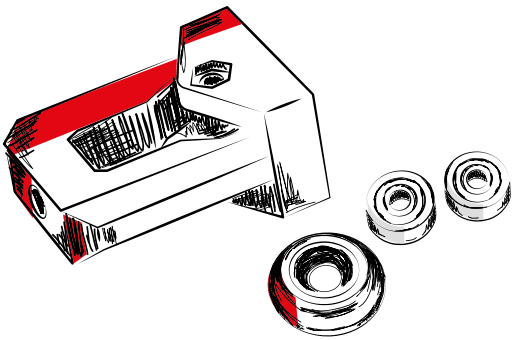
1

First steps



List of components – first steps

2 x Axial ball bearing B623ZZ
2 x Printed pulley for X axis bearing B623ZZ
2 x Printed pulley for Y axis bearing B623ZZ
1 x Printed X axis right
1 x Printed X axis left
1 x Printed X axis tensioner for bearing B623ZZ
1 x Printed X axis carriage A
1 x Printed Y axis tensioner for bearing B623ZZ
1 x Printed Y axis endstop
1 x Printed fan holder
1 x Printed LCD support
1 x Printed Hot-End safety cover
17 x M3 - DIN 934 class 8 black nut
2 x M5 - DIN 934 class 8 black nut

*You will find the other components mentioned in these first steps in the Electronics box.

Prusa i3 HEPHESTOS Kit

Congratulations! You are now part of the RepRap community.

At bq we have chosen an open source 3D printer model with the aim of making this technology more readily available to everyone. We have improved it with our own designs and with those of the community in order to make its assembly and use as easy as possible, without the need for advanced technical knowledge.

All you need is an idea, and the desire to materialise it. Your HEPHESTOS will take care of the rest. We believe in an open source creative approach, where the limits are only set by your imagination.

We would like to thank you for choosing our Kit, and we invite you to share your experiences with us and with others, in order to participate in this very special community.

Welcome!

Important

Follow the link at the bottom to find complete information about Prusa i3 HEPHESTOS. Download 3D designs of the different parts and firmware updates, check the 3D printing forum, play videos on how to assemble your printer, etc.

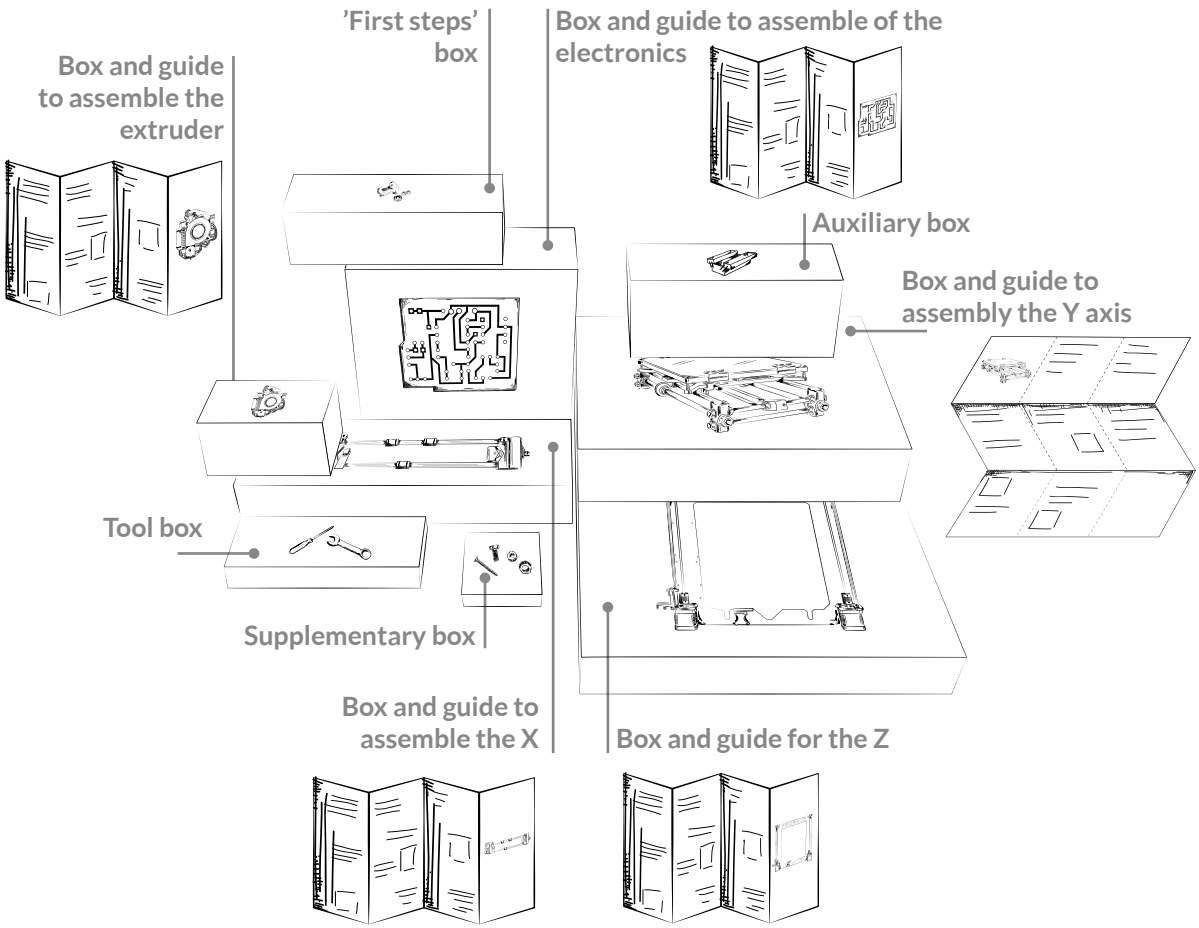
Before printing, you need to level your printer's Z axis and base. Follow the instructions at:

bq.com/gb/products/prusa-hephestos.html

Create a creator!

Where to begin

Your Kit is comprised of the following boxes and guides:

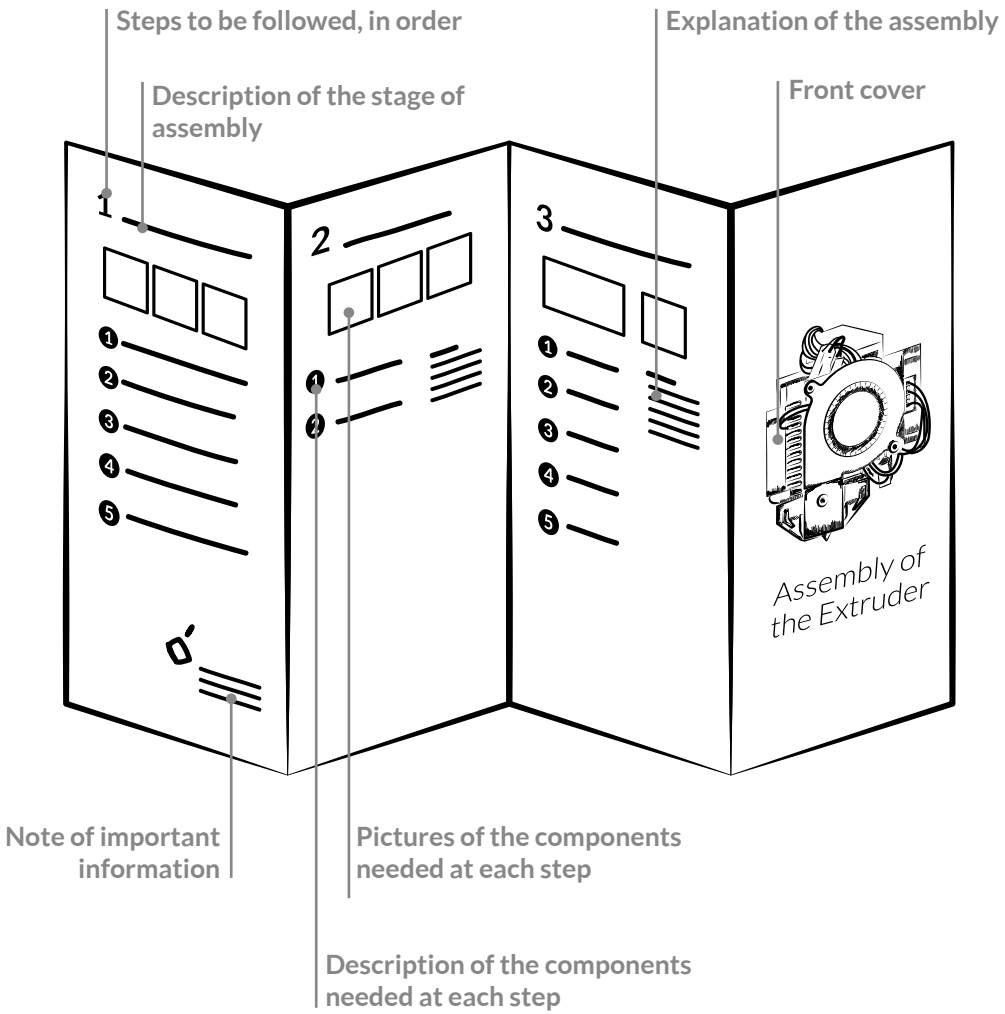


The Kit is divided into boxes and guides which facilitate the assembly of your Prusa i3 HEPHESTOS.

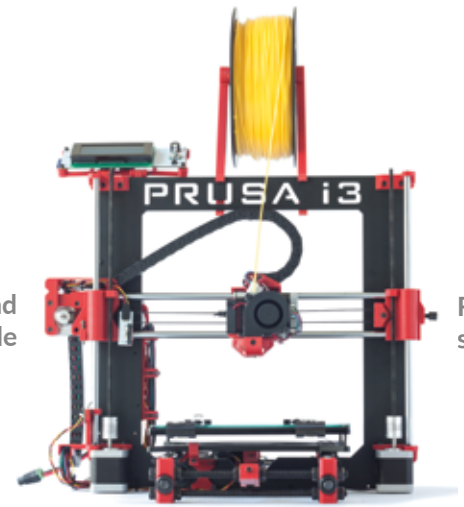
We suggest that you follow the numerical on the front of each guide.

On each box there is picture identifying the part it contains. The same picture appears on the front cover of the guide to the assembly of that part.

The guides help you to assemble your Prusa i3 HEPHESTOS:



Reference system



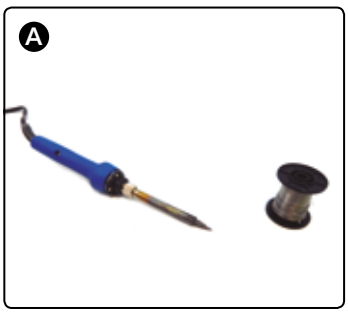
Left-hand side

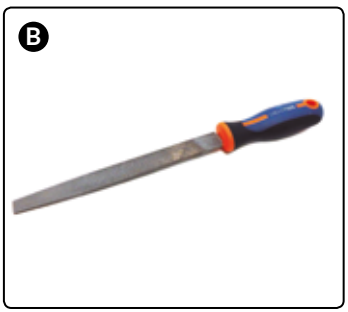
Right-hand side

Front view

During the assembly of your Prusa i3 HEPHESTOS we refer to the positions of the parts. Follow this diagram to position them correctly.

Necessary tools which are not included in the Kit

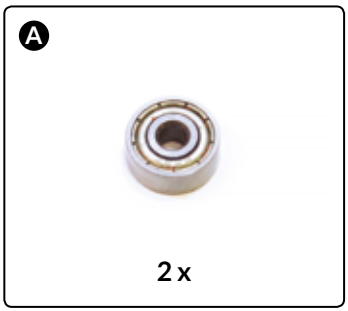


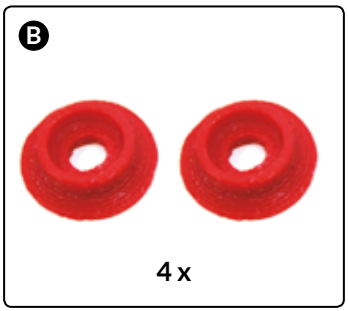


- A Soldering iron and tin
- B Scissors
- C Metal file

Steps prior to assembly

Preparing of the pulleys





A Axial ball bearing B623ZZ

B Printed pulley for X and Y axis

Pulley that houses the axial ball bearing.

1.

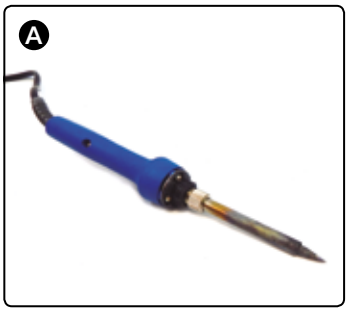
2.

3.

4.

File the edges of the pulley a little, so that the tensioner rotates smoothly inside it.

Fitting the nuts



A **Soldering iron**
Not included.

*When fitting the nut, carefully press with the soldering iron (**3** and **4**); the part melts very easily.*
To avoid burns, do not touch the nut after using the soldering iron.

1.

2.

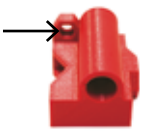
3.

4.

5.

6.

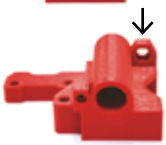
Right-hand X axis



Part at the right-hand end of Axle X, where the belt tensioner is held.

1 x M5 Nut

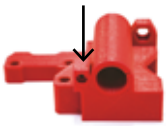
Left-hand X axis



Part at the left-hand end of Axle X, where the Nema 17 motor is held.

1 x M5 Nut

Left-hand X axis



Part at the left-hand end of Axle X, where the Nema 17 motor is held.

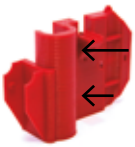
1 x M3 Nut

X axis tensioner for bearing B623ZZ

Tensioner of the Axle X belt where the axial ball bearing B623ZZ is housed together with the pulley.

1 x M3 Nut

X axis carriage A



Carriage of Axle X where the extruder is held, adapted for the use of chains.

2 x M3 Nut

Y axis tensioner for bearing B623ZZ

Tensioner of the X axis belt where the axial ball bearing B623ZZ is housed together with the pulley.

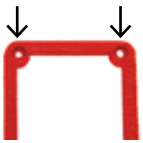
1 x M3 Nut

Y axis basic endstop

Part located at the base of Y axis and incorporating a screw with a M3 nut to adjust the total stroke of the axis. It is complemented by the part which holds the endstop to the frame.

1 x M3 Nut

Fan holder



50 x 50 mm fan holder, located above the electronics to cool them correctly.

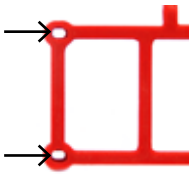
2 x M3 Nut

Fan holder

50 x 50 mm fan holder, located above the electronics to cool them correctly.

2 x M3 Nut

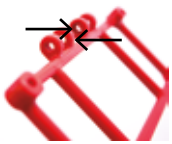
LCD panel support



Support for the LCD panel. The hole for the nuts is longer than usual to help the nut slide in and position itself correctly when the LCD panel is screwed in.

4 x M3 Nut

LCD panel support



Support for the LCD panel. The hole for the nuts is longer than usual to help the nut slide in and position itself correctly when the LCD panel is screwed in.

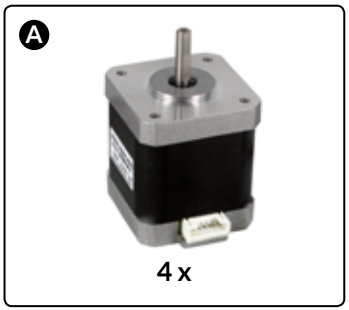
2 x M3 Nut

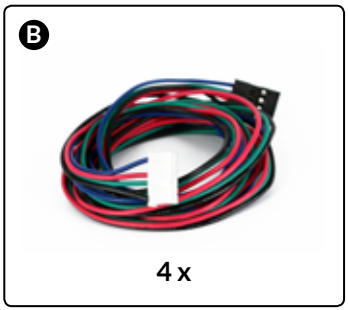
Hot-End Safety cover

This part covers the Hot-End to prevent the user from touching it when it's hot, thus avoiding burns.

1 x M3 Nut

Updating the motors and their cables (optional)





A Nema 17 motors with 4-pin male connector. Bevelled axis.

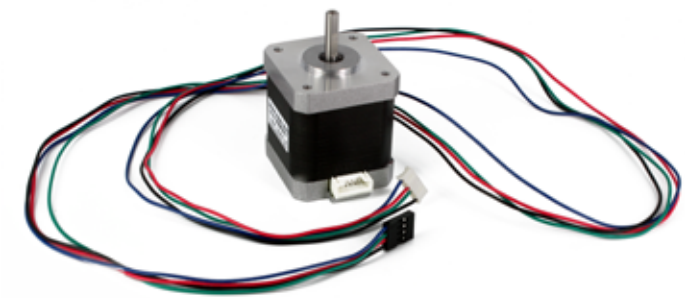
B 1 metre long four-thread cables with a 4-pin female connector on each side.

Assembly:

If you wish to have fitted cables, cut and solder each cable according to the measurement indicated in the table.

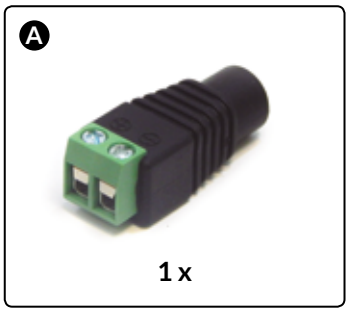
Motor	Total length of motor (cm)
X	85
Y	50
Z left.	45
Z right.	65

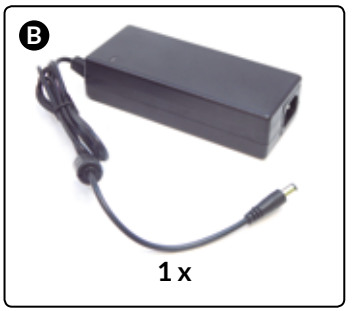
1.

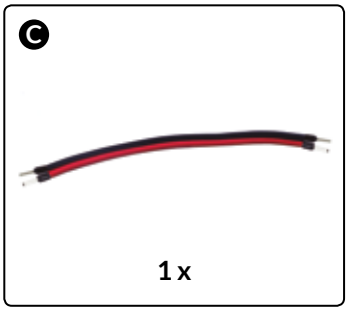


2.

Preparation of the power supply cable







A Jack adapter/connector

Female 2.1 mm jack adapter/connector and Ramps 1.4 with two terminals.

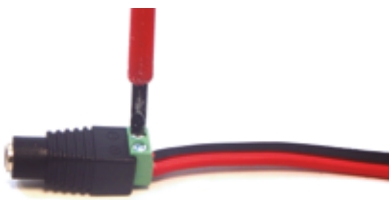
B 220 AC 12 DC 100W power supply

Supply with 1.10m cable, 100 W with 2.1 mm jack (INPUT: 100-240V AC 1,8A 50-60Hz and OUTPUT: 12V DC 8.0A).

C 150 mm of flexible, two-strand, bi-colour cable of cross-section 1 mm²

1.

2.



3.

4.

Connect the red cable to the terminal with the '+' symbol and the black cable to the terminal with the '-' symbol.