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Unified 2 Firmware

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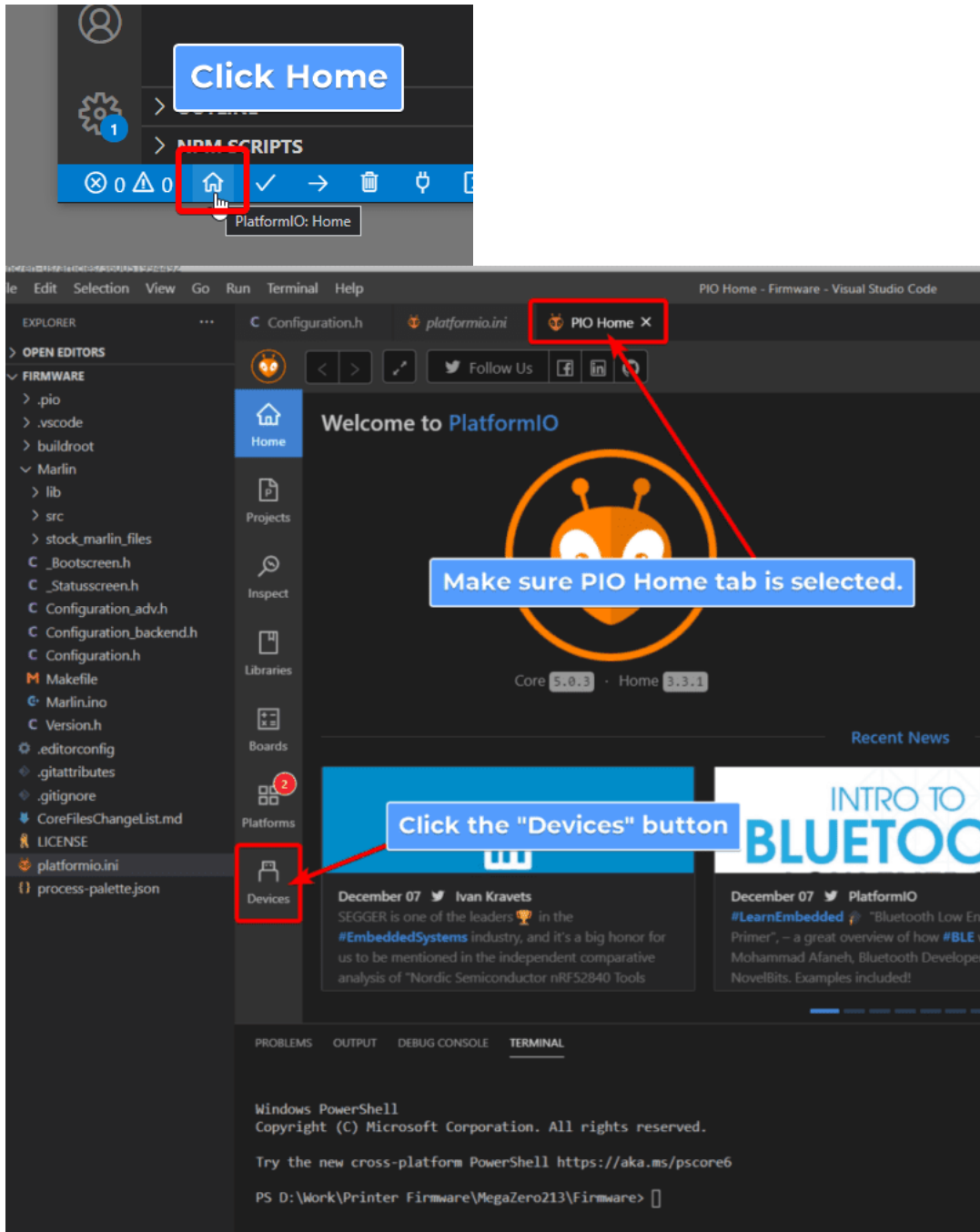
VSCode – Manually Selecting your Upload (COM) Port

Sometimes when you have multiple COM ports VSCode needs to be told manually what COM port your printer is on. This will show you step by step how to identify the printer COM port and enter it into the Platformio.ini file so you can flash your printer



firmware over the USB port. This is common for the 8-bit boards as most 32 bit boards use the SD card for flashing.

If you are missing the Platform IO Toolbar see here on how to restore it: VSCode – PlatformIO Toolbar Missing – How to Fix (<https://support.th3dstudio.com/helpcenter/vscode-platformio-toolbar-missing-how-to-fix/>)



PlatformIO automatically detects upload port by default. You can configure a custom port using `upload_port` option in `platformio.ini`. [More details...](#)

[Refresh](#)

| Port | Description | Hardware |
|-------|--|---|
| COM19 | USB5734 COM Port (COM19) | USB VID:PID=0424:274D SER=7 |
| COM1 | Communications Port (COM1) | ACPI\PNP0501\0 |
| COM20 | USB-SERIAL CH340 (COM20) | USB VID:PID=1A86:7523 SER=9 LOCATION=1-4.1.4.2x.0 |
| COM3 | Pulse-Eight USB to HDMI CEC Adapter (rev.2) (COM3) | USB VID:PID=2548:1002 SER=7 LOCATION=1-5x.0 |

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Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Try the new cross-platform PowerShell <https://aka.ms/pscore6>
PS D:\Work\Printer Firmware\MegaZero213\Firmware>

1: powershell

PlatformIO automatically detects upload port by default. You can configure a custom port using `upload_port` option in `platformio.ini`. [More details...](#)

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☆ PlatformIO Core ☆

With your printer **UNPLUGGED** note the COM ports you have listed.

Plug in your printer now.

You may have ports or may not. COM port numbers will vary based on your computer.

After plugging in your printer click the "Refresh" button

The screenshot shows the PlatformIO interface in VS Code. The 'Serial' tab is active, displaying a table of detected COM ports. A red box highlights the 'COM31' port, which is a USB Serial Device. A blue callout box points to this port with the text: "Note the new COM port that showed up. This is your printer COM port."

| Port | Description | Hardware |
|-------|--|---|
| COM31 | USB Serial Device (COM31) | USB VID:PID=1D50:6029 SER=7 |
| COM19 | USB5734 COM Port (COM19) | USB VID:PID=0424:274D SER=7 |
| COM1 | | |
| COM20 | USB-SERIAL CH340 (COM20) | USB VID:PID=1A86:7523 SER=9 LOCATION=1-4.1.4.2x.0 |
| COM3 | Pulse-Eight USB to HDMI CEC Adapter (rev.2) (COM3) | USB VID:PID=2548:1002 SER=7 LOCATION=1-5x.0 |

Below the table, the 'platformio.ini' file is highlighted in the file explorer. A blue callout box points to it with the text: "Double click the 'platformio.ini' file to open it."

The 'platformio.ini' file is open, showing the following configuration:

```
11 #targets = upload
12
13 # COM Port Setting - Moved to ini/avr.ini in Unified 2.3+
14 # If Auto port detection is not working open the ini/avr.ini file and under the [env:melzi_optimized] section
15 # uncomment the upload_port line and specify your COM port.
16
17 [platformio]
18 src_dir      = Marlin
19 boards_dir   = buildroot/share/PlatformIO/boards
20 default_envs = melzi_optimized
21 include_dir  = Marlin
22 extra_configs =
23     ini/avr.ini
24     ini/due.ini
```

A red arrow points to the 'melzi_optimized' value in the 'default_envs' line. A blue callout box points to this value with the text: "Copy the default_envs name".

Open avr.ini

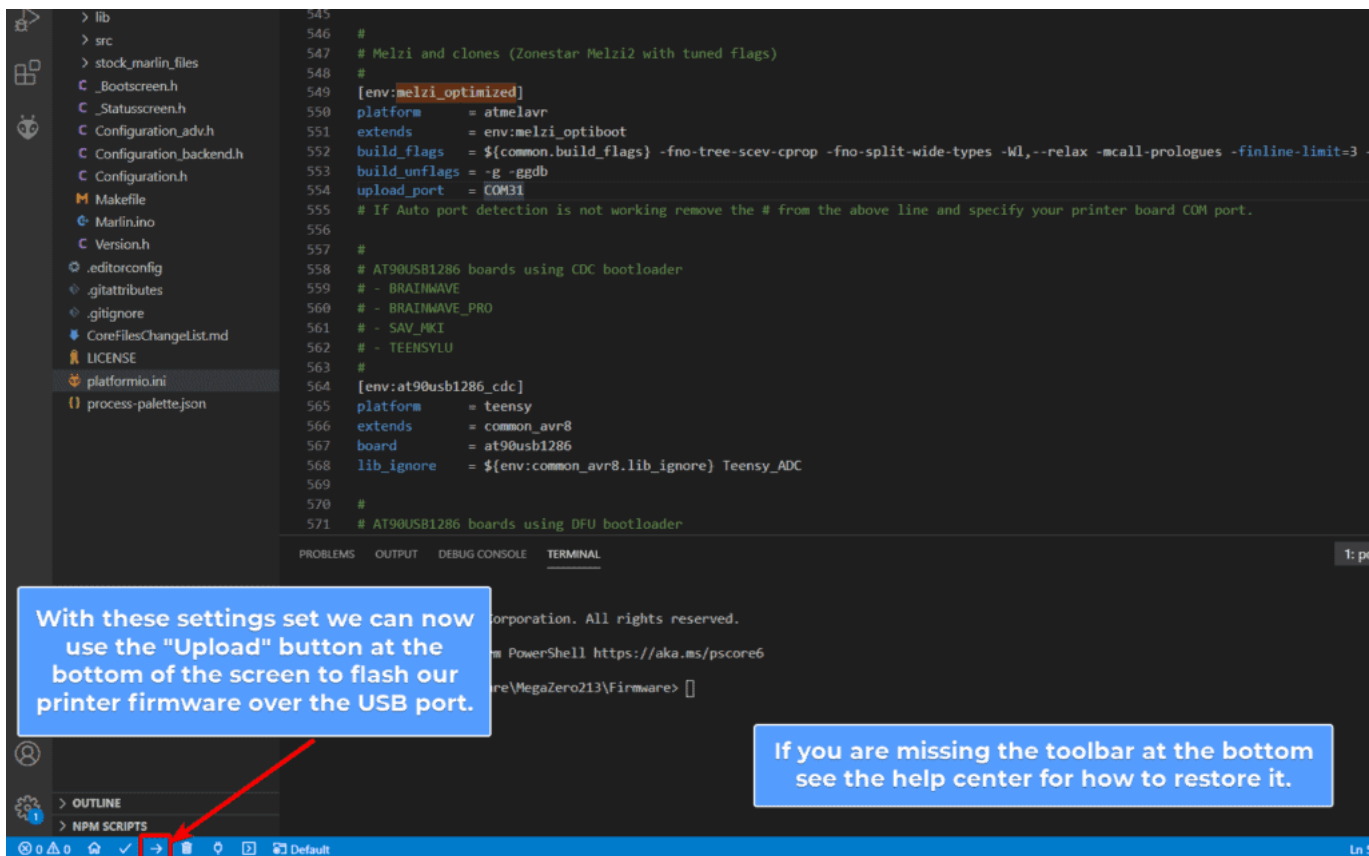
Open the find box (CTRL+F) and paste in the value you copied from platformio.ini file earlier, then press ENTER

It will jump to your board environment section

Put the printer COM port number we obtained earlier (COM31 in this example) on this line.


Remove the # from in front of the "upload_port" line,

```
121 # Sanguinololu (ATmega1284p stock bootloader with tuned flags)
122 # -finline-limit=3 -ffast-math added by TH3D
123 #
124
125 [tuned_1284p]
126 build_flags = ${common.build_flags} -fno-tre
127
128 [env:sanguino1284p_optimized]
129 platform = atmelavr
130 extends = env:melzi
131 build_flags = ${tuned_1284p.build_flags}
132
133 #
134 # Melzi and clones (alias for sanguino1284p_optimized)
135 #
136 [env:melzi_optimized]
137 platform = atmelavr
138 extends = env:sanguino1284p_optimized
139 #upload_port = COM1
140 # If Auto port detection is not working remove the # from the above line and specify your printer board COM port.
141
142 #
143 # Melzi and clones (Optiboot bootloader)
144 upload_speed = 115200
145
146 #upload_port = COM1
147 # If Auto port detection is not working remove the # from the above line and specify your printer board COM port.
148
149 #
150 # Melzi and clones (Zonestar Melzi2 with tuned flags)
151 #
152 [env:melzi_optimized]
153 platform = atmelavr
154 extends = env:melzi_optiboot
155 build_flags = ${common.build_flags}
156 build_unflags = -g -ggdb
157 upload_port = COM31
158 # If Auto port detection is not working remove the # from the above line and specify your printer board COM port.
159 #
```



Updated on July 15, 2022

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