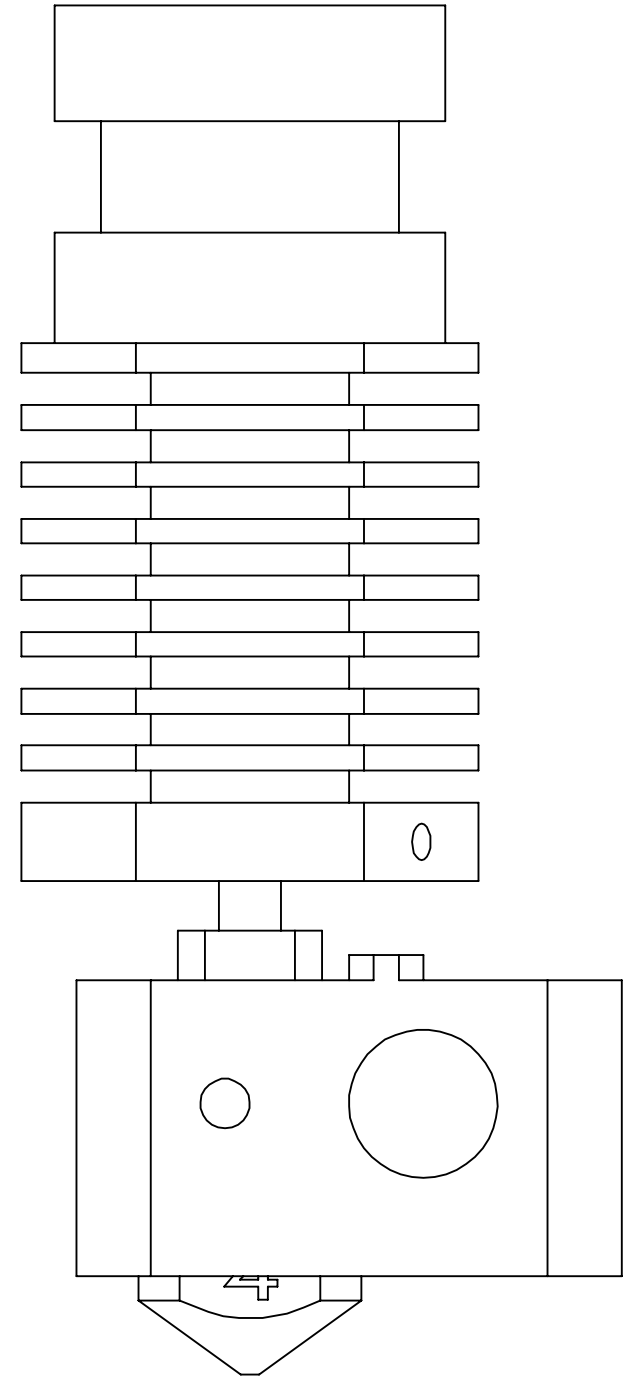


Hexagon

USER GUIDE





INTRODUCTION

INTRODUCTION

- **Target :**

Supply a visual guide about the different needed steps of mount and use of the Hexagon print head.

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- **Photographics Credits :**

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- **Update :**

Last update : 19/05/2016



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SAFETY INSTRUCTIONS

General safety instructions

NEVER LEAVE THE PRINTER UNATTENDED

The nozzle can reach 270°C, **to avoid burning, do not touch the nozzle while the printer is working.**

A supervision is needed when the printer is used with young people.

KEEP PRINTER AWAY FROM CHILDREN AND ANIMALS

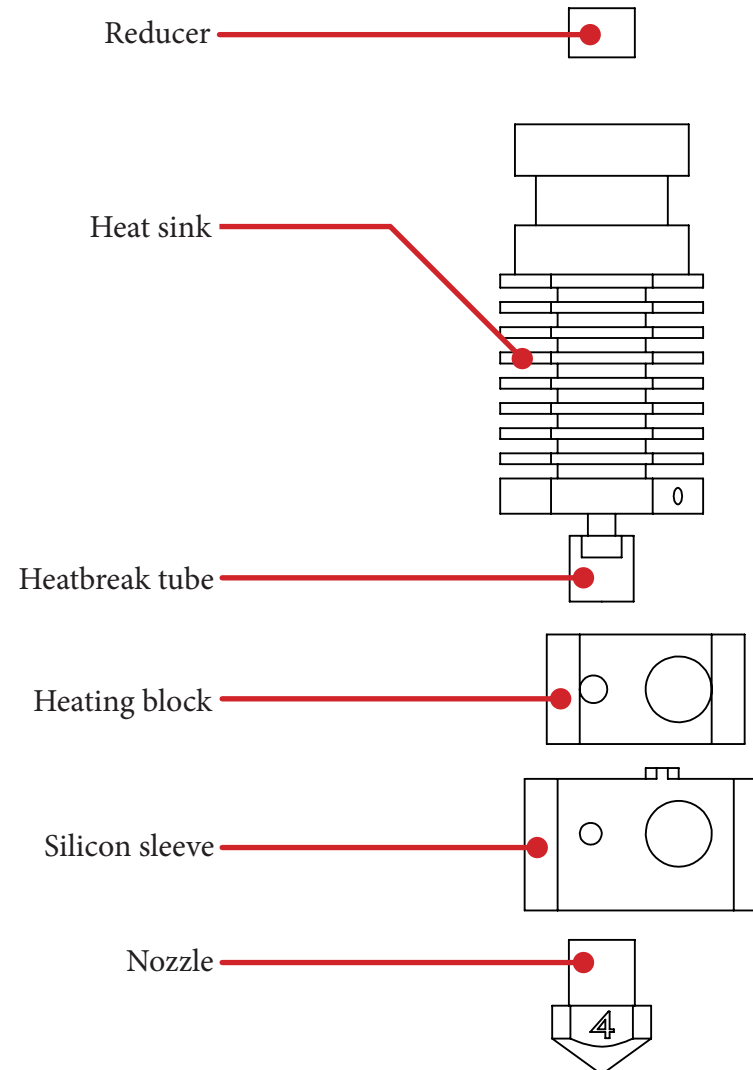
Operate in a ventilated room. Plastic fumes effects are not known. In case of use in a closed room, we recommend the use of an extractor fan.

Further informations

Information above are not exhaustive.

We used sources of informations we consider as reliable. However, we cannot guarantee that all these informations are true and complete.

We assume no liability for loses, injuries or damages due to assembly, transporting, storage or removal of the product.

GLOSSARY

The central tube is attached to the heatsink using a thin weld. It is therefore important to never screw the heat break tube on the heater block by directly hold the heat sink under penalty of breaking this weld.



THINGS TO AVOID

- DO NOT DRILLING NOZZLE OUTPUT
- DO NOT LEAD THE PRINT HEAD WITH HELP OF DRILL BITS, GUITAR STRING, PIANO OR OTHER EXOTIC ACCESSORIES AND METAL
- DO NOT TIGHTEN THE HEATBREAK TUBE IN THE HEATING BLOCK BY BEARING ON THE HEAT SINK, THIS MIGHT BREAK THE WELD THAT FIX THE HEATBREAK TUBE WITH THE HEAT SINK



PLA CLEANING

PLA Cleaning

(this operation is only useful with a previously used print head with PLA)

This cleaning process can be achieved when the head is mounted on a printer and is operational.
(see «Assembly» section of your printer)

A PLA filament will be used for the purpose of unclogging the nozzle.

This method allows you to recover impurities accumulated in the nozzle melting chamber with a piece of PLA filament that must be well-pressed beforehand in hot nozzle to affix impurities against the plastic.

The second step of this process is to cool down the filament to its glass transition temperature (± 70 ° C) and then, to remove the filament and impurities which come with it.

- 1 Using the Repetier-Host software, do heat up the print head to 200 ° C
- 2 Manually pushing the filament inside the print head so that the plastic completely fills the nozzle's tank and affix any impurity on the material.
- 3 Stop the heating of the print head so that it may cool down to ambient temperature.
- 4 Reheating the printhead in manual control to a temperature of 65 ° C (glass transition temperature).
- 5 Gently but firmly pull the filament extrusion off the body. The filament should resist a little, but you should feel that it comes quite easily. If this is not the case, it may be necessary to increase from 5 ° C the heater. In fact, according to various parameters, the glass transition temperature can significantly change (temperature may be between 65 ° C to 75 ° C for PLA).

Note: it may be necessary to carry out the whole procedure several times in order to thoroughly clear the nozzle.

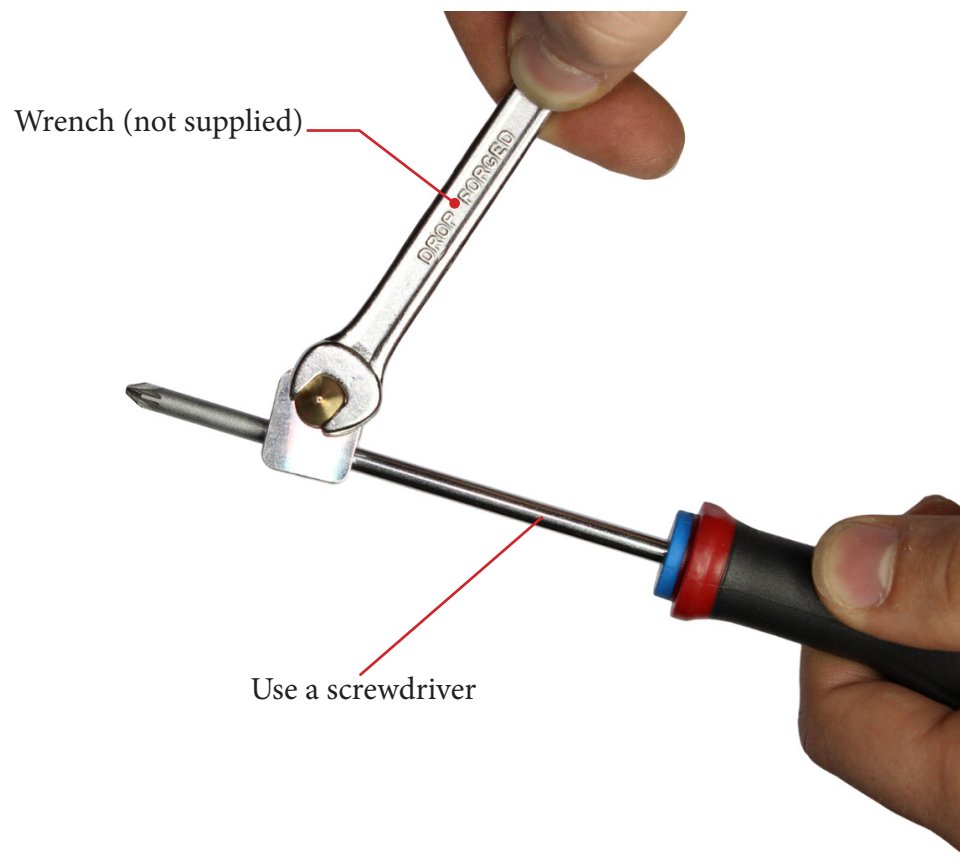


DISASSEMBLY

Hexagon printhead disassembly

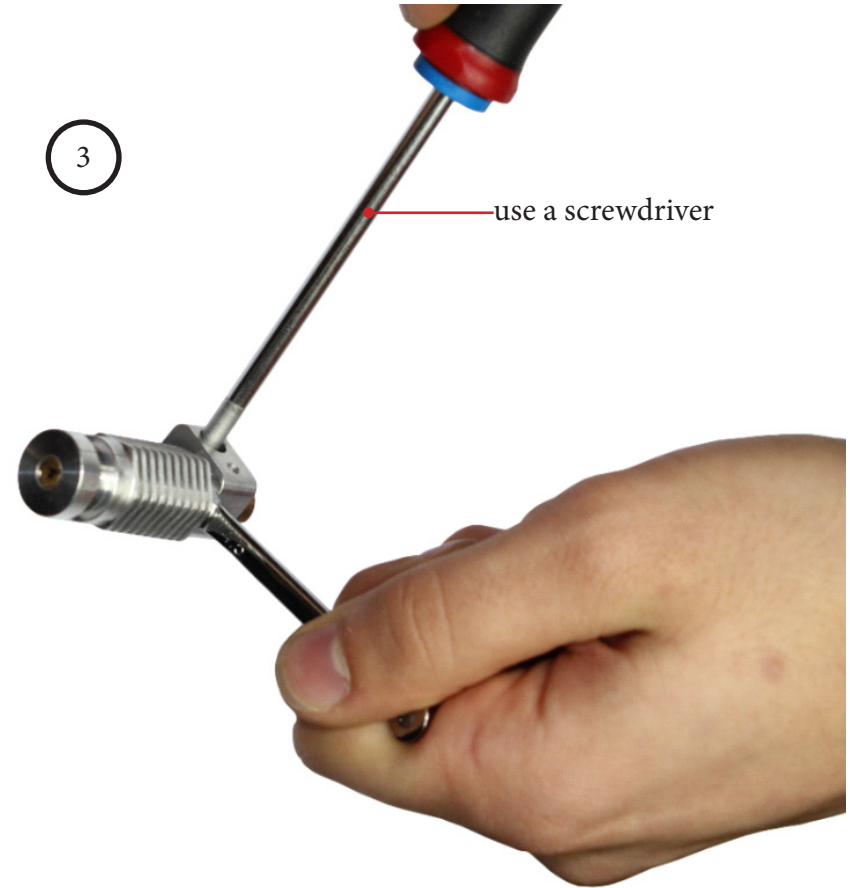
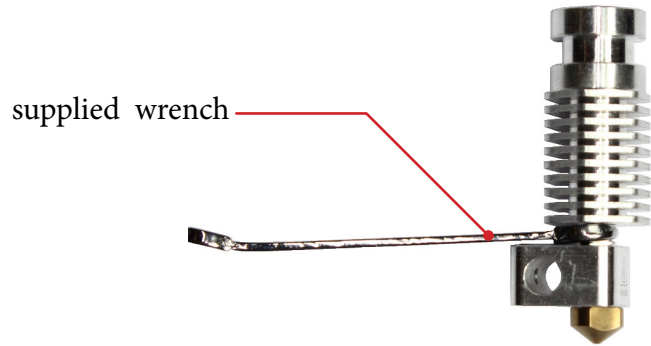
MOUNT AND DEMOUNT EACH ELEMENT WARM *

1 Unscrew the nozzle



*: All assembly and disassembly operations of the various elements of the print head must be carried out hot so as not to damage them and ensuring optimum sealing.
You can heat the different components using a heat gun or similar, beware to first remove the electronic components present on the heating block.

2 Unscrew central tube





UNCORKING

Hexagon uncorking

Caution: high temperature plastic cleaning leads to harmful gas release, so it is IMPERATIVE to work in a VENTILATED ENVIRONMENT and wear PROTECTIVE MASK.

1 Preparation

This procedure requires a heat gun or similar.
Fill a glass container with acetone.

2 Heating the different elements

Heat the nozzle and the block sufficiently **without heating elements to blush.**

3 Cooling parts

Let cool parts a little while.

4 Immerse parts in acetone

The reaction of the hot parts with acetone is effective in cleaning surfaces.

WARNING: Acetone is flammable, do not approach flames on it.

Take care to not immerse parts in acetone if they contain flames.

5 Checking parts

heating block : the internal thread must be free of plastic.

nozzle : interior should be clean and it must be possible to see through the exit hole.

It may be necessary to perform the entire operation several times before the nozzle becomes clean.

If there are impurities in the nozzle, refer to the section «PLA Cleaning» available in the guide.



ASSEMBLY

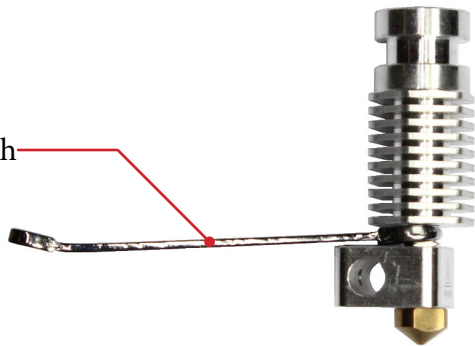
Hexagon printhead assembly

Caution: high temperature plastic cleaning leads to harmful gas release, so it is IMPERATIVE to work in a VENTILATED ENVIRONMENT and wear PROTECTIVE MASK.

MOUNT AND DEMOUNT EACH ELEMENT WARM *

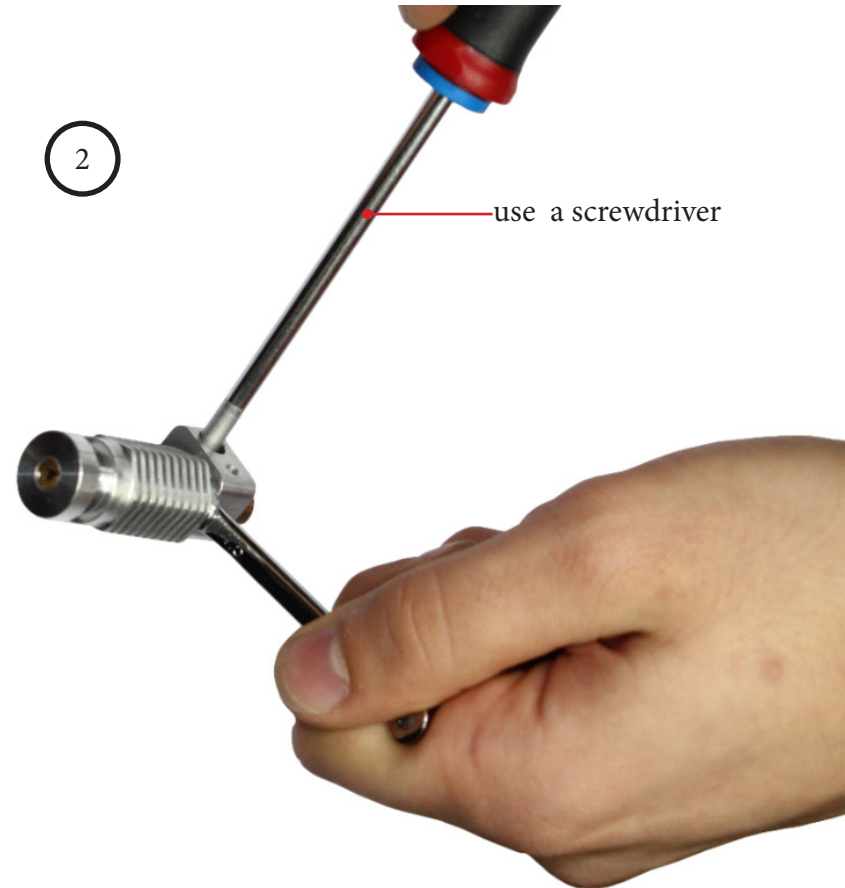
1 unscrew the nozzle

supplied wrench

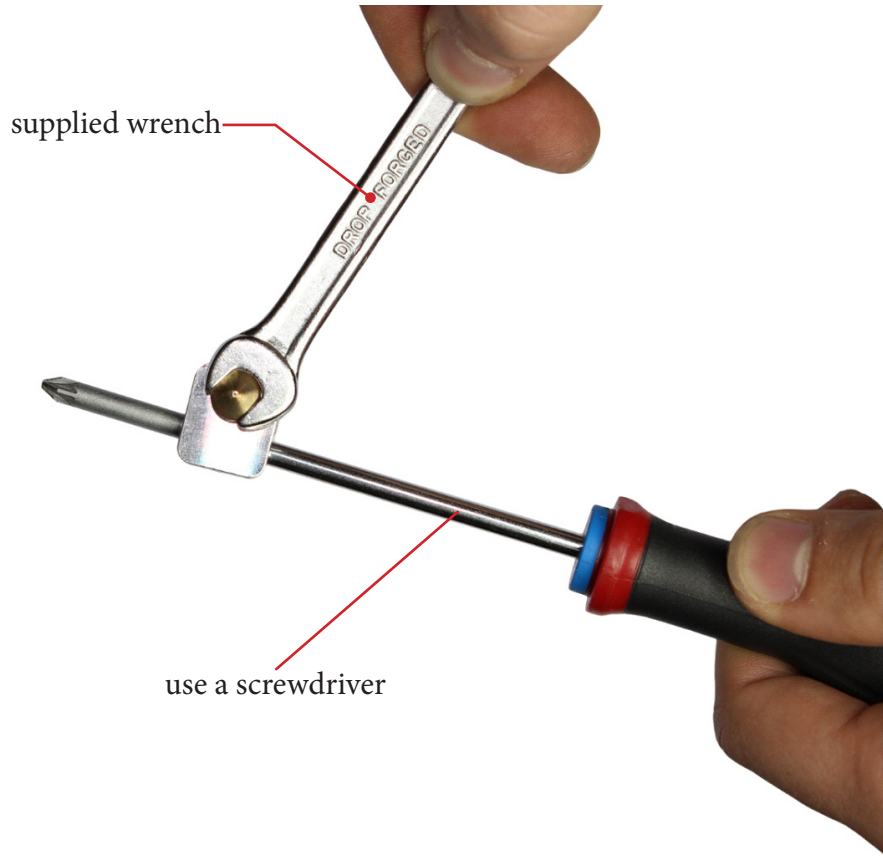


2

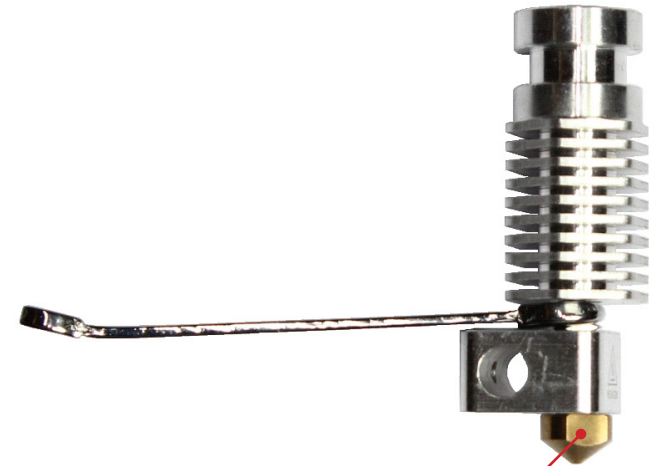
use a screwdriver



3 Tighten the nozzle



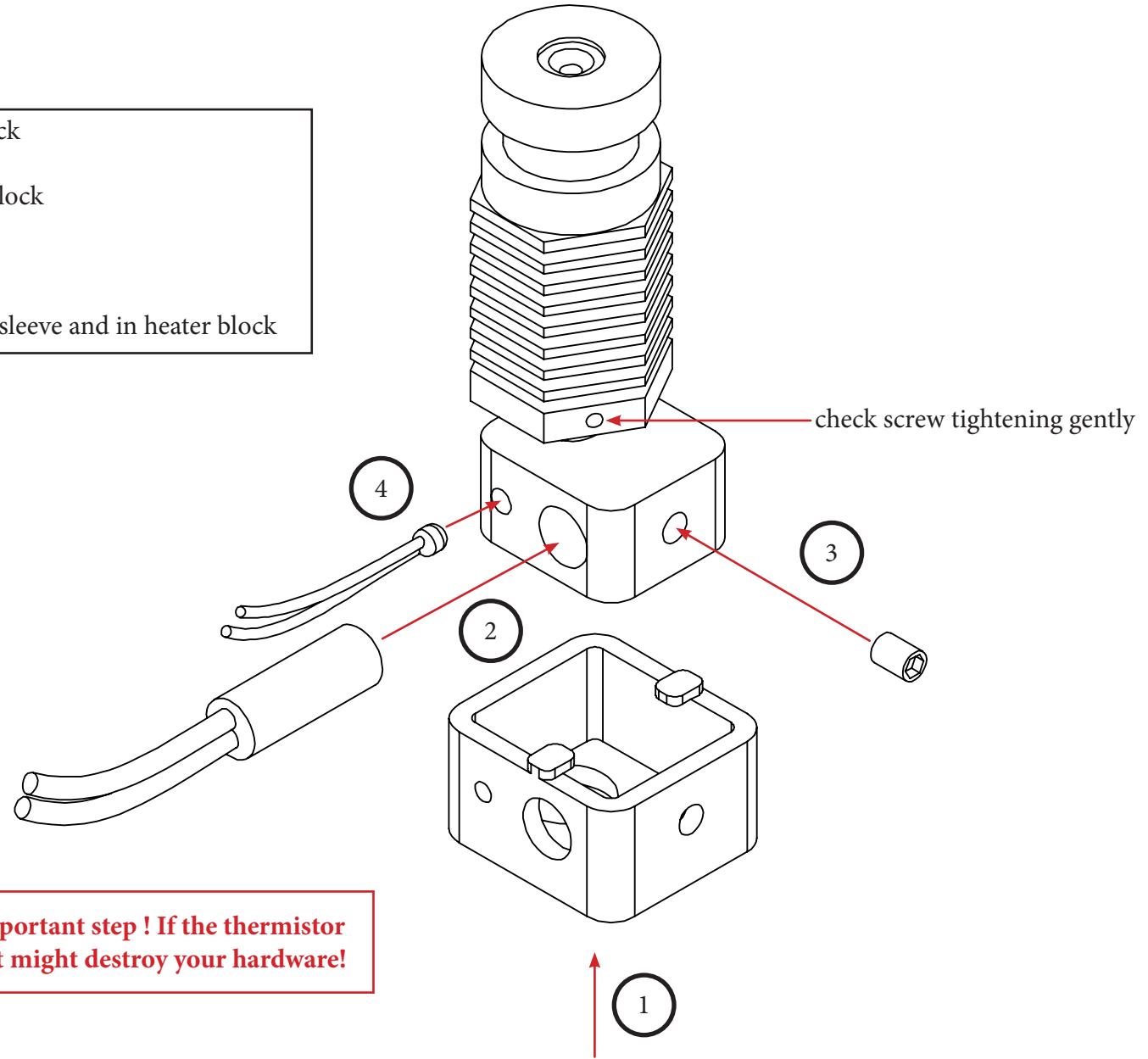
4 Tighten the heatbreak tube



It should not be any space between the nozzle and the heating block

Hexagon : mounting direction

- 1°) silicon sleeve on heater block
- 2°) heater cartridge in heater block
- 3°) set screw in heater block
- 4°) thermistor through silicon sleeve and in heater block

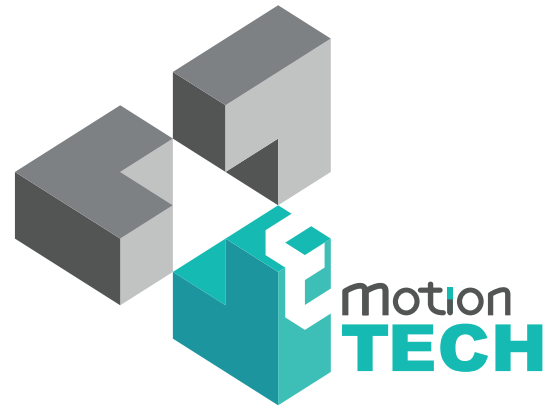


Warning ! This is the most important step ! If the thermistor goes out of the heater block, it might destroy your hardware!

CONGRATULATION !

Your Hexagon printhead is now operational !





Thank you.

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