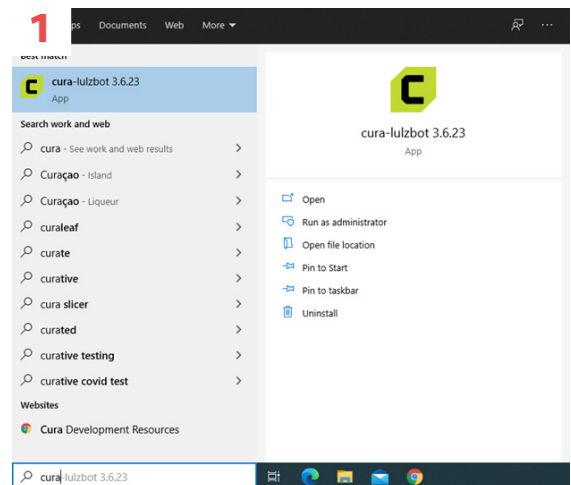# 3D PRINTER
STEP-BY-STEP

FILE PREP IN CURA

Use the taskbar to find and open **Cura** on the Makerspace 3D printing computers **1**

Complete the start-up tasks

> Under 'User Agreement,' click **I understand and agree**

> Under 'Printer,' select **Luzbot TAZ Workhorse**, and under 'Tool Head | Nozzle Diameter,' select **HE | 0.5mm,** then click the **Add Printer** button.

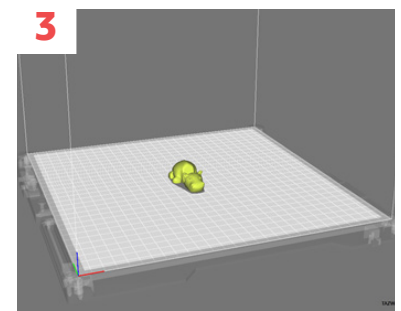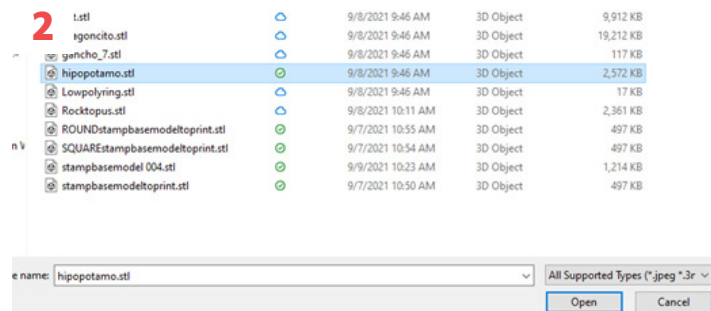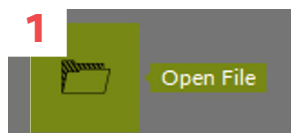> Under 'Machine Settings,' click **Finish**

IMPORTING FILE

In the upper left corner, select the 'Open File' icon **1**

Select the .stl file you would like to print and click 'Open' **2**
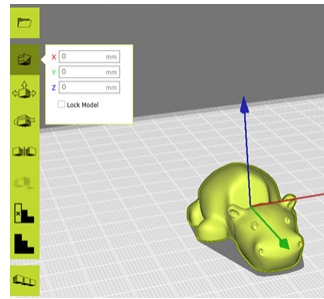
Your object should appear in the center of the build plate **3**

POSITIONING AND TRANSFORMING

Manipulate your object as you wish by clicking on it and using the left-hand taskbar

The task bar includes tools to move, scale, rotate, mirror, and multiply your object

PRINT SET UP

Set the Infill slider to **20% infill** (appropriate for most builds)
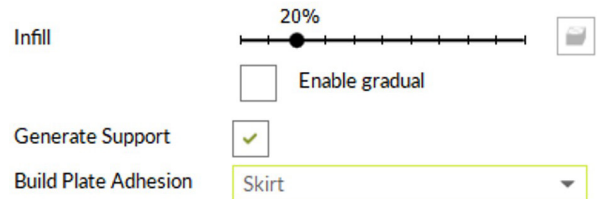
If your object has large overhanging areas, click **Generate Support** under Print Setup on the right-hand side of the screen.

Under Print Setup on the righthand side of the screen, select **Skirt** from the Build Plate Adhesion drop-down menu

Check the estimated print time in the bottom right corner of the screen.

  Larger and more complex objects will take longer to print than small simple objects.

  Manipulate/scale your object as needed to alter print time.

SAVE TO SD CARD

Remove the SD card from the SD card slot on the left side of the TAZ Workhorse printer (if the printer is not currently in use!) **1**

Insert it into the card reader for the 3D printing computer **2**

Click the drop-down arrow next to **Save to File** and select **Save to Removable Drive**

Click **Save to Removable Drive 3**

Click **Eject** on the pop-up window that appears on the bottom of the screen.
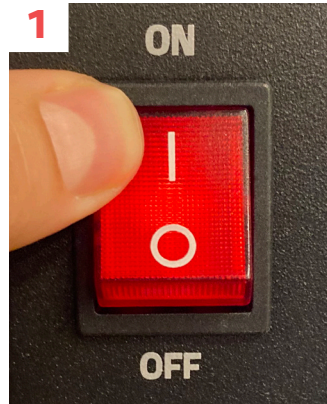
PREPARING THE PRINTER

Make sure the print bed is fully cleaned off (remove any plastic scraps or strings, brush off debris into dustpan).

Re-insert the SD card into the card reader on the 3D printer

Flip the red button to the 'On' position to turn the printer on **1**

START PRINTING

Press on the knob to go to the selection menu **1**

Use the knob to scroll down until you reach '**Print from SD**'. Press the knob again to select **2**

Scroll down until you reach **your file** (it should be at the top of the list) and press on the knob to select it **3**

Scroll over to '**Print**' and press to select **4**

If you need to pause or stop your print, press on the knob and select 'Pause print' or 'Stop print', or find a Makerspace staff member to help you out

Once the print is complete, use the metal spatulas to remove your object from the build plate. Clean any excess debris from the plate **5**

Flip the red button to the 'Off' position to turn the printer off