

Cookie cutter



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Public

7-12 y-o

adult

Software

Cookie Caster

Description

Learning goals:

- master the drawing of contours

The goal of this workshop is to very quickly create a cookie cutter using the online software Cookie Caster.

Timing

1. Introduction and presentation of 3D printing - 15 mins

Introduction of the world of 3D printing with video (<http://www.dragontape.com/#!/6319966877908992>) and presentation.

2. Overview of the activity - 5 mins

Briefly explain the flow of steps for the day's activity.
What will the participants do? : Create a cookie cutter
Which software will be used? : Cookie Caster

3. Log in each participant to the software Cookie Caster - 2 min

Open the internet browser and go to Cookie Caster (<http://www.cookiecaster.com>)

4. Introduction à Cookie Caster - 10 min

Facilitation plan

The facilitator will run through the entire 3D modeling process to demonstrate the software.

Participants watch while the facilitator describes what they are doing.

The facilitator asks participants to follow along, up until the 3D printing step.

After launching the 3D print of the demo model, participants create their own 3D model. The facilitator moves around the room to assist and re-explain concepts as necessary. Demonstrate common questions or repeat challenging concepts to all participants.

See the software instructions here : Cookie Caster

1. Add an image by clicking on the "trace" image icon at the bottom right. Optionally, come prepared with an idea for a theme which can guide participants in finding inspiration or reference images online.

2. The inspiration image should be simple enough for creating contours. *Trick:* to find appropriate images search for the chosen keyword and add "icon" (e.g., search for "dinosaur icon")
3. Trace the contours of the image, using the pen tool. Each blue point can be moved (but not erased). The orange dots are handles which can be used to adjust the curvature of the lines. Click and drag the blue points and orange dots as needed.

5. Adjust the printing parameters to the desired scale and thickness.

For a quick print, select the following parameters:

Max size: 3"

Height: 0.4"

Thickness: Extra Thin 1mm

6. Download the .STL file by clicking on "Download 3D file"

Use a USB key to gather the STL files from participants.

7. Import the files in Tinkerine or Cura - 5 min

Open the preferred slicer software

Import the STL file

Adjust the print settings (fill, wall thickness, speed, height, ...)

Save the file (.Gcode) to the SD card

8. 3D Printing - 30–45 mins

Insert the SD card in the 3D printer

Select the previously saved file (.Gcode)

Start the print!

9. Feedback - 5 min

Ask the participants to provide feedback on the workshop while the models are being printed.

Participant's guide

Steps for using Cookie Caster

1. Open a web browser and go to the page : cookiecaster.com
2. Add an image by clicking on the "trace" image icon at the bottom right.
3. Trace the contours of the image, using the pen tool. Each blue point can be moved (but not erased). The orange dots are handles which can be used to adjust the curvature of the lines. Click and drag the blue points and orange dots as needed.
4. Once the shape is complete, you can adjust the printing parameters to the desired scale and thickness.
5. For a quick print, select the following parameters:
Max size: 3"
Height: 0.4"
Thickness: Extra Thin 1mm
6. Download the STL file by clicking on "Download 3D file"