

Instruction Manual



Humbrol.com





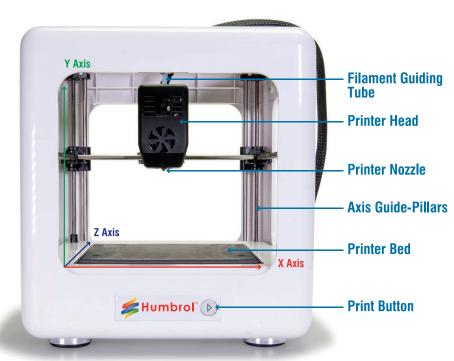
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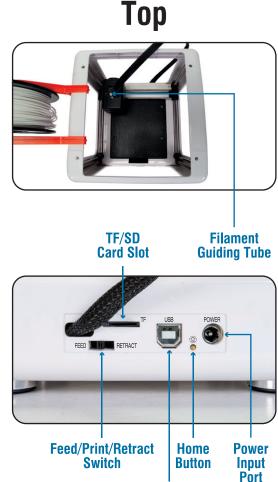
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Product Specifications

Getting to know the 3D Printer





USB Port

Front Reverse

Specification

Nozzle Diameter: 0.4mm Extruder Temperature: $180 - 230^{\circ}$ C Print Speed: $10 \sim 40$ mm/s

Building Size: 95mm (w) x 110mm (l) x 110mm (h)

Print Material: PLA

Melt-down Temperature: PLA: 180° C **Layer Thickness:** $0.05 \sim 0.2$ mm

Machine Size: 188mm (w) x 188mm (l) x 198mm (h)

Connection Type: TF/SD Card, USB
Slicer Software: Humbrol Creator 3D

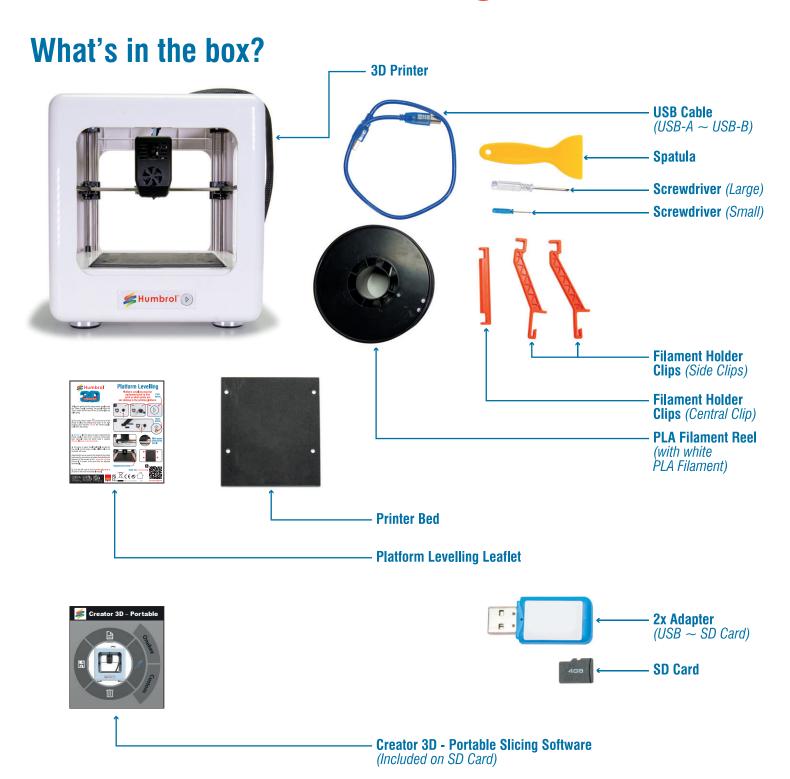
Maximum Power: $12V \sim 30W$ Working Humidity: $30\% \sim 90\%$

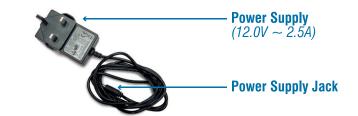
Safety Considerations

Caution: HOT! Please ensure to keep fingers away from the Printer Nozzle tip and the black Printer Head casing when the 3D Printer is on. These areas of the product reach over 200°C (Degrees Celsius). Always be sure to keep your hands away from any moving parts when the 3D Printer is in operation.



Unboxing







Unboxing

3D Printer - Initial Setup

1. The 3D Printer features pre-installed Transit Clips to protect the 3D Printer's mechanisms during transit. Be sure to carefully remove the Transit Clips from the 3D Printer.

These are located on the front left and front right corners of the printer.

2. With the 3D Printer and Print Button facing you, install the Filament Holder to the top left hand side of the printer. Further videos are available from Humbrol.com for visual instruction.

Slot in the **Filament Reel** whilst constructing the **Filament Holder**. The *Central Clip* slots and twists into the 2 *Side Clips* to lock the pieces together. Clip to the top of the **3D Printer** to the top left hand side.



3. Platform Levelling must be performed prior to *first print* or when prints are not sticking to the **Printer Bed**.

Please refer to the **Platform Levelling Leaflet** provided and follow the step by step guide to ensure the best quality of print.



Platform Levelling Leaflet



Setup

5

RETRACT

Powering the 3D Printer

1. Plug the **Power Supply** provided into the **Power Input Port** and the *mains*. Turn on the *mains power* and the **Print Button** will light up *solid green*; providing the **FEED/PRINT/RETRACT Switch** is set to **PRINT Setting** (*Centre*).

Note: Always unplug the **Power Supply** from the **3D Printer** when not in use.

Installing Filament

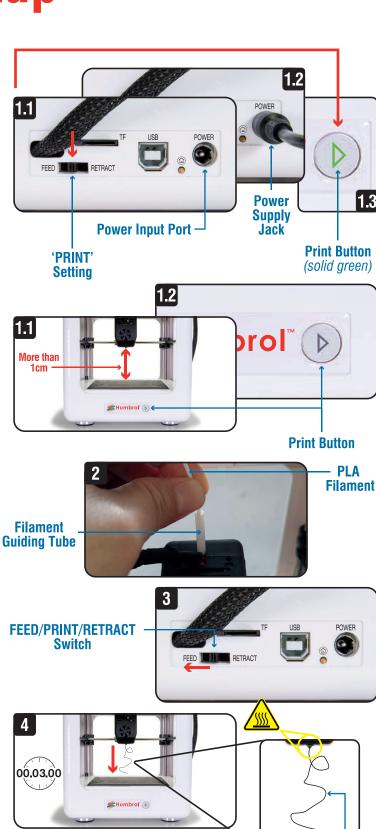
- **1.1.** Before installing the **PLA Filament**, ensure that there is at least 1cm between the **Printer Nozzle** and the **Printer Bed**.
- **1.2.** If under 1cm, press and hold the **Print Button** for 3 seconds, this will raise the **Printer Head** 1cm each time.
- 2. Insert the PLA Filament into the Filament Guiding Tube until you first notice resistance. Gently push down the PLA Filament.
- 3. Switch to 'FEED' mode using the FEED/PRINT/RETRACT Switch on the reverse of the printer. The Print Button will begin to flash rapidly. The Print Button will flash slower once the PLA Filament is sufficiently heated.
- Wait until the Printer Head has pulled the PLA Filament through.

If you notice *Excess* **Filament** coming out the nozzle, you have successfully installed the **PLA Filament**.

It is advised to remove the *excess* **filament** from the **Printer Nozzle** with the **Spatula** provided to ensure a good future print.

5. Ensure to set the **FEED/PRINT/RETRACT Switch** back to the **Print Setting**.

CAUTION! The Printer Nozzle is extremely HOT! Do not touch!



Excess Filament

PRINT Setting

(Centre)



Test Print

The Humbrol Clamp

The SD card is provided with a test print known as *The* **Humbrol Clamp**. Please see steps below to print the **Humbrol Clamp** to ensure your **3D Printer** is functioning as intended.

- **1.** Firstly, insert the **SD Card** (with the metal pins facing upward) into the **TF/SD Card Slot**.
- 2. Plug the **Power Supply** provided into the **Power Input Port** and the mains. Turn on the *mains power* and the **Print Button** will light up *solid green*; providing the **FEED/PRINT/RETRACT Switch** is set to **PRINT Setting** (*Centre*).
- **3.** Ensure the **FEED/PRINT/RETRACT Switch** is set to the **PRINT Setting** (*Centre*).

Please ensure the **3D Printer** is set down on a level surface and the **Printer Bed** is *clear* of debris and inanimate objects.

4. Simply press the **Print Button** on the front of the **3D Printer** to start the print of the **Humbrol Clamp**. Please allow time for the **3D Printer** to warm up.

Please allow the print to complete and the **Printer Head** to stop moving.

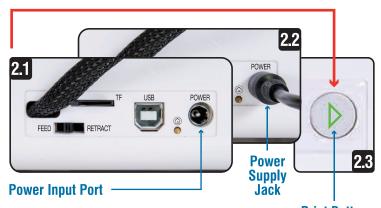
Note: Please do not leave this **3D Printer** unattended when powered on or during any prints.

5. Once complete, remove the finished **Humbrol Clamp** from the **Printer Bed** using the **Spatula** provided as shown.

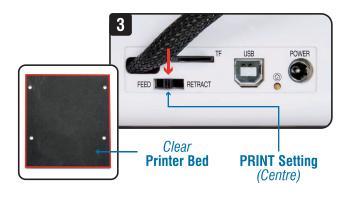
Note: You can remove the **Printer Bed** if required, but please be careful not to bend the **Printer Bed**.

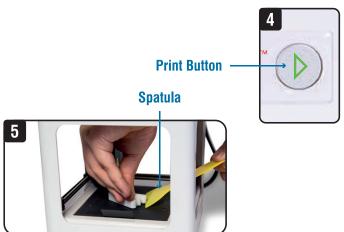
Note: Always unplug the **Power Supply** from the **3D Printer** when not in use.





Print Button (solid green)





Slicing (Creator 3D)

Slicing the Model

The term *Slicing* is the process of splitting up a 3D model into layers for the 3D printer to print.

1. Plug the **SD Card** into the **Adapter** and plug into a *USB Port* on your Computer/Mac.

Ensure that you are using a compatible computer system (See **Compatibility** section).

2. Locate the "**USB Drive**" on your PC/Mac desktop. Open the **USB Drive** to be presented with the files shown:

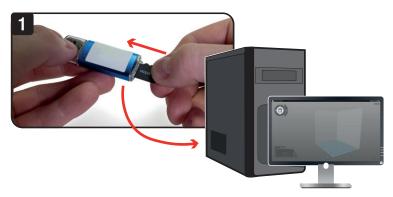
Included on the **USB Drive** (*SD Card*) is "**Creator 3D**" Slicing Software. Ensure a compatible version is chosen for your computer system (See **Compatibility** section).

The software is a 'Portable' version and requires no installion.

3. Open/Run Creator 3D.exe

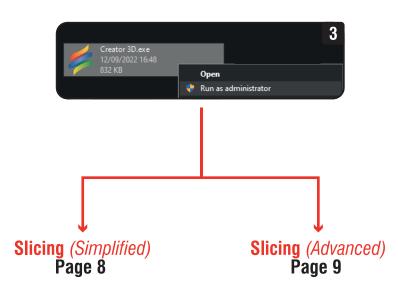
Note: You may need to run the software as an administrator. (Right click and "Run as administrator" for Windows).

- **4.** For a quick, simple method of *Slicing* your .**STL** file, please see '*One-Key* **Printing**' in the '**Slicing** (*Simplified*)' section.
- **5.** For advanced *Slicing* instructions on how to use **Creator 3D**, please see '**Slicing** (*Advanced*)'.











Slicing (Simplified)

You can download 3D files from a host of online 3D model libraries.

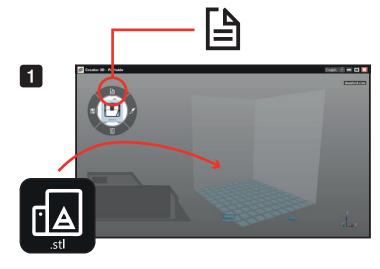
Search for 'digital designs for physical objects' for some example prints. Ensure to download your chosen file as a .STL format.

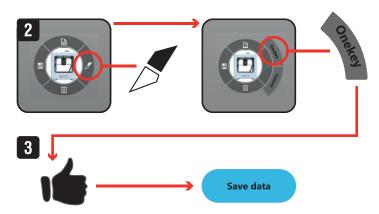
- **1.** Click on the ' icon and *open* your chosen .**STL File**. This will insert your .**STL File** into Creator 3D.
- 2. Click on the 'D' button, then click on the 'Onekey' button.
- 3. Click on the '(Optimised) button to slice your model, wait for the process to finish and then click on 'Save data'.

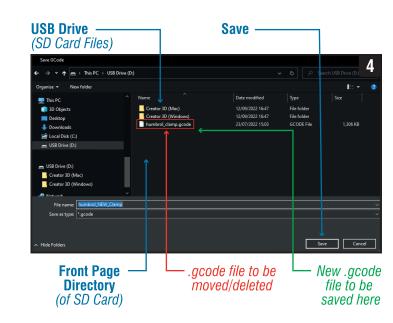


Ensure that the 'humbrol_clamp.gcode' has been deleted/moved from the Front Page Directory of the USB Drive (SD Card Files).

5. Please continue to the **Printing** section and follow the **Printing** *Process* to print your *model*.









Slicing (Advanced)

Custom Printing

In order to get the perfect print for your model, **Creator 3D** features **Custom Settings** that can be altered to change the print conditions.

This can give many benefits to your printed *model*. It is best to toggle the **Custom Settings**, print the *model* and then analyse the effects of the chosen settings.

1. Click on the ' icon and open your chosen .STL File. This will insert your .STL File into Creator 3D.

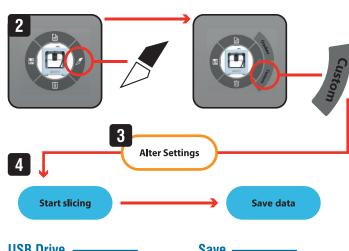
- 1 Production to the second state of the second
- 2. Click on the 'D' button, then click on the 'Custom' button.
- **3.** This will open a table of **Custom Settings** that can be altered. Please *Alter* the **Custom Settings** as desired.
- **4.** Once happy with the **Custom Settings**, click on the '**Start slicing**' button slice your model, wait for the process to finish and then click on '**Save data**'.

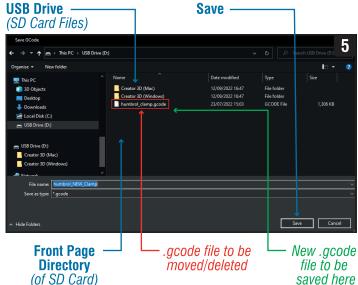
Please see **Creator 3D** (Advanced) section for more **Custom Settings** & the **Model Editor**.

5. Give your *sliced model* a name and **Save** to the **front page directory** of the **USB Drive** (SD Card files).

Ensure that the 'humbrol_clamp.gcode' or other .gcode files have been deleted/moved from the Front Page Directory of the USB Drive (SD Card Files).

6. Please continue to the **Printing** section and follow the **Printing** *Process* to print your *model*.







Printing

Printing *Process*

1. Unplug the **Adapter** from your computer and remove the **SD Card** as shown.



Note: If the **3D Printer** has not been used for a period of time, it is recommended to feed a small amount of **PLA Filament** through the **Printer Head**. See section **Setup - Installing Filament**, page **5**, point **3**.

3. Set the **FEED/PRINT/RETRACT Switch** to the **PRINT Setting** (*Centre*).

Please ensure the **3D Printer** is set down on a level surface and the **Printer Bed** is *clear* of debris and inanimate objects.

4. Simply press the **Print Button** to start the print of your *model*. Please allow up to 3 minutes for the **3D Printer** to warm up.

Please allow the print to complete and the **Printer Head** to stop moving.

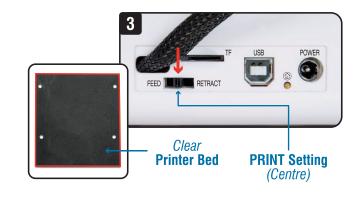
Note: Please do not leave this **3D Printer** unattended when powered on or during any prints.

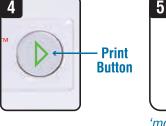
5. Once complete, remove the finished *model* from the **Printer Bed** using the **Spatula** provided as shown.

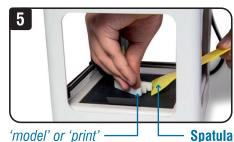
Note: You can remove the **Printer Bed** if required, but please be careful not to bend the **Printer Bed**.

Note: Always unplug the **Power Supply** from the **3D Printer** when not in use.









- You can pause the *printing process* at any point by pressing the **Print button**. Pressing the **Print Button** again will resume the *printing process*.
- You can stop the *printing process* at any point by holding the **Print Button** for 3 seconds. You cannot resume the *print* after this action.

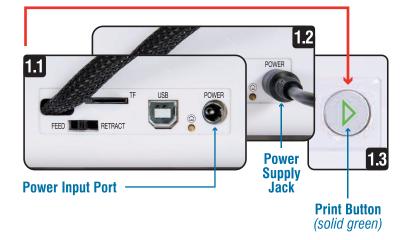


Filament Extraction

Extracting the Filament

If you wish to change the **PLA Filament Reel** or store the **3D Printer**, you will need to extract the currently installed **PLA Filament**. See below:

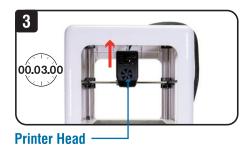
1. Plug the **Power Supply** provided into the **Power Input Port** and the *mains*. Turn on the *mains power* and the **Print Button** should light up *solid green*.



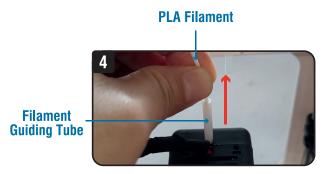
2. Switch to 'RETRACT' mode using the **FEED/PRINT/RETRACT Switch** on the reverse of the printer. The **Print Button** will begin to flash.



3. Allow for at least 3 minutes in order for the crank in the **Printer Head** retract the **PLA Filament**.



- **4.** After 3 minutes have surpassed, give the PLA Filament a very gentle tug to see if it's free from the Printer Head and Filament Guiding Tube If you notice any resistance, please allow for more time for the crank to retract the PLA Filament and then test again.
- **5**. If you wish to install new PLA Filament, please follow the steps in **Setup** *Installing Filament* Section.





Maintenance & Printer Notes

Maintaining your 3D Printer

- You can clean the **Printer Bed** using a soft cloth to wipe off dust and residue. You can also further clean the **Printer Bed** by using a damp cloth with washing up liquid (*light detergent*). Please ensure that the **3D Printer** is unplugged/turned off during any cleaning.

Safety Note: Do not use flammable solvents to clean the **Printer Bed**.

- * Please ensure that prior to any printing the **Printer Nozzle** is checked to ensure that no **PLA Filament** residue resides in the **Printer Head** unit.
- If **PLA Filament** residue is present. Please ensure that the **3D Printer** has been turned off for at least 10 minutes and the **PLA Filament** residue is solid. Proceed to carefully pick any residue away from the



Printer Notes

- Provided in the box with the **3D Printer** is a **USB Cable**. This allows for direct connection from the 3D Printer to your Computer/Mac. As with other *3D Printers*, there is software available online that will allow for *direct printing* to the **3D Printer** without the need for the **SD Card**.



Safety

Safety Considerations

- Please keep the **3D Printer** running in a working environment of $5 \sim 35^{\circ}$ C.
- Do not attempt to fan the **3D Printer** during operation.
- Please do not attempt to disassemble or modify the 3D Printer in any way. Failure to do so could result in injury or serious damage to the 3D Printer or other.
- Hornby Hobbies Ltd will not be held responsible for any damage caused through the disassembly, misuse or modification of the **3D Printer**.
- Children under the age of 14 should not use this **3D Printer** without adult supervision.
- Keep fingers away from the Printer Head and Printer Nozzle when the 3D Printer is switched on. Please allow for at least 10 minutes for the 3D Printer to cool down when powered off.
- Please only use this product in a well-ventilated area.
- Do not leave the **3D Printer** unattended during the printing process.
- **PLA Filament** should not be ingested in any form by humans or animals.
- Caution: HOT! Please ensure to keep fingers away from the Printer Nozzle tip and the black Printer Head casing when the 3D Printer is on. These areas of the product reach over 200°C (Degrees Celsius).
- Always be sure to keep your hands away from any moving parts when the **3D Printer** is in operation.



Frequently Asked Questions

FAQ's

Q: Why does the **Printer Head** get stuck or fail to move during my first print?

A: Please ensure that the **Transit Clips** and any *foam protection* has been removed from the **3D Printer**.

Q: Why does the *print* fail to adhere to the **Printer Bed**?

A: Please perform **Platform Levelling** and re-print.

A: Please ensure that the **Printer Bed** is lined up with the **Adjustment Screws**. An un-levelled bed will result in poor prints and bad filament adhesion to the **Printer Bed**.

A: Please clean the **Printer Bed** by using a damp cloth with washing up liquid (*light detergent*). Please ensure that the **3D Printer** is unplugged/turned off during any cleaning.

Q: I can't get the **PLA Filament** to feed into the **Printer Head**. What's the issue?

A: If a PLA Filament has been retracted from the Printer Head and used previously, the end of the PLA Filament will likely be extruded. It is advised to cut the end on the PLA Filament so that it is square/straight.

A: Please ensure that hte **PLA Filament** has been lightly pressed down into the **Filament Guiding Tube** and is not loose.

A: Sometimes, it is best to *extract* the **PLA Filament** and restart the **Installing Filament** process.

Q: Why can't I physically move the **Printer Head?**A: Ensure all power is disconnected and the **Printer Head** has been left to cool. Do not attempt to physically move the **Printer Head** when the **3D Printer** is powered on.





Compatibility

Compatible Systems

There are 3 versions of the **Creator 3D** software, a 32-bit & 64-Bit for **Windows** and a **Mac** version. Please choose the correct software to open based on your operating system.

If you struggle to open the software, please try running it as an administrator; usually this is done by right clicking on the 'Creator 3D.exe' file and clicking 'Run as administrator'.

Please ensure that when attempting to launch **Creator 3D**, you are using a compatible system and the correct version of **Creator 3D** - **Portable**.

No installation is required.

Please see below compatible systems:

Windows:

32-bit: Windows 7 and higher [use 'Creator 3D (Windows) > 'for 32bit windows' on USB Drive (SD Card)]

64-bit: Windows 7 and higher

[use 'Creator 3D (Windows) > 'for 64bit windows' on USB Drive (SD Card)]

Mac:

Mac OS X Version 10.13 and higher.
[use 'Creator 3D (Mac) > 'Creator 3D' on USB Drive (SD Card)]

Please ensure that only **.STL** files are being opened within **Creator 3D**. Other file types may be compatible but will not be recommended.

AG9172 Creator 3D Mini Printer - Instruction Manual

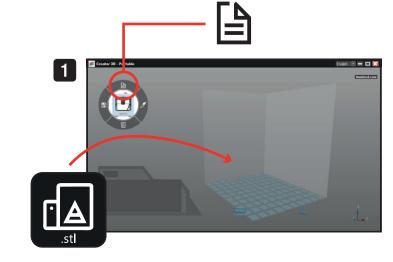


Creator 3D (Advanced)

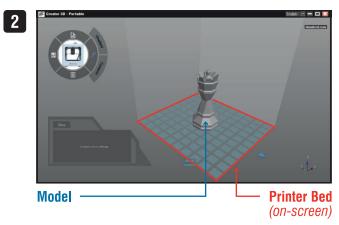
Model Editor

Creator 3D allows you to manipulate the pieces that will be printed on the **Printer Bed**.

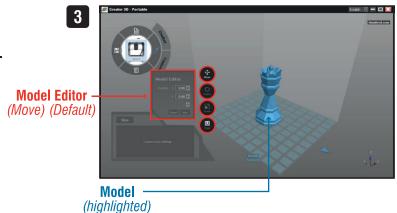
1. Click on the ' icon and *open* your chosen .**STL File**. This will insert your .**STL File** into Creator 3D.



2. You will see your chosen **model** placed in the centre of the **Printer Bed** (on-screen)



3. Using your mouse cursor, click on the **Model**. You will see the **Model** become highlighted and a new menu pop-up - This is the **Model Editor** menu.



4. To move your **Model**, using your mouse cursor, click, hold and drag the **Model** to a new location on the **Printer Bed** (on-screen). You can also use the **Move Tool** to move your **Model**.

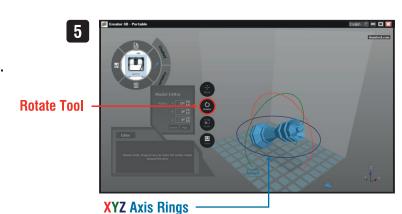




Creator 3D (Advanced)

Model Editor

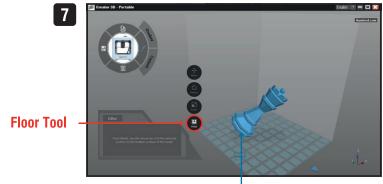
5. To rotate your **Model**, using your mouse cursor, click on the **Rotate Tool**. Then, use the **XYZ Axis Rings** to click, hold and drag to the desired rotation.



6. To scale your **Model**, using your mouse cursor, click on the **Scale Tool**. Then, using the pop-up **Model Editor** box, input desired values to scale your **Model** smaller or larger.



7. You can choose a face of your **Model** to align parallel & meet with the **Printer Bed** using the **Floor Tool**. Select the **Floor Tool** and then select a desired face of your **Model**.



Face of **Model** (Example)

8. You can input into **Creator 3D** multiple **Models** at once to save on print time. Simply open any **Model(s)** you wish using the 'riangle' icon and they will be automatically inserted and re-aligned on the **Printer Bed** (on-screen).

You can individually **Move**, **Rotate** and **Scale** each **Model** how you see fit.





Customer Care

Contact Humbrol

If you experience any issues with the **Humbrol Creator 3D Mini Printer** or the **Creator 3D** software, please do not hesitate to contact our customer care team or visit the Humbrol website; details below:

Hornby Hobbies Ltd, Westwood Industrial Estate, Westwood, Margate, Kent, CT9 4JX, UK

+44(0)1843 233525 customerservices.uk@hornby.com

Humbrol.com

SD Card - File Download

If you lose the files provided on the **SD Card**. These can be easily downloaded from the **Humbrol.com** website.