

MOMENT

Catch the moment, fill your ideas

— Moment Manual —



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* Specification

1. Introduction

Moment is a desktop 3D printer that uses the FDM/FFF methodology. Without complicated settings or adjustments to worry about, the printing process simply starts when you press the 'print' button. With your new Moment 3D printer, you can now print in a variety of quality materials such as PLA, ABS, Flexible polymers, or wood filaments without having to replace the printer's hotend nozzle.

The Simplify 3D software that comes with your Moment printer is different from other existing software in that it helps users to do more, and be more creative, as their skills increase. Whether just a beginner, or an old hand, with Simplify 3D's diverse and elaborate printer settings you will have just the right amount of control over your printing projects.

With your new Moment printer, all you need to do to get printing is to open the box, plug the printer in and start to print. It really is just that easy. When the print is done, simply take your first print off the build plate and enjoy. We are sure you will be pleased with the quality of prints produced, we think they go beyond the expected limitations of most FFF 3D printers currently available. We congratulate you on your decision to join the Moment family.

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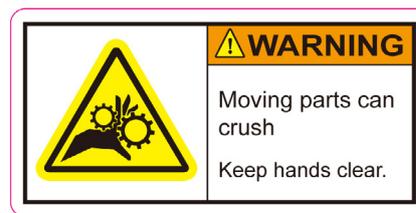
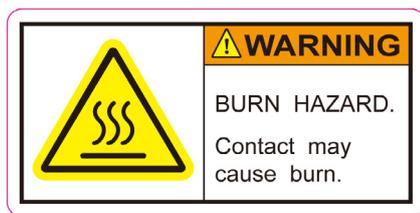
2. Cautions

1) High temperature

Before you start printing with your new Moment printer, please be aware of a few safety issues to prevent injury to yourself, or damage to the printer. Please do not put your hands inside the build chamber of your Moment 3D printer while it is operating, as there is a chance that you may get burnt. The hotend nozzle of the printer can reach temperatures of over 200°C. Also, if you use the heated build plate, the plate itself can sometimes get up to 100°C so please use caution and allow the printer to cool down before attempting to remove your finished object.

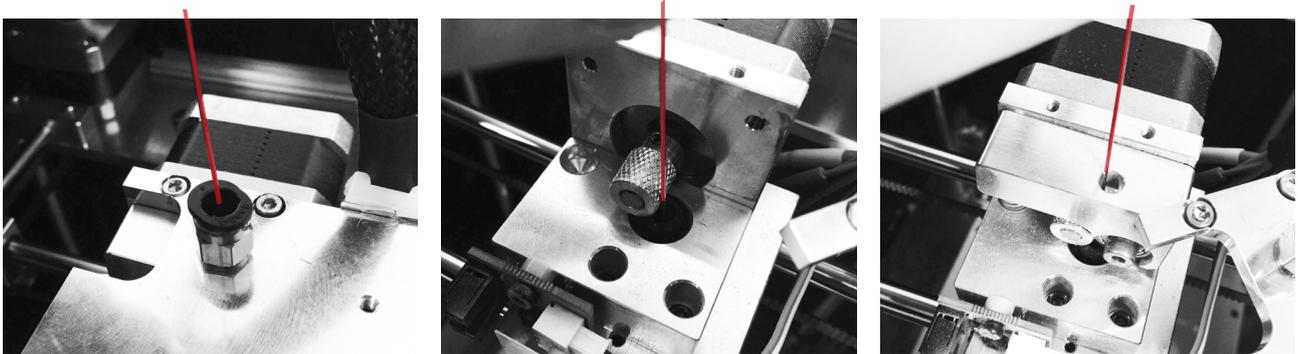
2) Moving parts

While in operation, your Moment printer has many different moving parts that can cause serious personal injury. Please do not reach into your Moment 3D printer while it is in operation. You may get your hand jammed in the moving parts, leading to a painful injury or you may damage the machine, necessitating costly repairs.



3) Always be certain you have enough filament before starting a print: If the filament runs out while it is printing an object, a small amount of filament may be pulled inside the printhead and jam the nozzle. If this happens, you may have to take the printhead apart and remove the broken filament by hand. This can be difficult and time-consuming, so before you print, make sure that you have enough filament remaining on the filament spool prior to starting.

-
- 4) Don't use fine or sharp stuff to remove the filament remained in the nozzle:
In case of pushing fine or sharp stuff like clip or metal pin into the inside of the nozzle, the inner part can be seriously damaged. Since Moment 3D Printer's nozzle doesn't get in trouble with the remained filament, just load the filament after preheat the nozzle when you want to clean the inside.



- 5) When you try to remove filament, you should pull it out right after pushing it into the printhead. If not, the end of the filament would be melt at the nozzle and this melted tip may get stuck inside the printhead(check page 11 for more information).

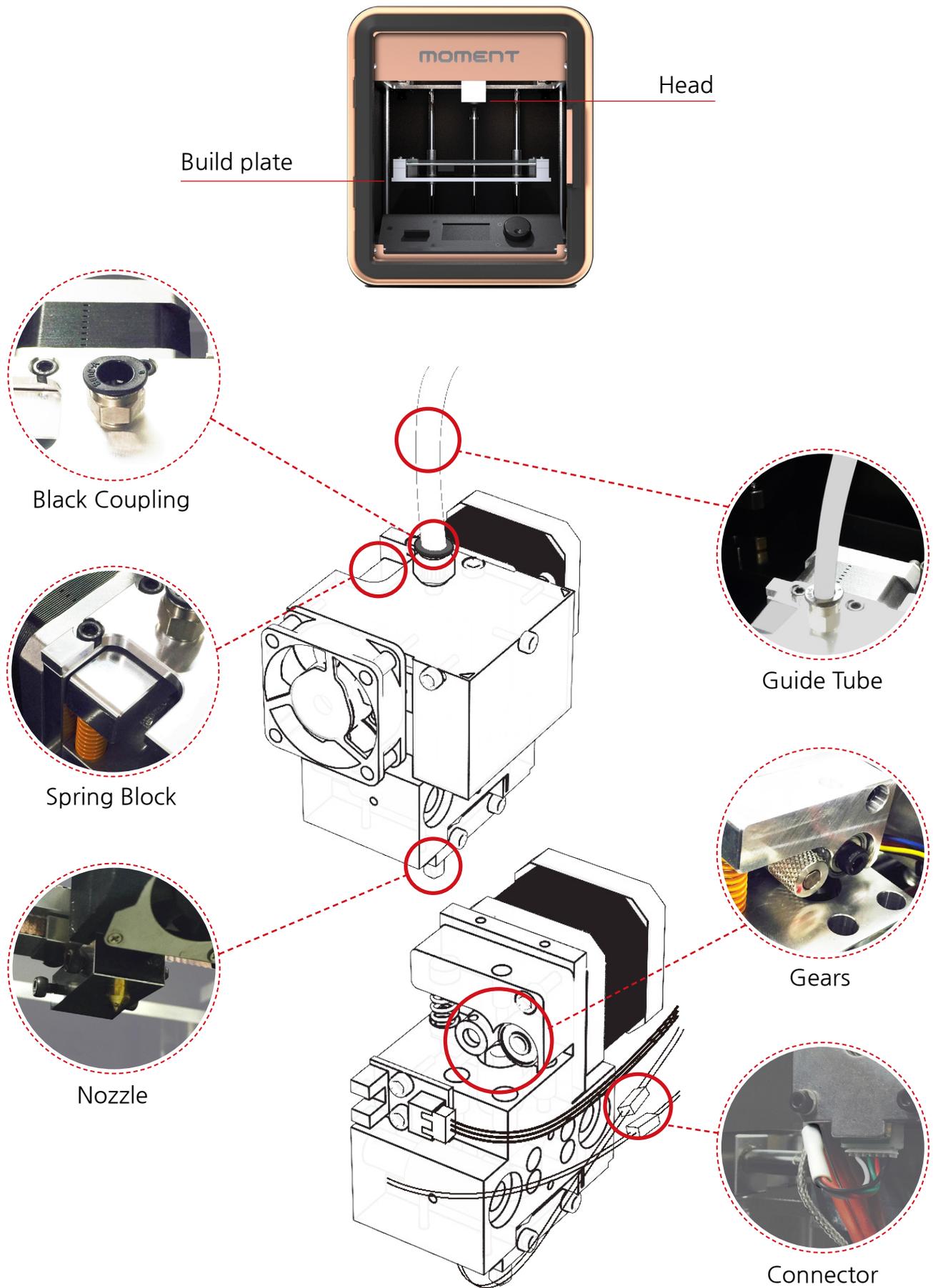
3. Product Components



Moment 3D printer adjustment wrench SD-card tweezers 1 spool of PLA filament power adapter USB cable filament spool holder Moment quick Manual Simplify3D CD-Key

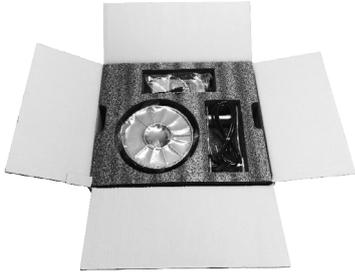
*On the SD card, you should find the following: a detailed Moment 3D Printer Manual, software and a sample Gcode test file for your first print.

4. At a glance



5. How to use

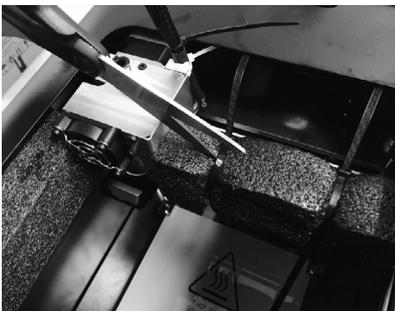
1) Setting up your printer



After you open the box, first remove the manual and components from the padded tray.



Remove the padded side rails from around the printer. Then grasp the bottom of the printer firmly and lift the printer out of the box.



With scissors, cut the cable tie securing the printhead, and remove the padding.



Connect the power adaptor to the rear of the printer and plug the printer in.

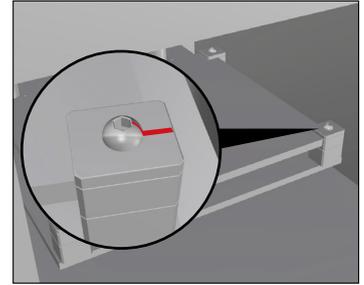


Place the filament spool on the right side of the printer.

2) Leveling

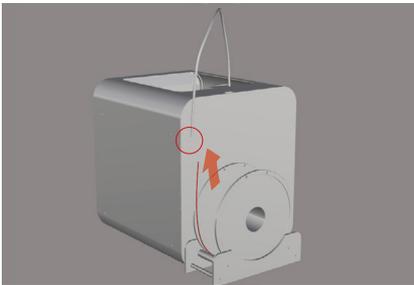
Leveling is a process wherein the buildplate is adjusted so that it is absolutely perpendicular to the hotend nozzle in both the X and Y axes. FFF printers must have a level buildplate in order to ensure that objects are built up evenly and that each layer of the model is exactly the same thickness.

1. Your Moment 3D printer is shipped to you with the bed leveled precisely at the factory.
2. If, however, one of the buildplate corner shape lines are not in alignment, adjust it with the wrench provided.
3. Do not drop or hit your printer, as strong impacts can affect the factory set leveling.



3) Inserting filament

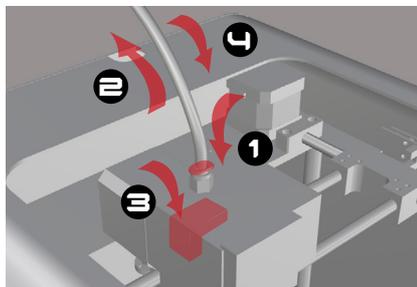
To load the filament, start by placing the filament spool on the filament spool holder so that the filament is feeding from the bottom of the roll.



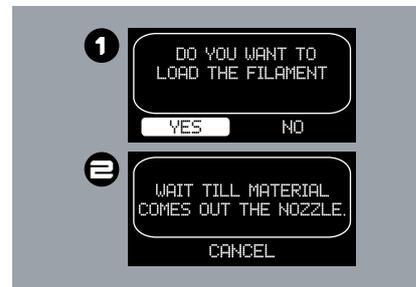
Please note where the guide tube enters the printhead, and you will see a black plastic coupling. Push this coupling down while pulling the guide tube out. It should remove easily. Now put the filament into the other end of the guide tube [where the guide tube is attached to the back of the printer] and feed the filament all the way through until it comes out the end near the printhead.

On the menu screen, select preheat by rotating the control dial until the preheat setting appears. Once the preheating setting is highlighted, select by pushing the control button.

Choose the material you plan to use from the menu screen, by selecting and highlighting either PLA, ABS, or CUSTOMIZE if you are planning on using a specialty filament, and push the control button in to select. (picture) This will now start to heat the hotend nozzle. When it has reached the correct temperature, the menu screen will display a message telling you it is now ready to load.



When the hotend nozzle has reached the temperature goal, press the black plastic coupling and remove the guide tube. Then press the spring block button and insert the filament deeply into the printhead.



Click "YES" in the picture **1** and confirm that plastic is extruding from the nozzle. After that, click "CANCEL" in the picture **2** and insert the guide tube back into the black coupling. The filament should now be properly loaded.

- * Please note that if you are planning on using something other than PLA or ABS, you should select the CUSTOMIZE setting. When you do, you will be asked to set the correct temperature on the menu screen before the heating process can begin.
- * The nozzle should be always heated properly before you insert or remove filament from the printer.
- * When printing, you should always insert the filament through the guide tube to prevent the filament from twisting and jamming the printer.

4) Removal of filament

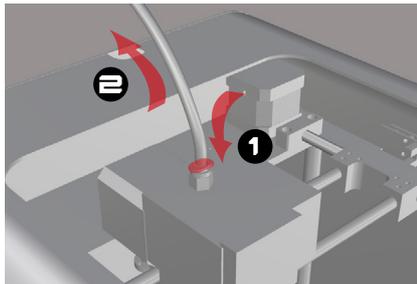
To remove the filament you should do the reverse of the loading procedure by heating the hotend nozzle as below.



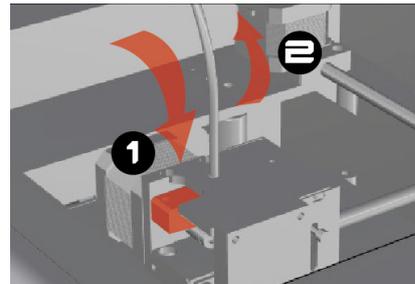
In main screen, turn the control dial to choose the preheat option. (picture) Push the control button in to select.



From the PLA/ABS/CUSTOMIZE/RETURN screen, turn the control dial to highlight the type of filament currently loaded in your printer and push in the control dial to start heating the hotend nozzle.



Note the part of the printhead where the guide tube enters, and press down on the black plastic coupling while pulling the guide tube out. This should come apart fairly easily.

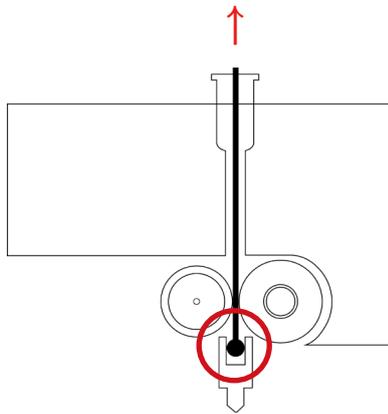


Once the printer has heated to the correct temperature, push the spring block button down, and manually push the filament into the printhead about 1cm and then pull it out of the printhead right away. If you wait more than 2 seconds, the end of filament can be melted and it may get stuck inside the printhead.

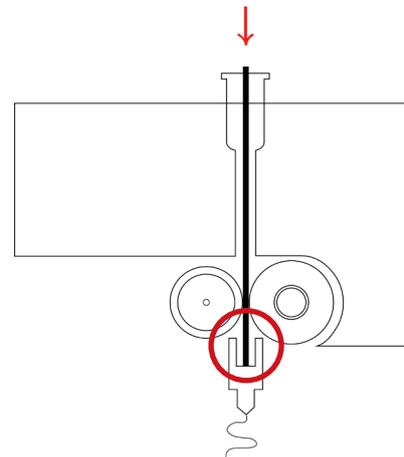
* When you try to remove filament, the end of filament can hurt the inside of the head. Basically, the end of filament is melted and crumpled (picture1) by the heat from the nozzle. If the end remains too long at the nozzle, this melted part would be too big to be passed out through the head and it can harm the inside (picture2). Because of this, you should push the filament into the printhead manually so that the melted end can be extruded (picture3). After pushing the filament, you need to pull it out right away. If not, this part can be crumpled again and it can hurt the inside or may get stuck.



(Picture1)



(Picture2)



(Picture3)

When the end of the filament get stuck inside the head while pulling it out, you should push it down again in order to extrude the melted end. If you try to pull it by force or too rapidly, the inside of the head can get damaged.

5) To print from the SD card

To start printing right away, most people find it easier to print from the SD card rather than connecting their machine to a computer. If you want to print directly from a computer the USB instruction appear below in section 7.



To start printing, first insert the Moment SD-card into the printer's SD card reader located on the top of the machine. The SD card comes with a Gcode test model so you can test your new machine. From the main menu, rotate the control dial to highlight the print option. And select by pushing the control dial in.

On the next menu, rotate the control dial to find and highlight the Gcode you wish to print, and push in the control dial to select. On the confirmation menu, the word 'start' should already be highlighted, push in the dial to begin. The printer will begin to warm up.

When the bed and nozzle have heated to the correct temperature, the printer will start the printing process automatically.

6) Change the setting while printing

To change the setting of your Moment 3D printer rotate the control dial and click the setting menu while printing. The following are a few short descriptions of the menu selection settings you may encounter with your Moment 3D printer.



Pause: pause the machine while printing, commonly used to change filament.



Speed: change the speed of the printhead while printing.



Temperature: change the hotend nozzle temperature.



Buildplate Temp: change the buildplate temperature, especially useful for ABS printing.



Fan speed: control the speed of the fan around the nozzle.



Material flow: control the amount of filament being supplied to the hotend nozzle.



LED brightness: control the brightness of the inside LED lighting.

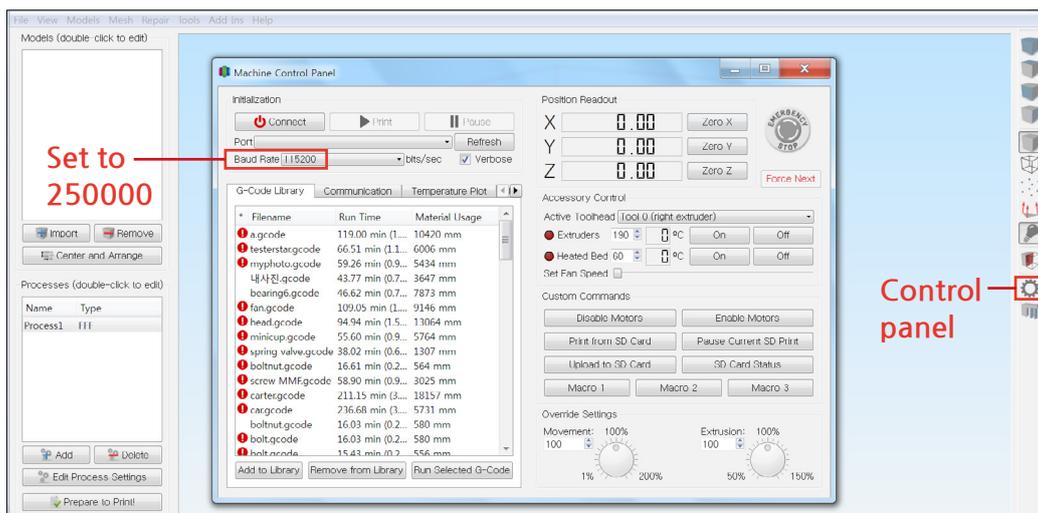
7) USB printing

To print directly from a computer instead of from the SD card, you can do the following after you have installed your copy of Simplify 3D to your computer.

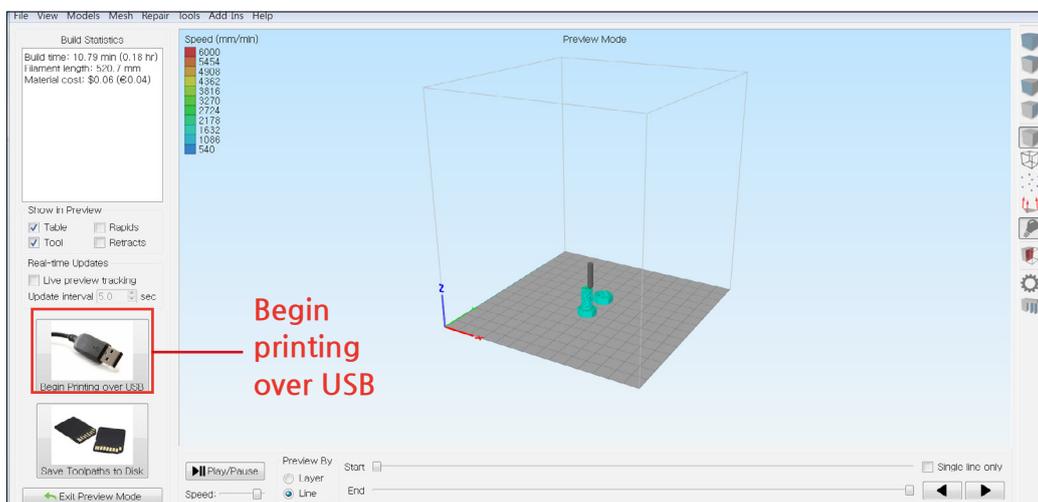
1. Connect your computer via the USB port at the rear of the printer using the USB cable supplied with your new printer.
2. Open the Simplify 3D software and click the Control Panel and set the Baud Rate to 250000.
3. Use Simplify 3D to create Gcode file and click USB print. Your model should be loaded onto your printer and begin printing automatically. (Instructions and tutorials for Simplify 3D are available on their website at: <http://www.simplify3d.com/> and on YouTube).
4. While printing, if you want to change any of your settings, click Control Panel in the software and make the adjustments directly from Simplify 3D.

* When printing from a USB connected PC, if the PC goes into sleep mode the Moment printer will also stop printing. Please adjust your computer's setting to prevent it from going into sleep mode.

* In the case of the USB printing, the Arduino Driver should be installed in your computer. You can download its installer at "www.arduino.cc/en/Main/Software".



Picture-1



Picture-2

8) Removal of the Print

After the printing process has completed, please allow the printer's buildplate to cool down to less than 40°C (about 10 minutes) before removing your print. This will make it far easier to remove the print from the buildplate and help prevent any damage to your new print. If the print does not easily come off the buildplate, you can wipe down the area surrounding the print with a wet tissue or towel to help remove the print.

Before printing check to make sure your buildplate is clean and free of any residue that may affect your new print. If need be, wipe the bed clean and dry with wet tissue. A dirty buildplate may cause your prints to fail to adhere to the buildplate surface, ruining your print. Heavy residue or leftovers from previous prints might warp or disrupt your new print. In a worst case situation these residues or leftovers may even damage your printer's hotend nozzle.

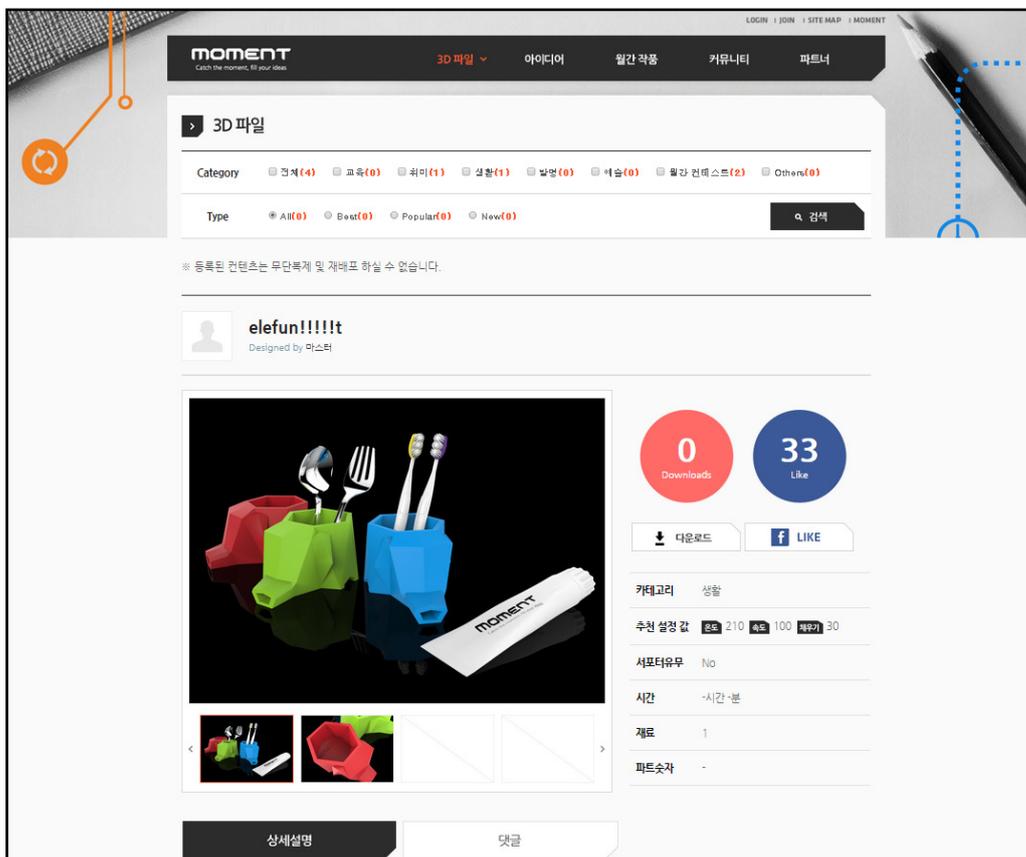
Make sure all cables are properly connected, and that you have enough filament for the print you are about to start.

6. Yourmoment

Moment runs a 3D contents sharing website called “Yourmoment” and as a member of the Moment family, you can upload, download, and share .stl files or make suggestions for new ideas on ‘Idea Menu’ to ask other members to help you make your ideas come true. We hope that you find it a useful and fun exchange site that will help the art and science of 3D printing grow.

In addition, we run some fairly regularly diverse contests, usually on a monthly basis, and have awards for best designs, creations, or ideas per the particular contest involved. Check back at Yourmoment for complete details. The site’s address is: yourmoment.co.kr

At Yourmoment there is also a Moment User’s Tutorial which you will have access to after signing up. This service is free for you to use.



7. Troubleshooting

1) Frequently Asked Questions

Q The filament ran out while printing, how can I fix it?

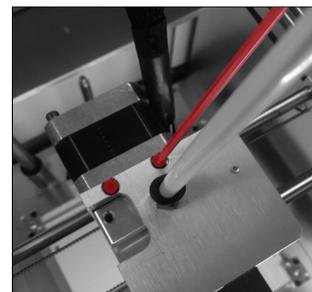
A If you accidentally keep printing after the filament spool is empty, the leftover end of filament can get stuck inside the printhead. If you are unable to remove the piece easily, you may have to disassemble the printhead. To do this, select PREHEAT to heat the nozzle (picture 1, 2) and unscrew the two black Allen screws on the top of the printhead with provided wrench to remove the top plate (picture 3, 4). Once the top plate is removed, unscrew another 1 screw (picture 5). Be careful not to lose the spring or any of the other small parts. You should now be able to see and grasp the piece of filament and remove it from the hotend assembly (picture 6). Reassemble in the reverse order.



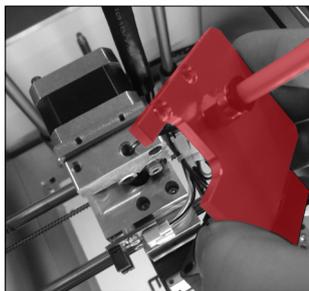
(picture 1)



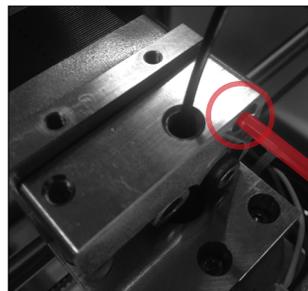
(picture 2)



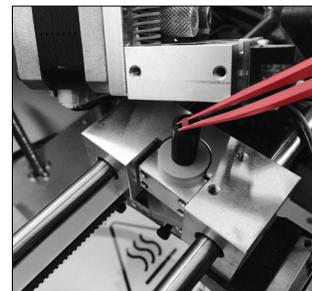
(picture 3)



(picture 4)



(picture 5)



(picture 6)

Q My prints are frequently warping during the printing process.

A In the case of PLA, you can resolve the problem by either cleaning the buildplate with a wet tissue before printing, or by reducing the speed of deposition of the first layer. In the case of ABS, print your object with a RAFT or apply some glue (white glue diluted with water, or a glue stick) to the bed and print. These techniques should help to substantially control the problem.

Q My print is very difficult to remove from the buildplate.

A The simple solution is to allow the buildplate and printer to cool down completely before attempting to remove the object. In those cases where the print is difficult to remove even after the machine has cooled off, apply a bit of water to the tip of knife (razor) and start to pry up the object from each corner slowly until the object comes off.

Q I'm using "Flexible Filament"

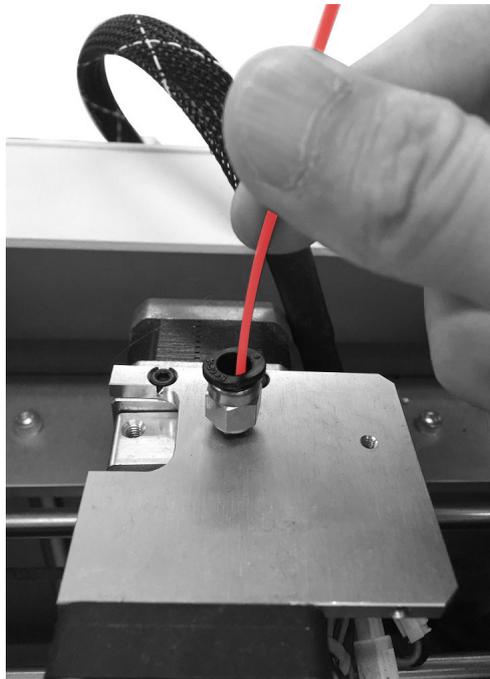
A When printing with the flexible filament, there are some tips you should remind.

1. Simplify 3D setting

- ① Adjust 'Retraction Distance' to less than 2mm at the Extruder Tab.
- ② Adjust 'Default Print Speed' to less than 1800mm/sec. at the Other Tab.

2. Filament Loading

- ① When inserting filament, put the hose out for a while and hold the filament with your fingers so that it can be stretched tightly before it loads the filament (picture4). Generally, flexible filament can easily get tangled in the head so it needs to be stretched when inserting it for the first time. Check if the filament is extruded well and put the hose back.



(picture4)

- ② Check if the first layer is printed well or not.

2) Contact Information

Please feel free to contact us for any questions or comments at the addresses listed below.

Moment Support: support@moment.co.kr

By Telephone: 02) 6347-1003

A/S Application: moment.co.kr>Support>A/S Application

SPECIFICATIONS

| | | |
|----------------------------------|----------------------------------|-------------------------------------|
| Product information / Electrical | Product Dimensions | 300mm x 360mm x 348mm |
| | Product Weight | 11.5KG |
| | Product Materials | Aluminum / ABS |
| | Shipping Weight | 16.5KG |
| | Adapter | 100-240V~50/60Hz |
| | | 24.0V - 6.25A |
| Print Technology | Fused Filament Fabrication (FFF) | |
| Printing | Print Volume | 145mm x 145mm x 160mm |
| | Nozzle Diameter | 0.4mm |
| | Filament Diameter | 1.75mm |
| | Print Speed | 30~150mm/sec (full speed 300mm/sec) |
| | Print Quality | 0.02~0.3mm |
| | Print Accuracy | 11 micron in X,Y 2.5 micron in Z |
| | Leveling | Moment leveling system |
| | Bulid Platform | Heat bed and glass (Up to 110 C) |
| | Extruder | Single extruder |
| | Cooling System | Fan air system |
| | Filament materials | PLA / ABS / Flexible / Wood / etc. |
| Software | Software bundle | Full license Moment Simplify3D |
| | Operating Systems | Windows / Mac OS |
| | Supportes File types | G-code, stl, obj |



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