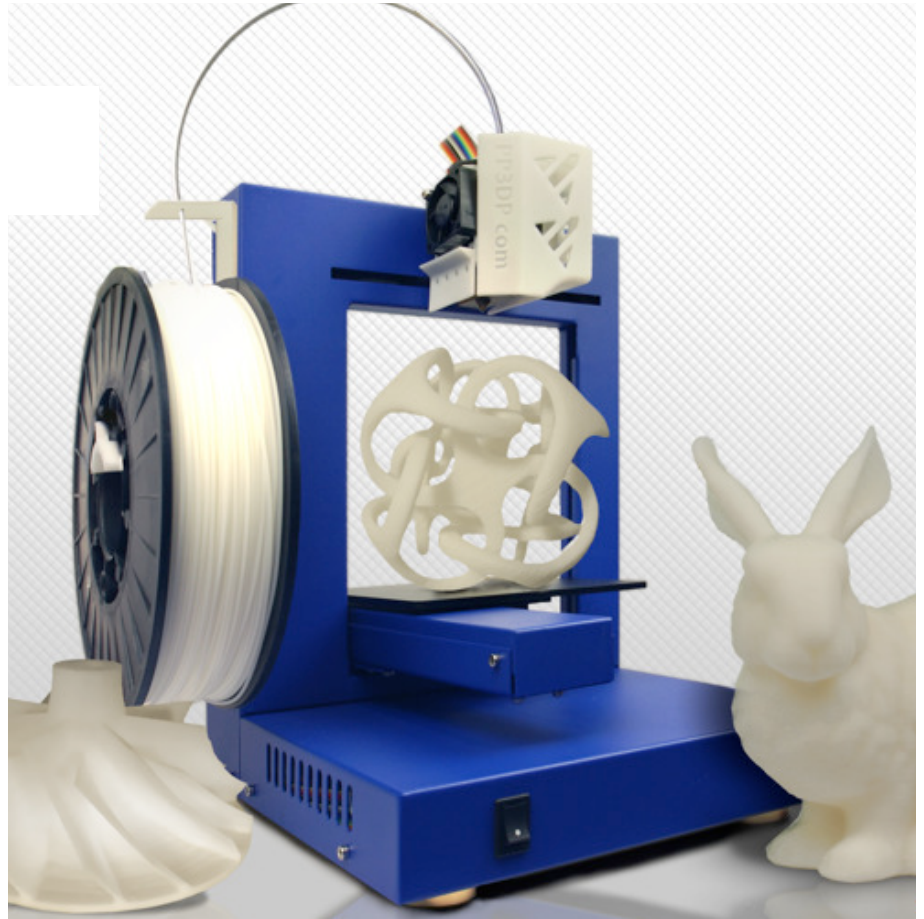


iiate

3D Printer Initiative



THANKYOU FOR YOUR INTEREST IN THE IIATE 3D PRINTER INITIATIVE

The IIATE 3D printer initiative provides schools, teachers and students the ability to have access to rapid prototyping technology.

To get started you will need to follow the quick start guide provided on the following pages. For your convenience a full manual has also been provided. The 3D printer will print any three dimensional object that has been modeled and saved as a .STL file. You will need to download the printer drivers from the website below.

Loan conditions:

1. The school must be a financial member of the IIATE.
2. The loan term is 10 weeks or the equivalent of 1 term.
3. The school is responsible for the costs incurred to transport the machine to and from the school.
4. The school is responsible for any damages that may be incurred during the printers stay at the school.
5. The invoice for \$70 must be paid to the institute by the end of the loan term.
6. Any additional materials that are purchased are to be purchased through Intellecta.

Returning the Printer:

- * The printer is to be returned in working condition
- * All parts that are supplied with the printer are to be returned with the printer
- * The printer is to be returned with the packing that is provided and packed the same way

Getting Started

READ THE QUICK START GUIDE	1
SET UP THE MACHINE	2
INSTALL THE PRINT DRIVERS	3
VISIT THE FOLLOWING WEBSITE	4

VISIT THE FOLLOWING WEBSITE FOR THE REQUIRED SOFTWARE AND SUPPORT INFORMATION

<http://3dprintingsystems.com/support/>

PLEASE DON'T HESITATE TO CONTACT THE INSTITUTE ON: secretary@iiate.asn.au

Packing the Printer for Transport

1. Remove the spool of ABS, tube, roll holder/feed guide and the perfboard
To ensure that the printer arrives safely to its destination the machine is returned the same way that it is provided to you. Please use the appropriate tools to remove the roll holder/feed guide. Please **DO NOT SHIP THE MACHINE WITH THIS ATTACHED**.

2. Please use the white packing foam that the printer is provided with
Please see diagram 1. The printer should be placed back into the white foam that is provided with the printer. There are 2 pieces one is specifically for the right side and one is for the left. These are clearly labeled.

3. Place the printer face down into the transportation box
The safest way for the printer to travel is face down. This also ensures that the printer fits tightly into the box. See diagram 1.

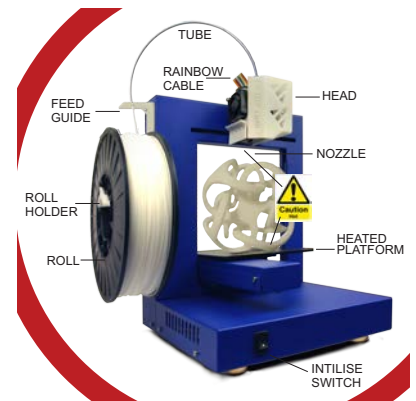
4. Check that all pieces have been packed into the box in their correct location.
Please use the check list to the right to help ensure that you have returned all pieces to the box for shipping. Please see diagram 2 as an example of how it should be packed.

5. Cable tie the locks of the box with the provided cable ties.
Please use the cable ties provided to cable tie the box shut for shipping. Please send the printer with a courier using the label provided for return shipping.



What you receive

1. An IIATE information packet
2. 1x transportation box
3. 1x UP Plus 3D Printer
4. 1x Printer Head (already attached)
5. 1x 20v Power Supply and cable
6. 1x USB cable
7. 1x Roll of 700g White ABS Plus
8. 1x Tube
9. 1x Roll holder feed guide
10. 3x Perfboard with clips
11. Tools: alan keys, cutters, chisels, spatula, nozzle spanner, spare screws
12. Safety glasses and gloves



What you will need to print

1. A computer
2. Up printer drivers
3. Software to produce a 3D model and be able to save it/ export it as a .STL file
4. A 3D model saved as a .STL file

Sample files and printer drivers are all available from:

<http://3dprintingsystems.com/support/>

DIAGRAM 1



DIAGRAM 2



WE LOVE THE 3D
PRINTER AND WE
WANT TO KEEP IT
LONGER!

YOU'VE HAD THE PRINTER FOR A TERM AND ITS
NOT LONG ENOUGH WHAT CAN YOU DO?



Not a problem as the printers are loaned out on a termly basis. We are happy for your school to keep it for an extra term for an additional payment of \$40. You will however need to let us know 2 weeks before the end of term via email:

secretary@iiate.asn.au

or fill out this form

and post it as is.

School:

Contact Name:

School Phone:

We wish to keep the printer for another term. We will be returning it at the end of term: 1 2 3 4

Year: 20_____

Please invoice us a further \$40

Signed:_____

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**3D Printer
Initiative**

Postage Stamp

IIATE SECRETARY

Po Box 855

Cherrybrook, NSW 2126

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RETURN ADDRESS
3D Printer Initiative

Mosman High School

Attn: Mr John Perdriau

Military rd,
Mosman NSW

2088

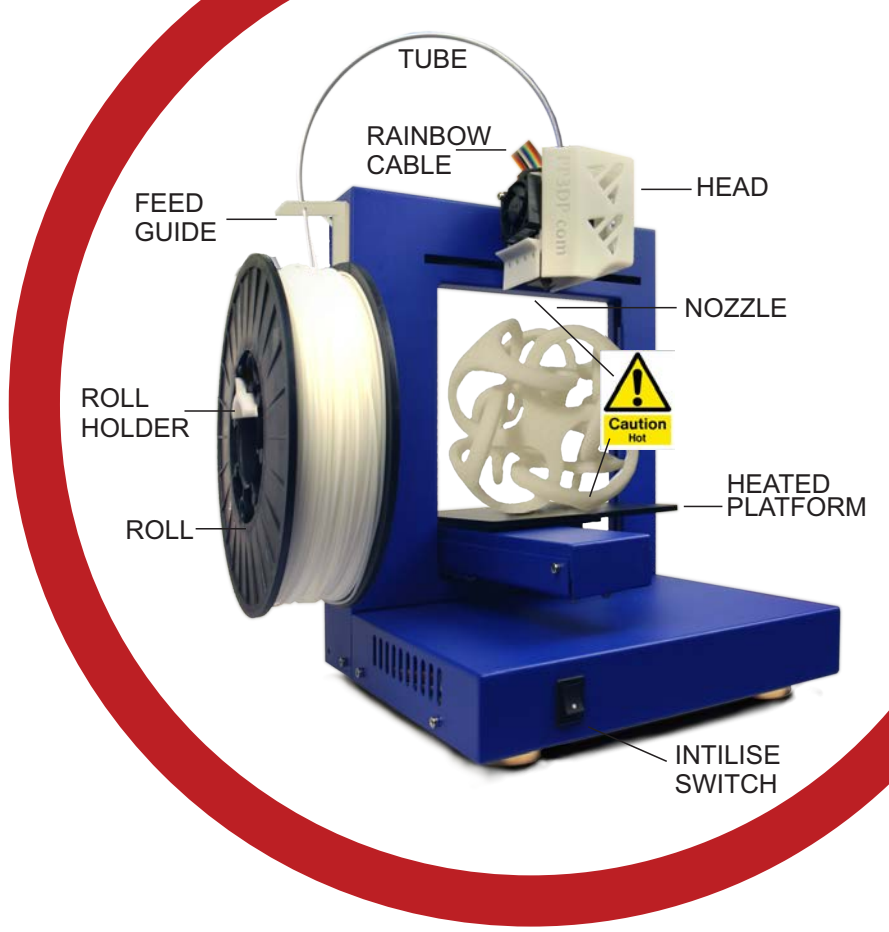
Quick Start Guide UP PLUS 3D PRINTER

Congratulations on purchasing your new UP Plus 3D Printer!

The UP Plus comes with everything you require to get you started in the world of 3D Printing.

Included in the package:

- 1.) 1 x UP Plus 3D Printer
- 2.) 1 x Printer Head
- 3.) 1 x 20v Power Supply and cable
- 4.) 1 x USB Cable
- 5.) 1 x Roll of 700g White ABS Plus
- 6.) 1 x Tube and 1 x Roll holder feed guide
- 7.) 1 x Platform
- 8.) Perfboard with clips
- 9.) Tool bag: Alan keys, cutters, chisels, spatula, nozzle spanner, spare screws.



version 3 March 2012

Step1 - Assembly

1. Screw on Roll Holder (use existing screw)

STEPS 2-4 ARE ALREADY COMPLETED FOR YOU

5. Clamp tube between holder

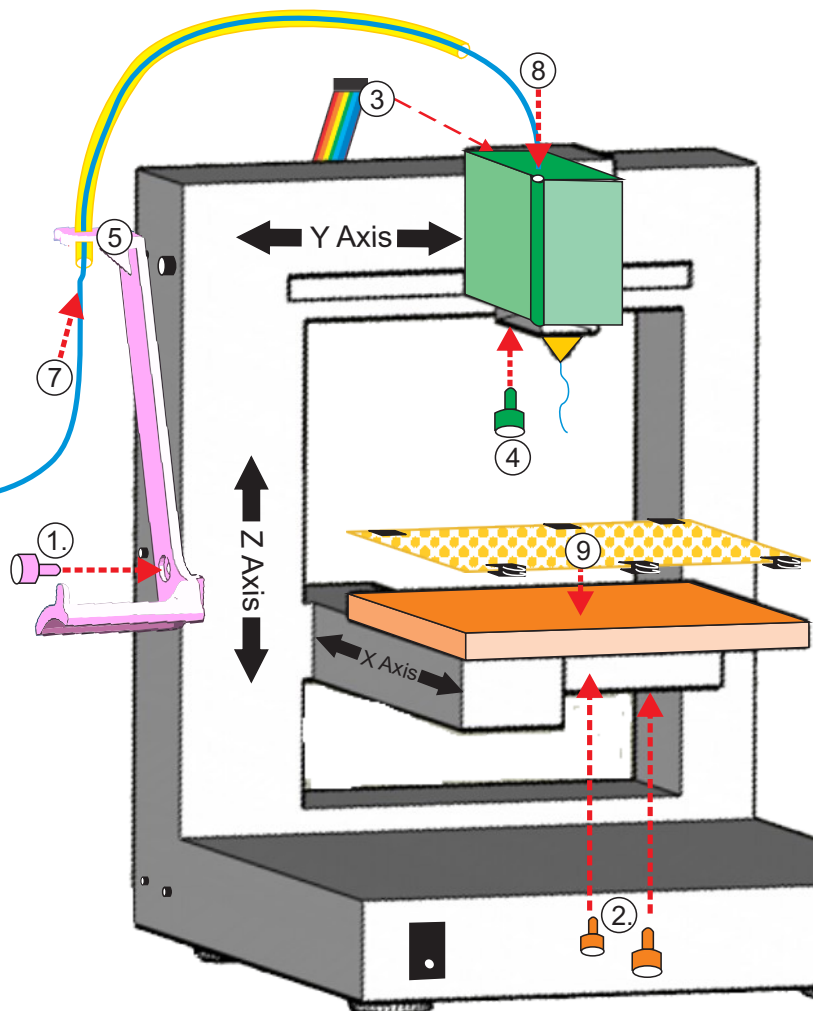
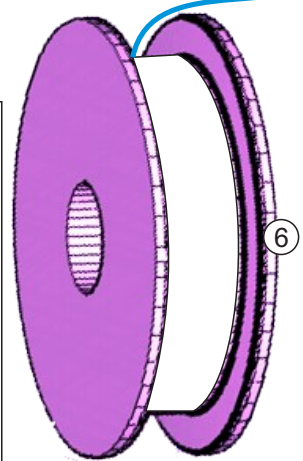
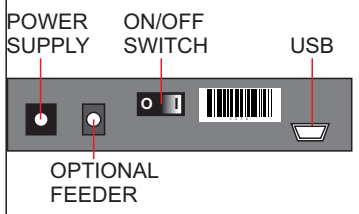
6. Mount the roll (don't let the filament get loose)

7. Feed filament from back of roll through the tube with approximately 10cm to spare.

8. Feed filament into top hole of head

9. Clip perfboard onto platform. Space clips out evenly (Only on front and back) - not on left/right.

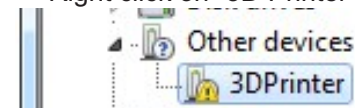
On the back of the printer connect power supply and switch on, connect the USB cable between printer and computer.



Step 2

2.1) Install the software.

- Visit www.3dprintingsystems.com/support/
- Select the appropriate download for your OS (Win / Intel Mac)
- After download install the software.
- Switch On the printer at the mains and at the back of the printer.
- In Windows go to Control Panel > System > Device Manager.
- Right click on "3D Printer"

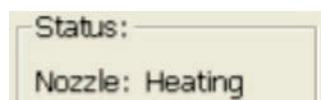


- Select "Update Driver"
- Select "Browse My Computer" and browse to "C:\Program Files\UP\Driver" if using 64bit then "C:\Program Files x86\UP\Driver"
- Windows can't verify but install the driver anyway.

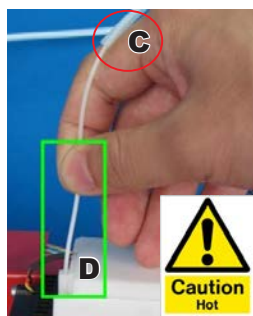
- Run the "UP!" software.
- Click on "3DPrint" -> "Initialise"
- The printer will self align itself on each axis and beep on completion.

2.2) Loading the head and extruding plastic.

- Click on "3DPrint" -> "Maintenance"
- Click "New Spool" and select "ABS".
- Click "Extrude"
- The Status of the Nozzle will change to heating.



- ## 2.3) Take the filament from the other end of the tube C and feed into the top of the head D.



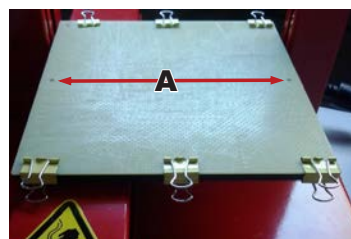
- Once the printer beeps (this means the nozzle has reached 260°C) the head will feed the filament. You might need to push the filament in to assist with initial feeding.
- If you see a fine thread of melted plastic ooze out of the nozzle, then you are ready to carry on to the next step. Otherwise click "Extrude" and try again.

Click on "3DPrint" -> "Maintenance"

- Enter "128" into the height box next to the "To:" button and click "To:"
- The platform (Z-Axis) will now rise to height 128mm



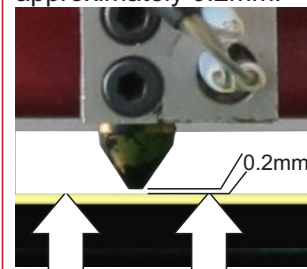
- ## 2.5) Place the Perfboard on top of the platform and clip it down. If printing a large model use 2 countersunk screws A.



Step 3

3.1.) Click "3DPrint" -> "Maintenance"

- ## 3.2.)
- Using up/down arrows next to "To:" increase the value and press "To:" repeat until the platform is within 0.2mm. Use a business card to measure, that's approximately 0.2mm.



- ## 3.3.)
- If the platform will not go any higher, click "Set Nozzle Height" click NO to test and YES to save. You will be able to increase the height by another 1mm. Repeat 3.2) until the distance between nozzle and perfboard is 0.2mm.

- ## 3.4)
- Once the height is correct at 0.2mm then click "Set Nozzle Height", click NO to test and YES to save.

This step should only need to be done once if done correctly.

WARNING:

- This is only a Quick Start Guide, ensure you read the full manual before operating the device, available at www.3DPrintingSystems.com/support
- The printer can only be used with the power adapter supplied, or the product may be damaged, with a risk of fire.
- The printer must be connected to the same power socket / adapter as your PC. It's always best to unplug the USB cable once printing has started.
- To avoid burning, or model deformation, do not touch the model, nozzle, or the platform while the printer is working or immediately after it has finished printing and always use the supplied safety gloves.
- Ensure the supplied warning stickers are attached to the relevant places.
- Do not uncoil or let go of the end of the coiled plastic, otherwise it will

- tie itself in a knot and then eventually, during use, it will burn out the head motor.
- To avoid burns, gloves should be worn when touching the model, platform or head.
- Wear safety glasses to avoid injury to your eyes when removing supports from printed parts and cleaning the perfboard.
- For users under the age of 18, adult supervision is recommended. Beware of choking hazards around small children.
- When the printer is in operation take care to never put your fingers in the moving parts. Tie back long hair or clothing to avoid being caught.

Your first 3D Print!

- Click on "3DPrint" -> "Maintenance" and click Preheat Platform 1hr. Once table reaches 100°C you are ready to print.

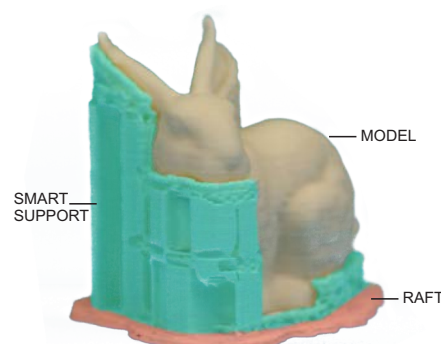
Visit www.3dprintingsystems.com/support/

- Download the "Rabbit.STL" and open it with the UP! software.
- On the toolbar click "Auto Place"
- Click "Print" and "OK"
- The printer will start heating the extruder and will start to create the object. First by creating a Raft, then by simultaneously building the model and support material layer by layer.

If you find the raft lifting or curling, either the platform and nozzle distance is incorrect, platform is not level or platform is not hot enough.

Once the printer has finished it will beep. Unclip the perfboard and then using the supplied tools and safety equipment remove the raft and support material.

Use the Spatula to scrape off the raft from the perfboard so its smooth and ready for the next print.



Example: Different colours to show the raft and support.

Contact Support

phone: Australia: +61 (0)3 9099 0225
phone: New Zealand: +64 (0)9 281 4206
email: support@3DPrintingSystems.com
web: www.3DPrintingSystems.com

Links

Manual: www.3DPrintingSystems.com/support/

Forum: www.pp3dp.com/forum

Models: www.thingiverse.com