V6 Marlin Configuration

Set up your Marlin Firmware to support your new E3D HotEnd

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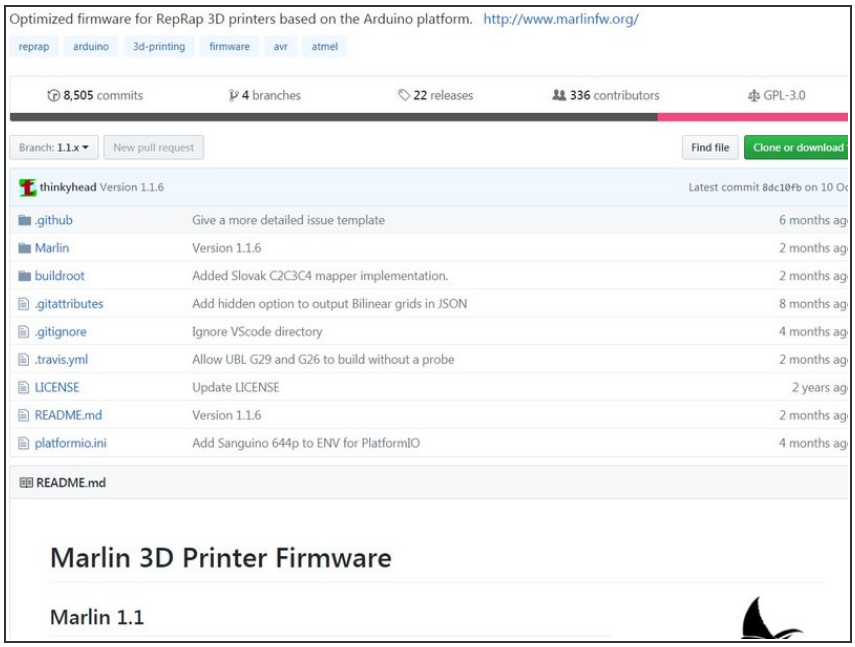
Step 1 — Download Marlin



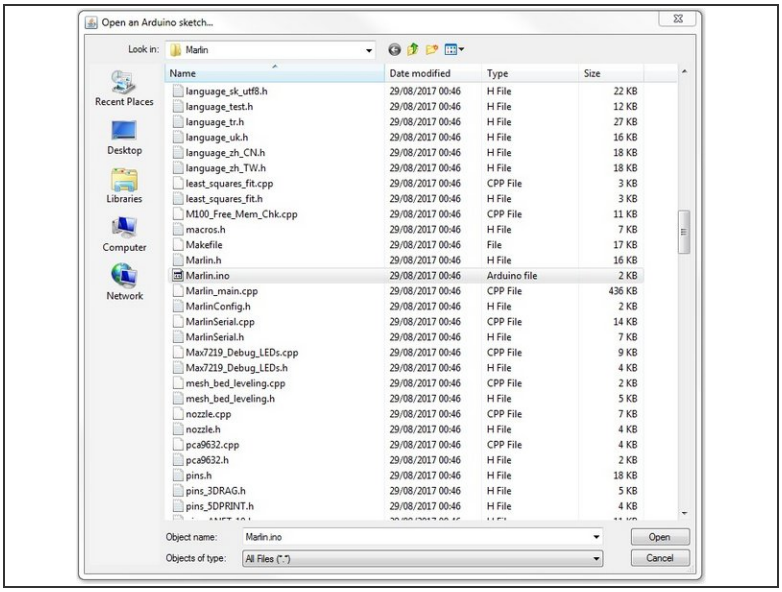
- First things first: you're going to need a copy of Marlin.
- If you are upgrading an existing 3D printer to use a V6 HotEnd, you should try to get a copy of your current firmware from your printer's manufacturer.
- If you're building a new printer, or simply want to upgrade to the latest version of Marlin, download it at http://marlinfw.org/meta/download/

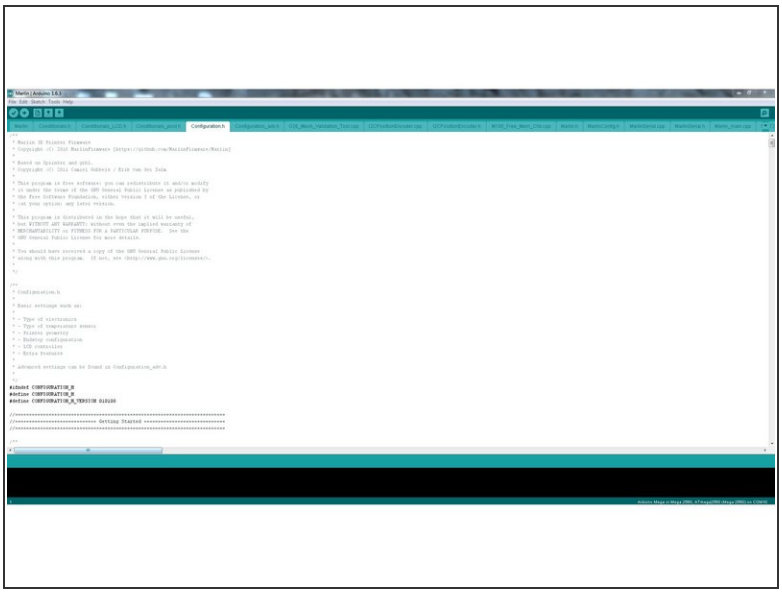
⚠ If you download a fresh version of Marlin you'll have to configure more settings than the ones mentioned in this guide so that it will work well with your printer.

Step 2 — Download Arduino IDE

- You'll need Arduino IDE to make changes to the firmware, and you can also upload the firmware from it https://www.arduino.cc/en/Main/Software

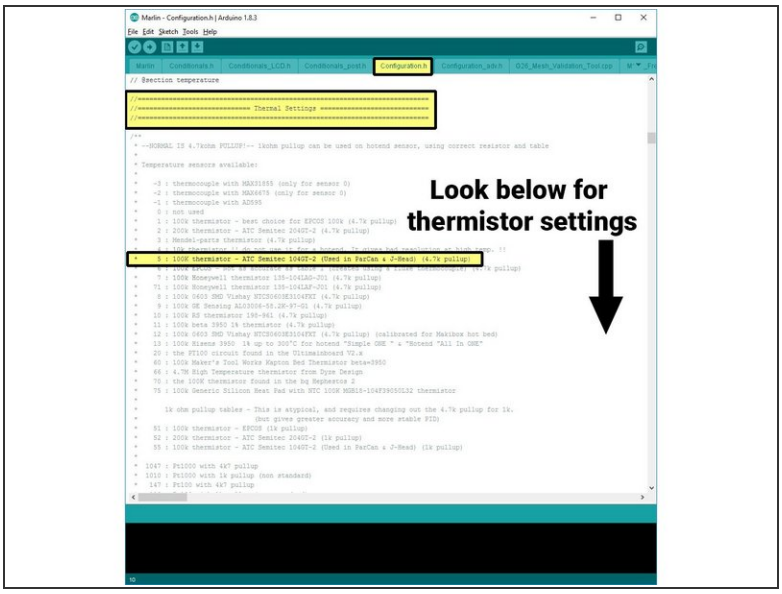
Step 3 — Open Marlin in Arduino

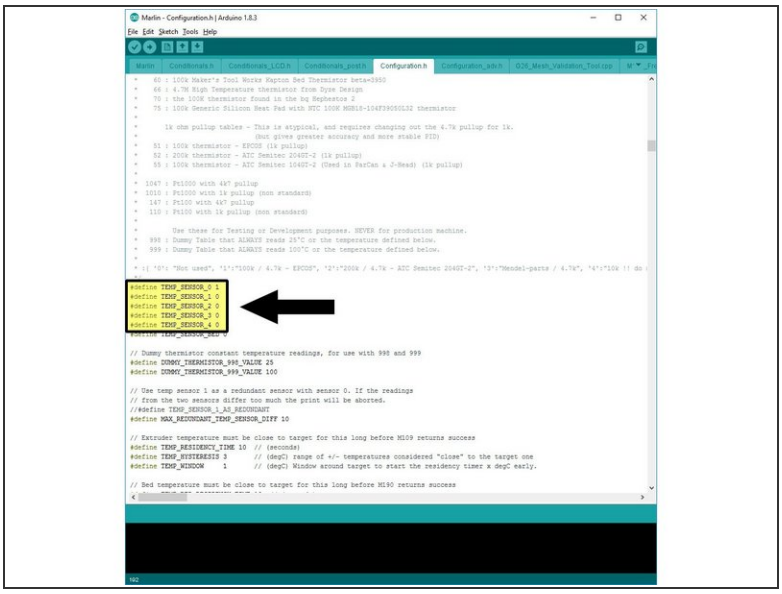




- Unzip Marlin from the zip file you downloaded and put the resulting folder anywhere on your computer for safe keeping.
- Inside this folder, navigate to the Marlin sub-folder, and open the Marlin.ino file. This should open every file in Marlin.
- Find the Configuration.h file from the tabs on the top of the screen

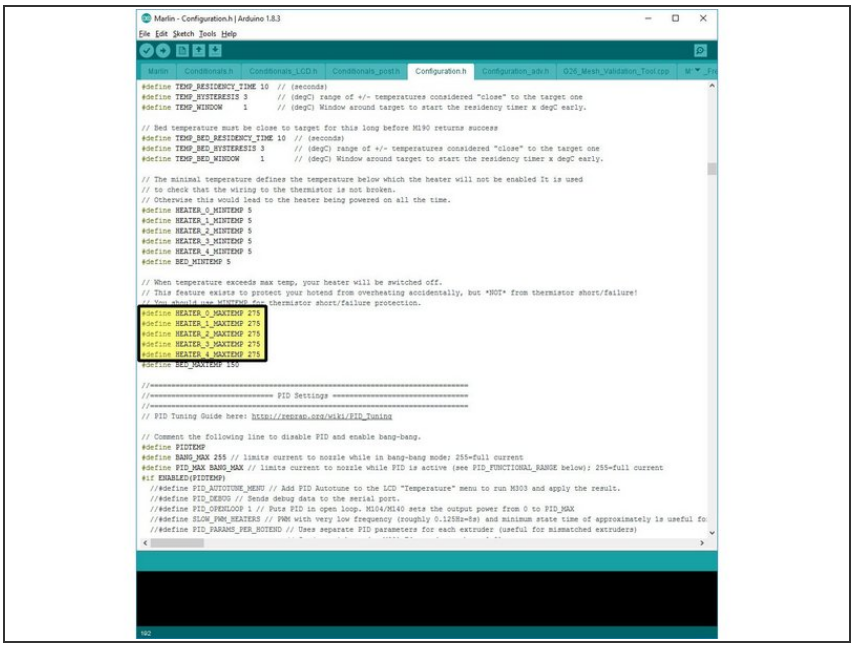
Step 4 — Thermistor Settings





- In the configuration.h file, find the Thermal Settings section. Below the comments you'll find the settings for the types of thermistors your printer uses. (Typically there will be one per hotend and one more if you have a heated bed.)
- If you're installing your V6 as your only hotend, change the first highlighted line to: #define TEMP_SENSOR_0 5
- If you're replacing an existing hotend or have multiple hotends, adjust whichever line corresponds to the tool number that you're changing (they start counting from 0)

Step 5 — Set Maximum Temperature



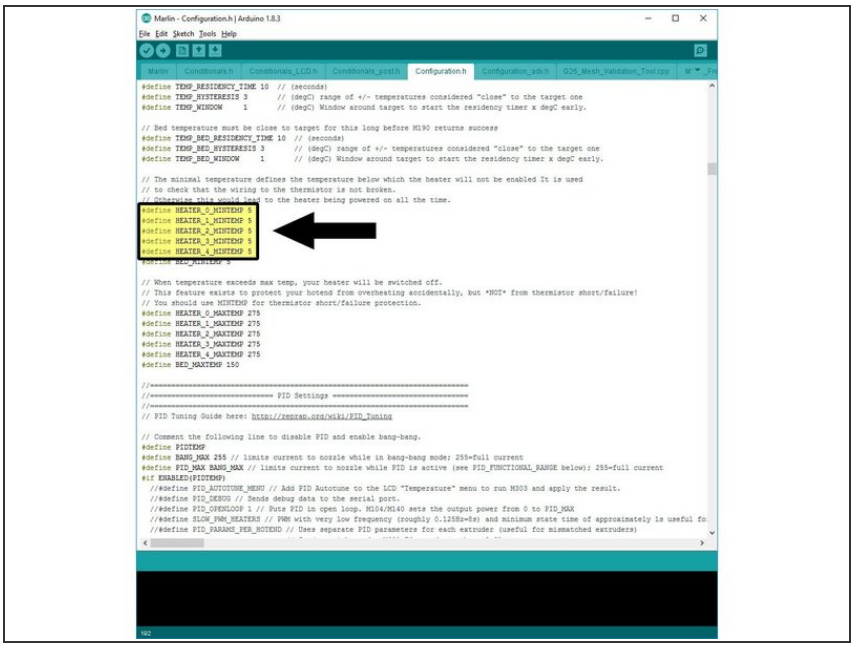
While the metal of your new V6 hotend can withstand very high temperatures, your thermistor can only go up to around 285°C for extended periods.

- Set that as your maximum temperature by changing the first highlighted line to: #define HEATER_0_MAXTEMP 285 (or adjust the line corresponding to the hotend you're changing.)

The Max settable temperature on the LCD is 15 less than the max temperature, you will need to set the max temperature to 300°C in the firmware in order to hot tighten at 285°C.

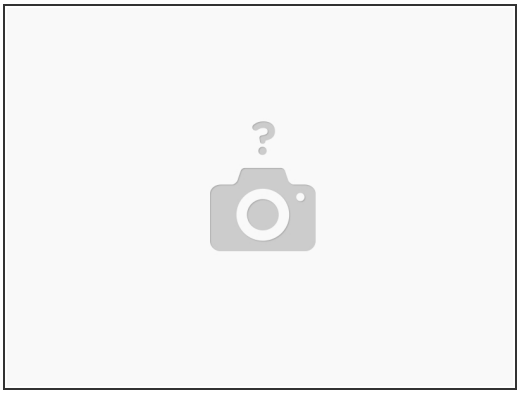
Remember to change the max temperature back to 285°C after you have hot tightened.

Step 6 — Set Minimum Temperature



- For safety it is strongly recommended to make sure that your printer detects if the thermistor stops sending correct temperatures for any reason.
- Set the first highlighted line to: **#define HEATER_0_MINTEMP 5** (or adjust the line corresponding to the hotend you're changing.)
- In newer versions of Marlin there are other features such as Thermal Runaway Protection that might be useful as well, though they are typically on by default.

Step 7 — Upload Firmware



- Upload the new firmware to your electronics as you normally would. Typically this means plugging in your printer to your computer, selecting the correct COM port and board type, and pressing the upload button.
- If you're unsure of how to update your printer's firmware, check with its manufacturer.

Head back to the V6 Assembly page to finish the last few steps before you start printing.