

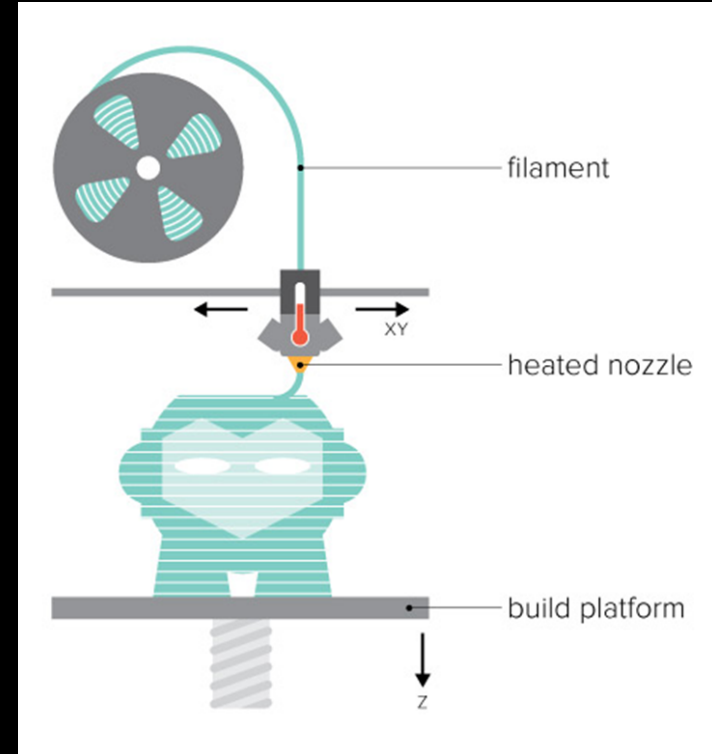


INTRO TO 3D PRINTING

Day 2

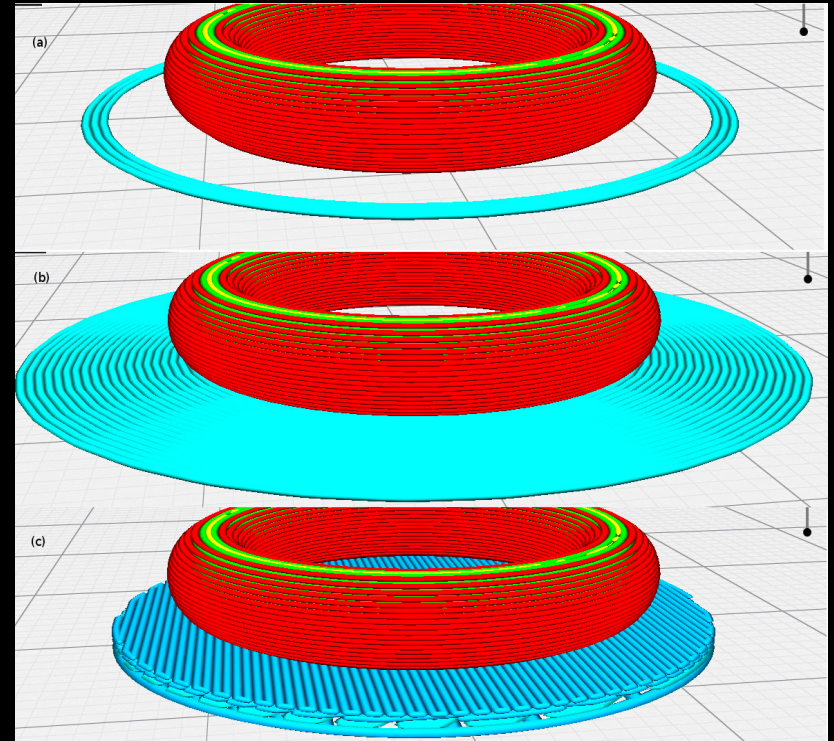
SAA Filament?

- PLA (Polylactic acid) or
- ABS (Acrylonitrile Butadiene Styrene)
- Wide range of colors
 - SAA has pink, white, black, grey, red, neon red, and blue
- Size is 1.75 mm
- Has to be heated to 220 degrees Celsius (428 F)



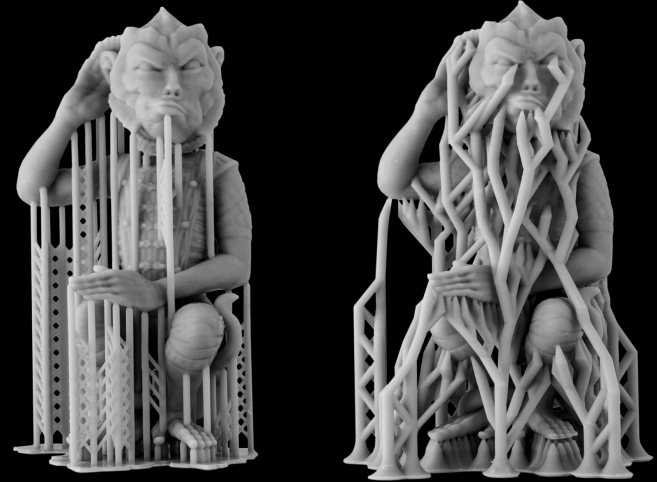
Slicer Settings

- Layer Height:
 - 0.1 mm fine
 - .2 mm average
 - .3 mm rough
- Skirt
 - Doesn't touch the print
 - Outlines it
- Brim
 - Cousin of Skirt
 - Touches and Extends the print
- Raft
 - Goes under the print
 - Criss-cross pattern



Slicer Settings

- Infill:
 - How Much Plastic Fills Inside
 - Rectangular Shape
 - 10% mainly
- Support Structure:
 - T-H-Y Rule
 - Linear, Rectangular, Branched
 - How to Remove
- Print Speed:
 - Impacts Resolution
 - Vibration Impact



Getting the First Layer Right

The first layer is the most important part of any print.

There are a few things you need to do to get the first layer to stick well:

- Print bed (or print surface) to be level
- Extruder to be the correct height from the bed
- Ensure your filament will adhere to the print bed
 - Use of Raft, Skirt, or Brim

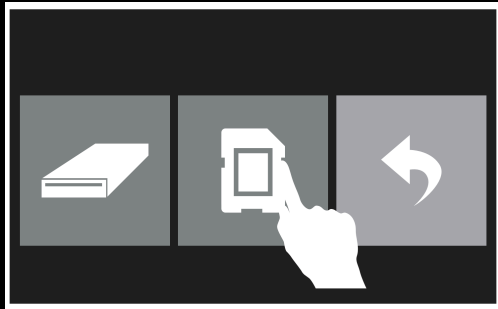
How to Level the Build Platform

Very Important Activity:

- Three Knobs Under the Build Platform
- Each Adjusted One Point at a Time
- Adjusts at Three Different Points of the Platform
- Final Check Point in Center
- Needs to Be Done Repetitively

Touch Screen Controls

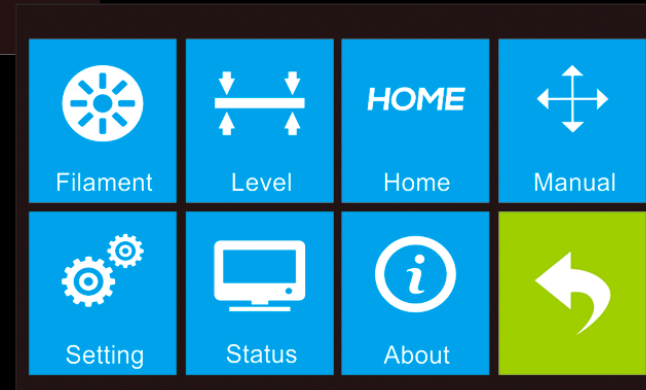
Home Screen



Print Screen



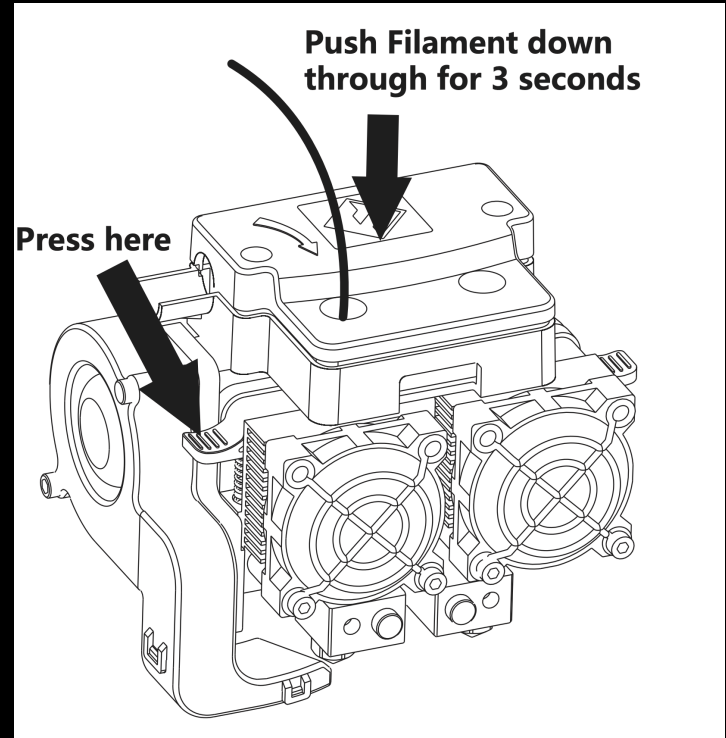
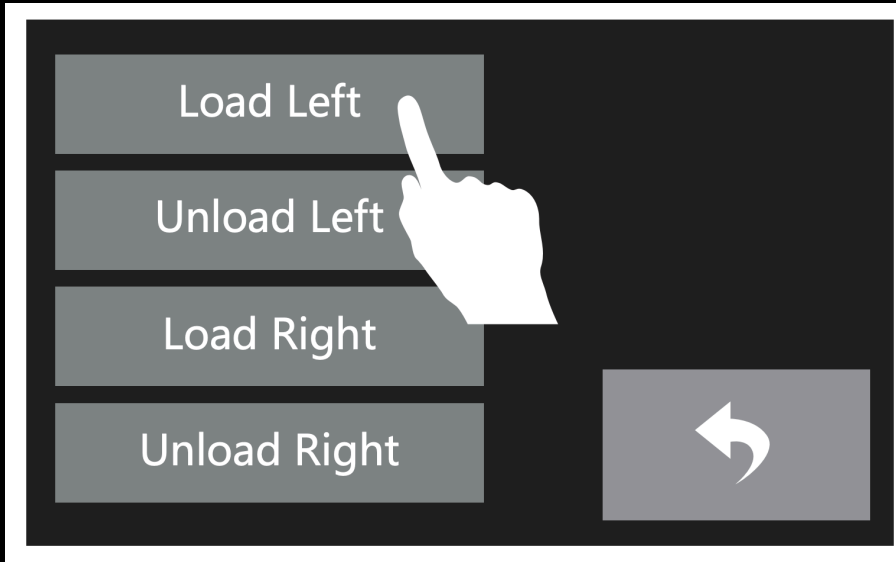
Preheat Screen



Tool Screen

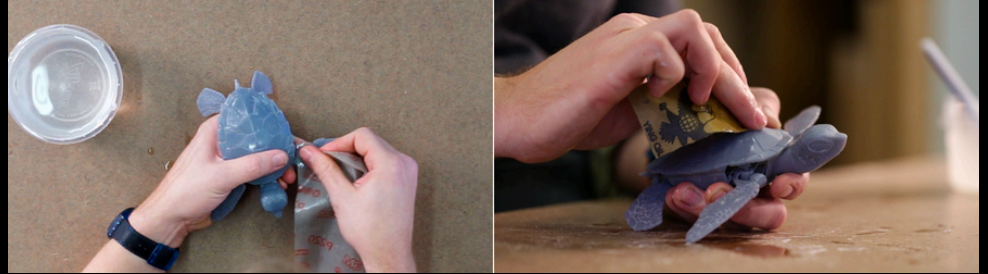
How to Change Filament

Filament Screen



Removing Supports

- Breakaway with Fingers
- Use Clippers
- Sand
- Needle-nose Pliers
- Spatula
- Dremel
- Finger Nail Polish



Painting your 3D print

- PLA prints generally work well with acrylic paints.
- Sand the Object
- Prime the Object
- A good primer will provide a base coat that absorbs the final colors evenly.



Giver of Mercy by [TurtleWorks](#)

<http://www.shapeways.com/product/S5KU72TJR/giver-of-mercy?li=productBox-search>