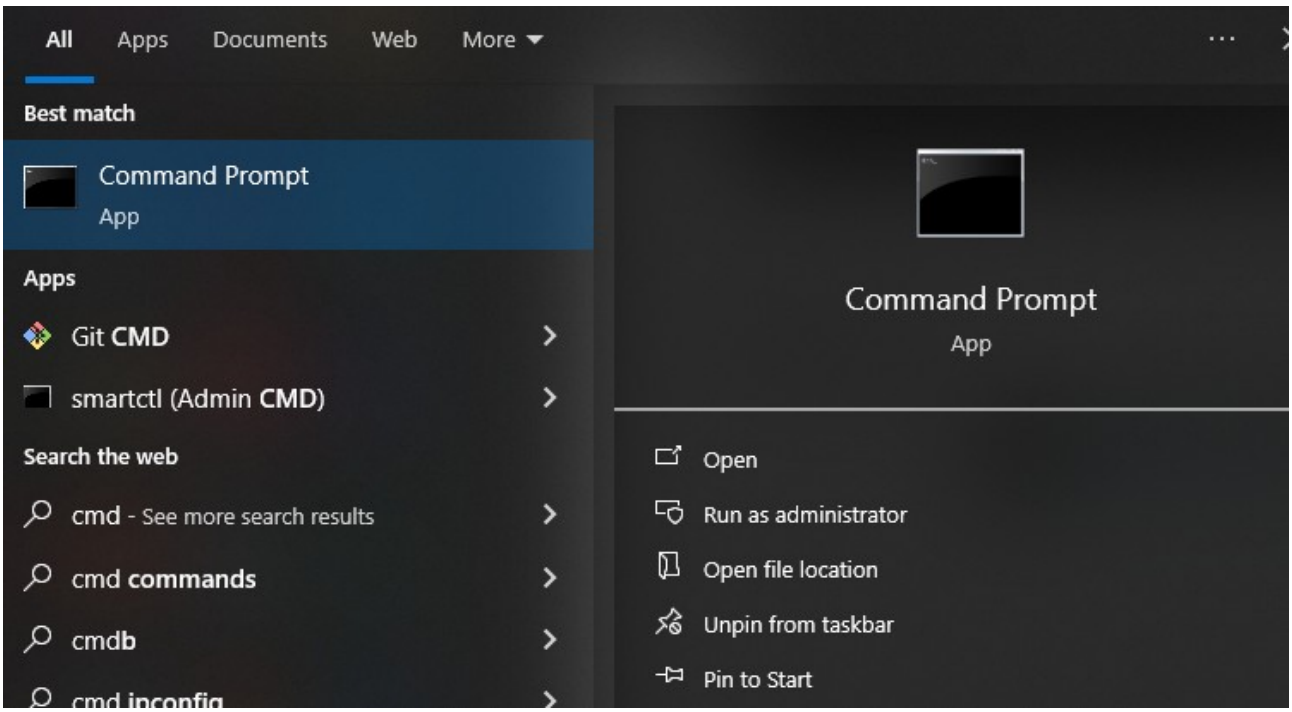


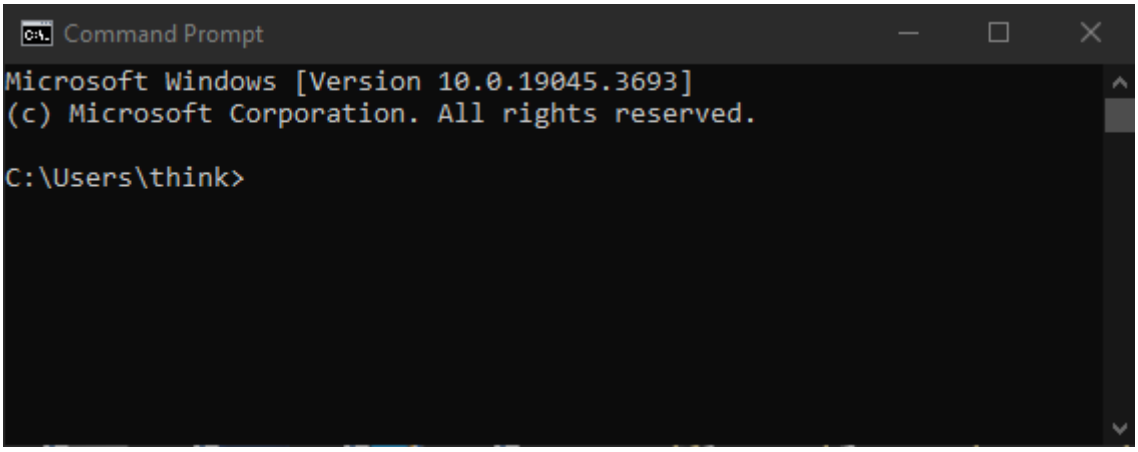
Paste to [c:\arduino-cli]



Run Windows 10 shell

Select search and write cmd

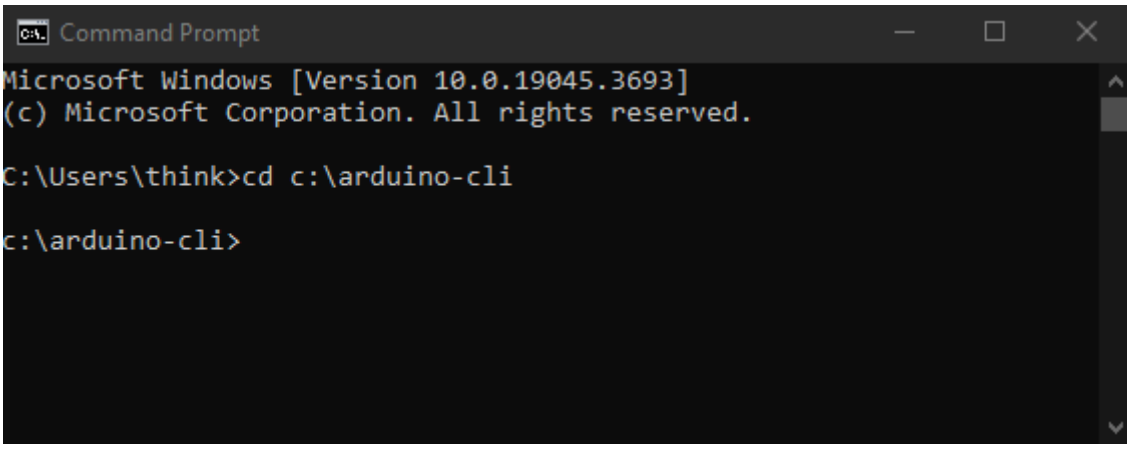




Launch arduino-cli

On command prompt

cd c:\arduino-cli

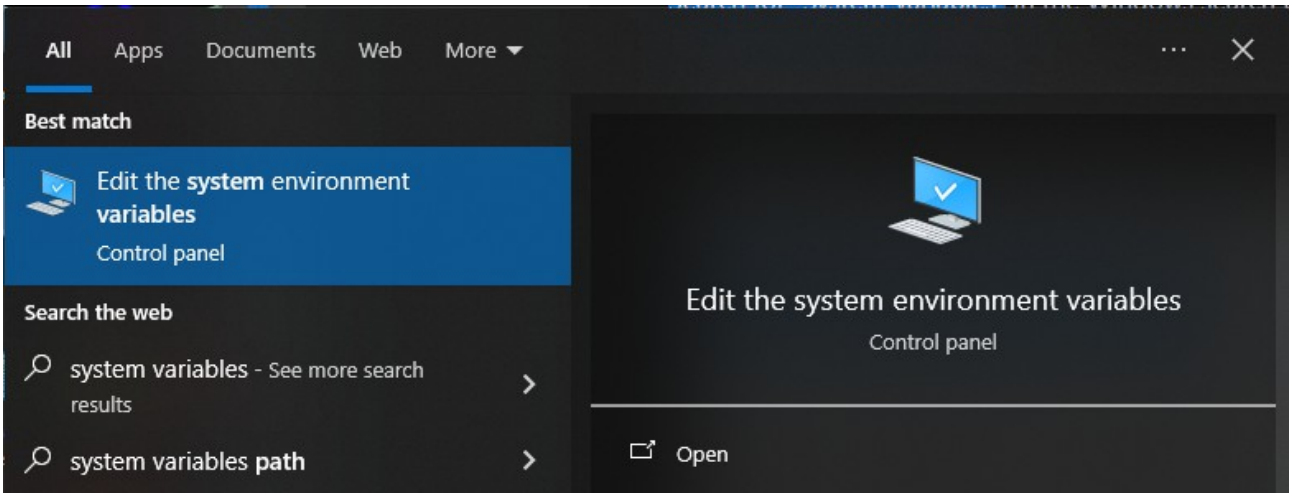



```
c:\arduino-cli>arduino-cli
Arduino Command Line Interface (arduino-cli).

Usage:
  arduino-cli [command]

Examples:
  arduino-cli <command> [flags...]

Available Commands:
  board           Arduino board commands.
  burn-bootloader Upload the bootloader.
  cache           Arduino cache commands.
  compile         Compiles Arduino sketches.
  completion      Generates completion scripts
  config          Arduino configuration commands.
  core            Arduino core operations.
```

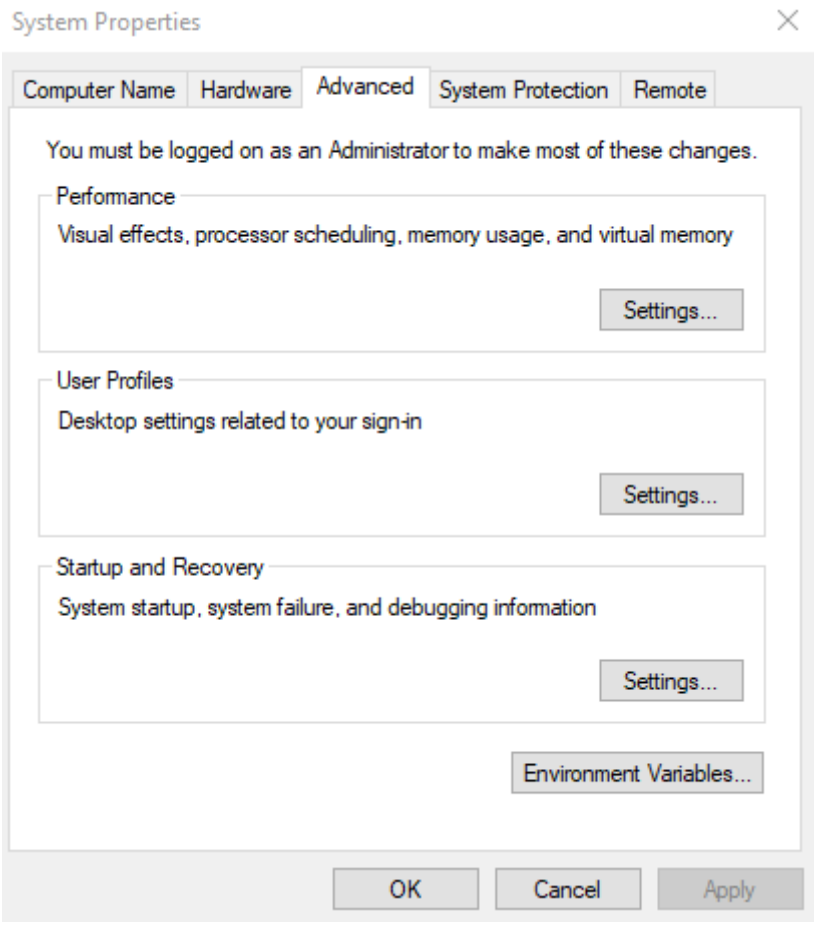
```
  daemon          Run as a daemon on port: 50051
  debug           Debug Arduino sketches.
  help            Help about any command
  lib             Arduino commands about libraries.
  monitor         Open a communication port with a board.
  outdated        Lists cores and libraries that can be upgraded
  sketch          arduino-cli sketch commands.
  update          Updates the index of cores and libraries
  upgrade         Upgrades installed cores and libraries.
  upload          Upload Arduino sketches.
  version         Shows version number of arduino-cli.

Flags:
      --additional-urls strings   Comma-separated list of additional URLs for
the Boards Manager.
      --config-file string        The custom config file (if not specified the
default will be used).
      --format string             The output format for the logs, can be: text,
json, jsonmini, yaml (default "text")
  -h, --help                      help for arduino-cli
      --log                       Print the logs on the standard output.
      --log-file string           Path to the file where logs will be written.
      --log-format string         The output format for the logs, can be: text,
json
      --log-level string          Messages with this level and above will be
logged. Valid levels are: trace, debug, info, warn, error, fatal, panic
      --no-color                  Disable colored output.

Use "arduino-cli [command] --help" for more information about a command.

c:\arduino-cli>
```

Add arduino-cli to system Path

Search for **“System Variables”**

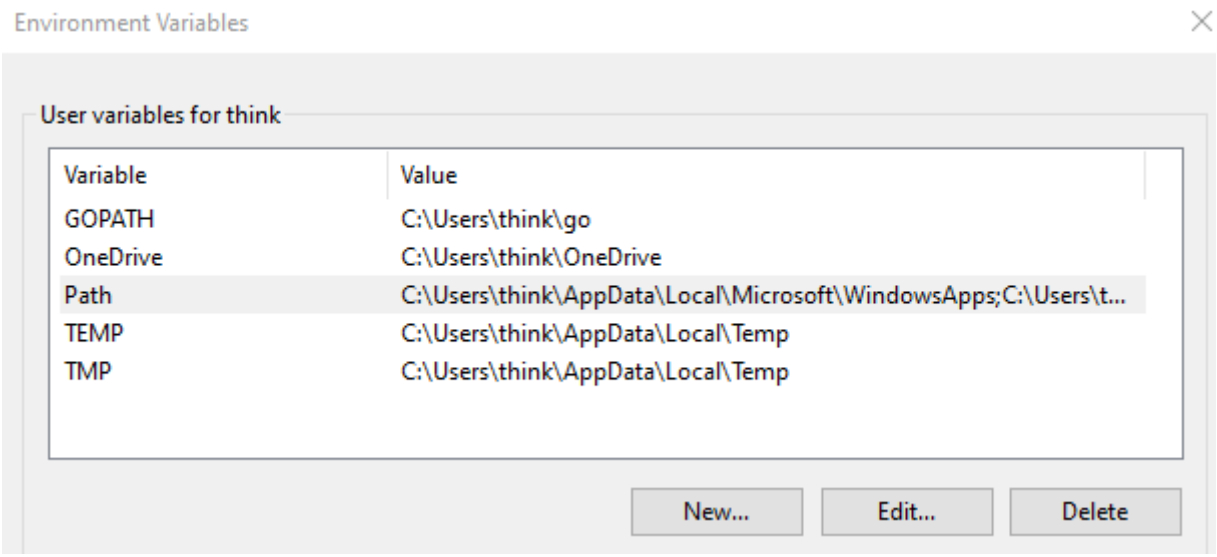


Select Open

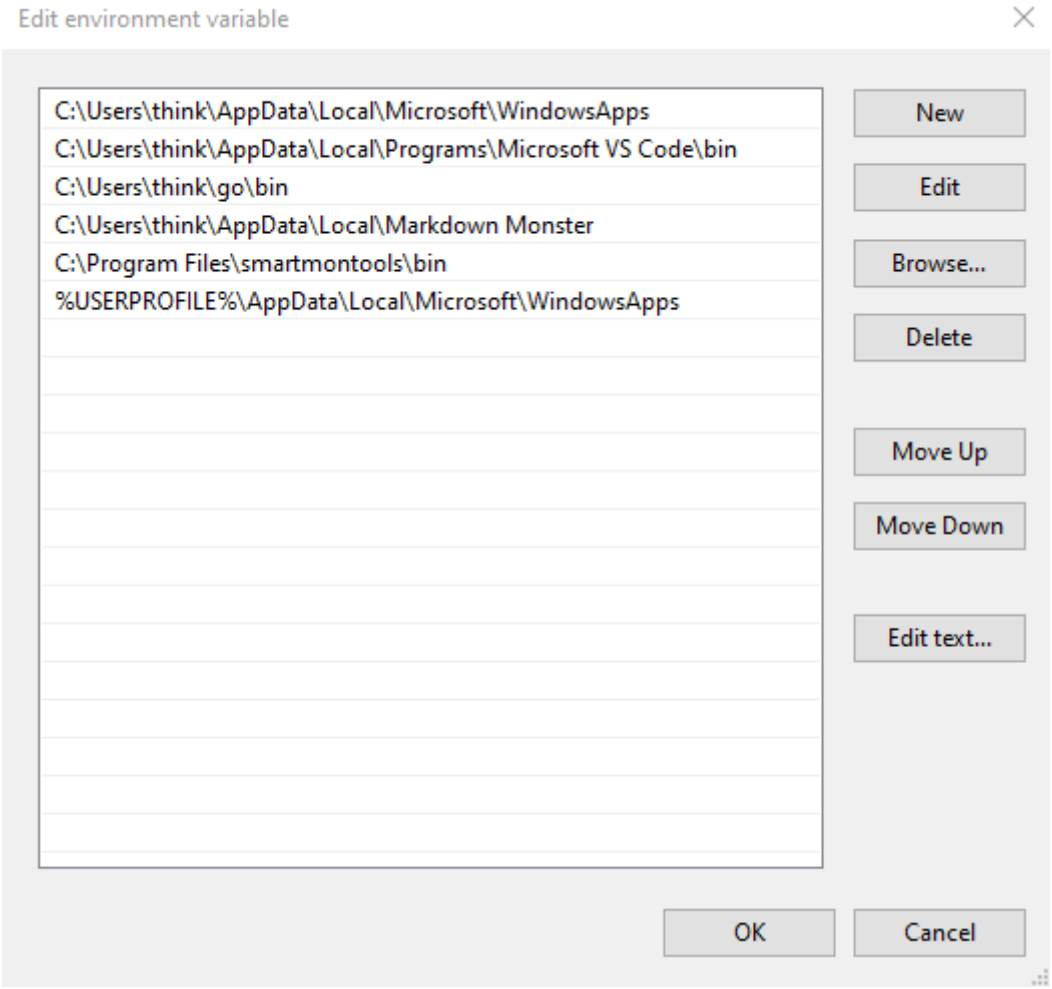


Select **Environment Variables**

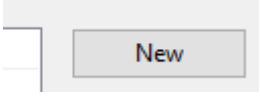
Select **Path**



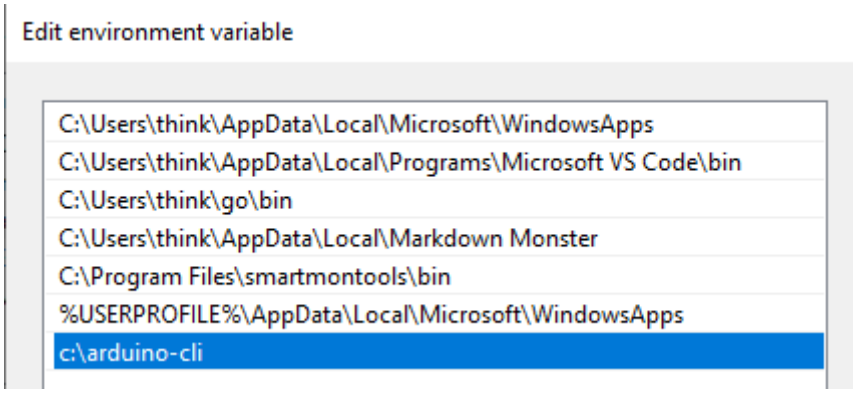
Press **Edit**



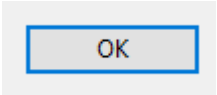
Press **New**



write: c:\arduino-cli

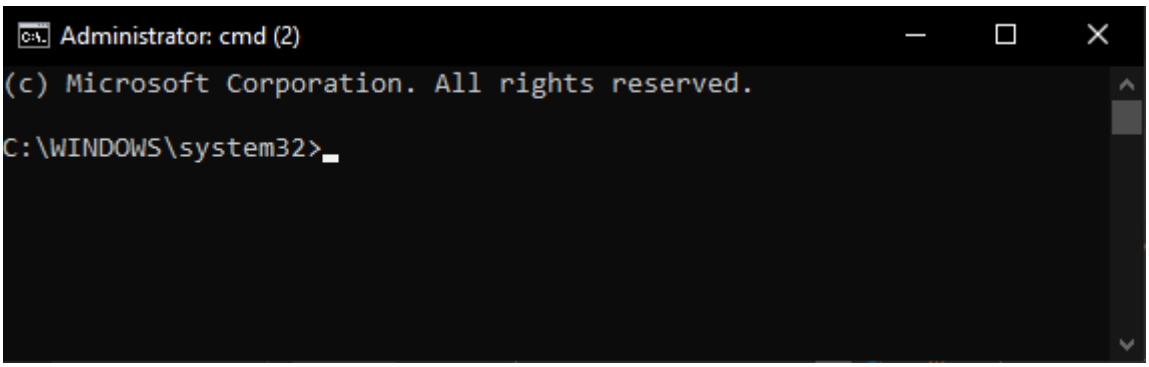


Press 3 OK buttons to close the nested opened windows

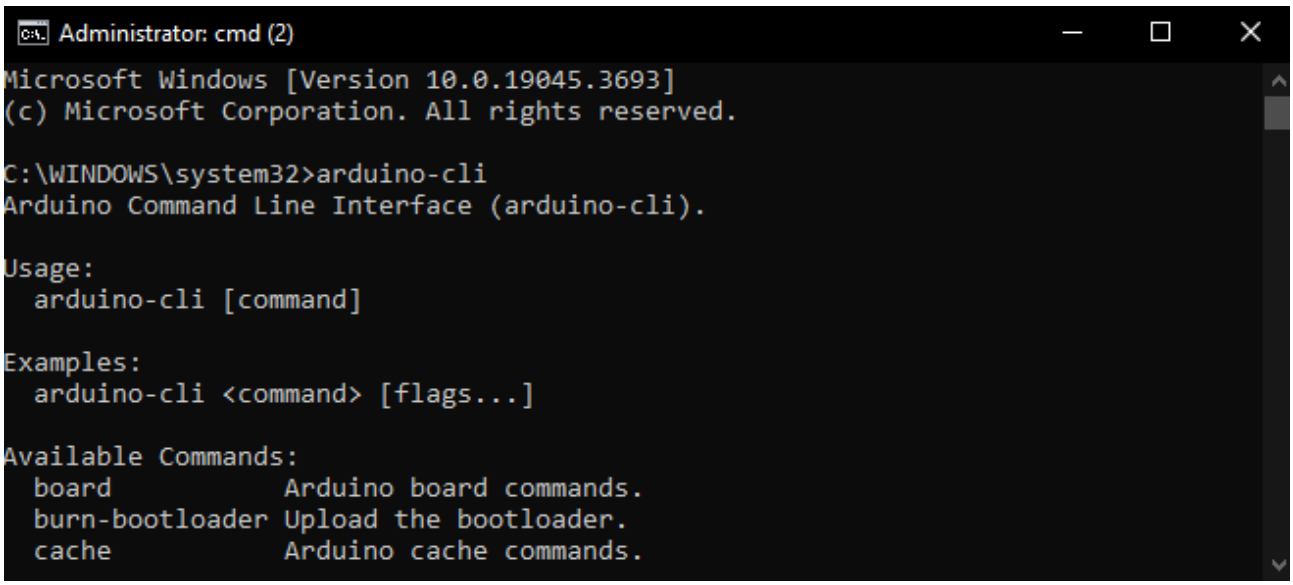


Check the launch of arduino-cli command from any location

Open a new command line interface



launch **arduino-cli**, and see if you get help



Update board index

Before doing anything, update the index of boards by running:

```
arduino-cli core update-index
```

```
C:\>arduino-cli core update-index
Downloading index: package_index.tar.bz2 downloaded

C:\>
```

Search for core using board name

```
arduino-cli core search nicla
```

```
C:\>arduino-cli core search nicla
ID                  Version Name
arduino:mbed_nicla 4.0.8   Arduino Mbed OS Nicla Boards
arduino:mbed       3.3.0   [DEPRECATED] [DEPRECATED - Please install standalone
packages] Arduino Mbed OS Boards
```

List of cores installed

To get the list of cores currently installed at any point of time, enter the following command-

```
arduino-cli core list
```

```
C:\>arduino-cli core list
ID                Installed Latest Name
arduino:avr       1.8.6     1.8.6  Arduino AVR Boards
arduino:mbed_nano 3.5.1     3.5.1  Arduino Mbed OS Nano Boards
C:\>
```

the arduino-cli board command

```
C:\>arduino-cli board
Arduino board commands.

Usage:
  arduino-cli board [command]

Examples:
  # Lists all connected boards.
  arduino-cli board list

Available Commands:
  attach      Attaches a sketch to a board.
  details     Print details about a board.
  list        List connected boards.
  listall     List all known boards and their corresponding FQBN.
  search      Search for a board in the Boards Manager.

Flags:
  -h, --help   help for board
```

list of the Arduino boards connected to PC

Use **arduino-cli board list** to see the board actually connected

Example:

Step1: Command result with no board connected to pc

```
C:\>arduino-cli board list
Port Protocol Type        Board Name FQBN Core
COM1 serial   Serial Port Unknown
COM3 serial   Serial Port Unknown
COM4 serial   Serial Port Unknown
```

Step2: after attaching a nicla sense an usb port, recall the same command

```
C:\>arduino-cli board list
Port Protocol Type              Board Name             FQBN
Core
COM1 serial   Serial Port       Unknown
COM3 serial   Serial Port       Unknown
COM4 serial   Serial Port       Unknown
COM5 serial   Serial Port (USB) Arduino Nicla Sense ME
arduino:mbed_nicla:nicla_sense arduino:mbed_nicla
```

list of installed boards

A list of installed boards can also be individually displayed with the following command-

```
arduino-cli board listall
```

```
C:\>arduino-cli board listall
Board Name                         FQBN
```

```
Adafruit Circuit Playground      arduino:avr:circuitplay32u4cat
Arduino BT                       arduino:avr:bt
Arduino Duemilanove or Diecimila arduino:avr:diecimila
Arduino Esplora                  arduino:avr:esplora
Arduino Ethernet                 arduino:avr:ethernet
Arduino Fio                      arduino:avr:fio
Arduino Gemma                    arduino:avr:gemma
Arduino Industrial 101           arduino:avr:chiwawa
Arduino Leonardo                 arduino:avr:leonardo
Arduino Leonardo ETH             arduino:avr:leonardoeth
Arduino Mega ADK                 arduino:avr:megaADK
Arduino Mega or Mega 2560        arduino:avr:mega
Arduino Micro                    arduino:avr:micro
Arduino Mini                     arduino:avr:mini
Arduino NG or older              arduino:avr:atmegang
Arduino Nano                     arduino:avr:nano
Arduino Nano 33 BLE              arduino:mbed_nano:nano33ble
Arduino Nano RP2040 Connect      arduino:mbed_nano:nanorp2040connect
Arduino Pro or Pro Mini          arduino:avr:pro
Arduino Robot Control            arduino:avr:robotControl
Arduino Robot Motor              arduino:avr:robotMotor
Arduino Uno                      arduino:avr:uno
Arduino Uno Mini                 arduino:avr:unomini
Arduino Uno WiFi                 arduino:avr:unowifi
Arduino Yún                      arduino:avr:yun
Arduino Yún Mini                 arduino:avr:yunmini
LilyPad Arduino                  arduino:avr:lilypad
LilyPad Arduino USB              arduino:avr:LilyPadUSB
Linino One                       arduino:avr:one
```

Search for available cores

You can search for available cores using:

```
arduino-cli core search
```

example:

```
C:\>arduino-cli core search
Downloading index: package_index.tar.bz2 downloaded
Downloading missing tool builtin:mdns-discovery@1.0.9...
builtin:mdns-discovery@1.0.9 downloaded
Installing builtin:mdns-discovery@1.0.9...
Skipping tool configuration....
builtin:mdns-discovery@1.0.9 installed
Downloading missing tool builtin:serial-monitor@0.13.0...
builtin:serial-monitor@0.13.0 downloaded
Installing builtin:serial-monitor@0.13.0...
Skipping tool configuration....
builtin:serial-monitor@0.13.0 installed
Downloading missing tool builtin:dfu-discovery@0.1.2...
builtin:dfu-discovery@0.1.2 downloaded
Installing builtin:dfu-discovery@0.1.2...
Skipping tool configuration....
builtin:dfu-discovery@0.1.2 installed
Downloading missing tool builtin:serial-discovery@1.4.0...
builtin:serial-discovery@1.4.0 downloaded
Installing builtin:serial-discovery@1.4.0...
```

```
Skipping tool configuration....
builtin:serial-discovery@1.4.0 installed
ID                      Version   Name
arduino:avr             1.8.6     Arduino AVR Boards
arduino:esp32           2.0.13    Arduino ESP32 Boards
arduino:mbed_edge       4.0.8     Arduino Mbed OS Edge Boards
arduino:mbed_giga       4.0.8     Arduino Mbed OS Giga Boards
arduino:mbed_nano       4.0.8     Arduino Mbed OS Nano Boards
arduino:mbed_nicla      4.0.8     Arduino Mbed OS Nicla Boards
arduino:mbed_opta       4.0.8     Arduino Mbed OS Opta Boards
arduino:mbed_portenta   4.0.8     Arduino Mbed OS Portenta Boards
arduino:mbed_rp2040     4.0.8     Arduino Mbed OS RP2040 Boards
arduino:megaavr         1.8.8     Arduino megaAVR Boards
arduino:nrf52           1.0.2     Arduino nRF52 Boards
arduino:renesas_portenta 1.0.5    Arduino Renesas Portenta Boards
arduino:sam             1.6.12    Arduino SAM Boards (32-bits ARM Cortex-M3)
arduino:samd            1.8.13    Arduino SAMD Boards (32-bits ARM Cortex-M0+)
arduino:renesas_uno     1.0.5     Arduino UNO R4 Boards
Arrow:samd              2.1.0     Arrow Boards
atmel-avr-xminis:avr    0.6.0     Atmel AVR Xplained-minis
emoro:avr               3.2.2     EMORO 2560
esp32:esp32             2.0.11    esp32
industruino:samd        1.0.1     Industruino SAMD Boards (32-bits ARM Cortex-
M0+)
Intel:arc32             2.0.6     Intel Curie Boards
Intel:i586              1.6.7+1.0 Intel i586 Boards
Intel:i686              1.6.7+1.0 Intel i686 Boards
littleBits:avr          1.0.0     littleBits Arduino AVR Modules
renesas:rl78g22_fpb     2.0.0     RL78/G22 Fast Prototyping Board
renesas:rl78g23_fpb_p64 2.0.0     RL78/G23-64p Fast Prototyping Board
Microsoft:win10         1.1.2     Windows 10 Iot Core
arduino:mbed            3.3.0     [DEPRECATED] [DEPRECATED - Please install
standalone packages] Arduino Mbed OS Boards
```

Install a core

To install a core along with all its dependencies (such as compiler, debuggers etc.), enter the following command:

`arduino-cli core install 'core-ID'`

Arduino regularly updates its list of available cores to match the boards available in the market.

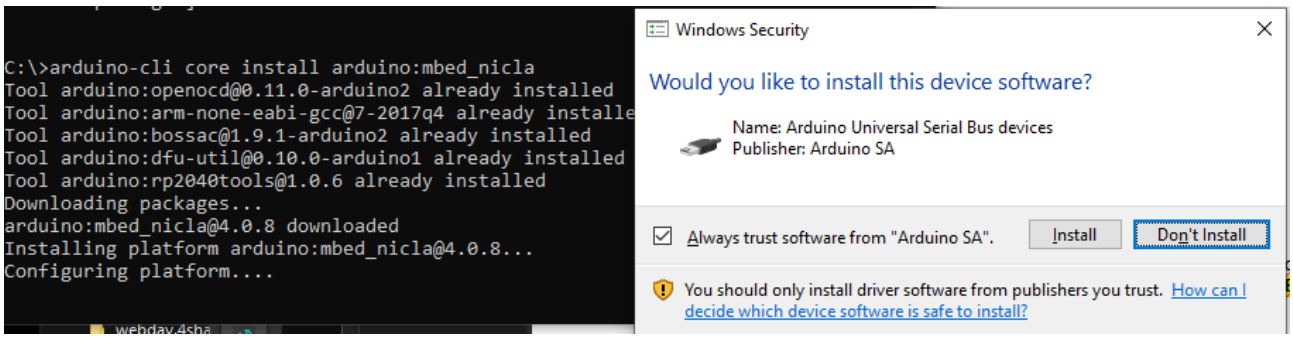
nicla core installation

List of available cores

```
C:\>arduino-cli core search
Downloading index: package_index.tar.bz2 downloaded
...
ID                      Version   Name
arduino:avr             1.8.6     Arduino AVR Boards
arduino:esp32           2.0.13    Arduino ESP32 Boards
...
arduino:mbed_nano       4.0.8     Arduino Mbed OS Nano Boards
arduino:mbed_nicla      4.0.8     Arduino Mbed OS Nicla Boards
...
Microsoft:win10         1.1.2     Windows 10 Iot Core
```

```
arduino:mbed              3.3.0     [DEPRECATED] [DEPRECATED - Please install
standalone packages] Arduino Mbed OS Boards
```

arduino-cli core install arduino:mbed_nicla



Press Install to install usb to serial driver


```
C:\>arduino-cli core install arduino:mbed_nicla
Tool arduino:openocd@0.11.0-arduino2 already installed
Tool arduino:arm-none-eabi-gcc@7-2017q4 already installed
Tool arduino:bossac@1.9.1-arduino2 already installed
Tool arduino:dfu-util@0.10.0-arduino1 already installed
Tool arduino:rp2040tools@1.0.6 already installed
Downloading packages...
arduino:mbed_nicla@4.0.8 downloaded
Installing platform arduino:mbed_nicla@4.0.8...
Configuring platform....
Platform arduino:mbed_nicla@4.0.8 installed
```

upgrade all installed cores

To upgrade all installed cores to the latest version, you can use the following command:

arduino-cli core upgrade

```
C:\>arduino-cli core upgrade
Tool arduino:openocd@0.11.0-arduino2 already installed
Tool arduino:arm-none-eabi-gcc@7-2017q4 already installed
Tool arduino:bossac@1.9.1-arduino2 already installed
Tool arduino:dfu-util@0.10.0-arduino1 already installed
Tool arduino:rp2040tools@1.0.6 already installed
Downloading packages...
arduino:mbed_nano@4.0.8 downloaded
Replacing platform arduino:mbed_nano@3.5.1 with arduino:mbed_nano@4.0.8...
Uninstalling arduino:mbed_nano@3.5.1...
Platform arduino:mbed_nano@3.5.1 uninstalled
Uninstalling arduino:openocd@0.11.0-arduino2, tool is no more required...
Uninstalling arduino:arm-none-eabi-gcc@7-2017q4, tool is no more required...
Uninstalling arduino:bossac@1.9.1-arduino2, tool is no more required...
Uninstalling arduino:dfu-util@0.10.0-arduino1, tool is no more required...
Uninstalling arduino:rp2040tools@1.0.6, tool is no more required...
```

```
Configuring platform....
Platform arduino:mbed_nano@4.0.8 installed
```

Verify installed cores

```
arduino-cli core list
```

```
C:\>arduino-cli core list
ID                  Installed Latest Name
arduino:avr         1.8.6     1.8.6  Arduino AVR Boards
arduino:mbed_nano   4.0.8     4.0.8  Arduino Mbed OS Nano Boards
arduino:mbed_nicla 4.0.8      4.0.8  Arduino Mbed OS Nicla Boards
```

Get a complete list of all boards supported by installed cores

To get a complete list of all boards supported by your installed cores, use:

```
arduino-cli board listall
```

```
C:\>arduino-cli board listall
Board Name                         FQBN
Adafruit Circuit Playground        arduino:avr:circuitplay32u4cat
Arduino BT                         arduino:avr:bt
Arduino Duemilanove or Diecimila   arduino:avr:diecimila
Arduino Esplora                    arduino:avr:esplora
Arduino Ethernet                   arduino:avr:ethernet
Arduino Fio                        arduino:avr:fio
Arduino Gemma                      arduino:avr:gemma
Arduino Industrial 101             arduino:avr:chiwawa
Arduino Leonardo                   arduino:avr:leonardo
Arduino Leonardo ETH               arduino:avr:leonardoeth
Arduino Mega ADK                   arduino:avr:megaADK
Arduino Mega or Mega 2560          arduino:avr:mega
Arduino Micro                      arduino:avr:micro
Arduino Mini                       arduino:avr:mini
Arduino NG or older                arduino:avr:atmegang
Arduino Nano                       arduino:avr:nano
Arduino Nano 33 BLE                arduino:mbed_nano:nano33ble
Arduino Nano RP2040 Connect        arduino:mbed_nano:nanorp2040connect
Arduino Nicla Sense ME             arduino:mbed_nicla:nicla_sense
Arduino Nicla Vision               arduino:mbed_nicla:nicla_vision
Arduino Nicla Voice                arduino:mbed_nicla:nicla_voice
Arduino Pro or Pro Mini            arduino:avr:pro
Arduino Robot Control              arduino:avr:robotControl
Arduino Robot Motor                arduino:avr:robotMotor
Arduino Uno                        arduino:avr:uno
Arduino Uno Mini                   arduino:avr:unomini
Arduino Uno WiFi                   arduino:avr:unowifi
Arduino Yún                        arduino:avr:yun
Arduino Yún Mini                   arduino:avr:yunmini
LilyPad Arduino                    arduino:avr:lilypad
LilyPad Arduino USB                arduino:avr:LilyPadUSB
Linino One                         arduino:avr:one
```

Setting up Libraries

The following command can be used to list all libraries currently installed on your PC.

arduino-cli lib list

```
C:\>arduino-cli lib list
No libraries installed.
```

Upgrade libraries

arduino-cli lib upgrade

This will upgrade all your installed libraries to their latest stable version.

```
C:\>arduino-cli lib upgrade
```

Search a library

To search for a library, you can use the following command-

arduino-cli lib search “string”

```
C:\>arduino-cli lib search newPing
Name: "NewPing"
  Author: Tim Eckel <eckel.tim@gmail.com>
  Maintainer: Tim Eckel <eckel.tim@gmail.com>
  Sentence: NewPing allows interfacing with ultrasonic sensors simple, fast &
powerful.
  Paragraph: Initially, I was not happy with how poorly ultrasonic sensors
performed. I soon realized the problem was not the sensor, it was the available
….
  Types: Contributed
  Versions: [1.0.0]
  Provides includes: Amytol.h, Amytol_Sample.h, AmytolNewPing.h
  Dependencies: Grove Ultrasonic Ranger
```

create a sketch

arduino-cli sketch new --help

```
Create a new Sketch

Usage:
  arduino-cli sketch new [flags]

Examples:
  arduino-cli sketch new MultiBlinker

Flags:
  -h, --help        help for new
  -f, --overwrite   Overwrites an existing .ino sketch.

Global Flags:
```

```
      --additional-urls strings   Comma-separated list of additional URLs for
the Boards Manager.
      --config-file string        The custom config file (if not specified the
default will be used).
      --format string             The output format for the logs, can be: text,
json, jsonmini, yaml (default "text")
      --log                       Print the logs on the standard output.
      --log-file string           Path to the file where logs will be written.
      --log-format string         The output format for the logs, can be: text,
json
      --log-level string          Messages with this level and above will be
logged. Valid levels are: trace, debug, info, warn, error, fatal, panic
      --no-color                  Disable colored output.

C:\>
```

Example: create a new sketch NiclaBlinkSketch

If not exists, create a directory to store the schetch and change path

```
C:\>md nicla-sketch
C:\>cd nicla-sketch
```

Create the new sketch NiclaBlinkLed

```
C:\nicla-sketch>arduino-cli sketch new NiclaBlinkLed
Sketch created in: C:\nicla-sketch\NiclaBlinkLed
C:\nicla-sketch>
```

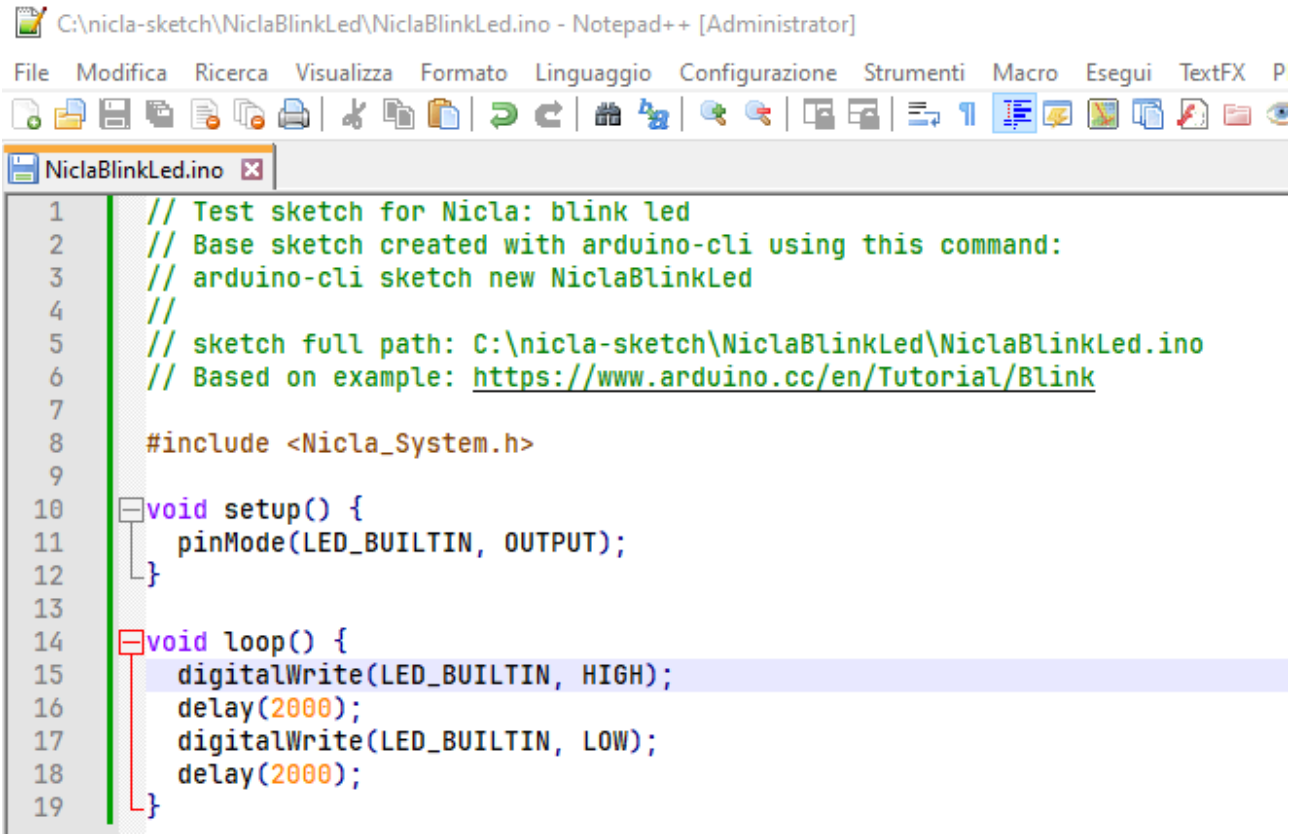
List of files:

```
C:\nicla-sketch>dir NiclaBlinkLed
 Volume in drive C has no label.
 Volume Serial Number is 188E-8F4E
 Directory of C:\nicla-sketch\NiclaBlinkLed
2023-11-15  16:33    <DIR>          .
2023-11-15  16:33    <DIR>          ..
2023-11-15  16:33                35 NiclaBlinkLed.ino
               1 File(s)             35 bytes
               2 Dir(s)  445,585,829,888 bytes free
C:\nicla-sketch>
```

The **arduino-cli sketch new NiclaBlinkLed** command has created an empty sketch:

```
C:\nicla-sketch>type NiclaBlinkLed\NiclaBlinkLed.ino

void setup() {
}

void loop() {
}
```

Edit the new sketch NiclaBlinkLed



Code

```
// Test sketch for Nicla: blink led
// Base sketch created with arduino-cli using this command:
// arduino-cli sketch new NiclaBlinkLed
//
// sketch full path: C:\nicla-sketch\NiclaBlinkLed\NiclaBlinkLed.ino
// Based on example: https://www.arduino.cc/en/Tutorial/Blink

#include <Nicla_System.h>

void setup() {
  pinMode(LED_BUILTIN, OUTPUT);
}

void loop() {
  digitalWrite(LED_BUILTIN, HIGH);
  delay(2000);
  digitalWrite(LED_BUILTIN, LOW);
  delay(2000);
}
```

Compile NiclaBlinkLed

Before to compile the sketch to the proper target, you need:

1. installed the board support (for nicla **arduino:mbed_nicla)**

2. know the boards fully-qualified board name (FQBN)

You can read the fully-qualified board name (FQBN) using **arduino-cli board list**

```
C:\nicla-sketch>arduino-cli board list
Port Protocol Type              Board Name              FQBN
Core
…
COM5 serial   Serial Port (USB) Arduino Nicla Sense ME
arduino:mbed_nicla:nicla_sense arduino:mbed_nicla
```

In this case the **FQBN is arduino:mbed_nicla:nicla_sense**

The sketch is stored in **C:\nicla-sketch\NiclaBlinkLed\NiclaBlinkLed.ino**

Command to compile a sketch

```
C:\nicla-sketch>arduino-cli compile --help
Compiles Arduino sketches.

Usage:
  arduino-cli compile [flags]

Examples:
  arduino-cli compile -b arduino:avr:uno /home/user/Arduino/MySketch
  arduino-cli compile -b arduino:avr:uno --build-property "build.extra_flags=\"-
DMY_DEFINE=\"hello world\"\"" /home/user/Arduino/MySketch
  arduino-cli compile -b arduino:avr:uno --build-property "build.extra_flags=-
DPIN=2 \"-DMY_DEFINE=\"hello world\"\"" /home/user/Arduino/MySketch
  arduino-cli compile -b arduino:avr:uno --build-property build.extra_flags=-
DPIN=2 --build-property "compiler.cpp.extra_flags=\"-DSSID=\"hello world\"\""
/home/user/Arduino/MySketch
```

…

In this case:

```
arduino-cli compile --fqbn arduino:mbed_nicla:nicla_sense C:\nicla-sketch\
NiclaBlinkLed\NiclaBlinkLed.ino
```

```
C:\nicla-sketch>arduino-cli compile --fqbn arduino:mbed_nicla:nicla_sense C:\
nicla-sketch\NiclaBlinkLed\NiclaBlinkLed.ino
Sketch uses 55692 bytes (10%) of program storage space. Maximum is 527616 bytes.
Global variables use 12256 bytes (19%) of dynamic memory, leaving 52032 bytes
for local variables. Maximum is 64288 bytes.

Used library       Version Path
Nicla_Sense_System 1.0     C:\Users\think\AppData\Local\Arduino15\packages\
arduino\hardware\mbed_nicla\4.0.8\libraries\Nicla_System
Wire                       C:\Users\think\AppData\Local\Arduino15\packages\
arduino\hardware\mbed_nicla\4.0.8\libraries\Wire

Used platform      Version Path
arduino:mbed_nicla 4.0.8   C:\Users\think\AppData\Local\Arduino15\packages\
arduino\hardware\mbed_nicla\4.0.8

C:\nicla-sketch>
```

```
arduino-cli compile --fqbn arduino:mbed_nicla:nicla_sense
C:/nicla-sketch/NiclaBlinkLed/  --build-path
C:/nicla-sketch/NiclaBlinkLed/build/

where:
   1. --fqbn arduino:mbed_nicla:nicla_sense   fully-qualified board name
   2. C:/nicla-sketch/NiclaBlinkLed/  sketch path
   3. --build-path 'path': Path where to save compiled files. If omitted, a
      directory will be created in the default temporary path of your OS.

C:\nicla-sketch>arduino-cli compile --fqbn arduino:mbed_nicla:nicla_sense
C:/nicla-sketch/NiclaBlinkLed/  --build-path
C:/nicla-sketch/NiclaBlinkLed/build/
Sketch uses 55692 bytes (10%) of program storage space. Maximum is 527616 bytes.
Global variables use 12256 bytes (19%) of dynamic memory, leaving 52032 bytes
for local variables. Maximum is 64288 bytes.

Used library       Version Path
Nicla_Sense_System 1.0     C:\Users\think\AppData\Local\Arduino15\packages\
arduino\hardware\mbed_nicla\4.0.8\libraries\Nicla_System
Wire                       C:\Users\think\AppData\Local\Arduino15\packages\
arduino\hardware\mbed_nicla\4.0.8\libraries\Wire

Used platform      Version Path
arduino:mbed_nicla 4.0.8   C:\Users\think\AppData\Local\Arduino15\packages\
arduino\hardware\mbed_nicla\4.0.8

C:\nicla-sketch>
```

Upload the sketch

To upload the sketch that was just compiled, you need to call `upload` and pass:

1. the serial port (**COM5**)
2. FQBN (**arduino:mbed_nicla:nicla_sense**)
3. the directory with the compiled sketch files (**C:/nicla-sketch/NiclaBlinkLed/**)

```
C:\nicla-sketch>arduino-cli board list
Port  Protocol Type              Board Name             FQBN
Core
...
COM5  serial   Serial Port (USB) Arduino Nicla Sense ME
arduino:mbed_nicla:nicla_sense arduino:mbed_nicla
```

```
arduino-cli upload --port COM5 --fqbn arduino:mbed_nicla:nicla_sense C:/nicla-
sketch/NiclaBlinkLed/
```

upload the sketch:

```
C:\nicla-sketch>arduino-cli upload --port COM5 --fqbn
arduino:mbed_nicla:nicla_sense C:/nicla-sketch/NiclaBlinkLed/
Open On-Chip Debugger 0.11.0+dev-gab95bac57-dirty (2021-05-11-10:45)
Licensed under GNU GPL v2
For bug reports, read
```

```
        http://openocd.org/doc/doxygen/bugs.html
debug_level: 0

adapter speed: 1000 kHz

target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x00006dc4 msp: 0x20010000
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x00006dc4 msp: 0x20010000
** Programming Started **
** Programming Finished **
shutdown command invoked
New upload port: COM5 (serial)
```

References

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