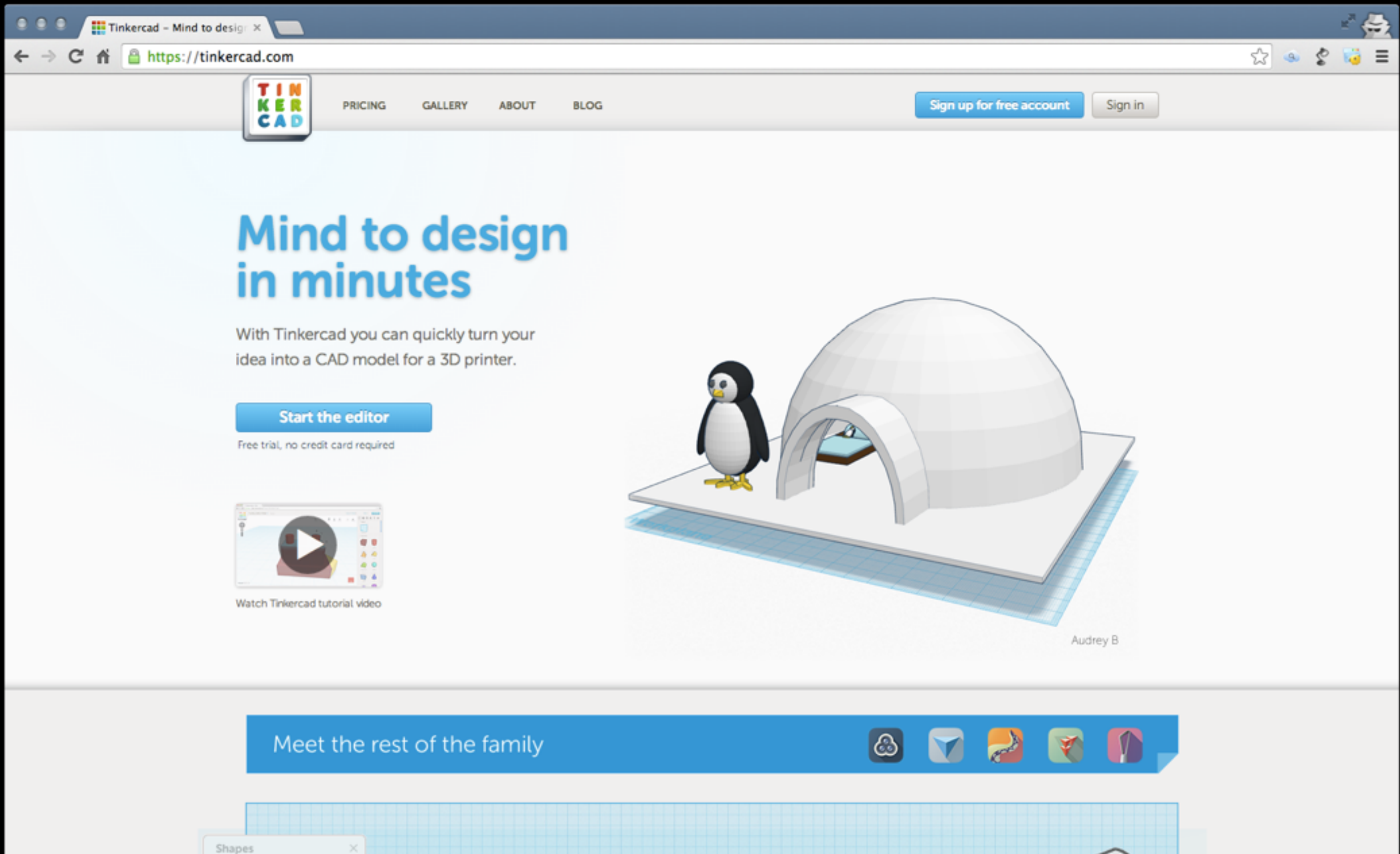


3D DESIGN USING TINKERCAD

ABHI KUNTÉ
ABHI@MATTERCOMPILERS.COM
 @PRACTICAL3DP



Tinkercad - Mind to design

https://tinkercad.com



PRICINGGALLERYABOUTBLOG

Sign up for free accountSign in

Mind to design in minutes

With Tinkercad you can quickly turn your idea into a CAD model for a 3D printer.

Start the editor

Free trial, no credit card required



Watch Tinkercad tutorial video

Create free Tinkercad account

At least 6 characters long. Be creative.

Date of birth

- Month -

- Day -

- Year -

By clicking Done, you agree to our Terms and Privacy policy

Sign up

Already have a Tinkercad account? [Sign in!](#)

Meet the rest of the family



https://tinkercad.com/auth/shadowbox_register?next=%2fwelcome%2fstart&signup_src=header-nonuser

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Practical 3DP

info@practical3dp.com

.....

At least 6 characters long. Be creative.

Date of birth

September11990

By clicking Done, you agree to our [Terms](#) and [Privacy policy](#)

Sign up

Already have a Tinkercad account? [Sign in!](#)

Audrey B

Meet the rest of the family



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3D design My first Lesson

<https://tinkercad.com/things/fwmrdi3RODn-my-first-lesson-lesson-learning-the-moves/edit?magic=e559a27a96de2c69969376fcacfb83ad31368675&t=13918...>

TINKERCAD Edit Help Exit lesson ▶

Undo Redo Adjust Group Ungroup

My first Lesson - Lesson: Learning the moves

Workplane

Workplane Ruler

Geometric

Box Cylinder

Pyramid Roof

Round Roof Sphere

Wedge Cone

Start Let's learn to move shapes along the workplane! Next ▶

Edit grid Snap grid 1.0

3D design My first Lesson

<https://tinkercad.com/things/fwmrdi3RODn-my-first-lesson-lesson-learning-the-moves/edit?magic=e559a27a96de2c69969376fcacfb83ad31368675&t=13918...>

TINKERCAD

EditHelpExit lesson ▶

UndoRedoAdjustGroupUngroup

Inspector

ColorHole

WorkplaneRuler

Geometric

BoxCylinderPyramidRoofRound RoofSphereWedgeCone

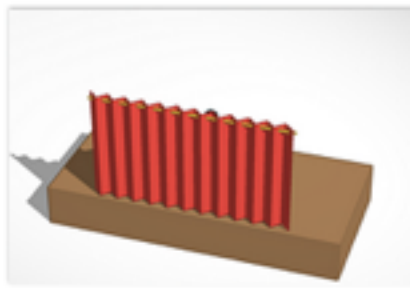
My first Lesson - Lesson: Learning the moves

?

+

-

Play the next Lesson



Lesson: Camera controls

Begin Lesson

Create your own designs

You completed the lesson. Return to your dashboard to start creating your own designs.

Return to dashboard

Great start! Let's play next lesson and learn more 3D.

Complete the lesson

Workplane

Snap grid 1.0

https://tinkercad.com/quests/30o1htNCLOL/shadowbox_quest_completed

All designs • Tinkercad

← → ↺ 🏠 <https://tinkercad.com/dashboard/> ☆ 🔍 🛠️ 📁 ☰



[DASHBOARD](#) [GALLERY](#) [LEARN](#) [ABOUT](#)

0 Practical 



Practical 3DP

[Edit profile](#)

DESIGNS

0

You are currently using a free account.

COLLECTIONS

All designs

0 items

Lessons

3 items

PROJECTS

+

Create project

All designs

Here are the designs you have created or which have been shared with you.

[Create new design](#)

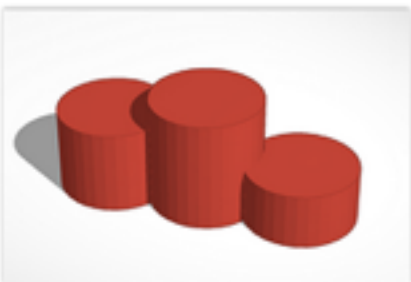
Play these next

Play these step-by-step lessons and become a master of Tinkercad. You can find more lessons from the [Learn page](#).



Lesson: Creating holes

Begin Lesson



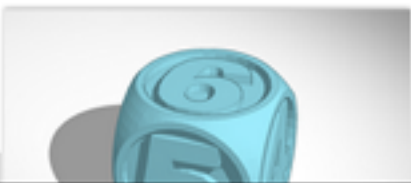
Lesson: Scale, Copy & Paste

Begin Lesson

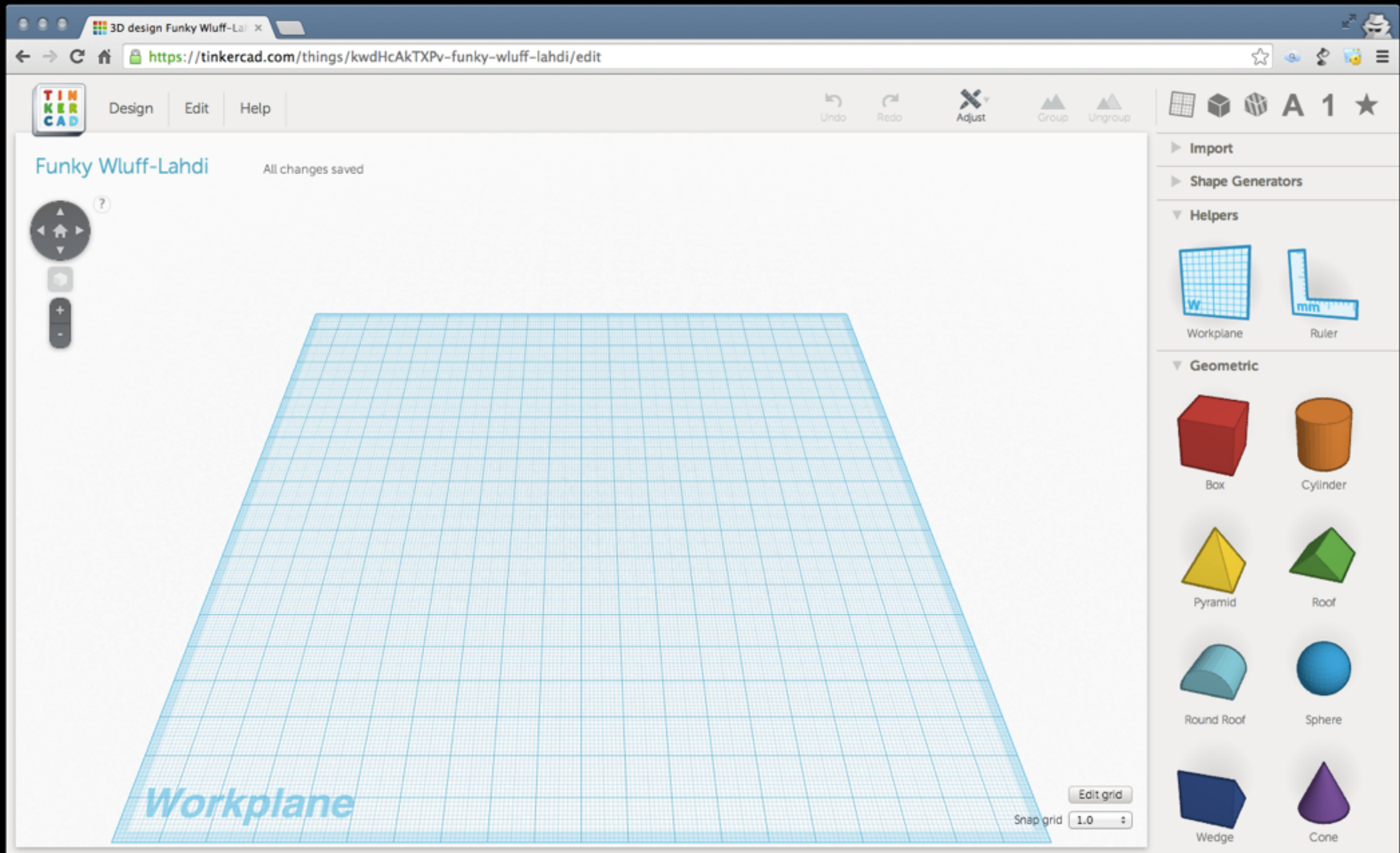


Lesson: Key ring, letters!

Begin Lesson



<https://tinkercad.com/quests/3i68JDXHhq1-lesson-creating-holes>

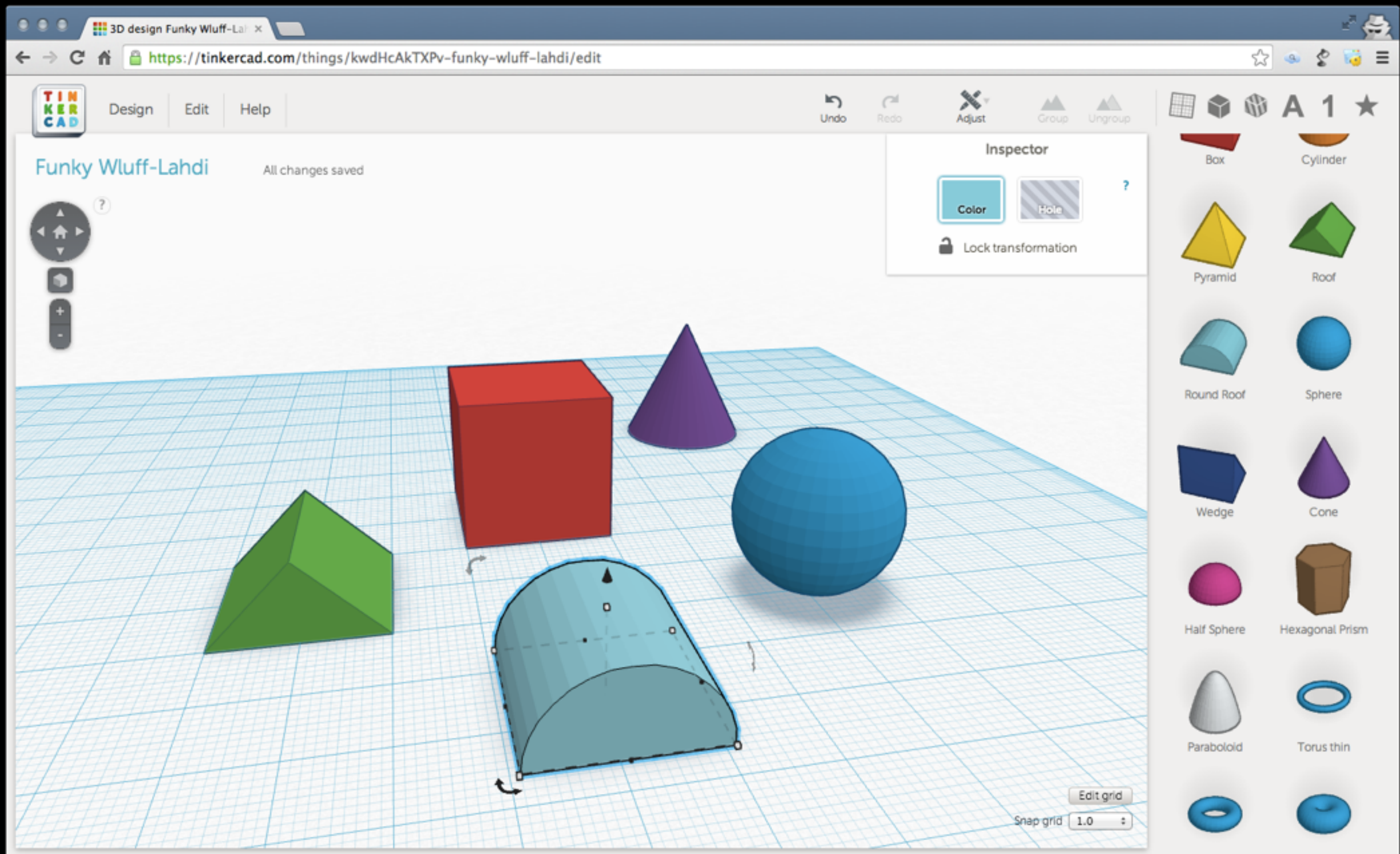


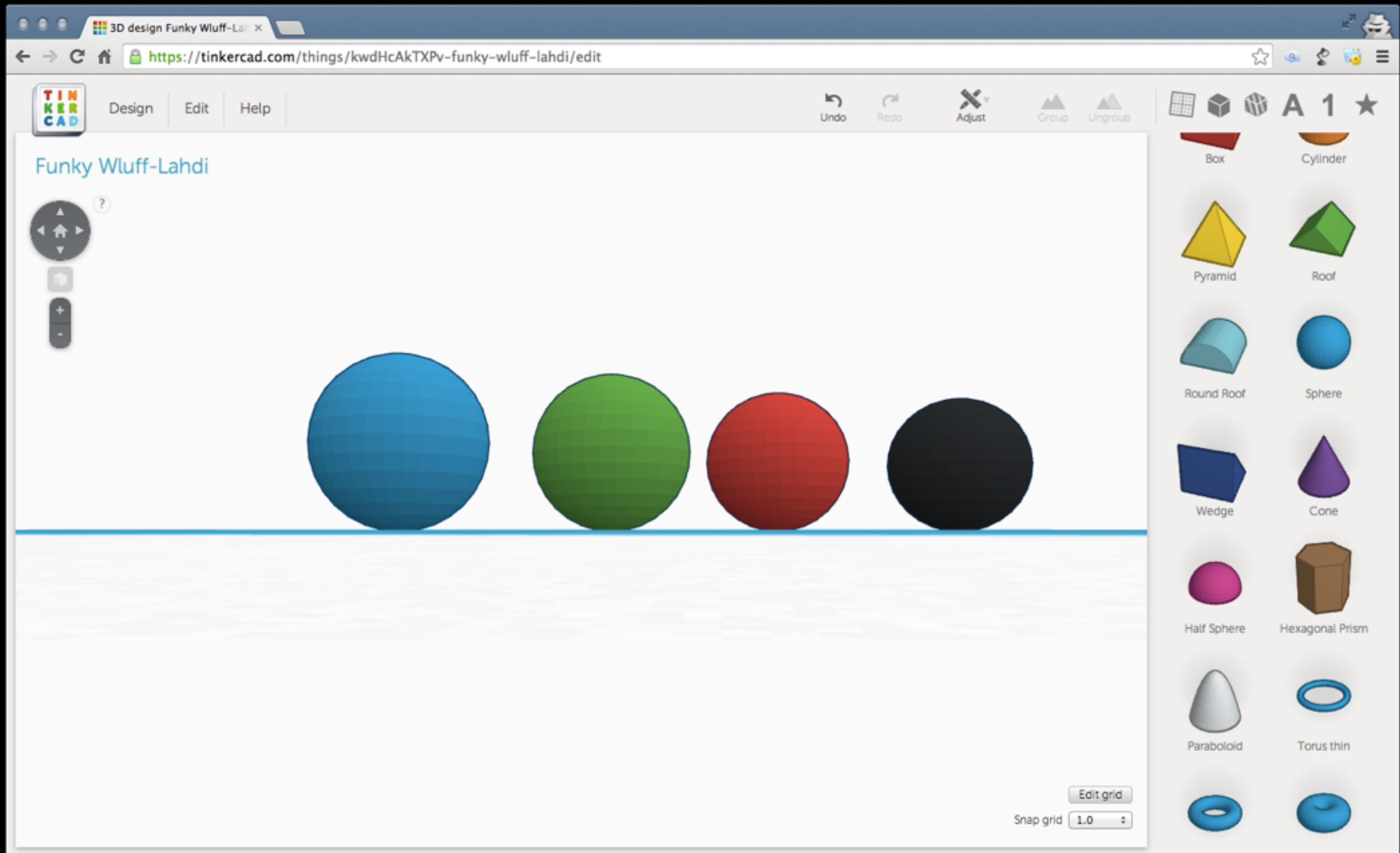
BASIC VISUAL CONTROLS

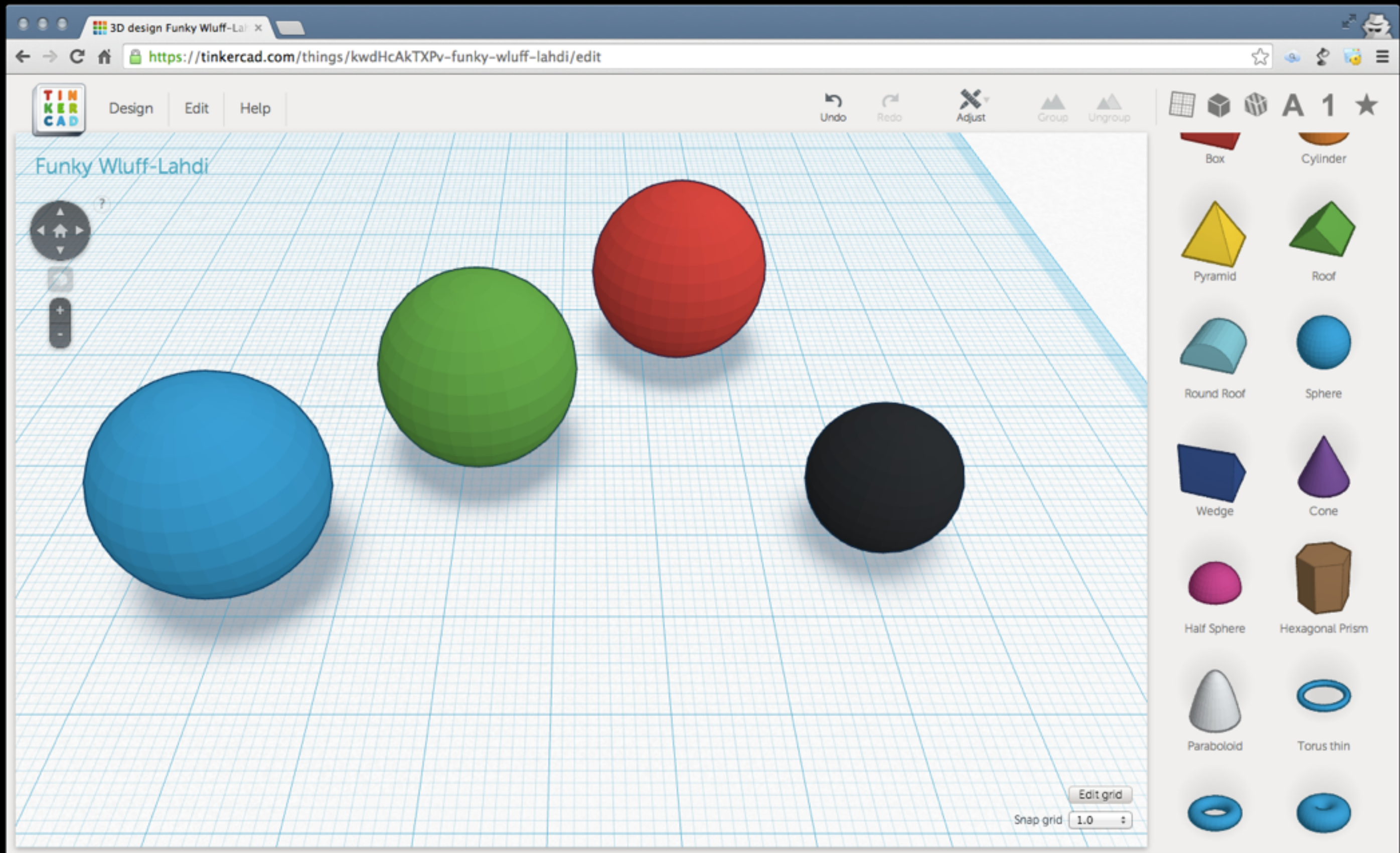
- * MOVE UP/ DOWN
- * MOVE AROUND
- * ZOOM IN/ OUT
- * PAN LEFT / RIGHT
- * HOME

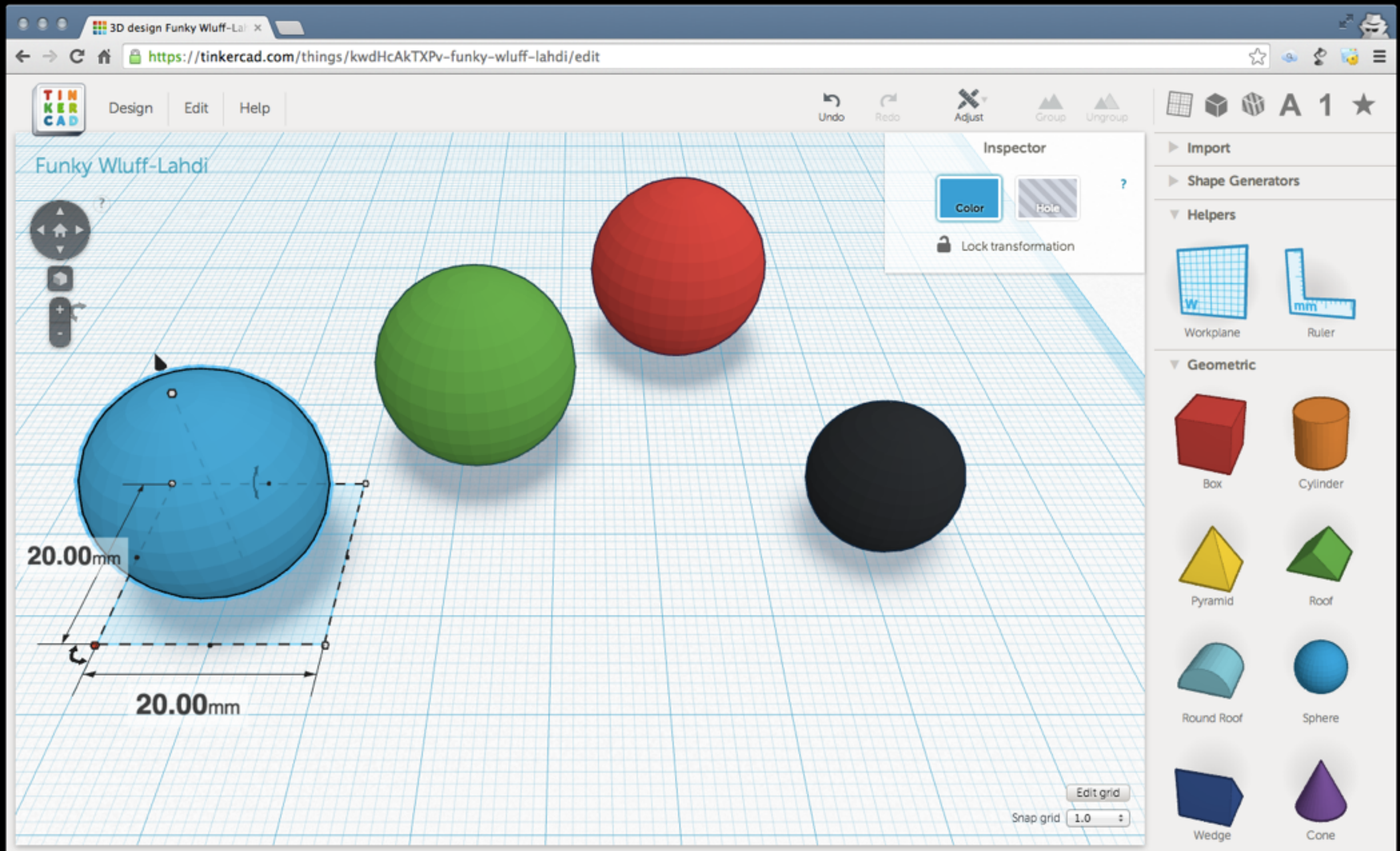


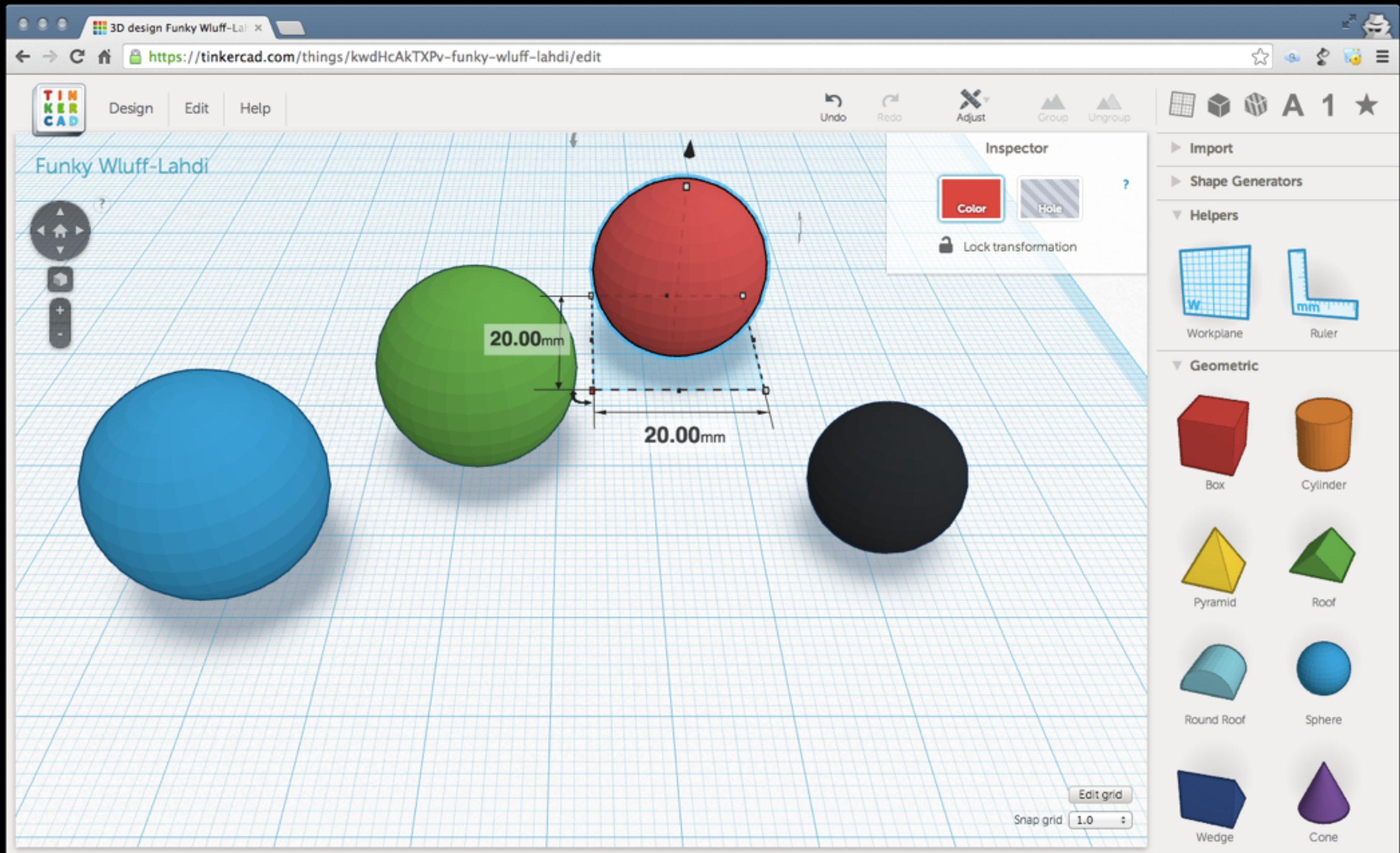
PERSPECTIVE

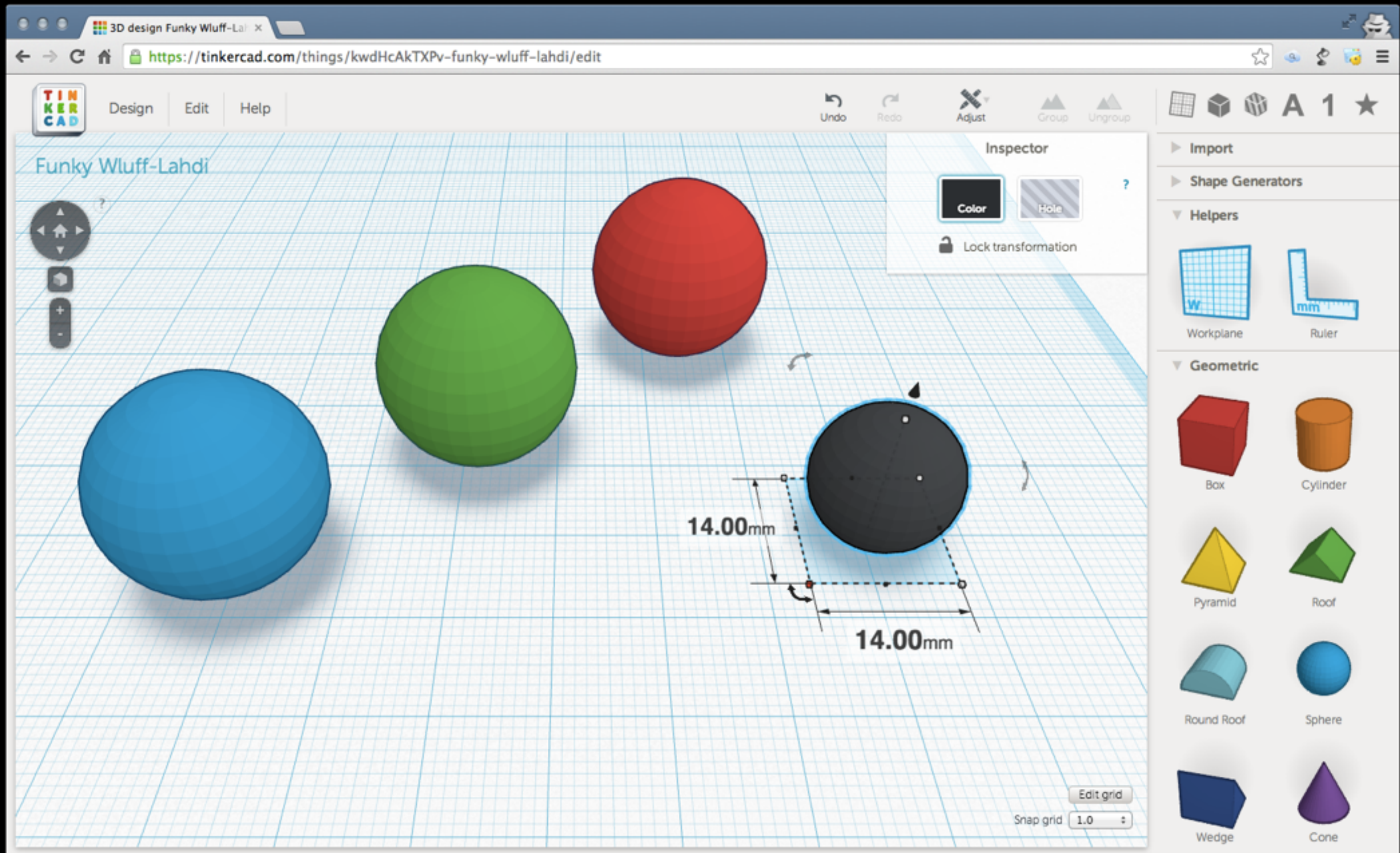


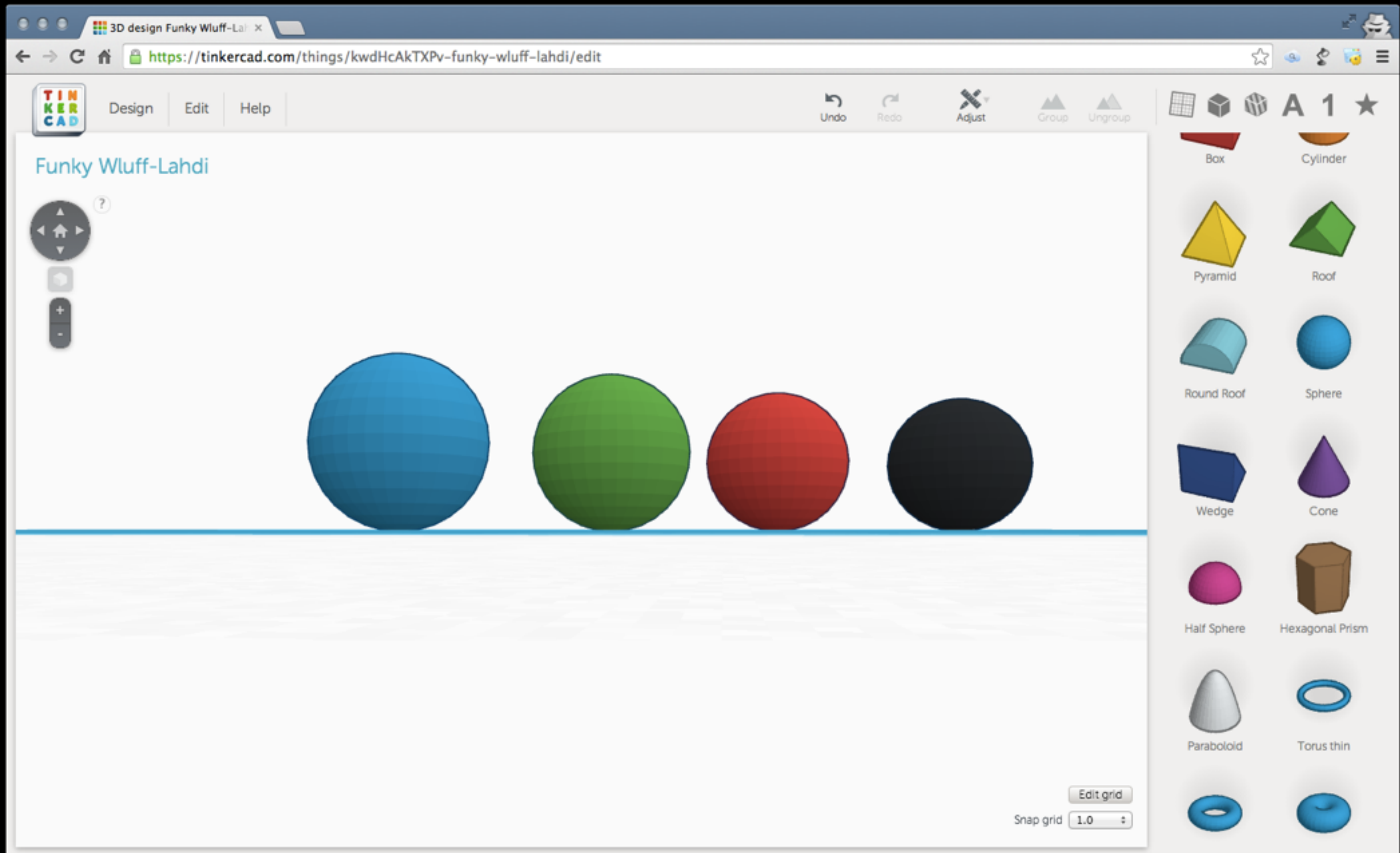


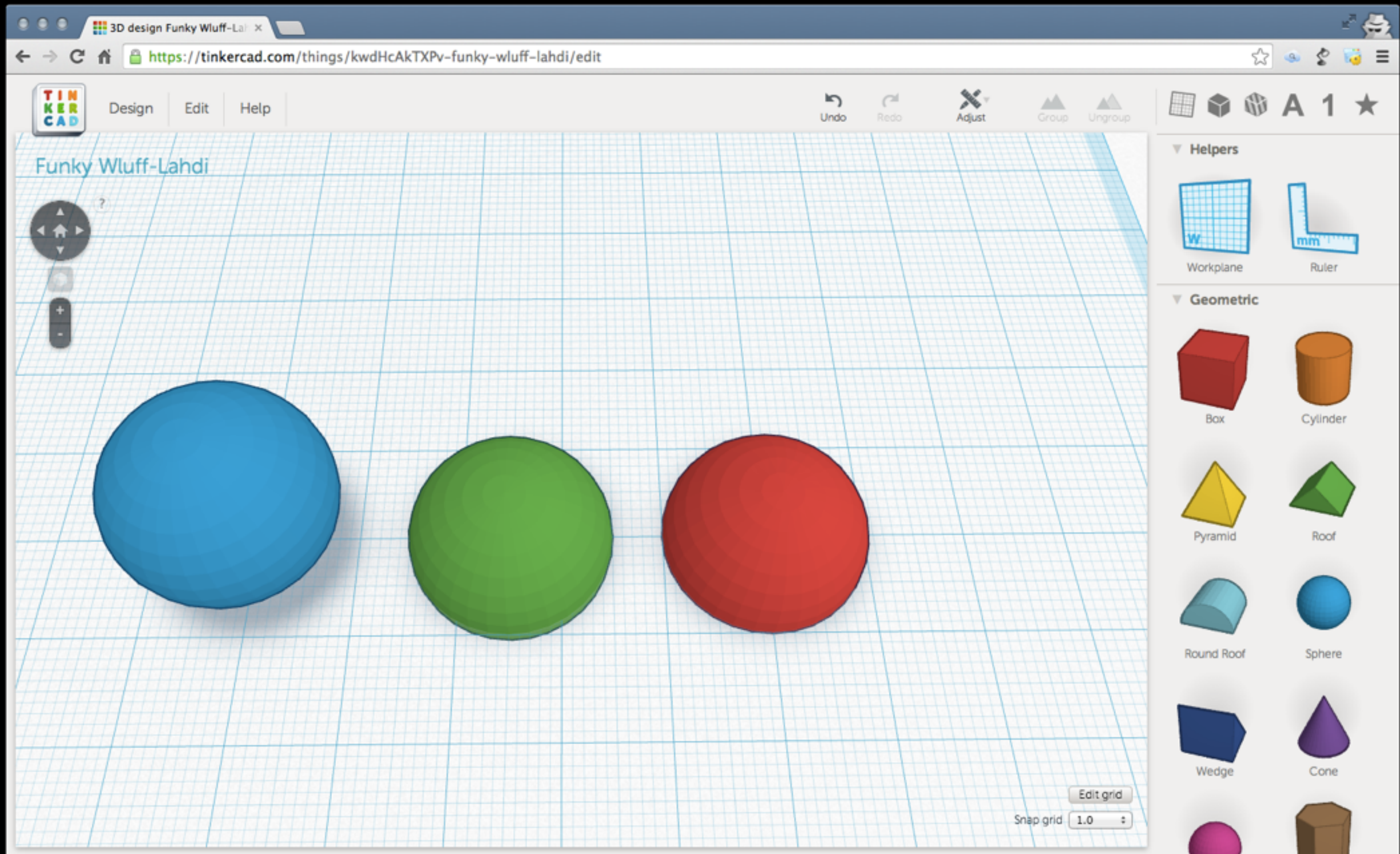


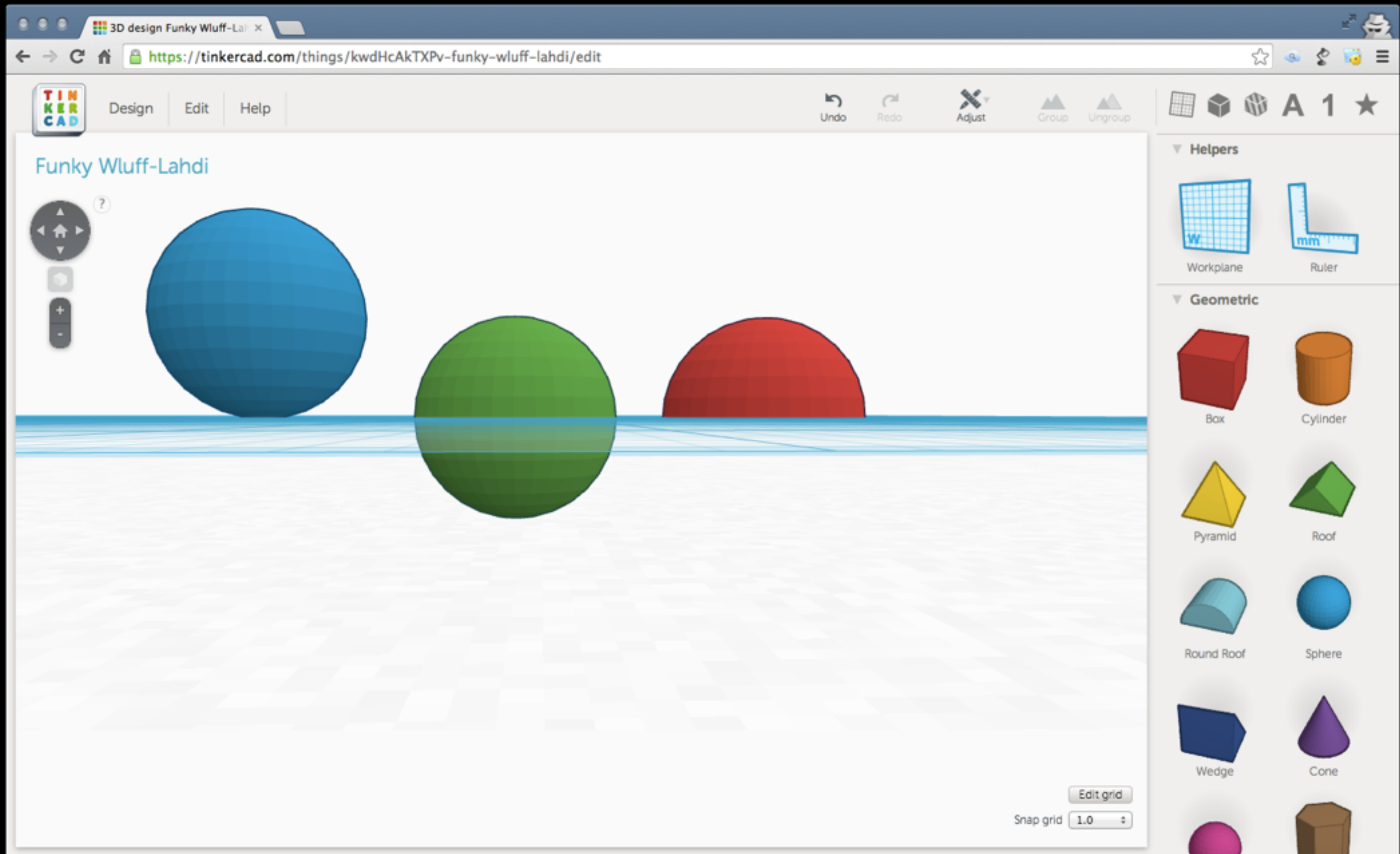




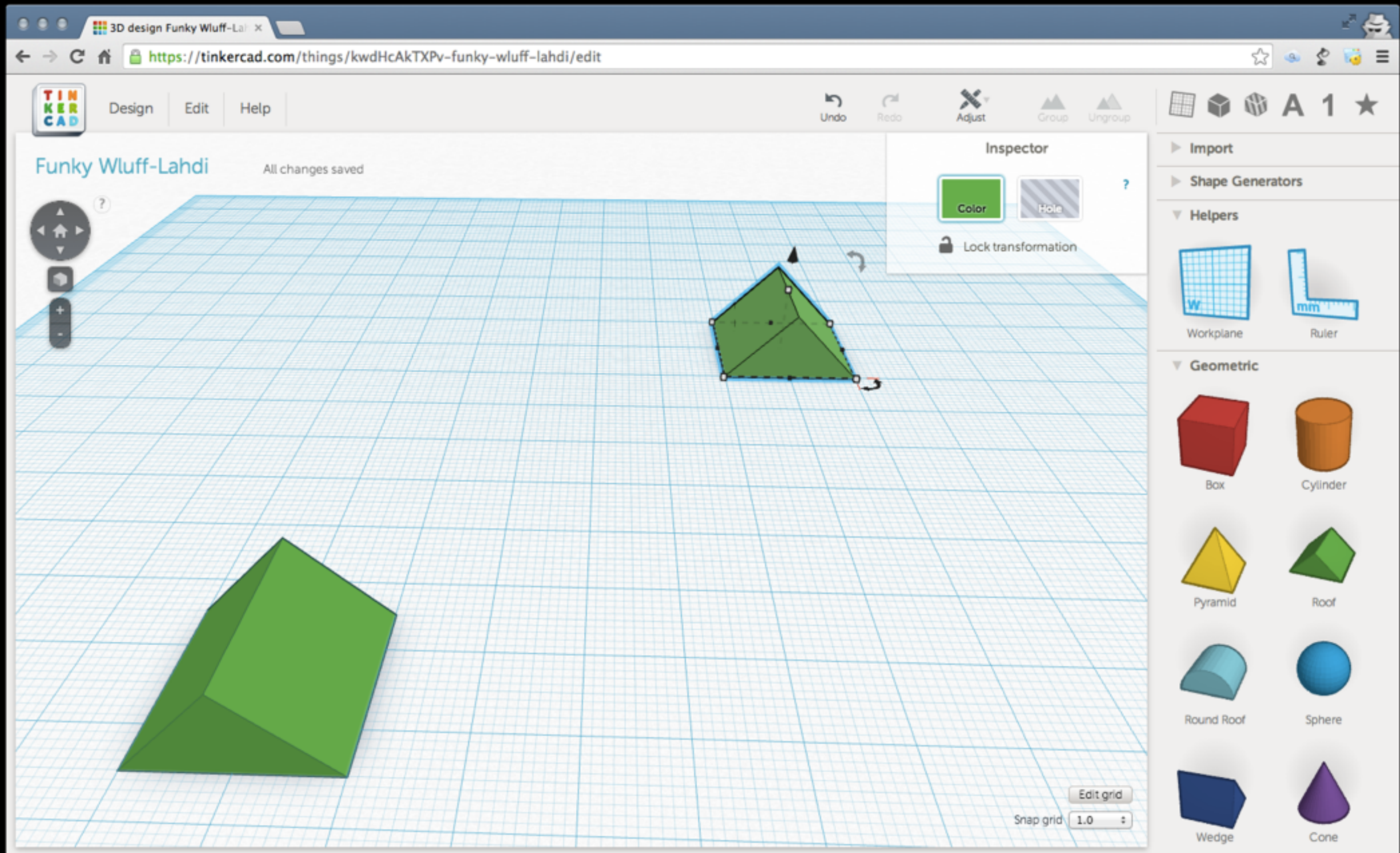


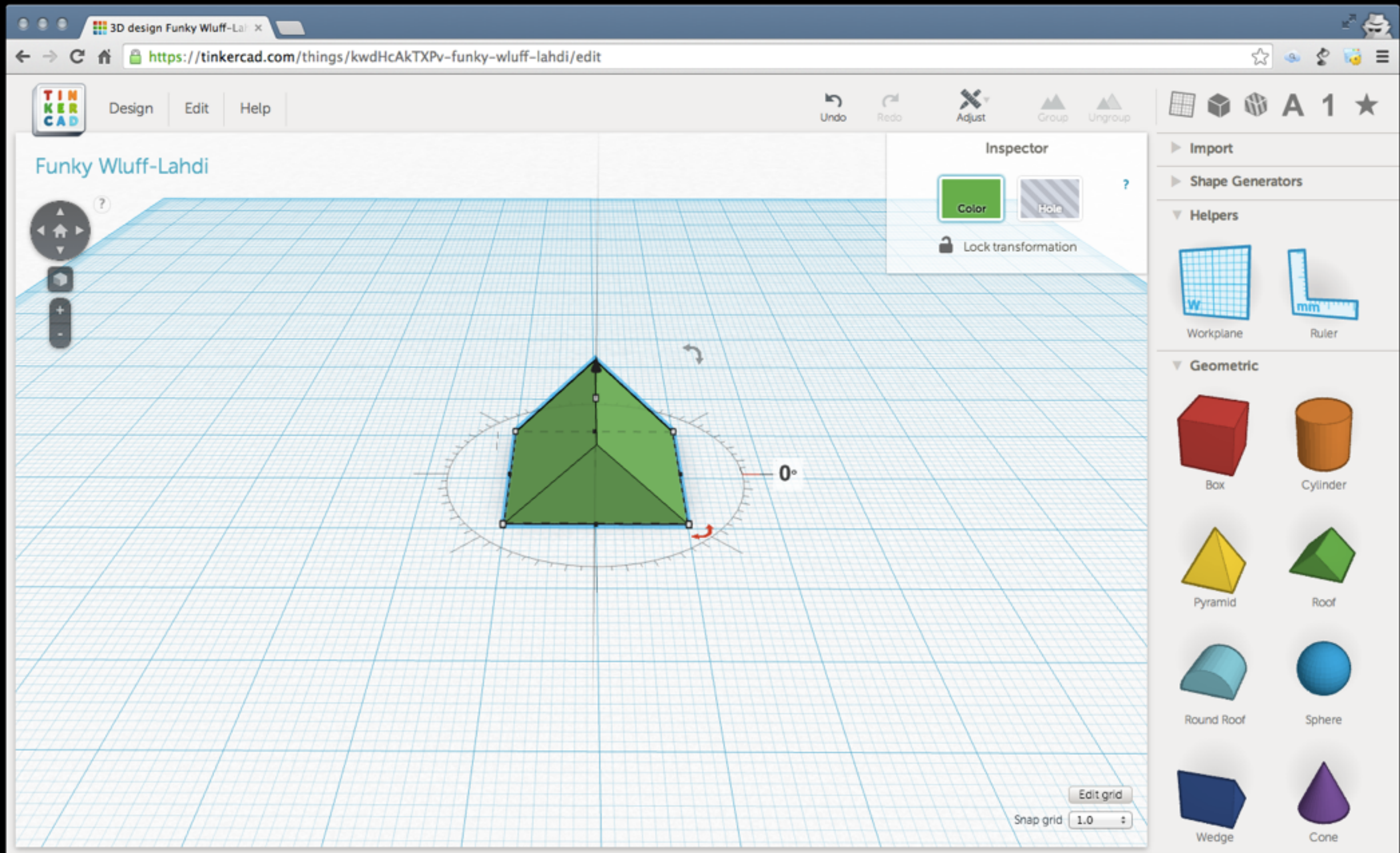


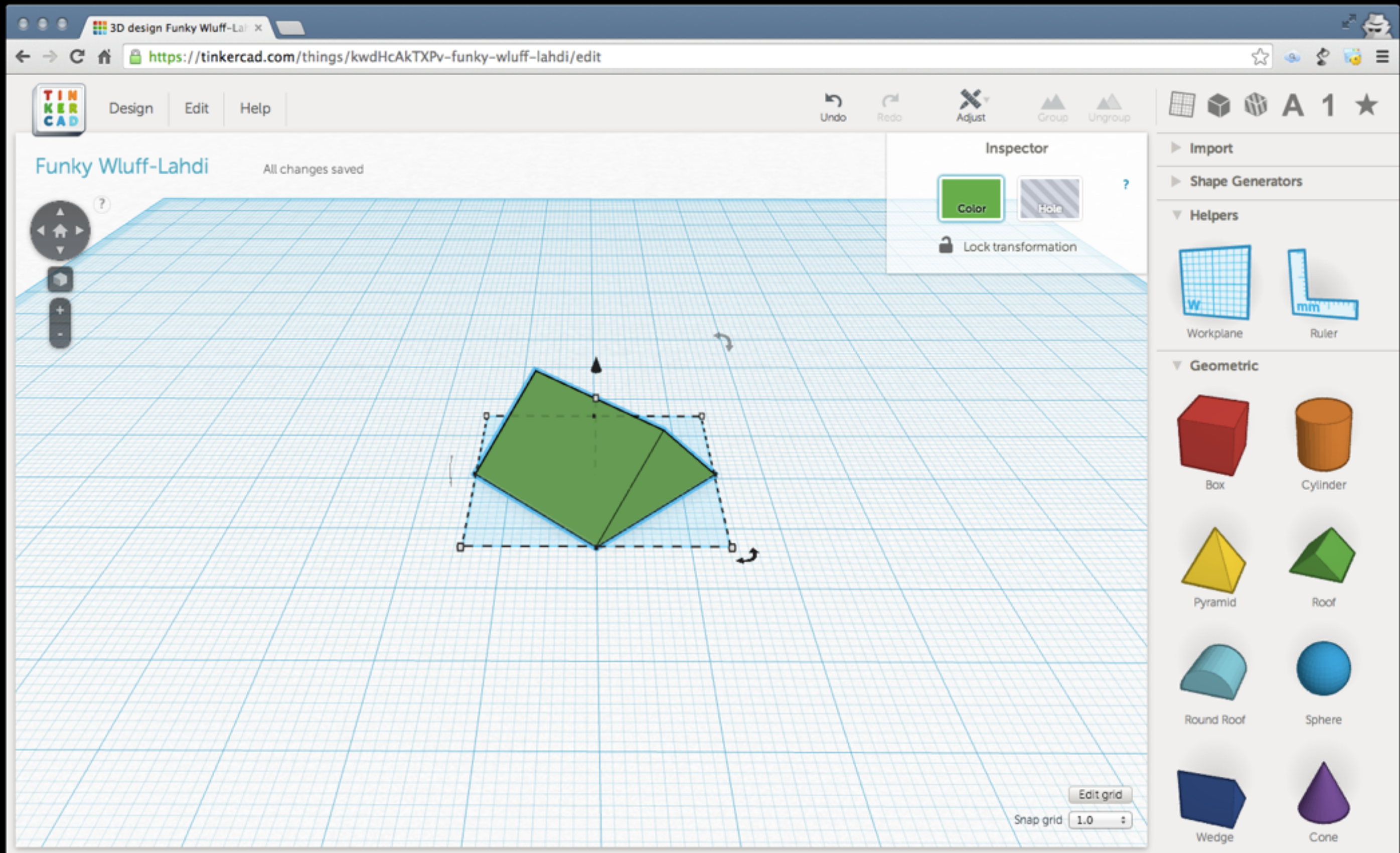


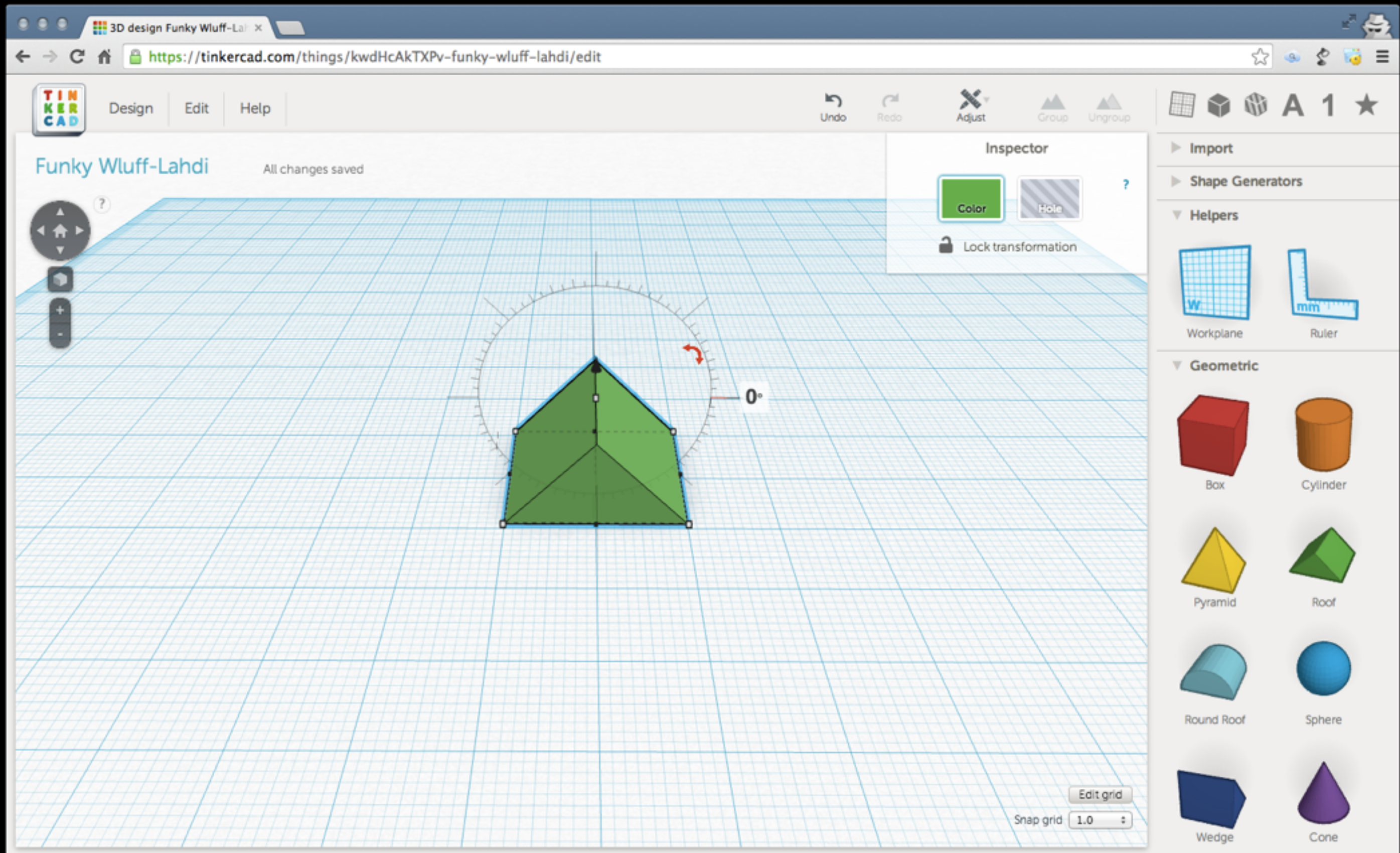


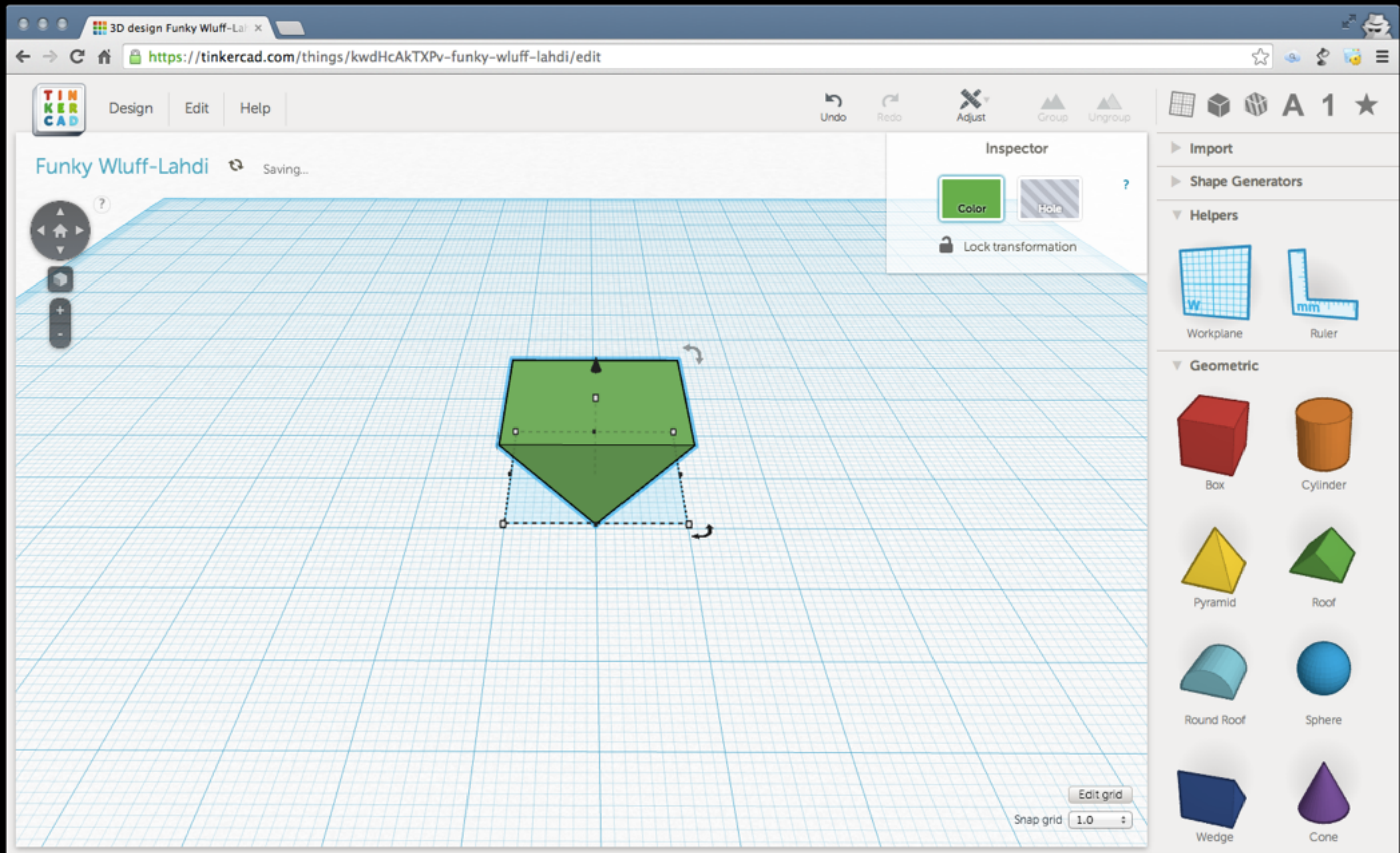
MOVEMENT AND ROTATION

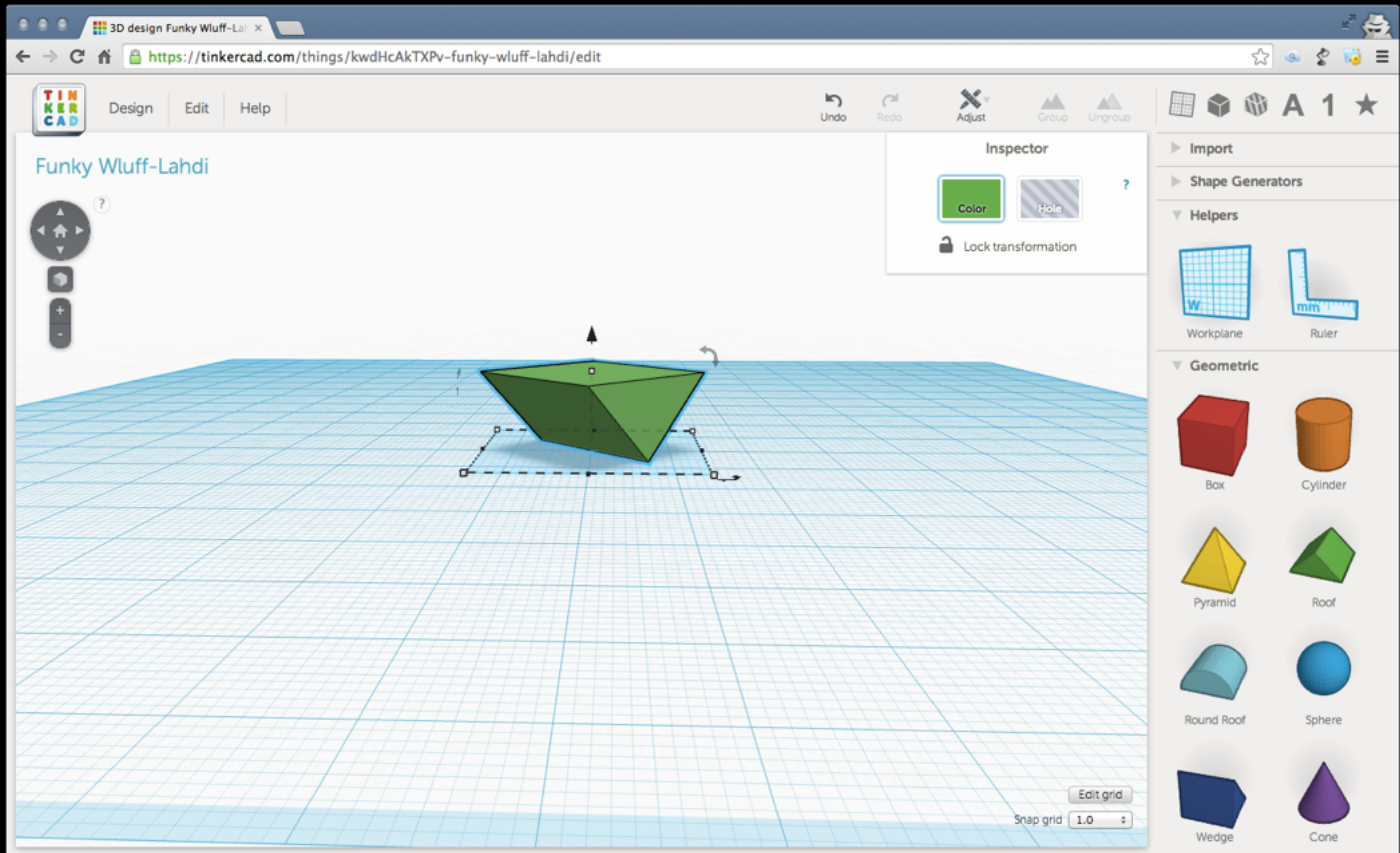




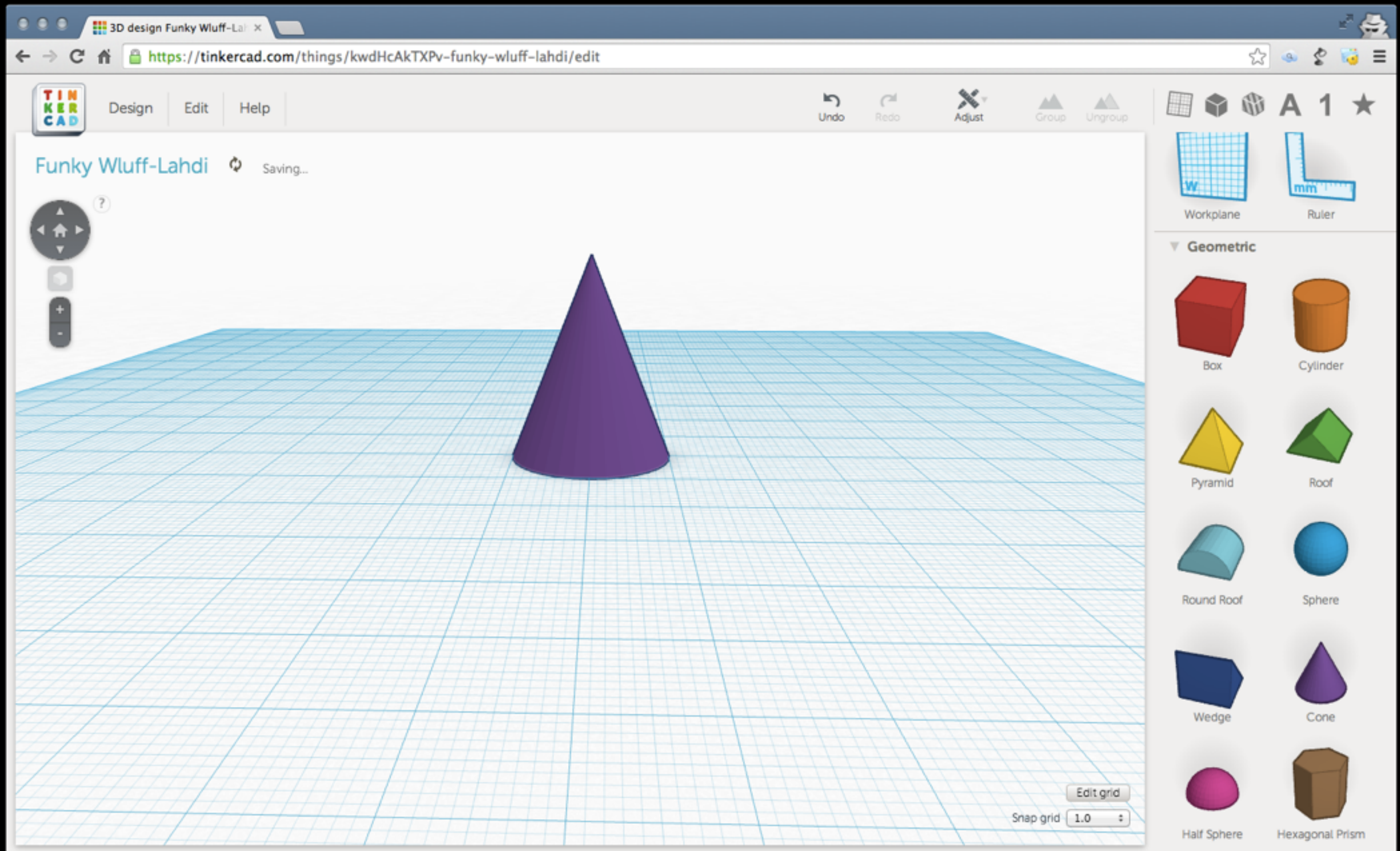


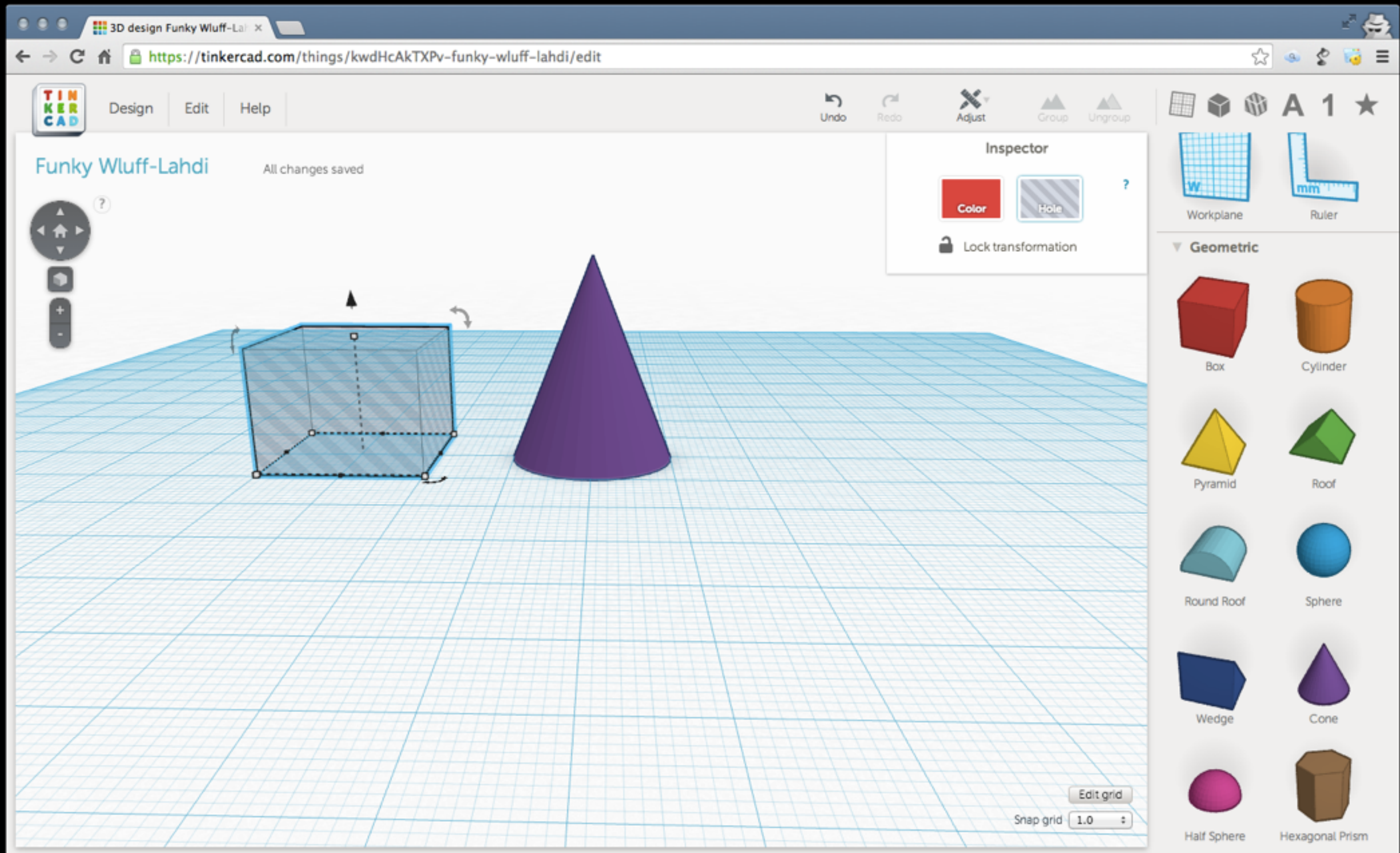




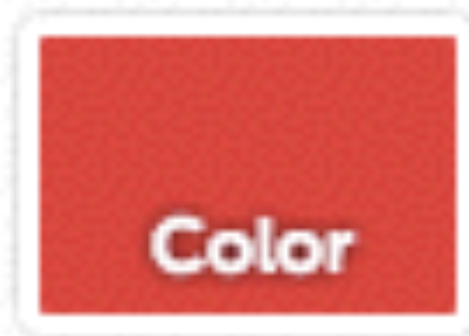


SOLIDS VS. HOLES





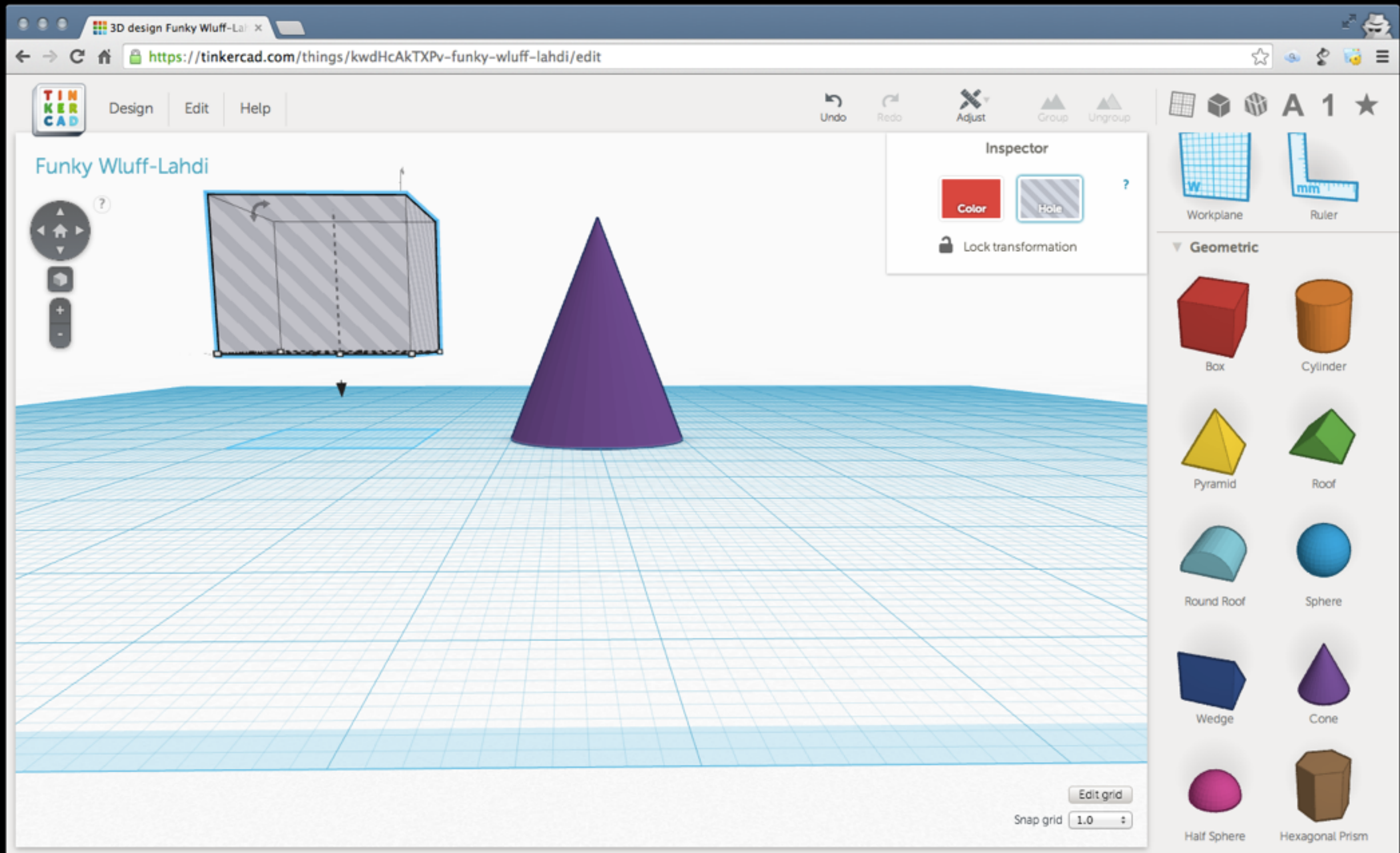
Inspector

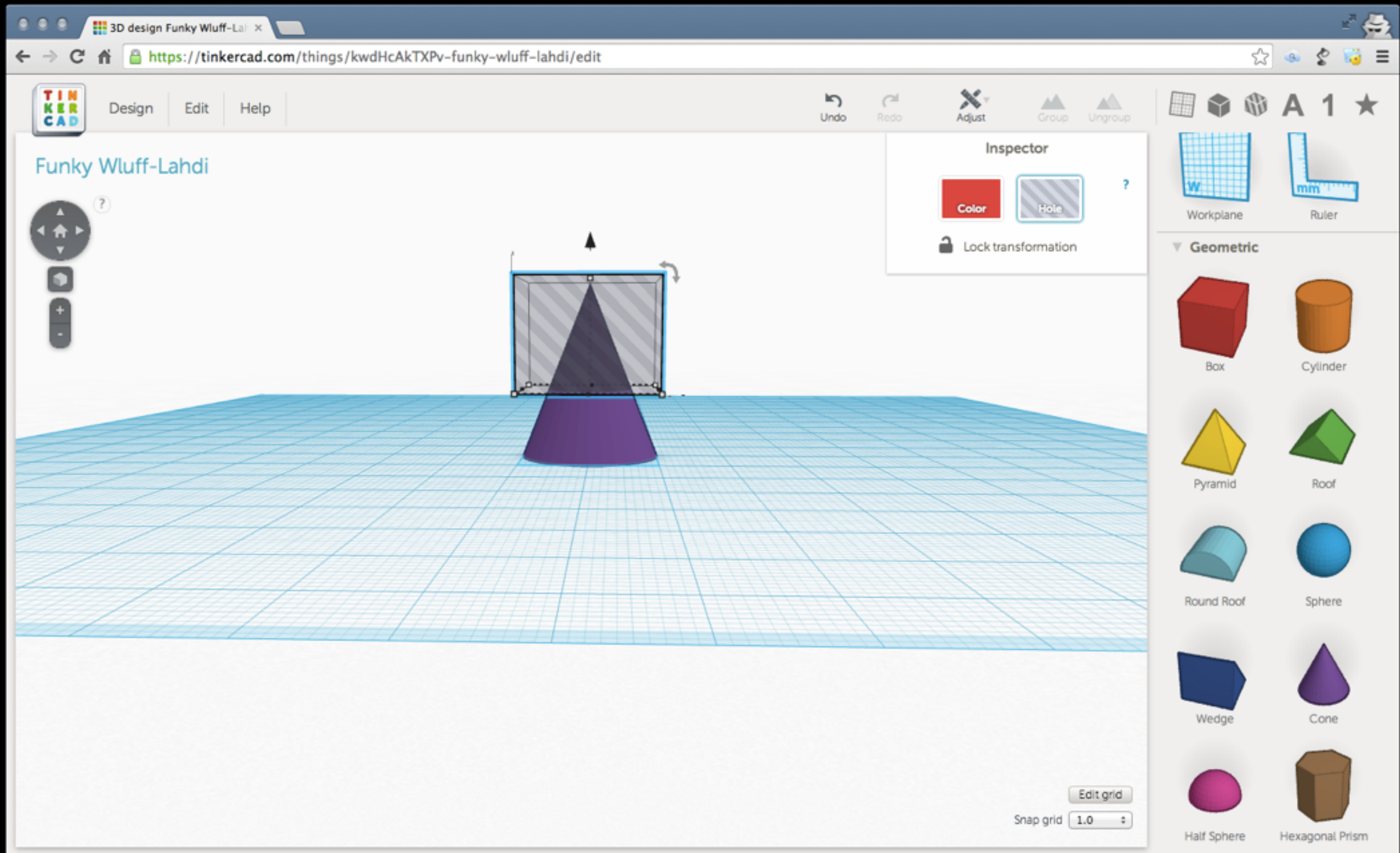


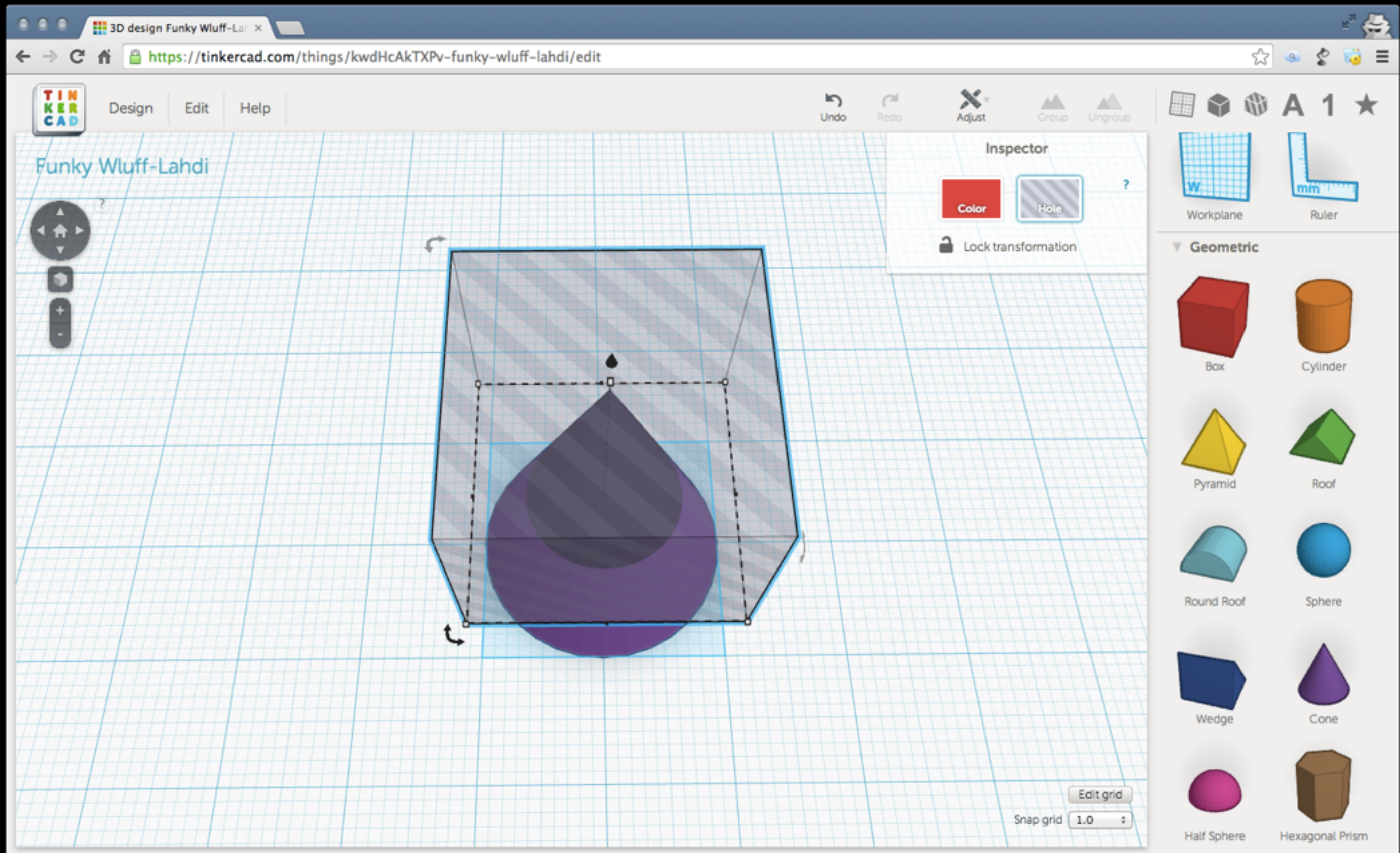
?

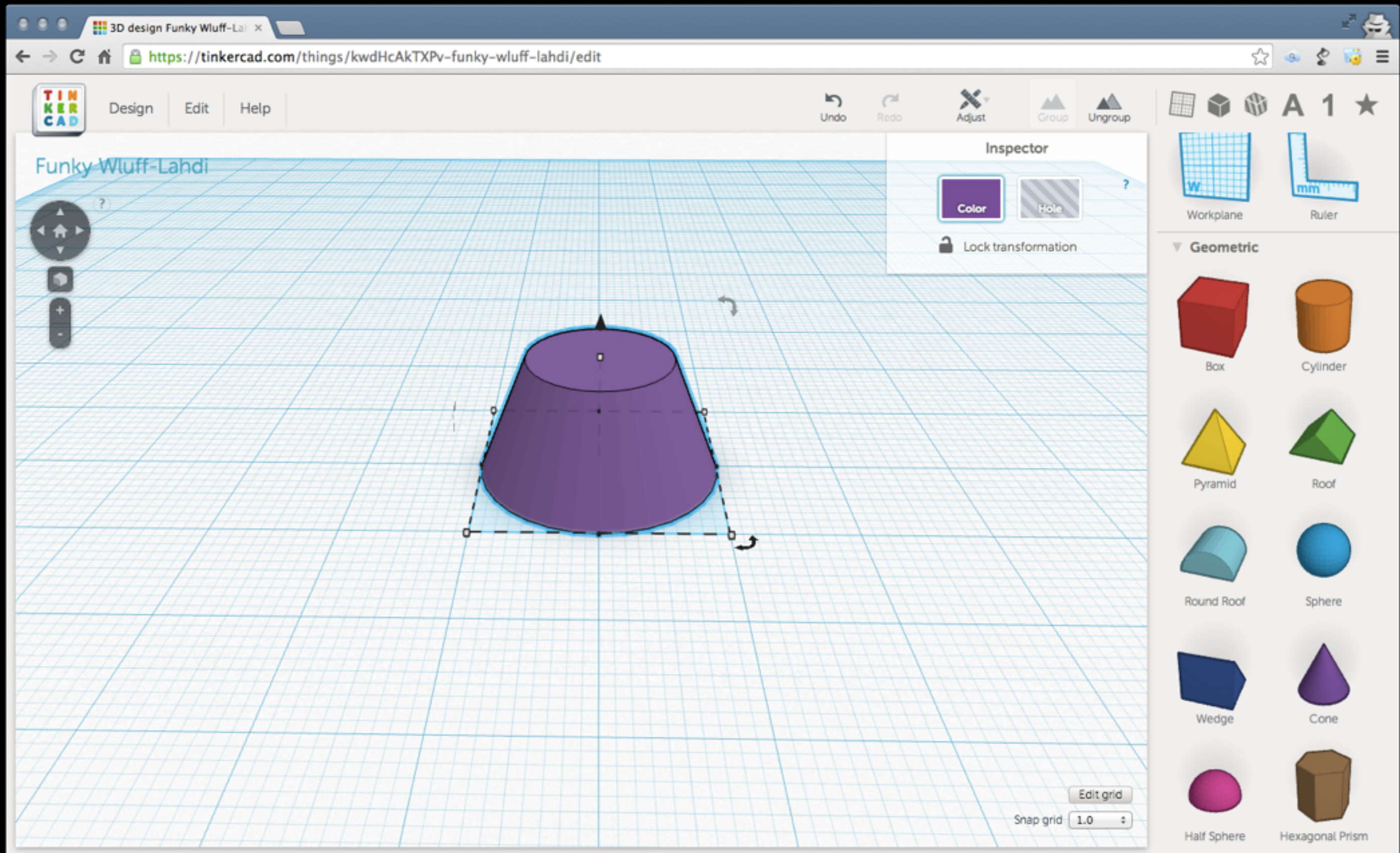


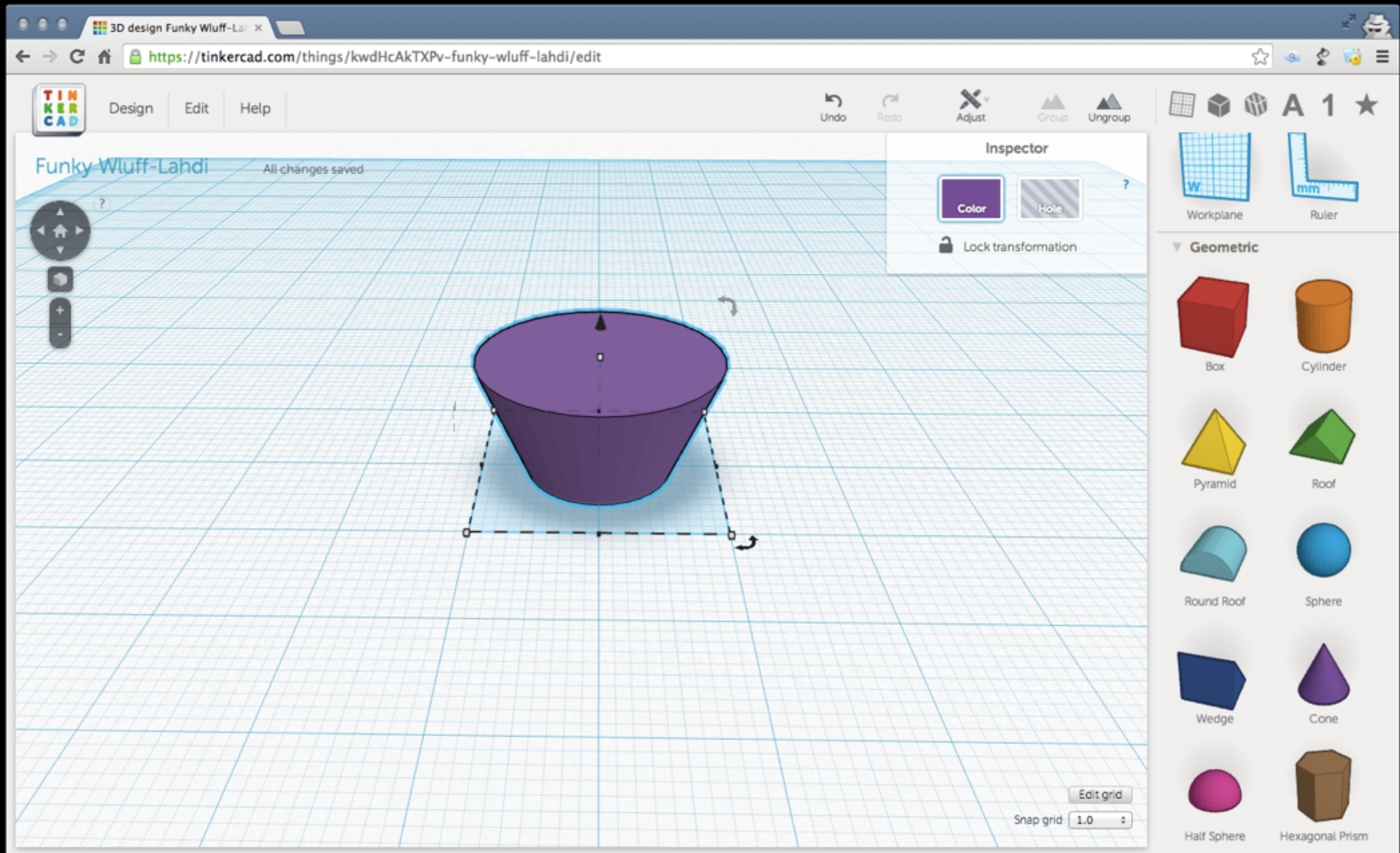
Lock transformation

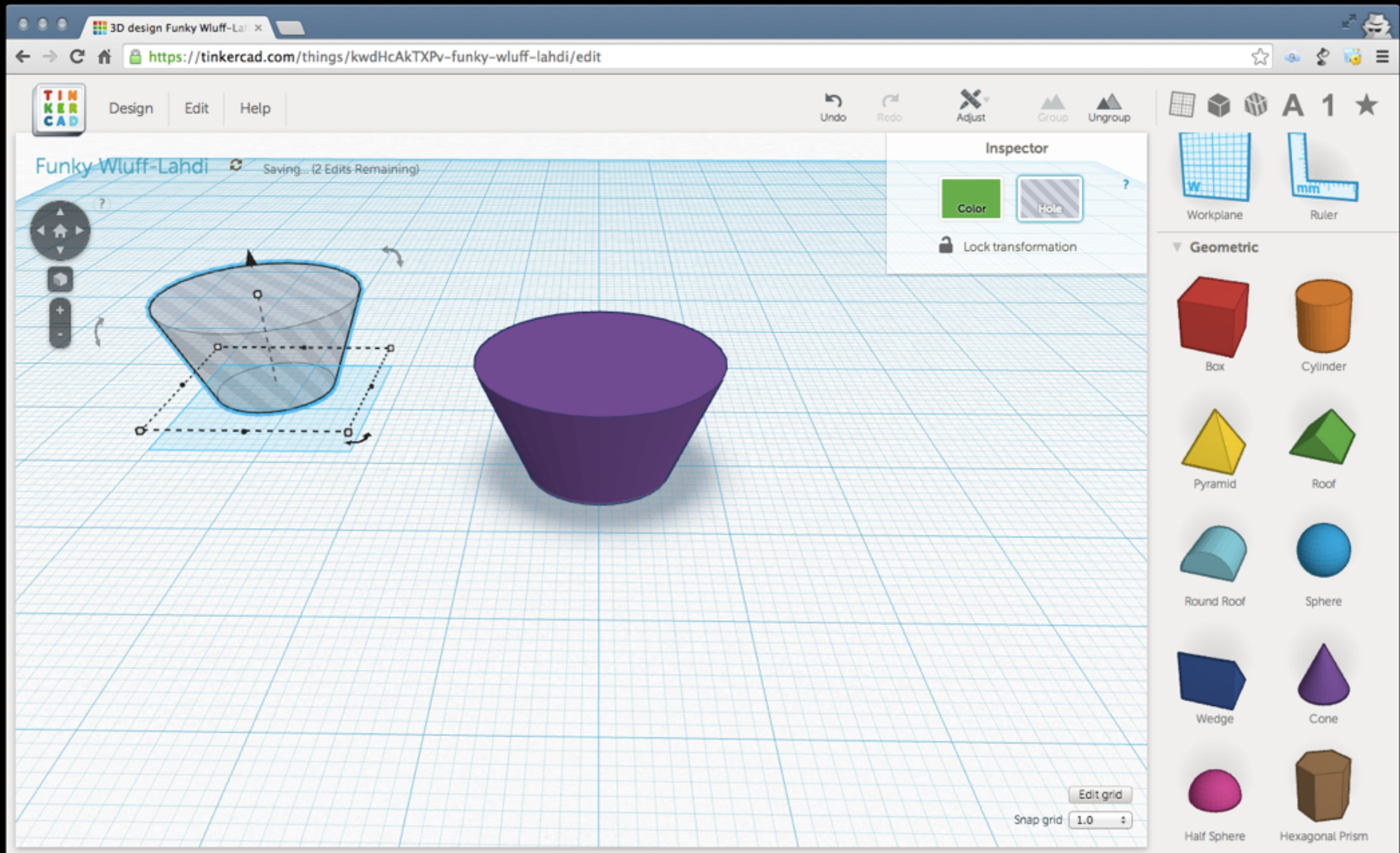


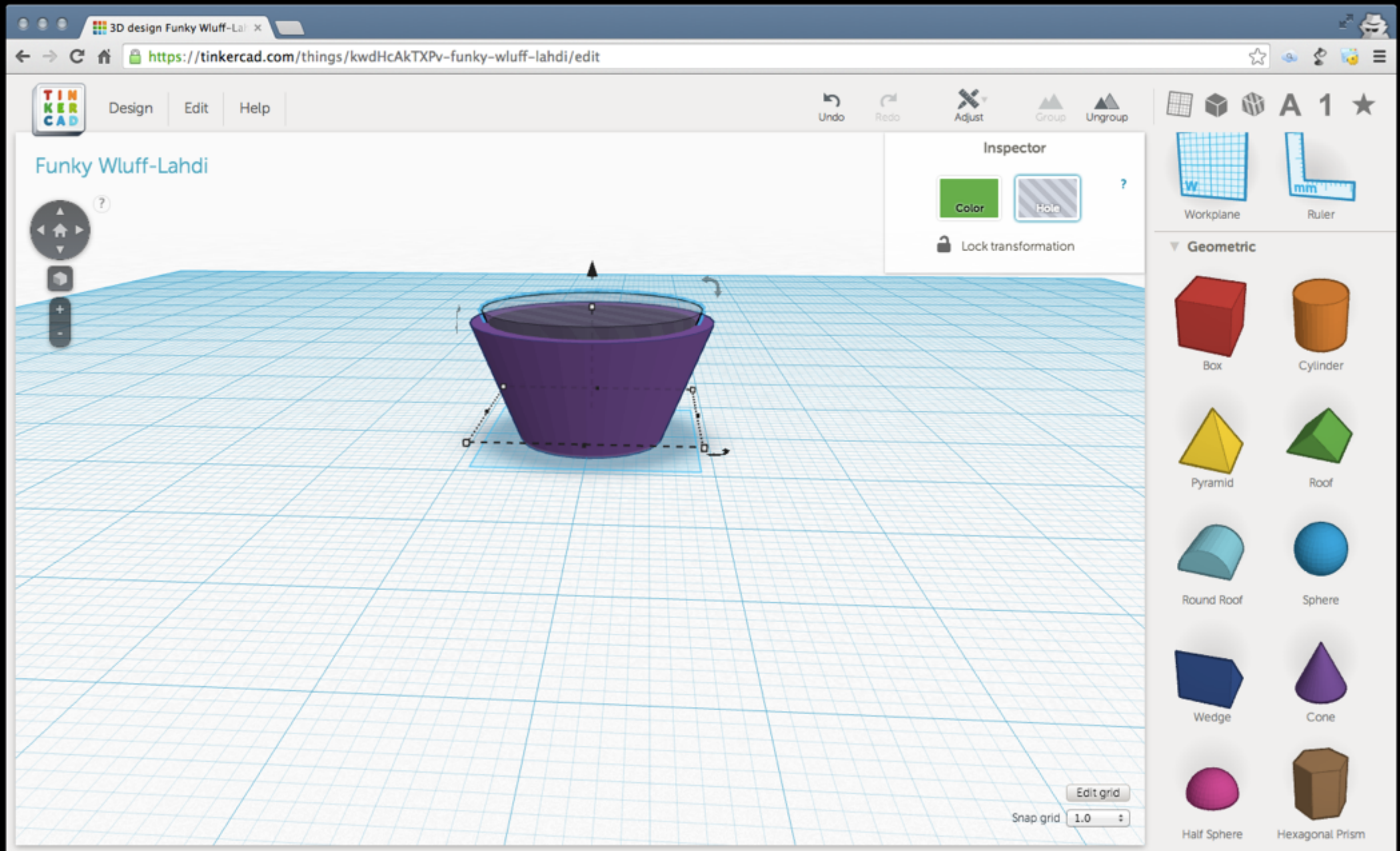


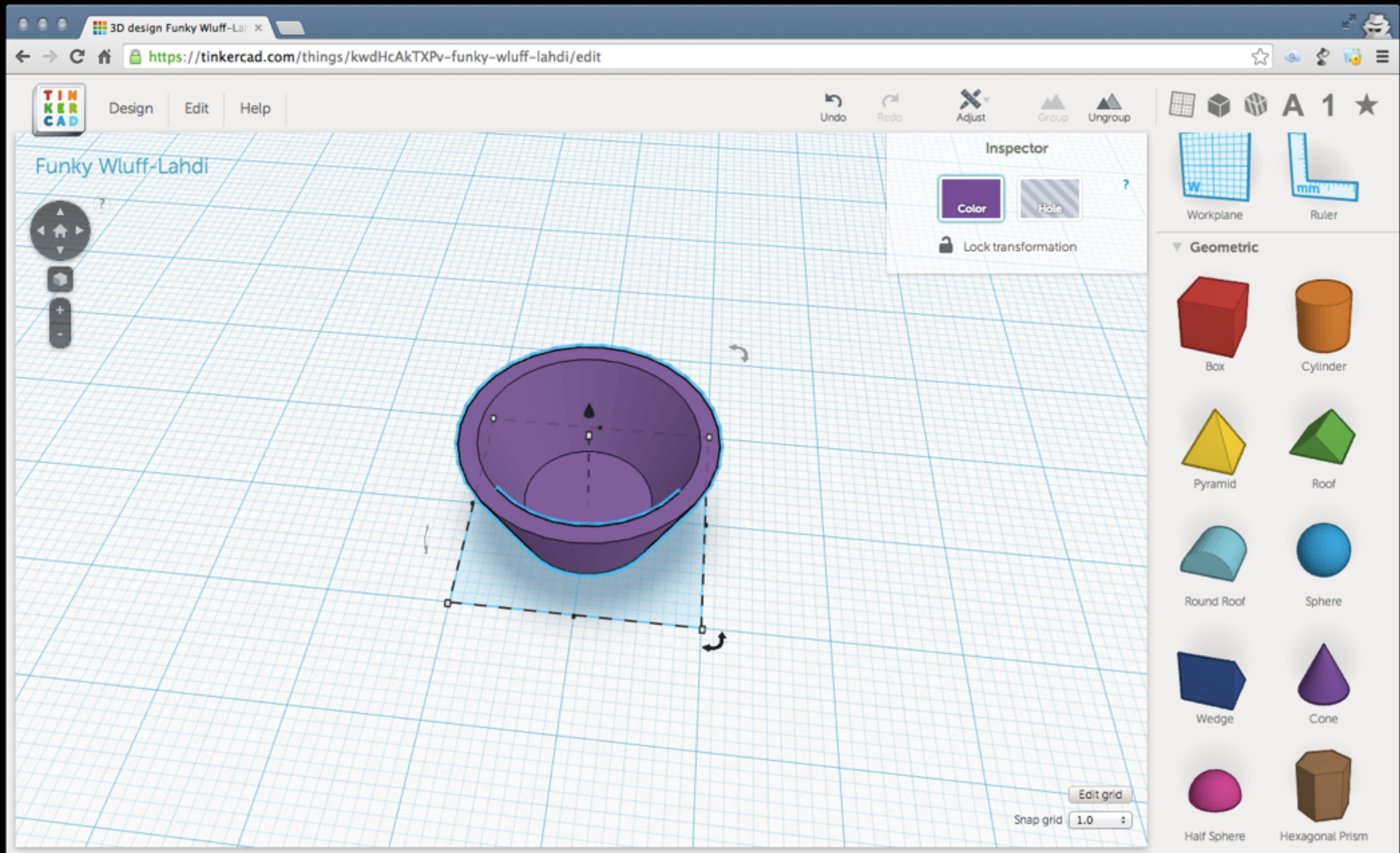












▼ Geometric



Box



Cylinder



Pyramid



Roof



Round Roof



Sphere



Wedge



Cone



Half Sphere



Hexagonal Prism



Paraboloid



Torus thin

▼ Letters



A



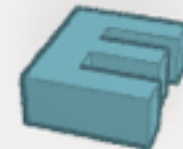
B



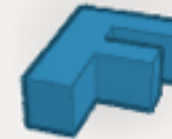
C



D



E



F



G



H



I



J



K



L



Dice



Diamond



Star



Heart



Tinkercad Logo

▼ Extras



Egg



Egg Hole



Bunny ear



Bunny ear



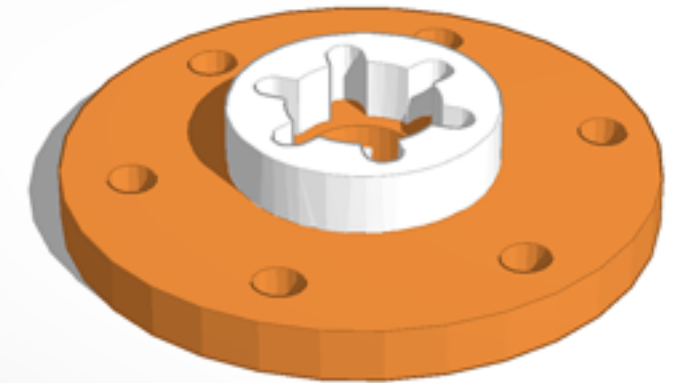
Chick foot

COMBINE SOLIDS AND HOLES FOR CREATING COMPLEX DESIGNS



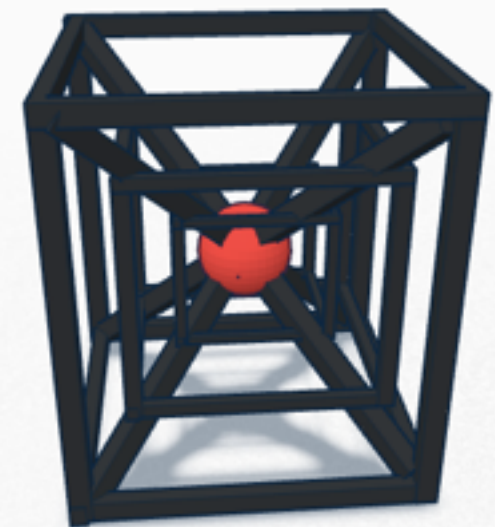
Window Motor Hub

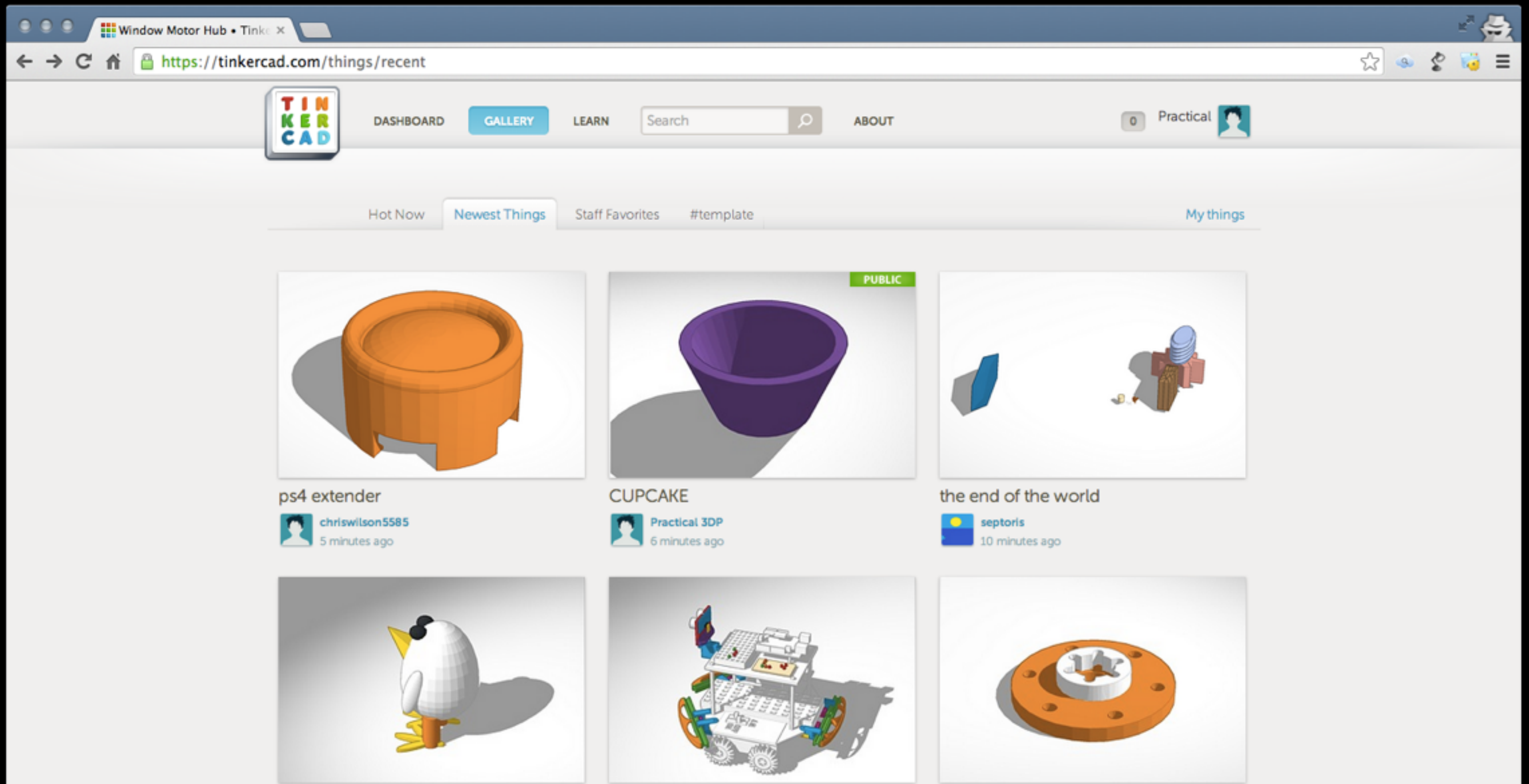
by Curtis 23 minutes ago



TESSERACT-final

by smangino@tcs.com about 3 hours ago





SHARE YOUR CREATIONS WITH OTHERS (OR NOT)...

CREATIVE COMMONS LICENSING FOR SHARING MODELS

EXERCISES (90 minutes)

#1: VALENTINE

- * CREATE A VALENTINE
- * MAX SIZE 50mm X 50mm X 20mm (tall)
- * DOWNLOAD AS STL. SEND TO ABHI@PRACTICAL3DP.COM

SHARE YOUR DESIGN EXPERIENCE #1

- * THOUGHT PROCESS
- * STARTING POINT
- * PAPER SKETCH FIRST OR DIRECTLY IN TINKERCAD?
- * HOW DO YOU THINK YOU CAN IMPROVE THE DESIGN?

#2: STAIRCASE

- * CREATE A STAIRCASE MODEL
- * 100mm long, 30mm wide, 100mm tall, 5 steps
- * Extra task : Add a handrail to the staircase, decorate the sidewalls

SHARE YOUR DESIGN EXPERIENCE #2

- * THOUGHT PROCESS
- * STARTING POINT
- * SOLIDS AND HOLES
- * MAKING STEPS
- * MAKING THE HANDRAIL
- * HOW DO YOU THINK YOU CAN IMPROVE THE DESIGN?

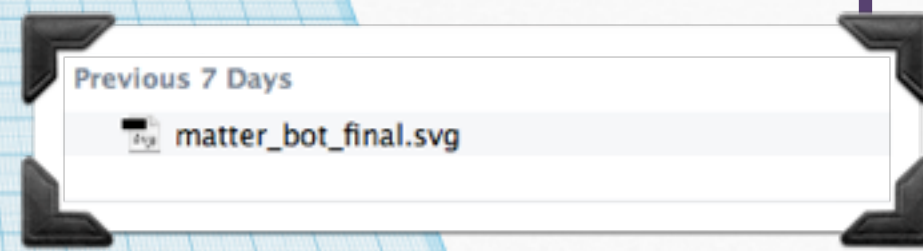
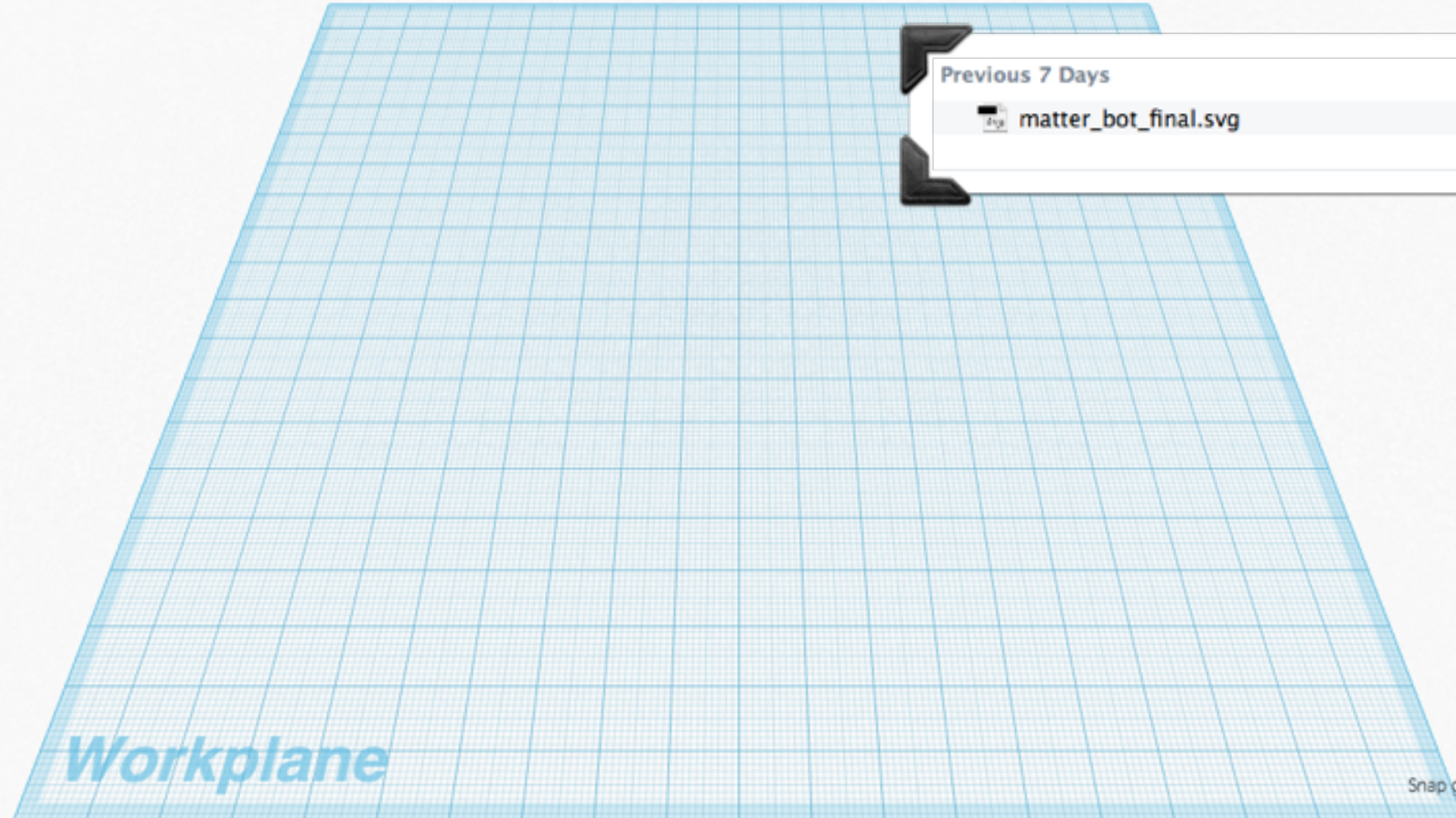
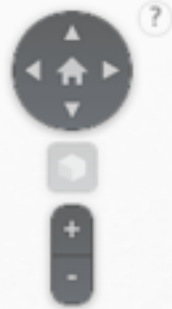
IMPORTING SHAPES



Design Edit Help



Terrific Jofo-Amberis



Import

Import 2D or 3D shapes from your computer or from another web site.
More >

File

URL

Choose File

No file chosen

Import

Shape Generators

Helpers

Geometric



Box



Cylinder



Pyramid



Roof



Round Roof



Sphere

Edit grid

Snap grid 1.0

▼ Import

Import 2D or 3D shapes from your computer or from another web site.

[More >](#)

File

URL

Choose File

matter_bot_final.svg

Scale 100 %

Height 10 mm

Import



Design

Edit

Help

Undo

Redo

Adjust

Group

Ungroup



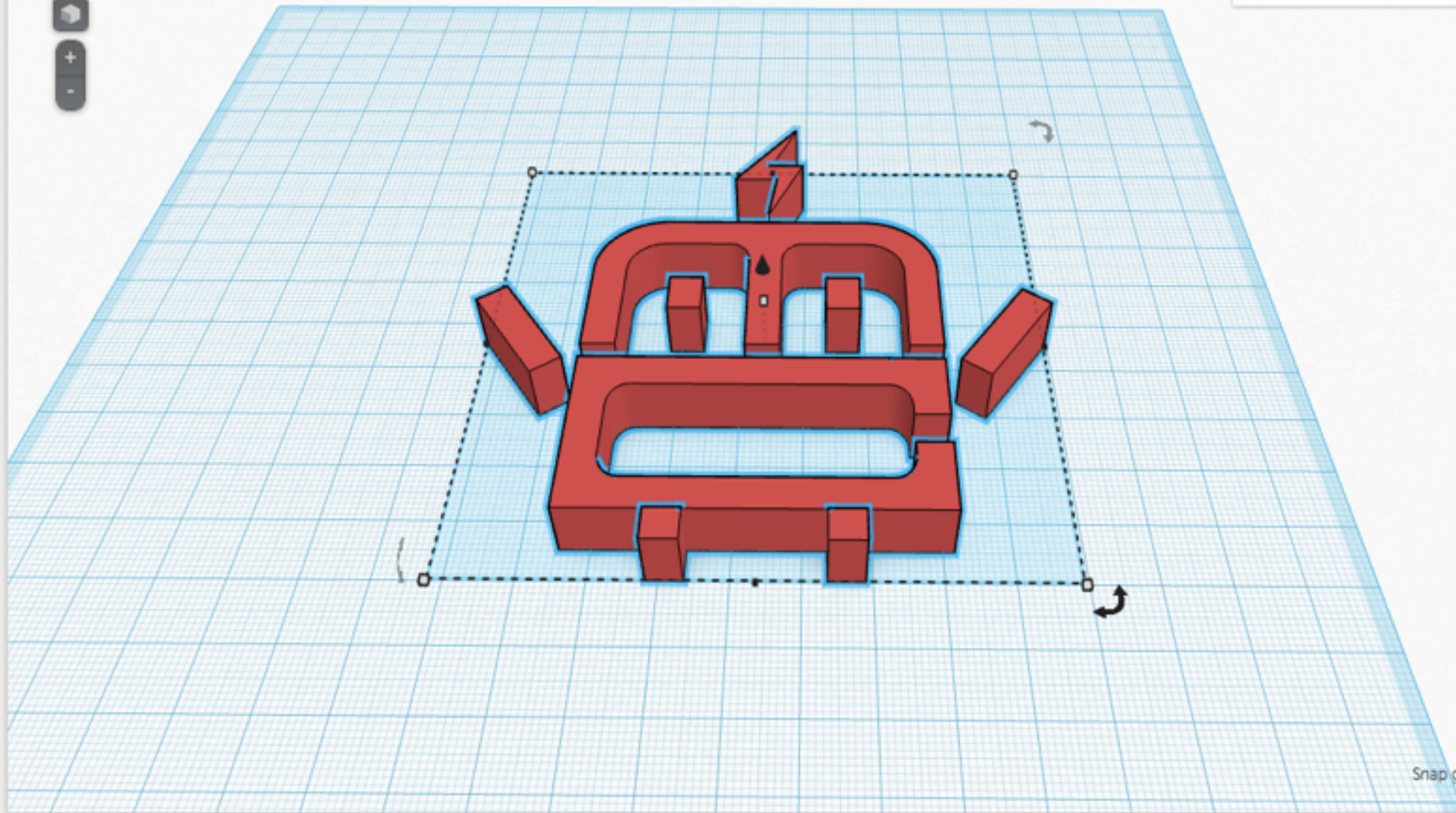
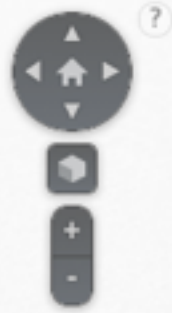
A

1



Copy of heart

All changes saved



Inspector



Color



Hole

?



Lock transformation

Import

Import 2D or 3D shapes from your computer or from another web site.
More >

File

URL

Choose File

matter_bot_final.svg

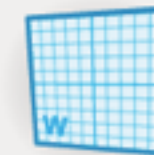
Scale 100 %

Height 10 mm

Import

Shape Generators

Helpers



Workplane



Ruler

Geometric



Box



Cylinder



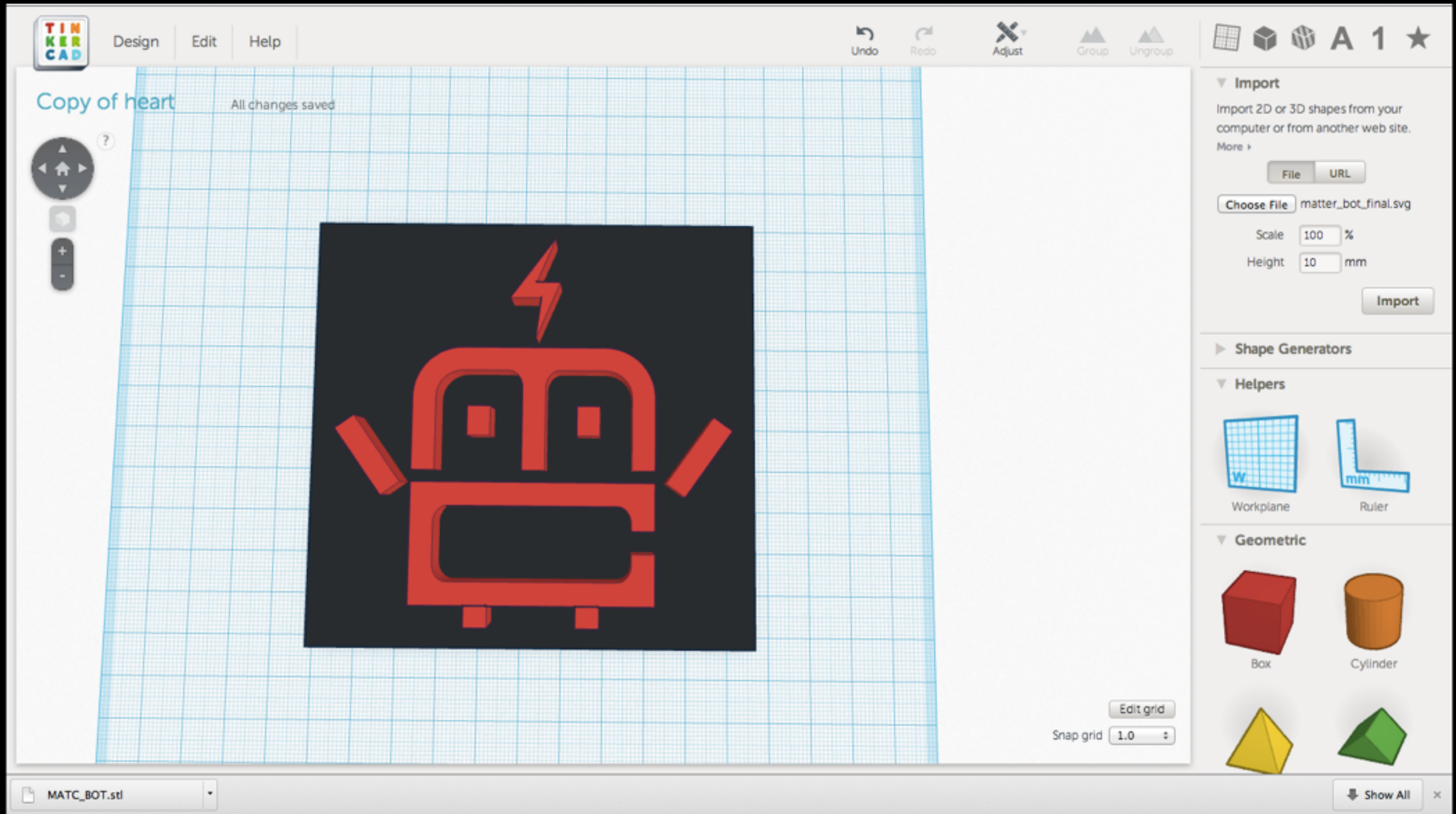
Pyramid

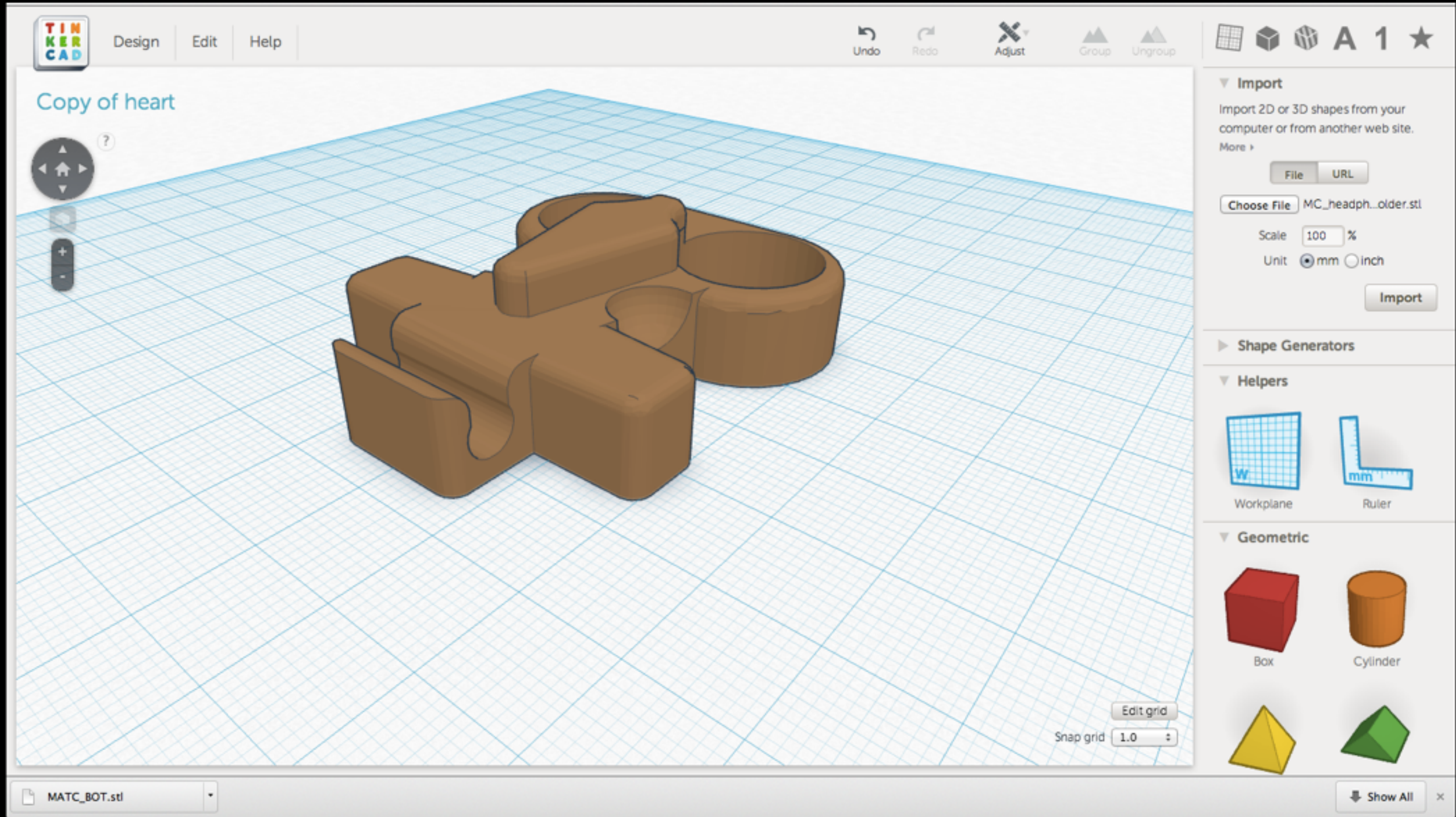


Roof

Edit grid

Snap grid 1.0





ALTERNATIVES

- * SKETCHUP
- * 123D SKETCH
- * 123D SCULPT (IPAD)
- * SHAPESHIFTER.IO
- * OPENSCAD
- * FREECAD
- * MAKE VR

What big idea will you bring to life?

ABHI KUNTÉ
ABHI@MATTERCOMPILERS.COM
 @PRACTICAL3DP