

## Prusa Hephestos i3 - Heatbed MK2a Installation

We advise to use a new power supply with more power, so the included power supply would not break (350W would be ideal - 230VAC Input / Output 12VDC 30A).

First of all the firmware on the Arduino Mega Board has to be changed.

1. Download the Marlin\_Hephestos firmware, unpack the ZIP file and save it:  
[http://reprap.org/wiki/File:Marlin\\_Hephestos.zip](http://reprap.org/wiki/File:Marlin_Hephestos.zip)

### File:Marlin Hephestos.zip

[Marlin\\_Hephestos.zip](#) (file size: 2.54 MB, MIME type: application/zip)

**Warning:** This file type may contain malicious code. By executing it, your system may be com

### File history

Click on a date/time to view the file as it appeared at that time.

	Date/Time	Dimensions	User	Comment
current	<a href="#">01:59, 14 July 2014</a>	(2.54 MB)	<a href="#">Pedro de Oro Martín</a> ( <a href="#">Talk</a>   <a href="#">contribs</a> )	
	<a href="#">05:57, 28 May 2014</a>	(15.07 MB)	<a href="#">Pedro de Oro Martín</a> ( <a href="#">Talk</a>   <a href="#">contribs</a> )	

2. Download the Arduino 1.0.6 Software, to be able to change the firmware  
<http://arduino.cc/en/Main/Software#toc2>

### Arduino 1.0.6

Download

Arduino 1.0.6 ([release notes](#)):

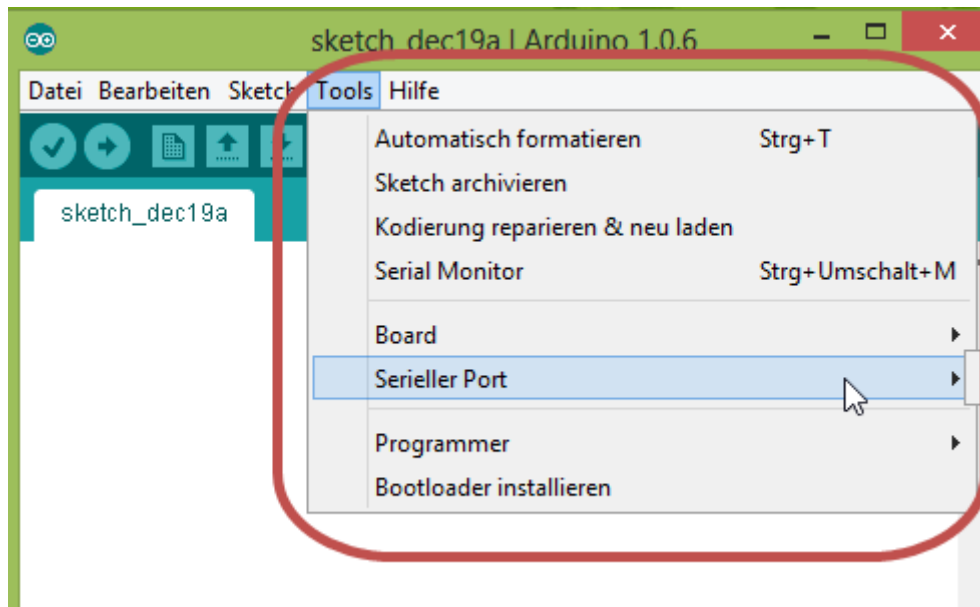
- [Windows Installer, Windows ZIP file \(for non-administrator install\)](#)
- [Mac OS X](#)
- [Linux: 32 bit, 64 bit](#)
- [source](#)

Next steps

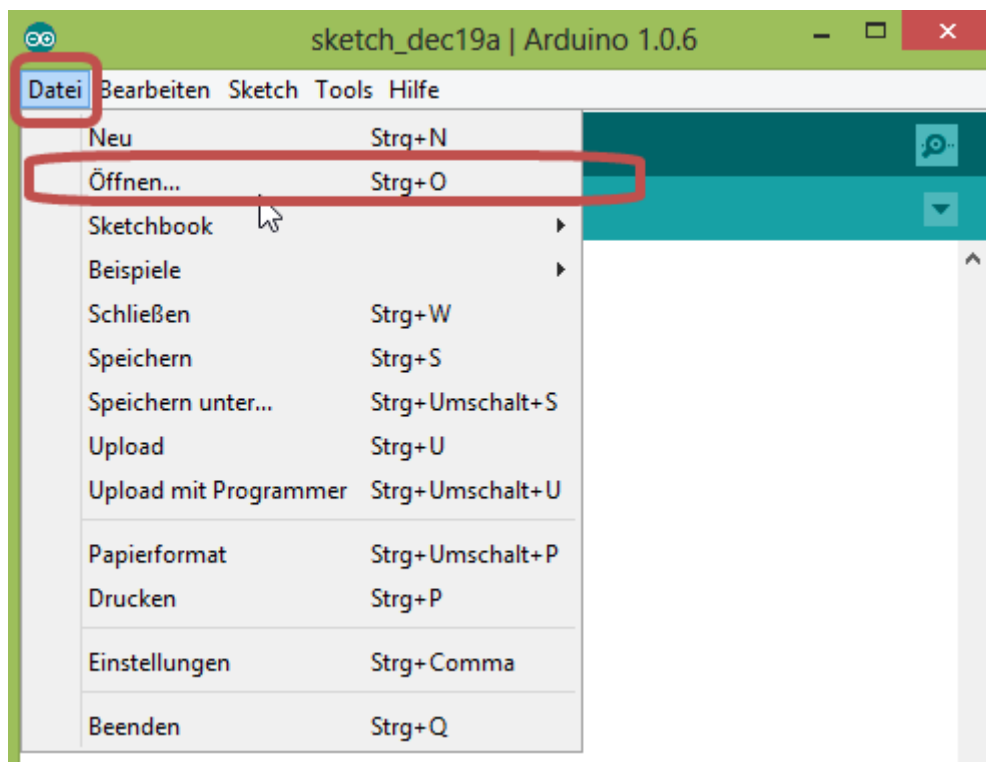
- [Getting Started](#)
- [Reference](#)
- [Environment](#)
- [Examples](#)
- [Foundations](#)
- [FAQ](#)

3. Connect the PC via USB cable with the board

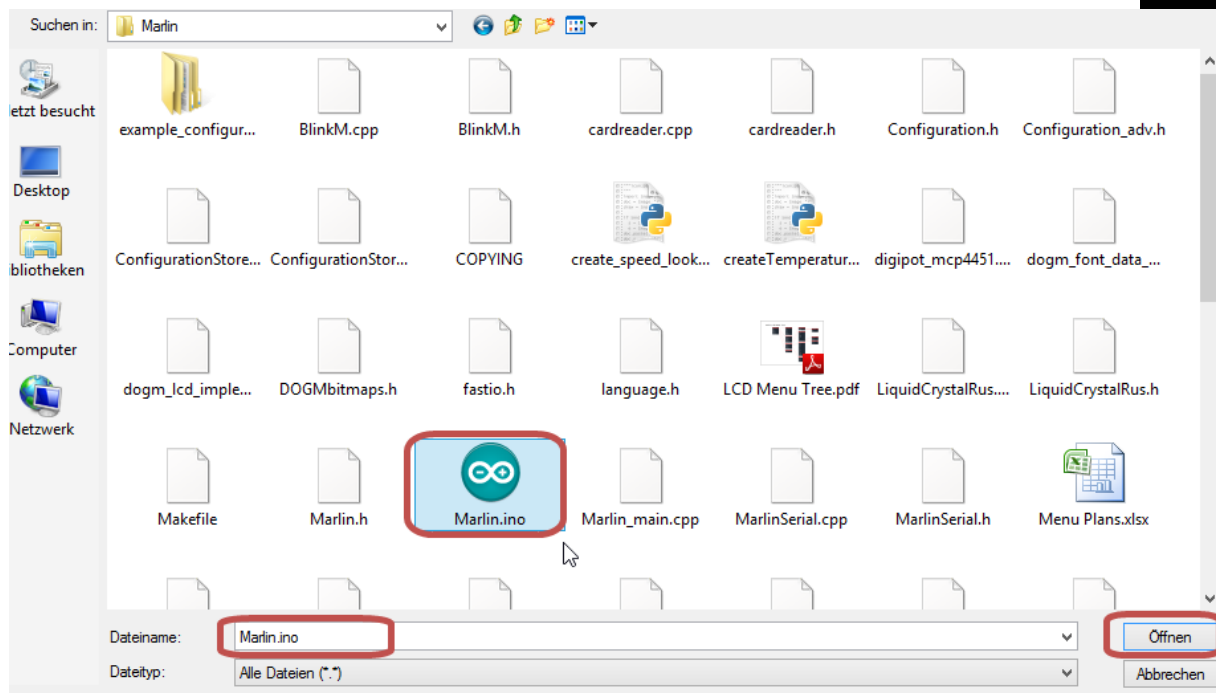
- Start Arduino 1.0.6. You might need to choose the COM port.



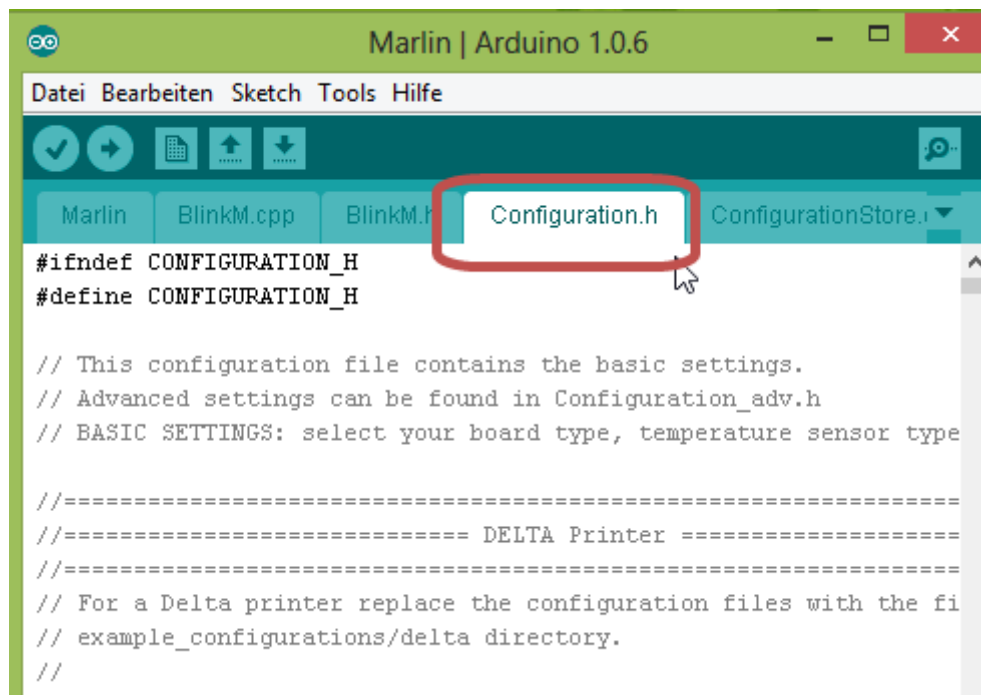
- Go to File "open" and open up the file "Marlin.ino" located in the previously downloaded folder. (Alternatively you can right click the file and choose "open with" Arduino.exe)



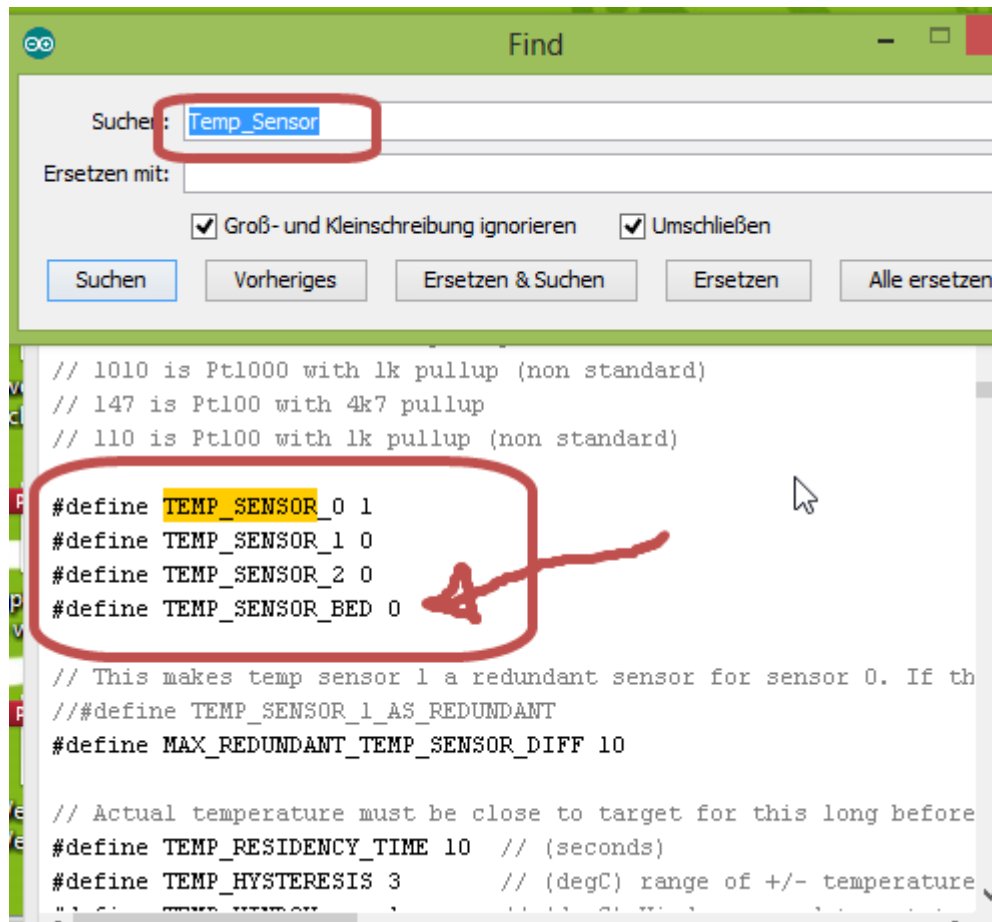
Marlin Hephestos			
Name	Änderungsdatum	Typ	Größe
ArduinoAddons	18.12.2014 17:54	Dateiordner	
Marlin	18.12.2014 17:54	Dateiordner	
README.md	26.03.2014 11:38	MD-Datei	18 KB



6. Choose the tab "Configuration.h" by clicking on it.



7. Press "STRG & F" to open up the search and look for "Temp\_Sensor\_Bed"



Exchange the "0" at `#define TEMP_SENSOR_BED` with a "1"

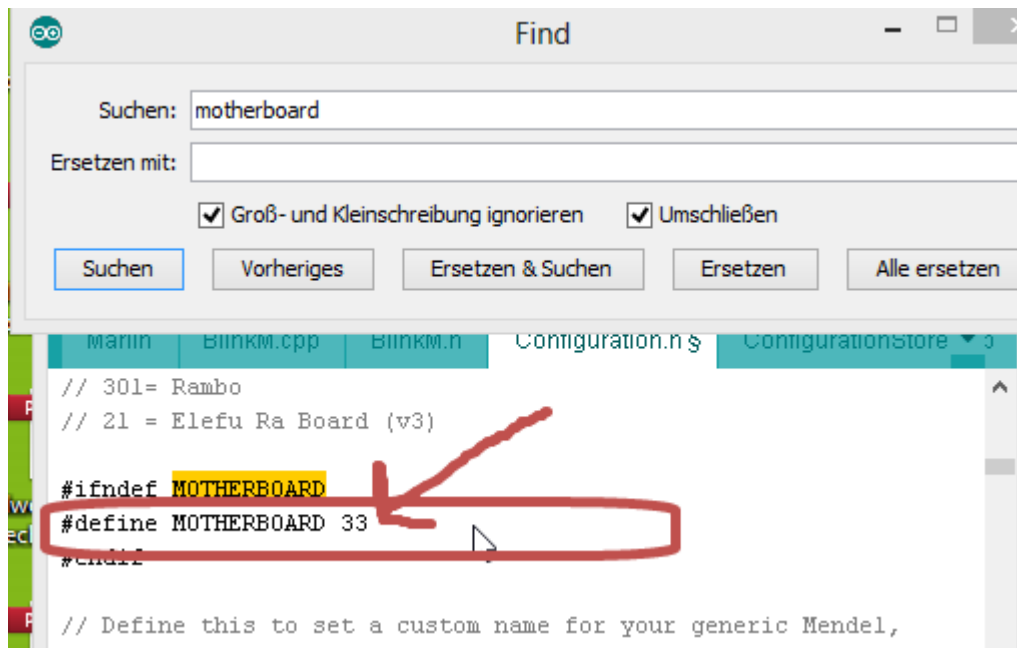
```
// 110 is Pt100 with 1k pullup (non standard)

#define TEMP_SENSOR_0 1
#define TEMP_SENSOR_1 0
#define TEMP_SENSOR_2 0
#define TEMP_SENSOR_BED 1

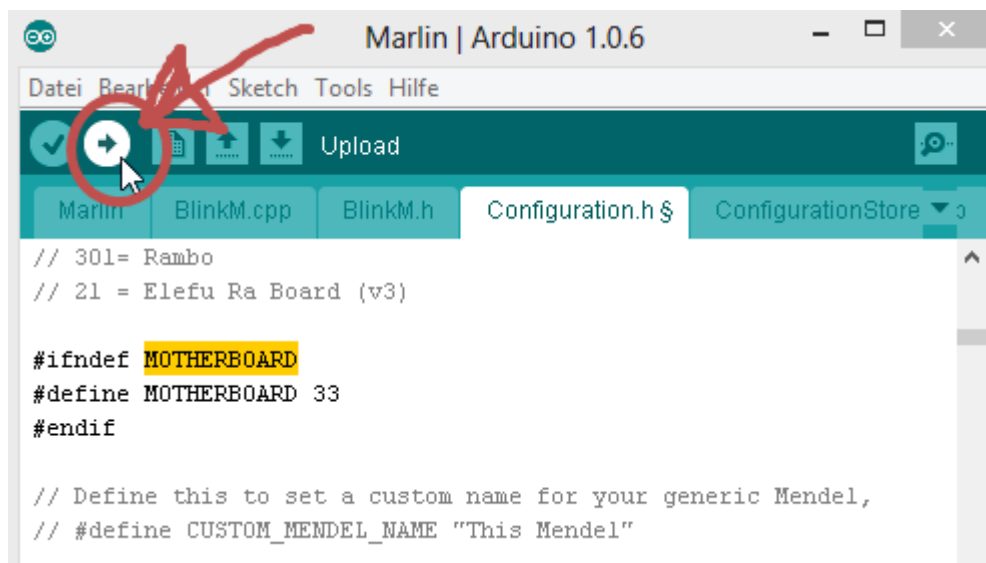
// This makes temp sensor 1 a redundant sensor for sensor
```

The image shows the same code editor as above, but the value '0' in the line `#define TEMP_SENSOR_BED 1` has been changed to '1'. A red box highlights the new value '1', and a red arrow points to it.

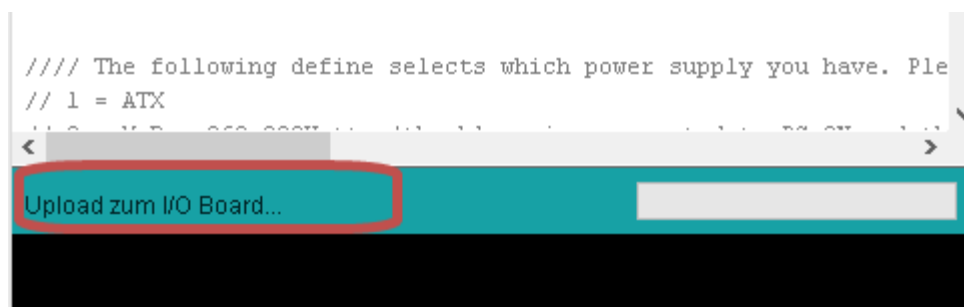
- Then search for "Motherboard" and make sure that the value of `#define MOTHERBOARD 33` is really **33**



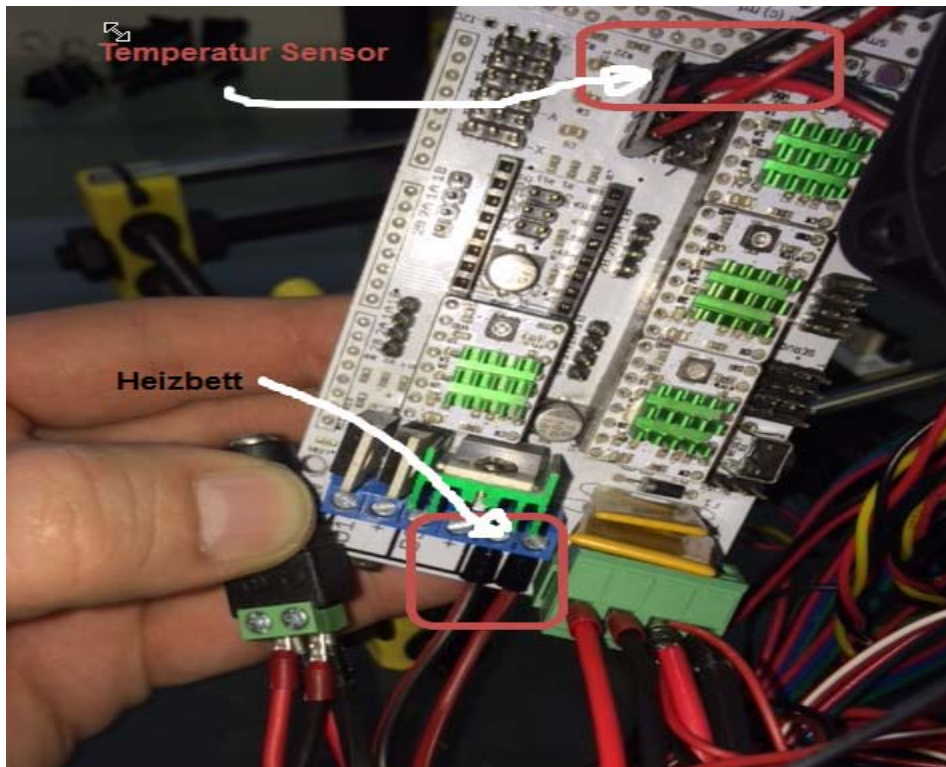
- Now upload the new firmware onto the board.



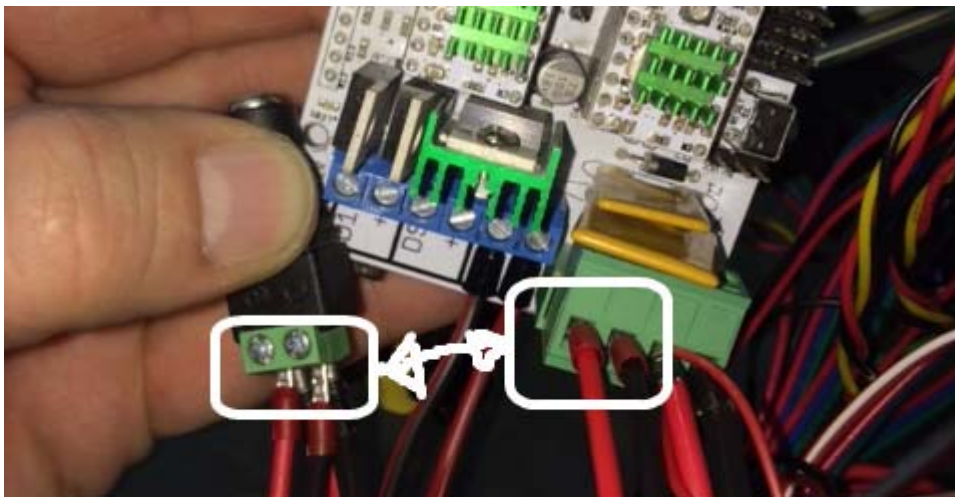
uploading looks like this.



10. Now connect the heatbed to the board (all cables are soldered to the heatbed, Thermistor is soldered too and placed in the small hole in the middle of the heatbed just below the glass plate)  
Connect the plug of the temperature sensor (just above the sensor for the extruder)  
Connect the cables of the heatbed to the blue terminal at "D8"



The D8 socket is only supplied with power if the second 12V input is supplied with power too.



We advise to use a new power supply with more power, so the included power supply would not break (350W would be ideal - 230VAC Input / Output 12VDC 30A).

**ATTENTION - THE HEATBED CAN GET VERY HOT AND CAN CAUSE SEVERE BURNS!!!**