

# High Speed Upgrade for the Creatbot F430

These instructions outline the one time setup process for upgrading your F430. If needed, the F430 can be reset to factory settings using a similar process, and software directly from the Creatbot's website.

## 0. BEFORE YOU BEGIN

This upgrade is only available for Creatbot F430. If you are using the F430NX or another variant of the F430 series, this upgrade will not be applicable.

Requirements:

1. CreatbotF430
2. Windows 10 or Windows 11 Computer
3. USB A to B cable.

## Step 1: Gather the required items.

In this folder you will find..

1. The [new high speed firmware](#) binary, developed by Ulendo.
2. The Creatbot firmware update tool. This tool is required to flash the firmware onto the machine.
3. An updated Ulendo slicer profile for the CreatWare slicer.
  - i. This slicer profile will have some baseline settings that will enable you to take advantage of the new capabilities of the firmware.

4. Pronterface Application Installer.
  - a. You can also visit [Github](#) to download the latest version of the Pronterface tool.
5. Download and install the latest version of the [CreatWare](#) slicer from Creatbot's website.

## Step 2: Save your Printers Z offset.

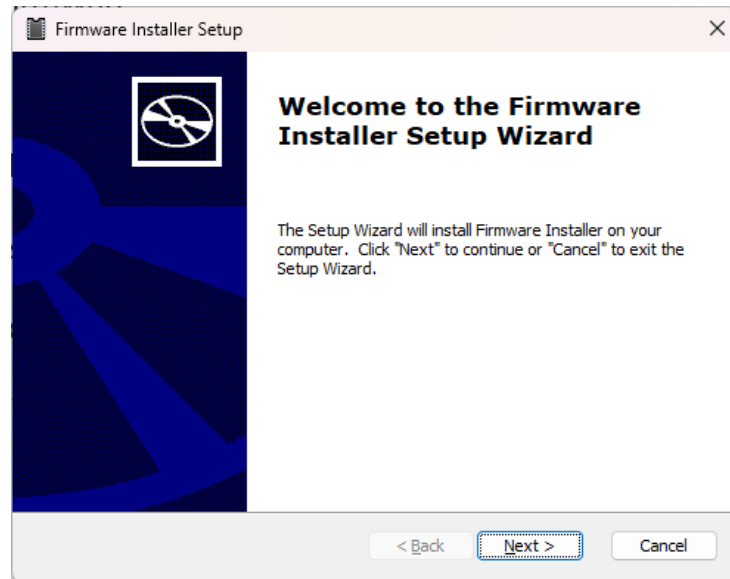
Before updating the firmware, record the current z-offset for your machine. This information will be lost after the firmware update is complete.

To view the current offset.

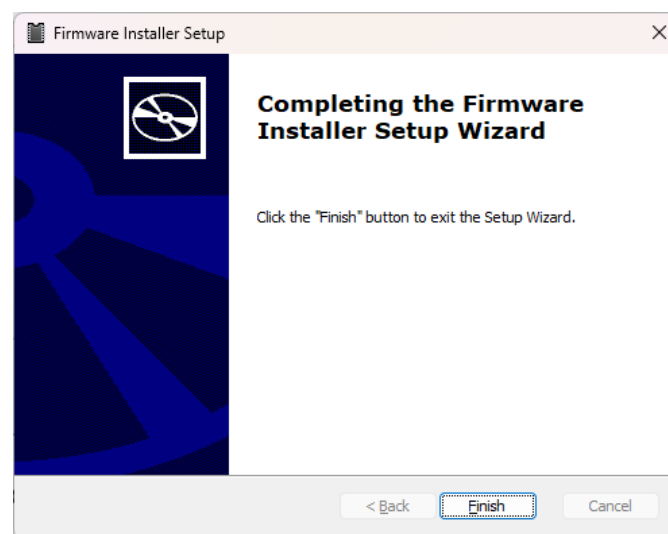
1. On the printer
2. Select settings
3. The Z-offset should be visible on the printer's screen.

## Step 3. Update the printer's firmware

1. Install the Creatbot F430 Firmware Upgrade tool



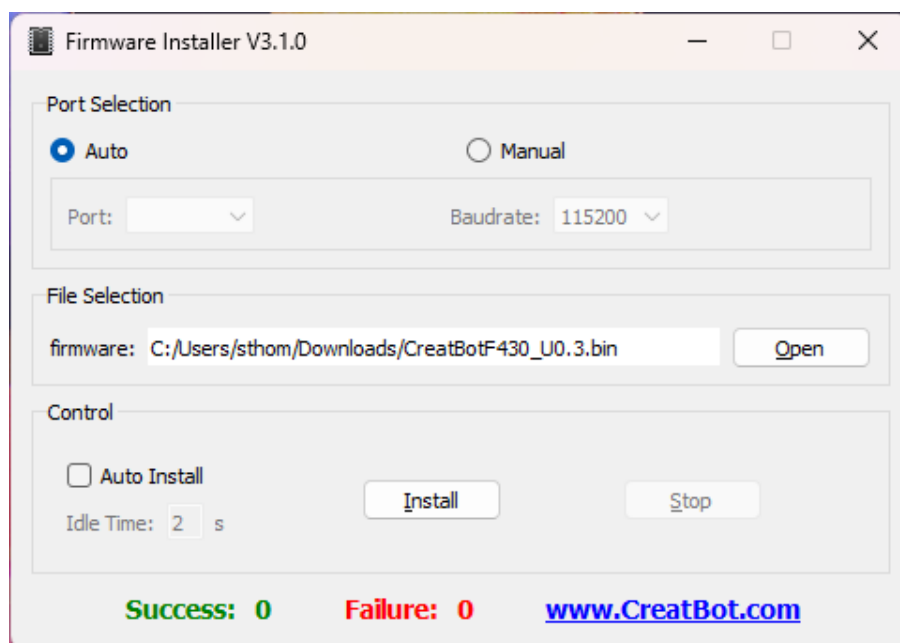
2. Follow the installation steps to install the application
3. Install the Arduino Driver when prompted
4. Finish the installation wizard.



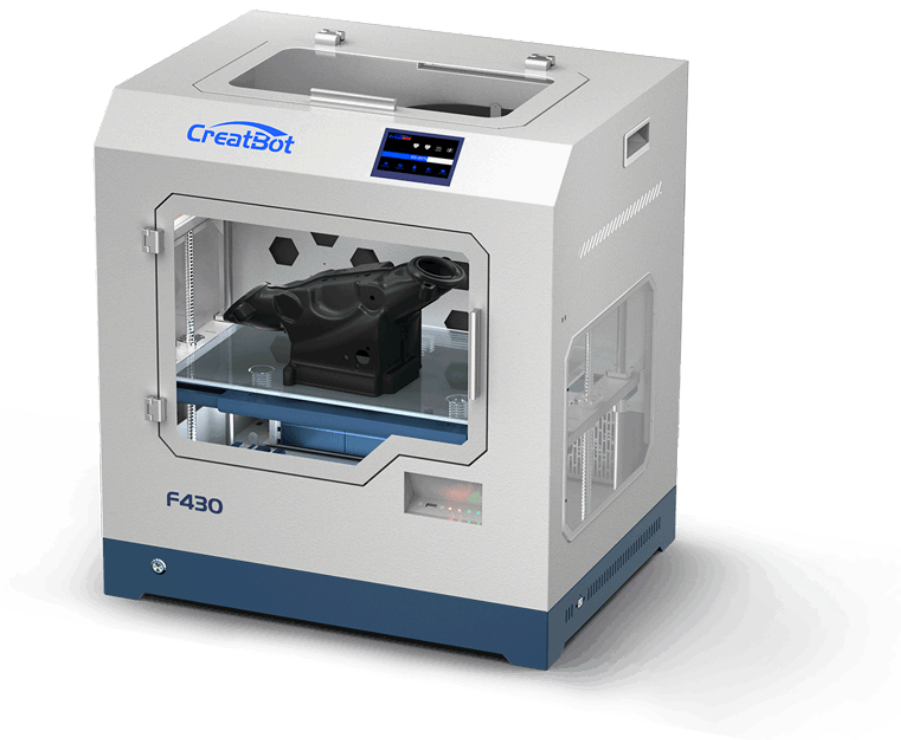
5. Locate the desktop icon for the firmware update tool



6. Launch the application by double clicking on the icon



7. Locate the USB B port on the right lower side of the F430
8. Connect your F430 to your computer with its USB A to B cable.



9. Click open, then select the provided firmware binary.
10. Click Install to update the firmware.
11. Once the firmware update is complete, restore the Z offset value you collected in the previous step.

## Step 4: Activating your Get your printer's serial number

To unlock the full potential of the firmware, an activation step is required.

This step requires you to:

1. Generate a unique identifier for your machine using GCODE
2. Get access to a valid key.

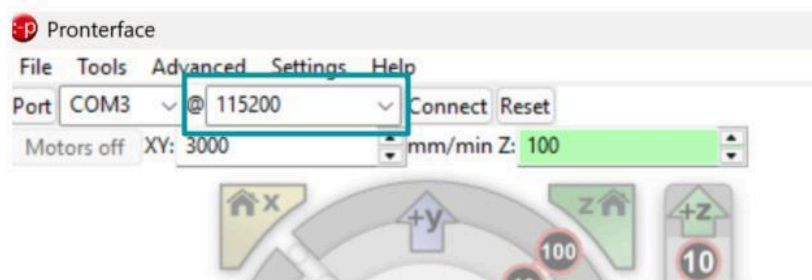
3. Providing the activation key to your printer via GCODE.

## Step 4.1: Getting your machines Unique ID

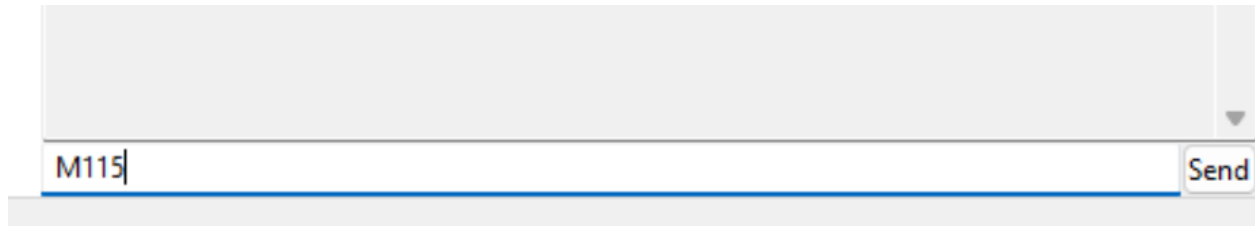
1. Return to the download folder
2. Find the Pronterface Application
3. Run Pronterface.
4. Click the port button in the top left corner of the application window. Clicking this button will automatically identify the communication port that should be used to connect the F430.



5. This port number should match the port used by the firmware update tool. Enter a baud rate of 115200 in the box with the @ before it, then click connect. Your Pronterface window should appear as shown below:



6. If you have successfully connected to the printer, a status message of “Printer Connected” should be displayed on the rightmost panel of the application.
7. Once the printer is connected to Pronterface, send M115 in the console input box in the bottom right.



The command will return information about the printer’s firmware. Copy the UUID, including the letters UUID in the form of “UUID:24004A000D51323434343839”.

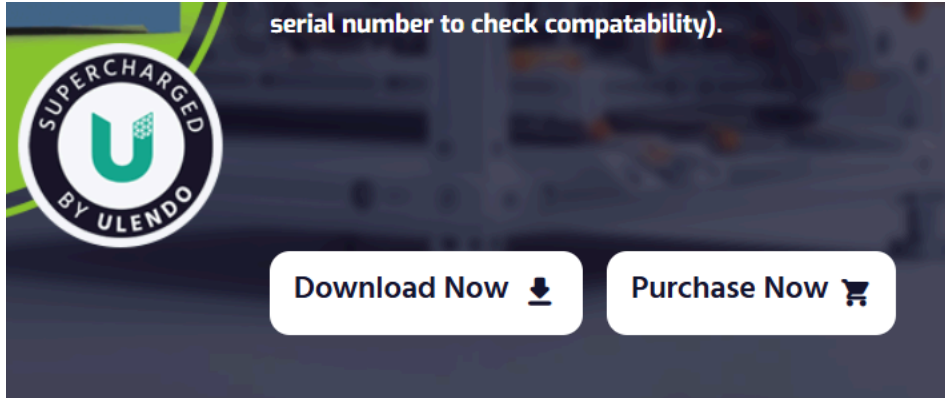
This information is required to generate a valid firmware activation key.

```
echo:M115
FIRMWARE_NAME:Marlin 8.0U0.3 (Oct  1 2024 13:46:35)
SOURCE_CODE_URL:github.com/MarlinFirmware/Marlin PROTOCOL_VERSION:1.0
MACHINE_TYPE:CreatBot F430 EXTRUDER_COUNT:2 UUID:24004A000D513234343839
Cap:SERIAL_XON_XOFF:0
Cap:BINARy_FILE_TRANSFER:0
Cap:EEPROM:1
```

**NOTE: The activation key is unique for each machine, and each machine will need to be upgraded and activated independently.**

## Step 4.2: Retrieve your firmware Activation key

1. Go to the [Ulendo F430 Upgrade page](#).
2. Click on the “Purchase Now” link.



3. Enter the printer's UUID in the field below, along with your email and phone number..
4. Check the email you provided for the payment confirmation and activation key. You will be emailed your activation key in the form of an 8 digit number.

#### You're All Set to Supercharge your F430 with Ulendo!

We're happy to let you know that your payment has been successfully processed, and your Ulendo VC F430 Upgrade firmware is now ready for activation.

Your activation code:

12255254

Please keep this code safe. It is uniquely tied to your specific printer and cannot be used to activate firmware on any other device.

If you have any questions or need assistance, feel free to reach out to our support team at [support@ulendo.io](mailto:support@ulendo.io).

Cheers,

The Ulendo Team

5. Save this code, which will be required for the following step.
6. If you provided an invalid code, but your payment was successful, you will receive an automated email.



## Payment Succeeded but Serial Number Invalid

We're reaching out to inform you that while your payment was successful, the serial number provided is invalid. Please sign up again with our dashboard application or contact our support team for assistance.

If you believe this is an error, please contact our support team at [support@ulendo.io](mailto:support@ulendo.io).

Best regards,

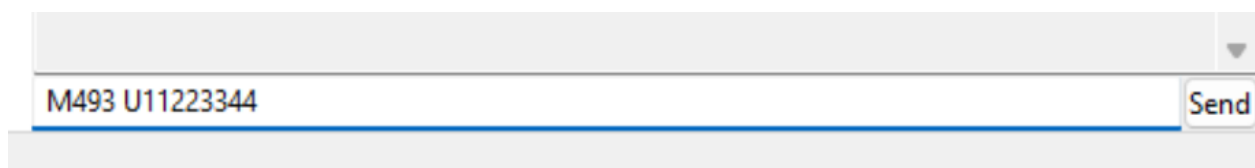
**The Ulendo Team**

Please contact our support team, with your UUID, and one of our team members will be able to help you activate your machine.

### Step 4.3: Activate Ulendo VC

1. Return to Pronterface.

In the console input box, send M493 U<your serial number> in the form of "M493 U11223344" to activate Ulendo VC.

A screenshot of a software interface, likely Pronterface, showing a console input area. The input box contains the text "M493 U11223344" in a monospaced font. To the right of the input box is a button labeled "Send". Above the input box is a larger, empty rectangular area, possibly for output or a command history.

**NOTE: Enter the key that was provided to your email as shown above.**

2. If you provided a valid activation key, you will receive a confirmation message in the terminal window.

```
SENDING:M493 U12255254  
echo:M493 U12255254  
echo:Settings Stored (882 bytes; crc 38010)  
M493 echo: success.
```

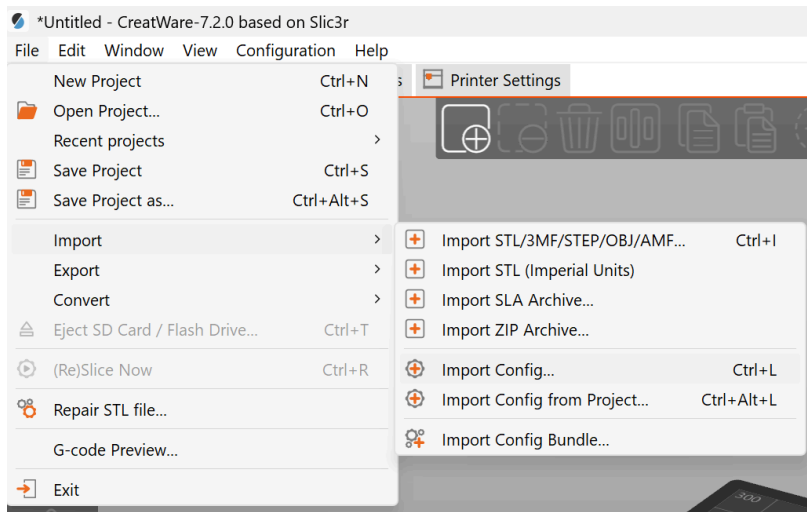
## **Congratulations!**

The full potential of your F430 has been unlocked!

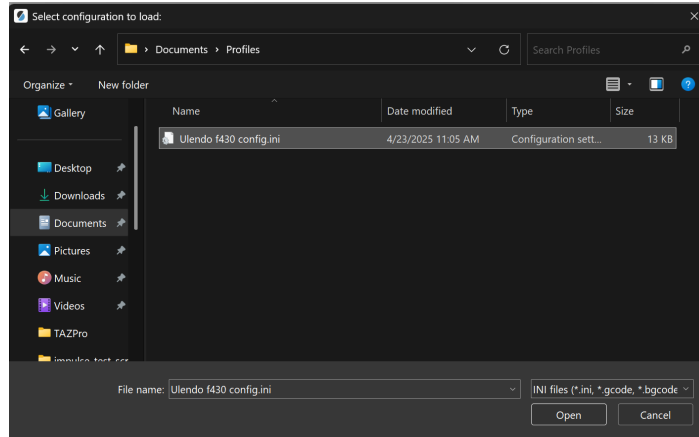
## **Step 5: Import the High-speed CreatWare slicer profile**

To take full advantage of the increased performance of your F430, you will need to update your CreatWare slicer profile so that it uses high speed and acceleration values. Ulendo has worked with Rev1 technologies to identify the optimal values for these parameters and developed a CreatWare slicer profile.

1. Open the CreatWare slicer.



2. Click File, then hover over Import.
3. From that menu, select Import Config... as shown above.



Browse to where you downloaded the slicer configuration file (Ulendo f430 config.ini), select it, then click Open. The CreatWare slicer is now configured to use the Ulendo high speed printing profile.

**NOTE: The temperature settings are configured for ABS by default. Adjust the material settings as required for the material you intend to use.**

The default bed temperatures may be too low to achieve effective bed adhesion for high speed printing. To prevent the first layer from being torn off the bed, raise the bed temperature by 10-15 degrees C from the provided material profile defaults (e.g. 90 -> 100 for ABS, 60 -> 75 or 80 for PLA). The Ulendo high speed profile has this value configured for high speed ABS.

-If you have already configured a profile for your specific material and do not wish to override it completely, you can return to that profile and use a speed of 150mm/s for all features, and an acceleration of 3000mm/s<sup>2</sup> for all features.