

## 3D Extruder Induction

### Replicator 2

**285 x 150 x 150mm**

\$10.00 Set up fee +

\$2.00 per 10g

(INC raft +Scaffolding)

Payment required to secure booking. Payment is by weight (plus \$10 set-up fee per session) and through Extro Unikey Account.

### Bookings

1. Booking must be made in person in DMaF.
2. Please have you file ready so that staff can estimate time required for your project to make a booking.
3. Print order is in receipt of complete and print-ready files.

### Checklist

1. Recommended minimum wall thickness is 3mm.
2. Ensure all surfaces are 'joined' (type *join*) (no holes or gaps) and that you 'cap' all volumes (type *cap*). **The model must be 'watertight'.**
3. All surface normals must face outwards. Use the 'direction' command (type *DIR*) in Rhinoceros to check.
4. Ensure there are *no double surfaces*
5. **Exporting your file as an .stl**
  1. *Scale* to print size
  2. *Move* to origin (0,0)
  3. Select individual objects and *Export Selected*
  4. Save as type: *Stereolithography (.STL)*
  5. Select *0.01 accuracy*
  6. Save as *Binary*
7. Please always provide your original (Rhino) file as well as an .stl.

### Important Information/ guidelines

1. Most models require a 'raft' to adhere to print platform
2. Angles shallower than 45 degrees require 'scaffolding'

### Printing + Print Settings

- PLA ONLY \*\*\*Do not use ABS in Makerbots\*\*\*
- Preheat print platform and nozzle (to 230 degrees)
- Import STL file into Makerware Program
- Move / Scale / Place model
- STANDARD SETTINGS

Layer Height:	.3
Infill:	5%

Shells:	2
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- 'Make' model > preview > save onto SD card
- Change filament if required
- Print from SD card (inserted into machine)
- Monitor at least first 30minutes of print
  - IF YOU CHOSE TO LEAVE DURING YOUR PRINT AND THE PRINT STOPS WE MAY GO ON TO THE NEXT BOOKING AND YOUR BOOKING MAY BE FORFEIT. YOU WILL STILL NEED TO PAY YOUR SET UP AND MATERIAL COSTS FOR A FAILED PRINT.

## Post Print

1. Wipe nozzle with cotton cloth
2. Remove build plate \*\*\*Don't be rough, of you will un-align the machine\*\*\*
  - a. Remove job by scraping away from your hand
  - b. Replace build plate

## Booking Terms & Conditions

1. Files must be 'print ready' upon booking
2. Full payments is required to secure the booking
3. A stand-by list is available during peak semester periods in DaMaf Lab.

## Safety & House Rules

- Keep the 3D printing area clean – dispose of waste material / scaffold in bins
- Due to high volume of USB's that are brought into the DMaF Lab we do get viruses on our computers. Best practice to protect your files is to email them to yourself or to access them via dropbox.
- Closed in shoes are a must in all areas of DMaF, including the corridor. Make sure you wear correct footwear or you wont be able to complete your booking.
- All waste goes into the normal rubbish bin.