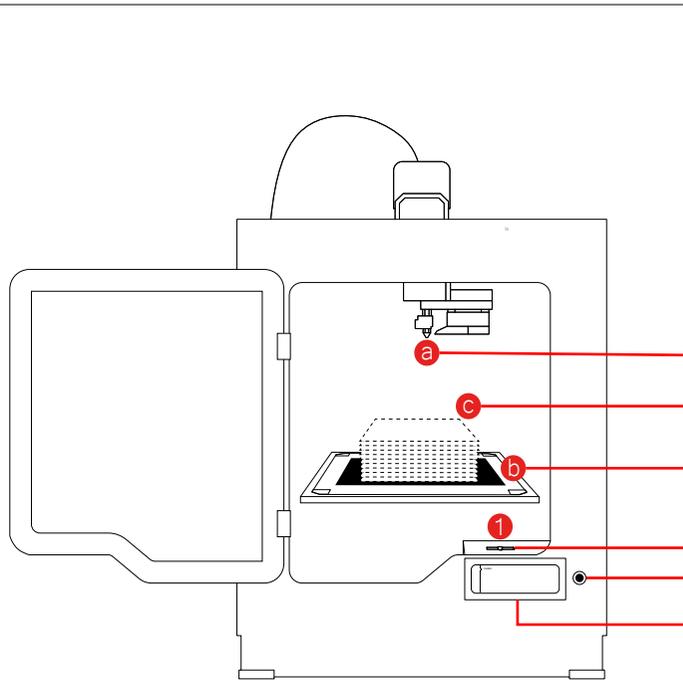


SECTION 8 : HANDLING THE FDM PRINTERS

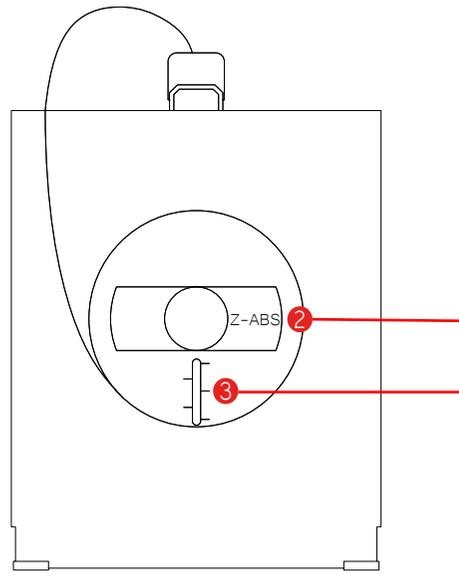
SECTION 8.1 : HANDLING ZORTRAX M200 PRINTERS

How to handle the Zortrax M200

FRONT VIEW



BACK VIEW



1 Insert your SD card into the SD card reader. Use the scroll wheel to find > Models > Your File and note the following before moving on to step 2

- a. Material type
- b. Material usage in g
- c. Print time

2 Check the name of the spool at the back, your file material as shown on the display should match the spool material. If the material is different, you will need to re-slice your model in Z-Suite to match. Or if your model requires different material for a specific reason speak to staff. M200 printers are usually loaded with Z-ABS, but you must double check.*

3 Check that there is enough material in the spool - it is best to refer to the markers on the spool. If there is less material on the spool than the material usage estimate on the display, the printer will stop extruding material when it runs out. You will print a partial model. If there is not enough material, please let staff know.

4 Ensure that your booking time does not exceed the acceptable time frame stated in "Section 8.1 : Booking a Zortrax Printer". Staff always monitor 3D printing booking times, if your booking time extends beyond the acceptable time frame it will be changed or deleted depending on the situation.

5 Press down on the scroll wheel to start your print



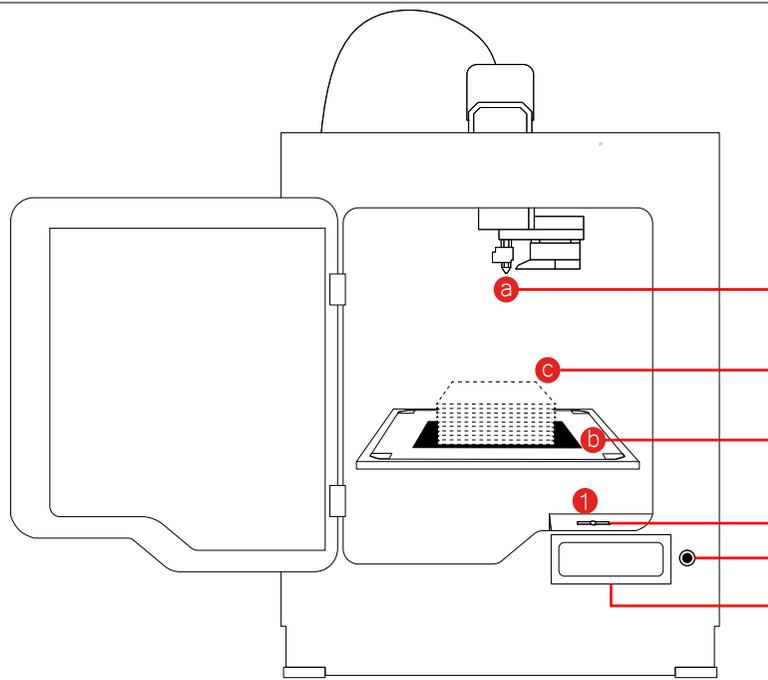
WHEN YOU COMMENCE YOUR PRINT, YOU MUST REMAIN IN THE WORKSHOP AND OBSERVE THE FIRST 10 LAYERS OF YOUR PRINT

You are observing...

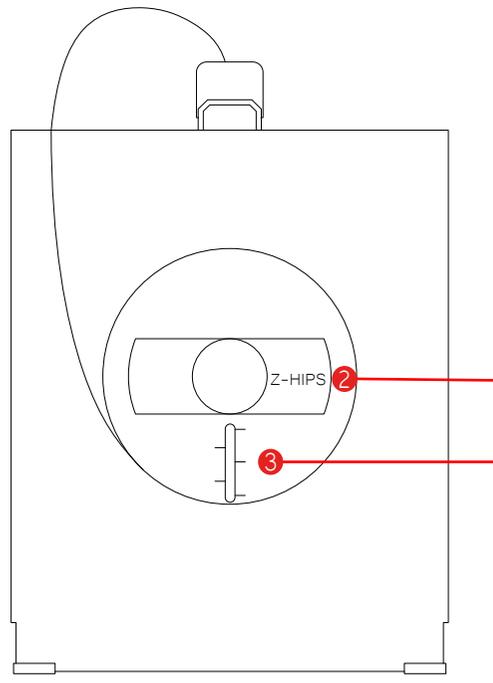
- a if the filament is extruding consistently out of the extruder
- b if the raft is adhering to the heated perforated build plate
- c if the first ten layers (excluding raft) is printing without error
- d for any other erratic behaviour of the printer

SECTION 8.2 : HANDLING ZORTRAX M300 PRINTERS

FRONT VIEW



LEFT SIDE VIEW
(facing printer)



1 Insert your SD card into the SD card reader. Use the scroll wheel to find > Models > Your File and note the following before moving on to step 2

- a. Material type
- b. Material usage in g
- c. Print time

2 Check the name of the spool on the left side, your file material as shown on the display should match the spool material. If the material is different, you will need to re-slice your model in Z-Suite to match. Or if your model requires different material for a specific reason speak to staff. M300 printers are usually loaded with Z-HIPS, but you must double check.

3 Check that there is enough material in the spool - it is best to refer to the markers on the spool. If there is less material on the spool than the material usage estimate on the display, the printer will stop extruding material when it runs out. You will print a partial model. If there is not enough material, please let staff know.

4 Ensure that your booking time does not exceed the acceptable time frame stated in "Section 8.1 : Booking a Zortrax Printer". Staff always monitor 3D printing booking times, if your booking time extends beyond the acceptable time frame it will be changed or deleted depending on the situation.

5 Press down on the scroll wheel to start your print

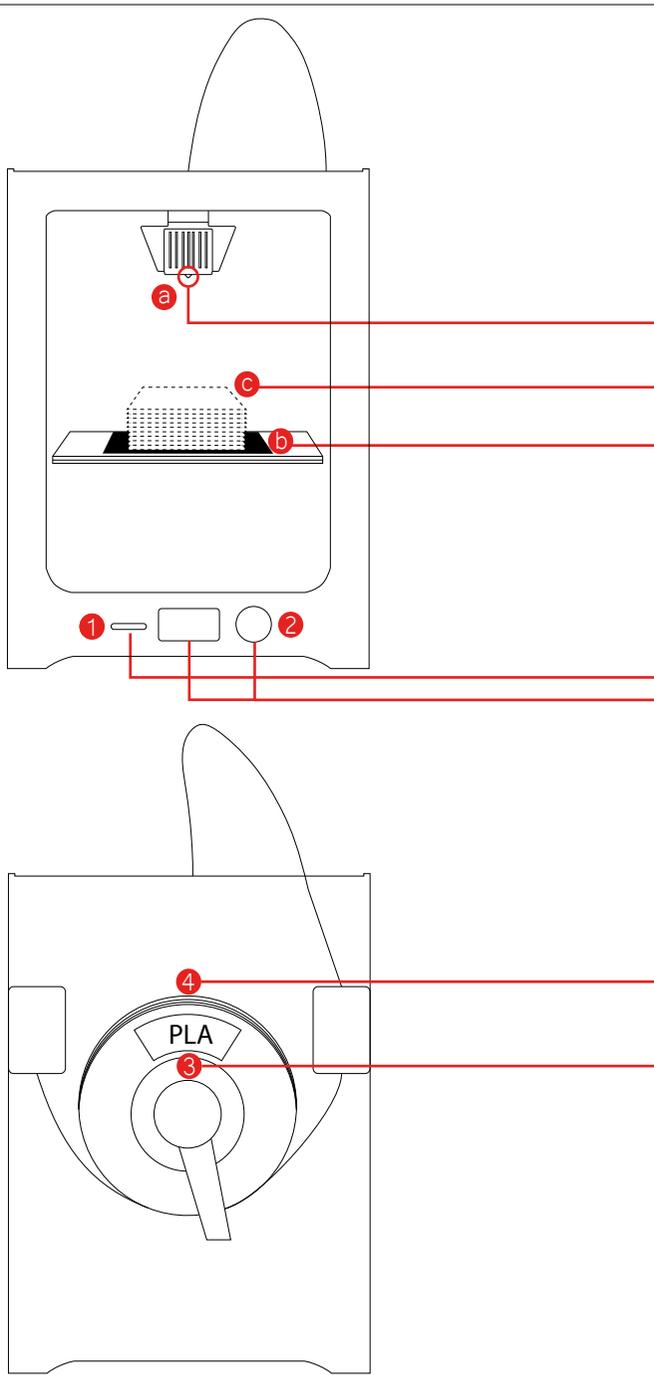


**WHEN YOU COMMENCE YOUR PRINT,
YOU MUST REMAIN IN THE WORKSHOP AND OBSERVE THE FIRST 10 LAYERS OF
YOUR PRINT**

You are observing...

- a if the filament is extruding consistently out of the extruder
- b if the raft is adhering to the heated perforated build plate
- c if the first ten layers (excluding raft) is printing without error
- d for any other erratic behaviour of the printer

SECTION 8.3 : HANDLING ULTIMAKER 2 EXTENDED + PRINTERS



- 1 Insert your SD card into the SD card slot.
- 2 Use the scroll wheel and navigate to > Print (click scroll wheel to select) > Your file name should appear on the printer's display as "Latest : UME3 FILE NAME". By default this is the last file you have sliced. If you wish to print an older file, use the wheel to scroll down the menu and find the file. If you have multiple folders - click through your folders to find your file.
- 3 Check the name of the spool at the back - your "sliced" file material should match the spool material. There is no way to double check this on the printer. So, you must ensure that you have applied the correct print settings while slicing your file. Otherwise, your print may fail.

Ultimaker printers are usually loaded with PLA, but you must double check.
- 4 Check that there is enough material on the spool for your print. The best way to ensure this is - to make a note of how much material your print will use in grams, during the slicing process in Cura.

If there is less material on the spool than the material usage estimate in Cura, the printer will stop extruding material when it runs out. You will print a partial model. If there is not enough material, please let staff know.
- 5 Ensure that your booking time does not exceed the acceptable time frame stated in "Section 8.1 : Booking an Ultimaker Printer". Staff always monitor 3D printing booking times, if your booking time extends beyond the acceptable time frame it will be changed or deleted depending on the situation.

Press down on the scroll wheel to start your print

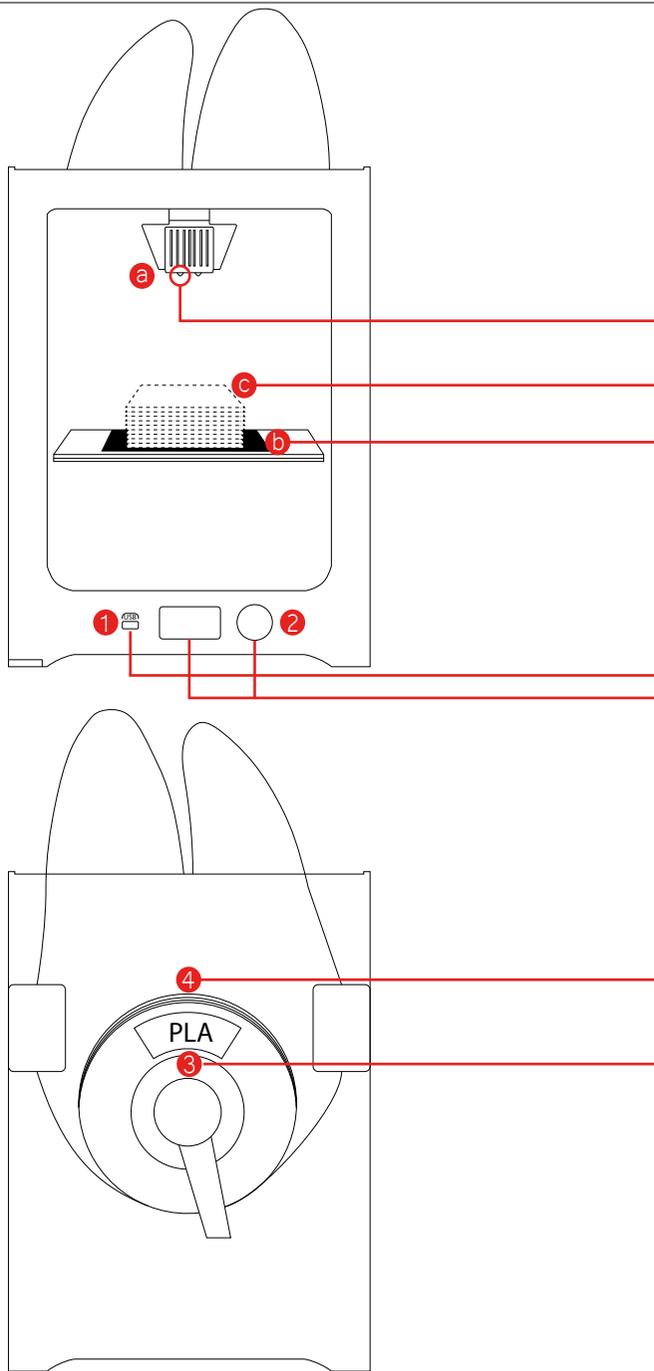


**WHEN YOU COMMENCE YOUR PRINT,
YOU MUST REMAIN IN THE WORKSHOP AND OBSERVE THE FIRST 10 LAYERS OF
YOUR PRINT**

You are observing...

- a if the filament is extruding consistently out of the extruder
- b if the raft is adhering to the heated glass build plate.
- c if the first ten layers (excluding raft) are printing without error
- d for any erratic behaviour of the printer

SECTION 8.4 : HANDLING ULTIMAKER 3 EXTENDED PRINTERS



- 1 Insert your USB into the USB slot.
- 2 Use the scroll wheel and navigate to > Print (click scroll wheel to select) > Your file name should appear on the printer's display as "Latest : UME3 FILE NAME". By default this is the last file you have sliced. If you wish to print an older file, use the wheel to scroll down the menu and find the file. If you have multiple folders - click through your folders to find your file.
- 3 Check the name of the spool at the back - your "sliced" file material should match the spool material. There is no way to double check this on the printer. So, you must ensure that you have applied the correct print settings while slicing your file. Otherwise, your print may fail.

Ultimaker printers are usually loaded with PLA, but you must double check.
- 4 Check that there is enough material on the spool for your print. The best way to ensure this is - to make a note of how much material your print will use in grams, during the slicing process in Cura.

If there is less material on the spool than the material usage estimate in Cura, the printer will stop extruding material when it runs out. You will print a partial model. If there is not enough material, please let staff know.
- 5 Ensure that your booking time does not exceed the acceptable time frame stated in "Section 8.1 : Booking an Ultimaker Printer". Staff always monitor 3D printing booking times, if your booking time extends beyond the acceptable time frame it will be changed or deleted depending on the situation.

Press down on the scroll wheel to start your print



**WHEN YOU COMMENCE YOUR PRINT,
YOU MUST REMAIN IN THE WORKSHOP AND OBSERVE THE FIRST 10 LAYERS OF
YOUR PRINT**

You are observing...

- a if the filament is extruding consistently out of the extruder 1 NOT 2!
- b if the raft is adhering to the heated glass build plate.
- c if the first ten layers (excluding raft) are printing without error
- d for any erratic behaviour of the printer