

# Advanced Rendering Workflows in Fusion 360

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# Outline

- Quick Tips
- More Advanced Workflows
  - Lights
  - Creating a scene
  - 3D Wood
  - Turntables
  - Motion Studies
  - Nested Dielectrics
- Feedback and Questions



# Quick Tips

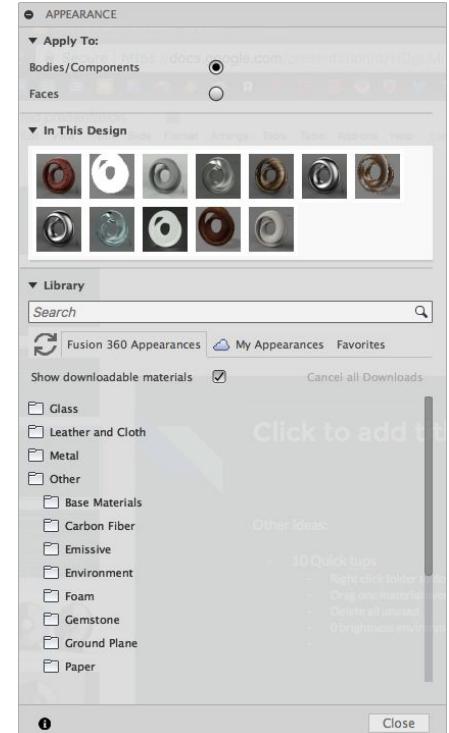
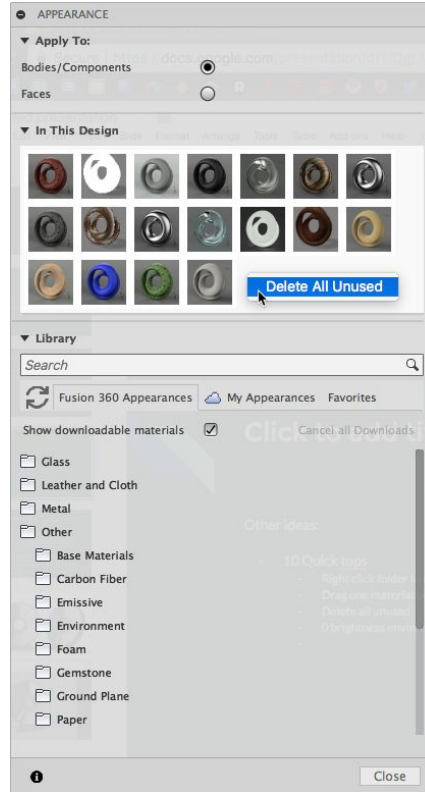
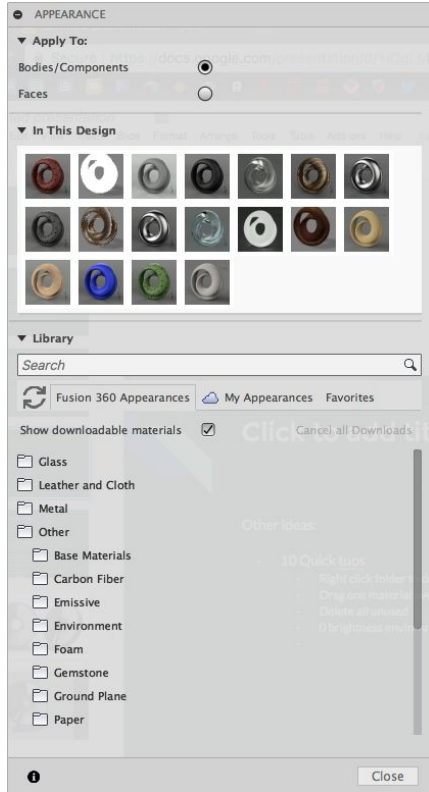
- Tips
  - S Key
  - Delete All Unused
  - Download all
  - Replace One Appearance with another
  - Select Objects Applied to
  - Selection Sets
  - Creating a material
  - Named Views
  - Render on Save
  - Undo Material
  - Cutouts
- Lights
  - Speaker
  - HDRs
  - Creating a scene
- 3D Wood
- Turntables
- Motion Studies
  - LMV Animations



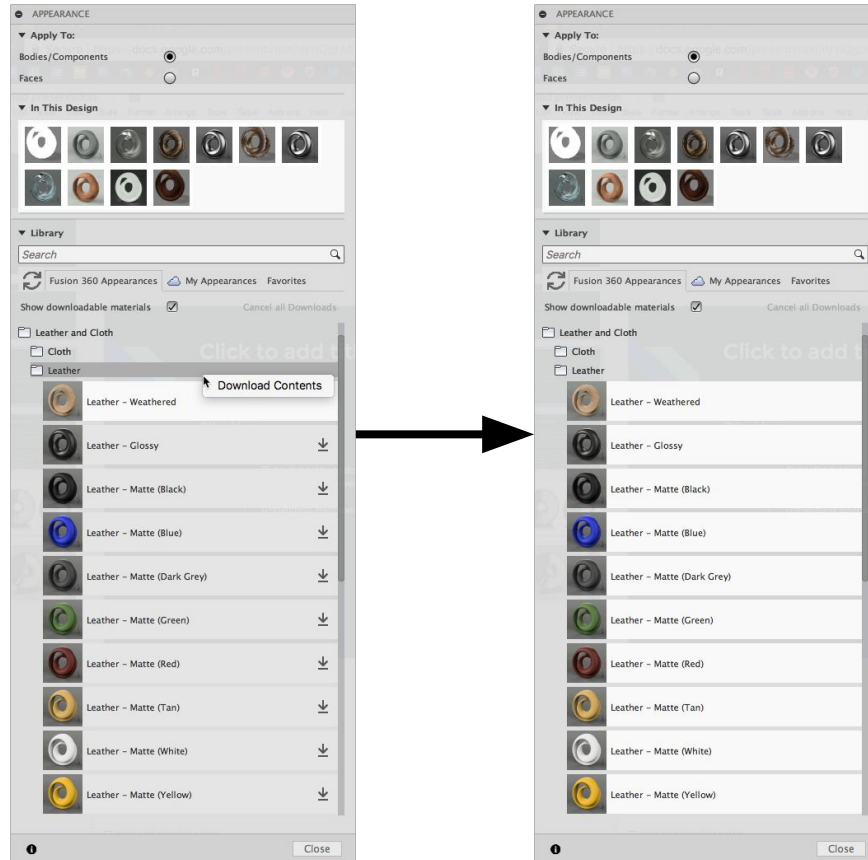
The background of the slide features a complex, organic wireframe pattern. This pattern consists of numerous interconnected lines that form a mesh of irregular polygons, creating a three-dimensional, flowing effect. The lines are thin and grey. A solid blue horizontal bar spans the bottom portion of the image, providing a contrasting background for the text.

## Quick Tips

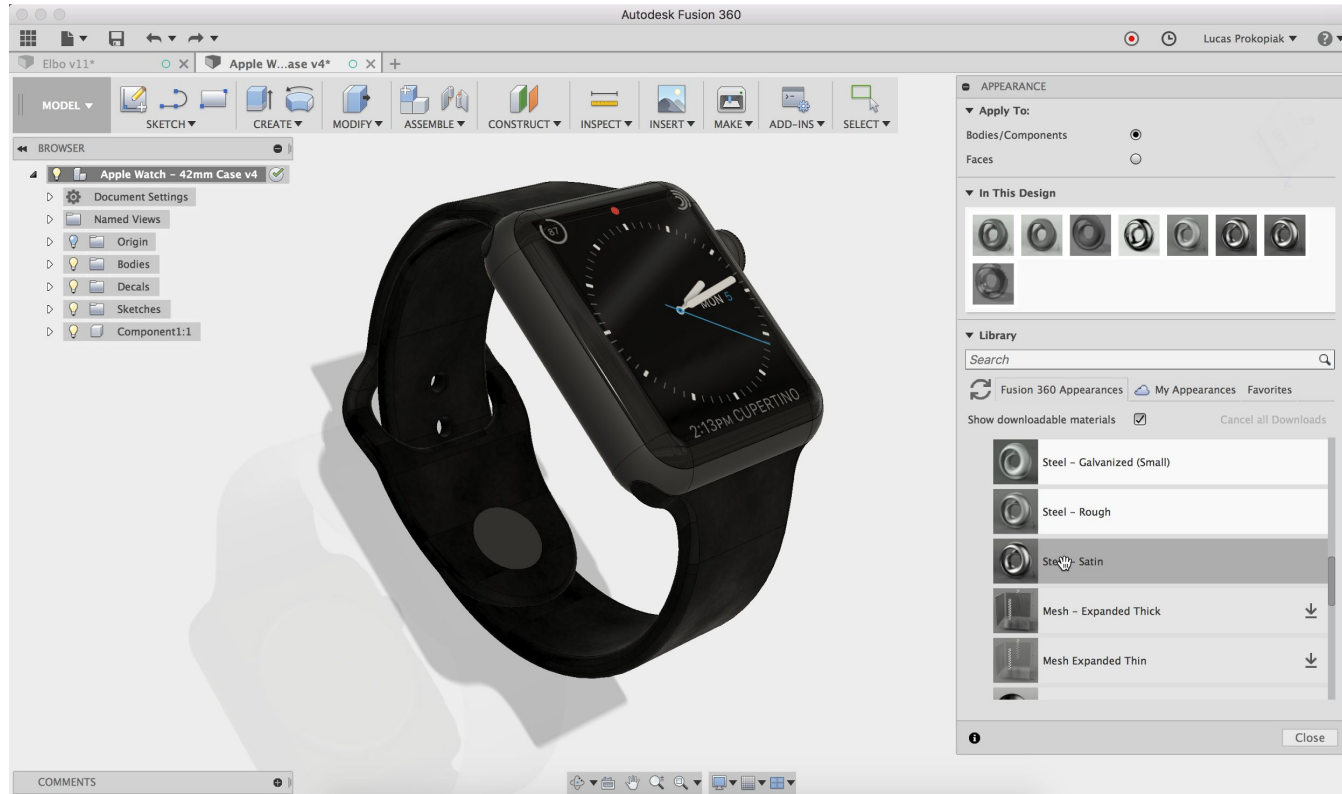
# Delete All Unused



# Download All Contents

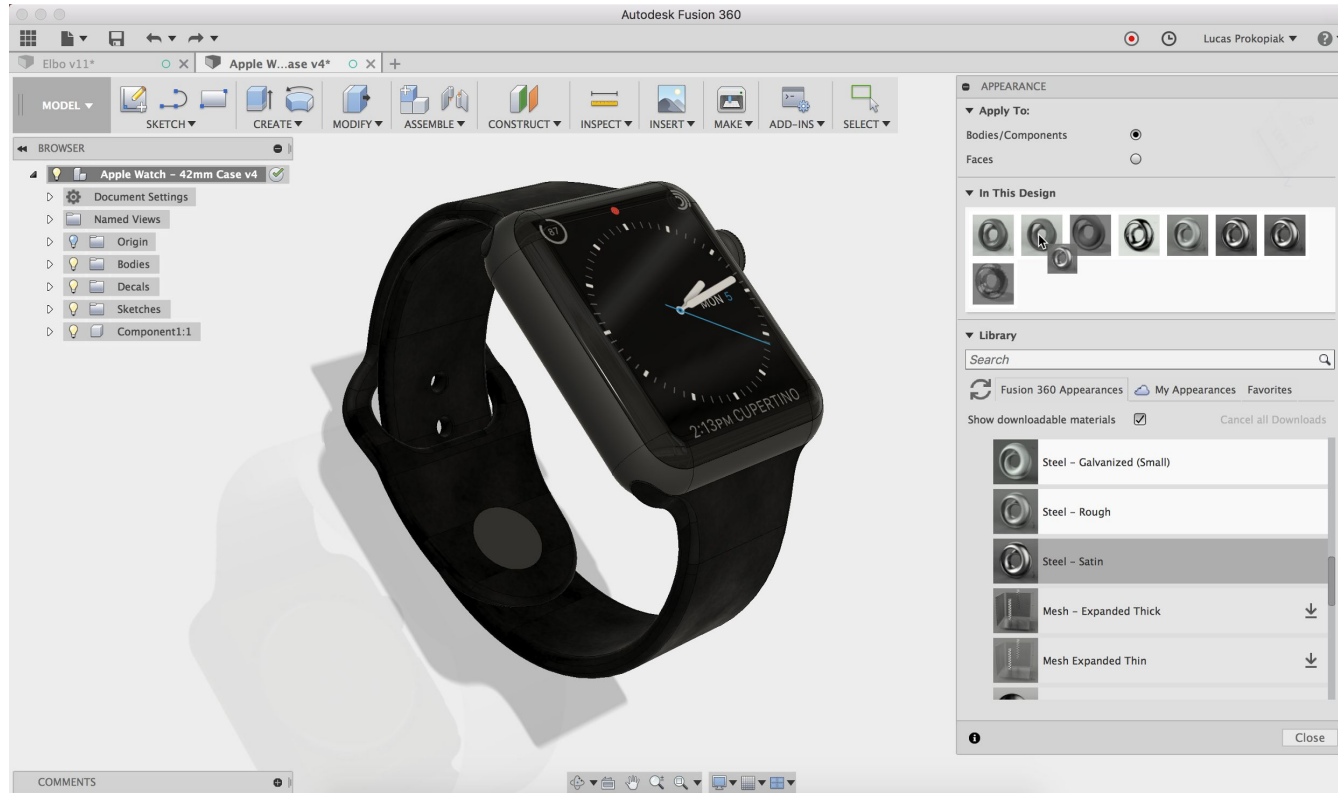


# Replace One Appearance With Another - 1

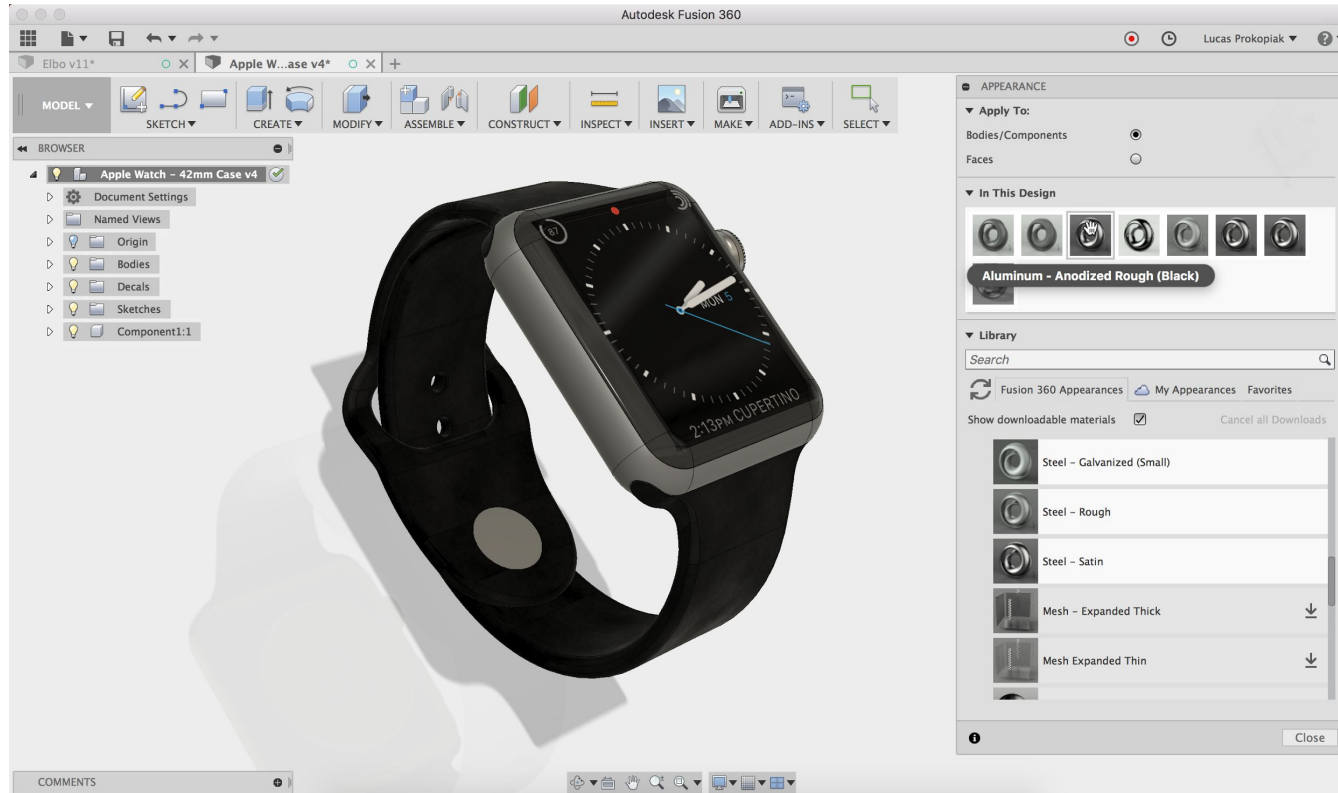




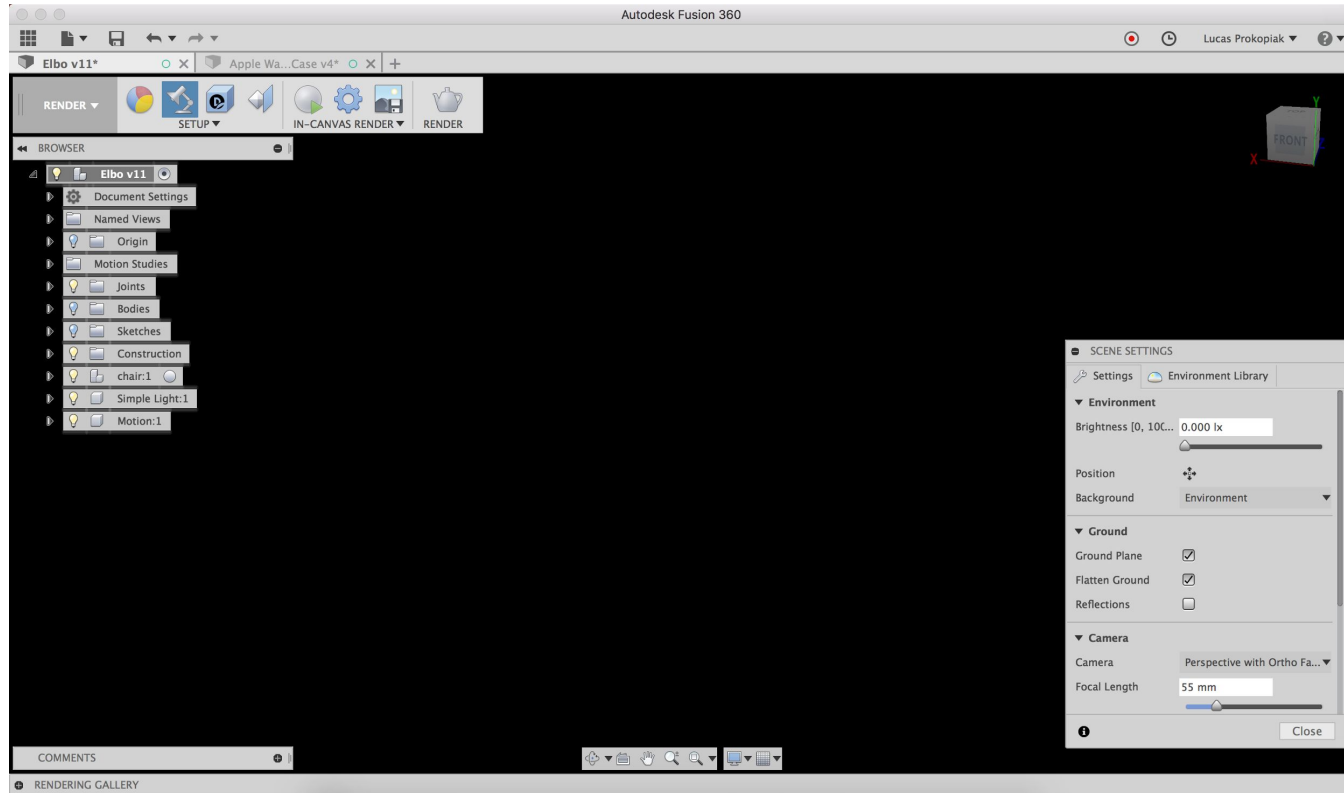
# Replace One Appearance With Another - 2



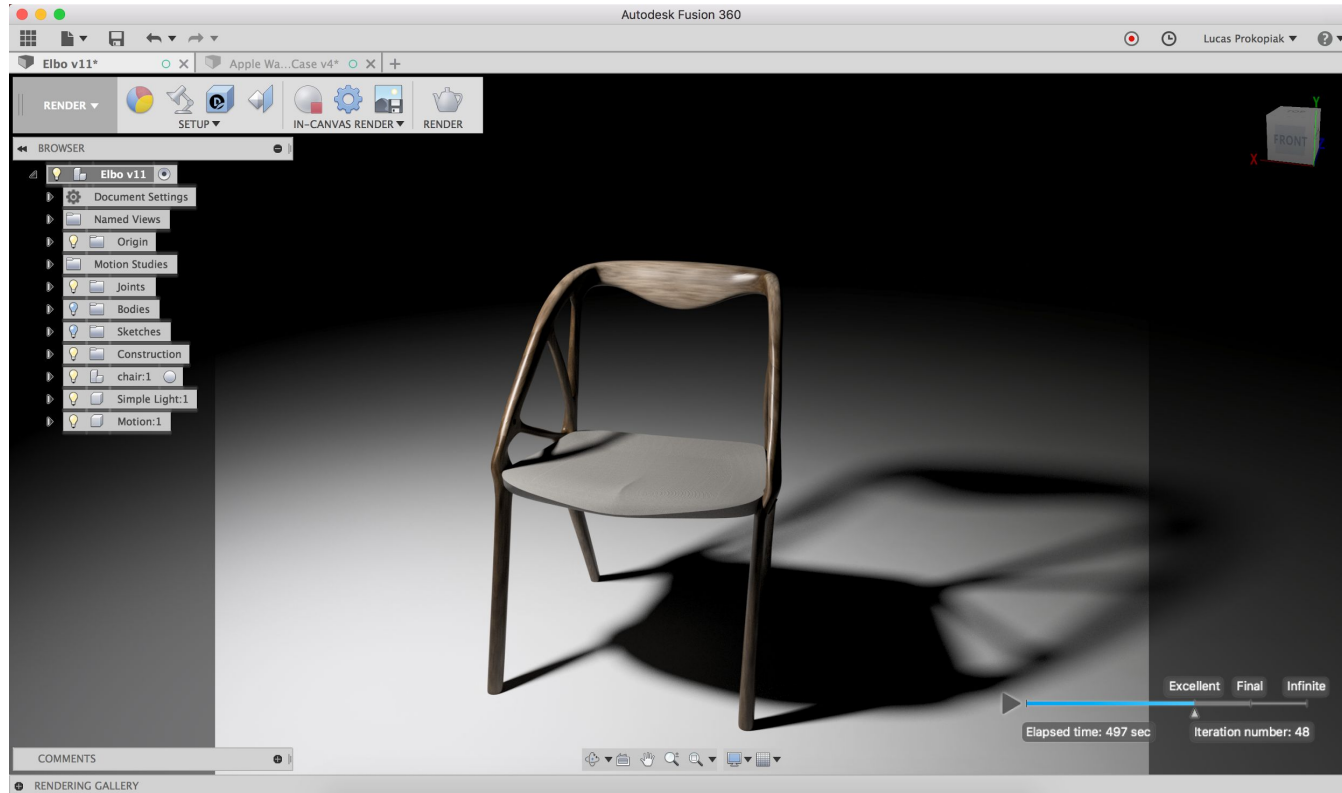
# Replace One Appearance With Another - 3



# Turning Off the HDR Light

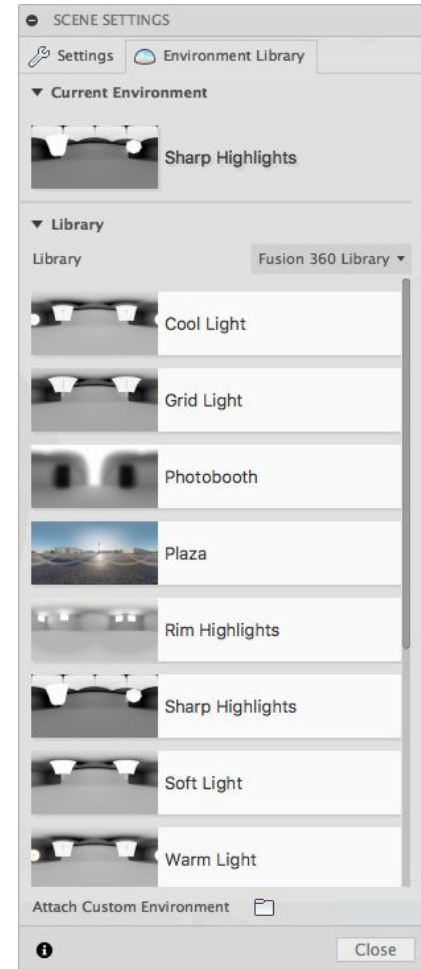
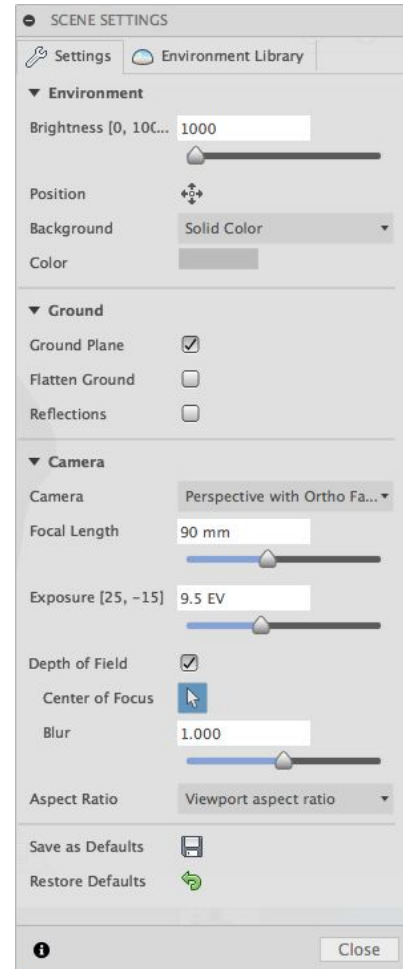


# Turning Off the HDR Light



# Scene Settings

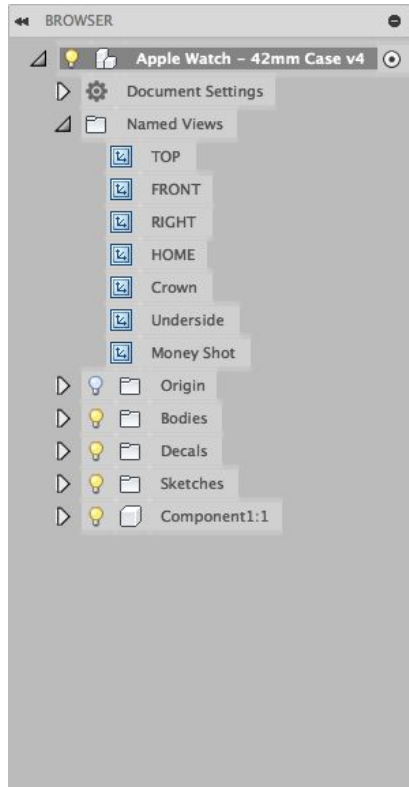
- Best Practices
  - Lower focal length is better to show perspective
  - Depth of Field Blur is aggressive above 0.2
  - Always turn on Aspect Ratio for better scene management





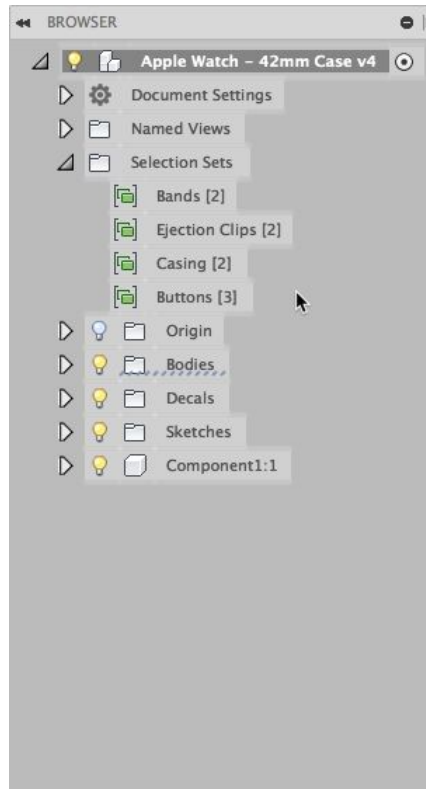
# Named Views

- Best Practices
  - Keep the focal length constant between your named views
  - The perspective often differs from the modeling environment



# Selection Sets

- Best Practices
  - Group bodies/components that are going to have the same appearances together
  - Name your selection sets

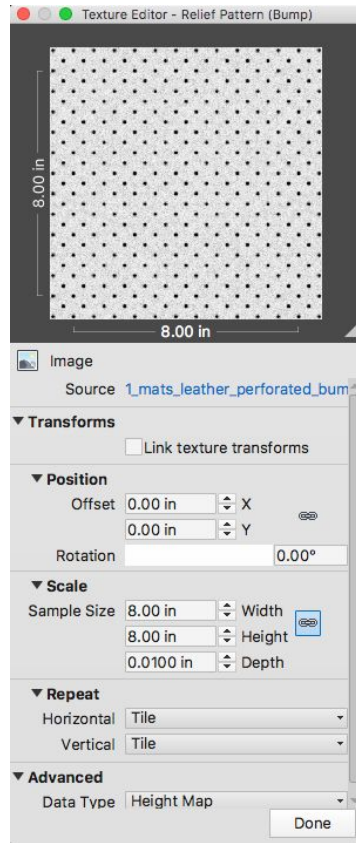
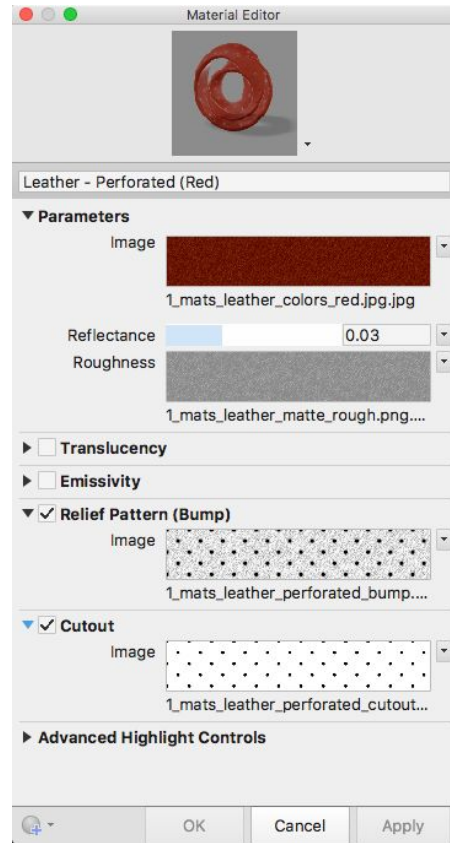
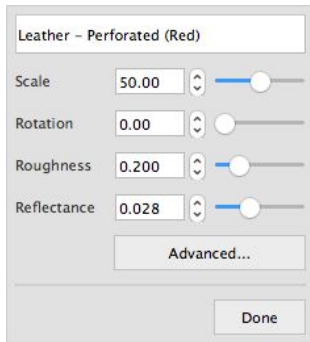


The background of the slide is an abstract, complex wireframe mesh. The mesh is composed of numerous interconnected lines forming a series of irregular, organic shapes that resemble a network or a series of interconnected tubes. The lines are thin and grey, set against a white background. A solid blue horizontal bar spans the bottom third of the image, providing a contrasting background for the text.

# Material Editing

# Material Editing

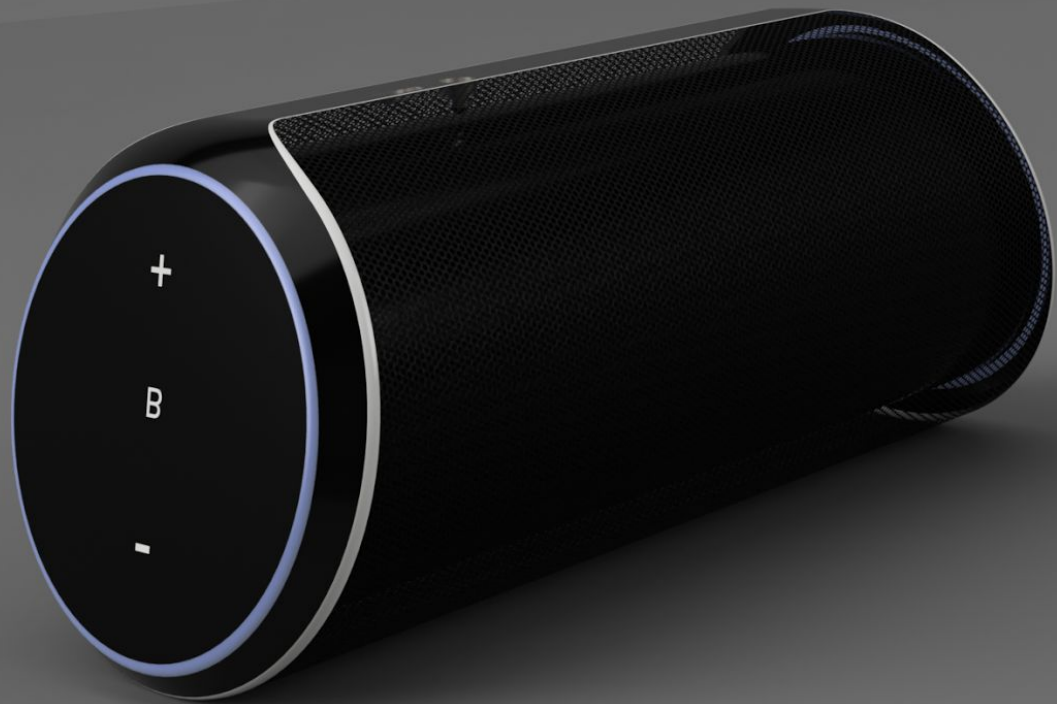
- Best Practices
  - 3 levels of editing
  - Relief patterns are what gives texture
    - Depth controls the amount - 0.01" or below is usually good
  - Color can be dictated by image or RGB

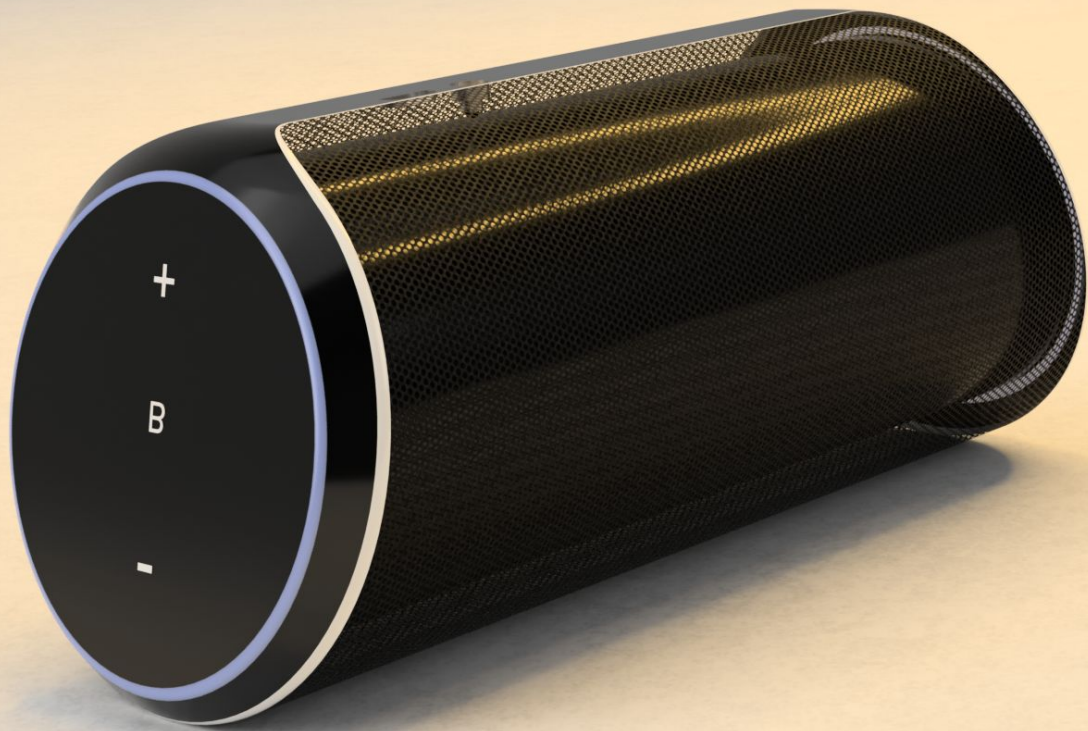


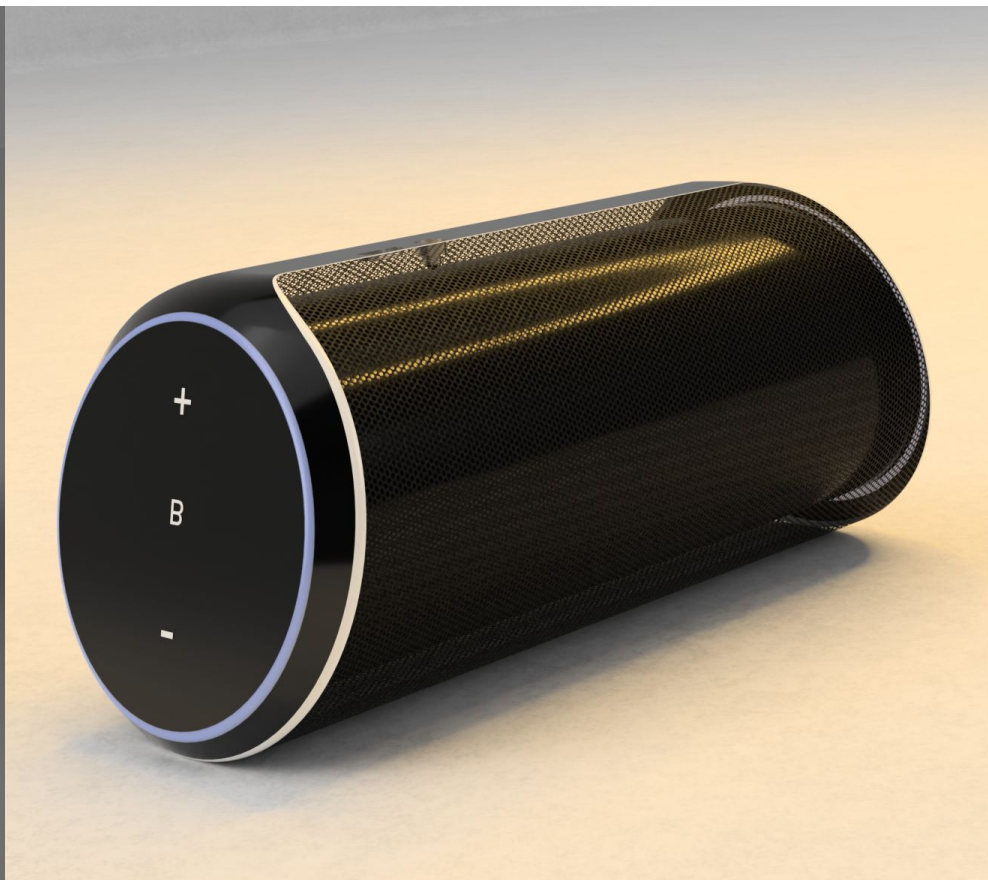
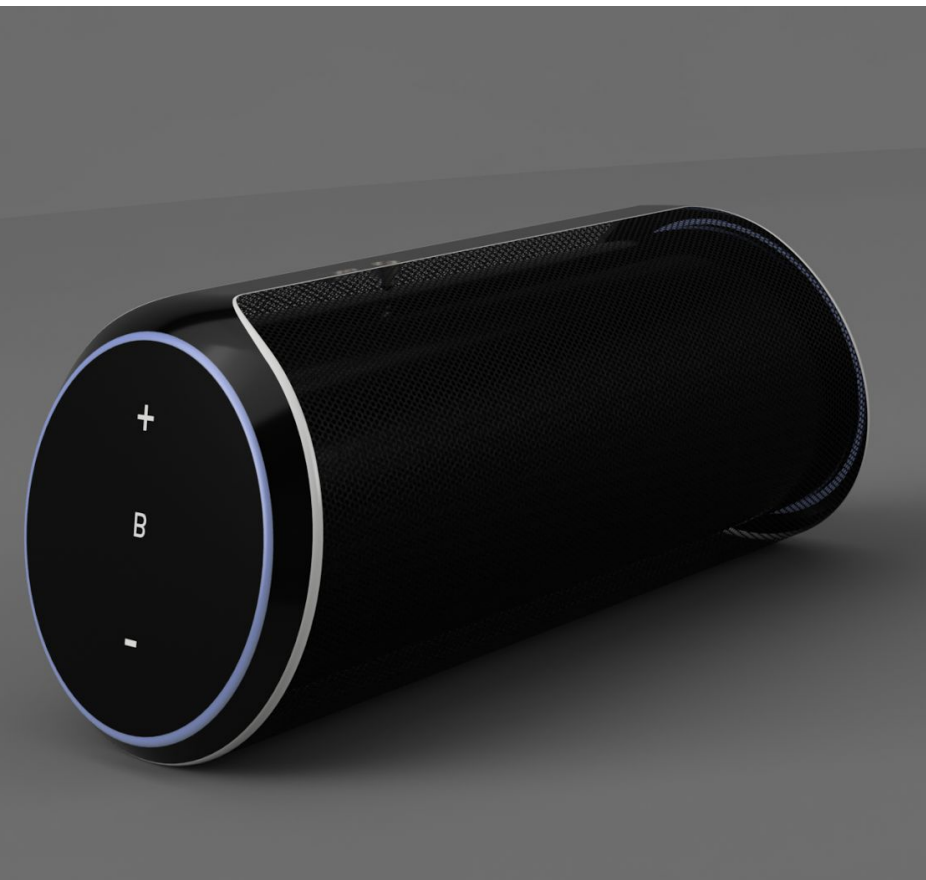
The background features a complex, organic wireframe mesh structure. The mesh is composed of numerous interconnected lines forming a series of irregular, flowing shapes that resemble a network or a series of interconnected tubes. The lines are thin and grey, set against a white background. A solid blue horizontal bar spans the bottom portion of the image, starting from the left edge and extending to the right. The word "Lights" is written in white, sans-serif font on the left side of this blue bar.

Lights



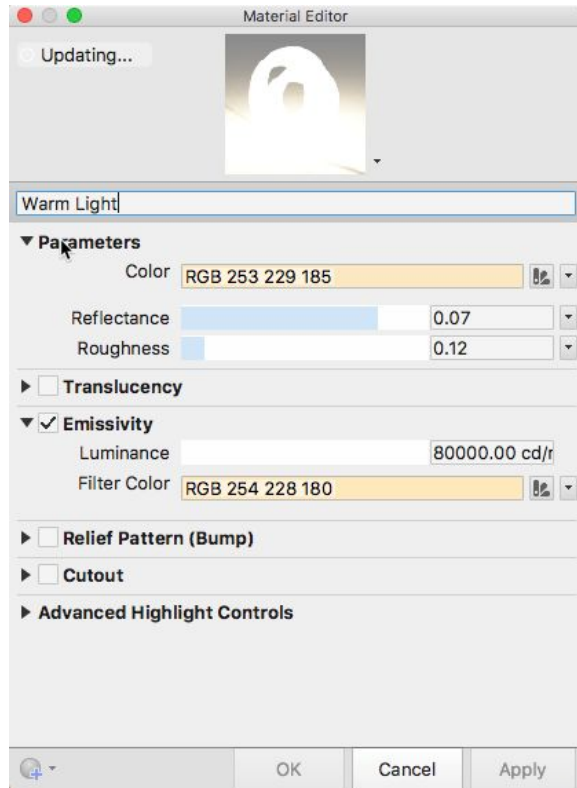


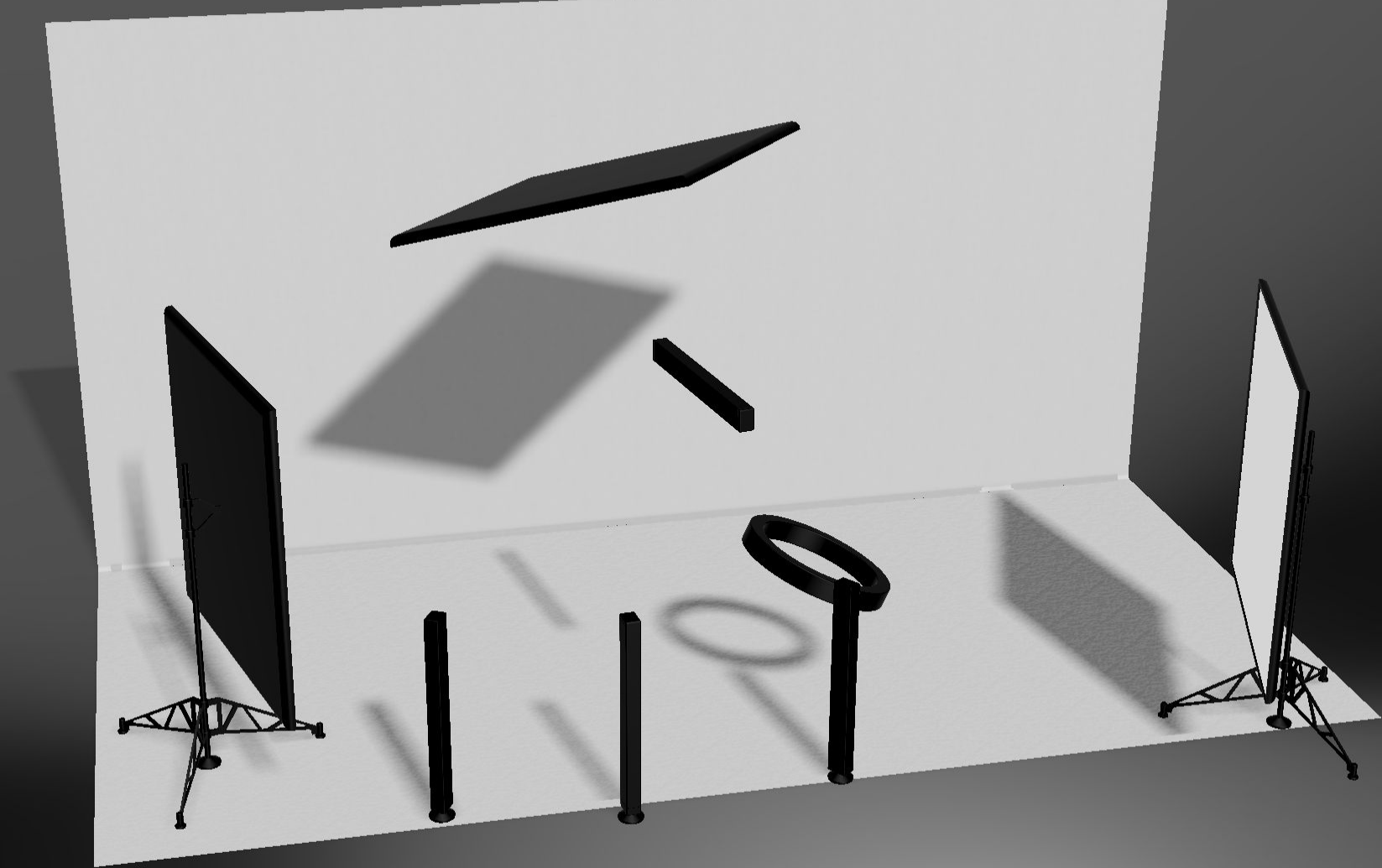




# Lights

- Best Practices
  - Use “Fast” In-Canvas Render to quickly preview lighting effects
  - Use only one face to speed up render time
  - Create a color you like and save to Favorites







An abstract 3D wireframe mesh structure composed of interconnected triangles, creating a complex, organic, and flowing shape. The mesh is rendered in a light gray color against a white background. A solid blue horizontal band runs across the bottom of the image, partially obscuring the mesh. The text "3D Wood" is written in white on this blue band.

# 3D Wood

# 3D Wood

- Best Practices
  - Apply wood, then adjust texture mapping
  - Create bodies/components for each individual part to have realistic mating surfaces



The background of the slide is a complex, abstract wireframe mesh. The mesh is composed of numerous interconnected lines forming a series of irregular, organic shapes that resemble a network or a cellular structure. The lines are thin and grey, set against a white background. A solid blue horizontal bar spans the bottom portion of the image, providing a contrasting base for the white text.

# Turntables

# Turntables

- Best Practices
  - Center of rotation is center of mass of ALL bodies in scene
  - Render a low res version first

Render Settings – Turntable

WEB

MOBILE

CUSTOM

Image Size

960x640, 3.7 MP

Width

960 px

Aspect Ratio

Custom Aspect Ratio

Height

640 px

FRAMES

6 frames

36 frames

RENDER QUALITY

Standard

Final

CLOUD CREDITS

FAQ

2

Required

7677

Available

7675

Left

RENDER QUEUE TIME:

< 20 minutes

Render



The background of the slide is a complex, abstract wireframe mesh. The mesh is composed of numerous interconnected lines forming a series of irregular, organic shapes that resemble a network or a series of interconnected tubes. The lines are thin and grey. A solid blue horizontal bar spans the bottom third of the image, providing a contrasting background for the text.

# Motion Studies



# Motion Studies

- Best Practices
  - Render a low res standard one first to make sure framing is correct
  - Name your motion studies
  - Create joints between root component to move camera

Render Settings – Motion Study

Motion Study

Motion\_Study\_MotionStud...

Render Quality

Standard

Image Size

960x640, 62.1 MP

CLOUD CREDITS

[FAQ](#)

16

Required


7677

Available

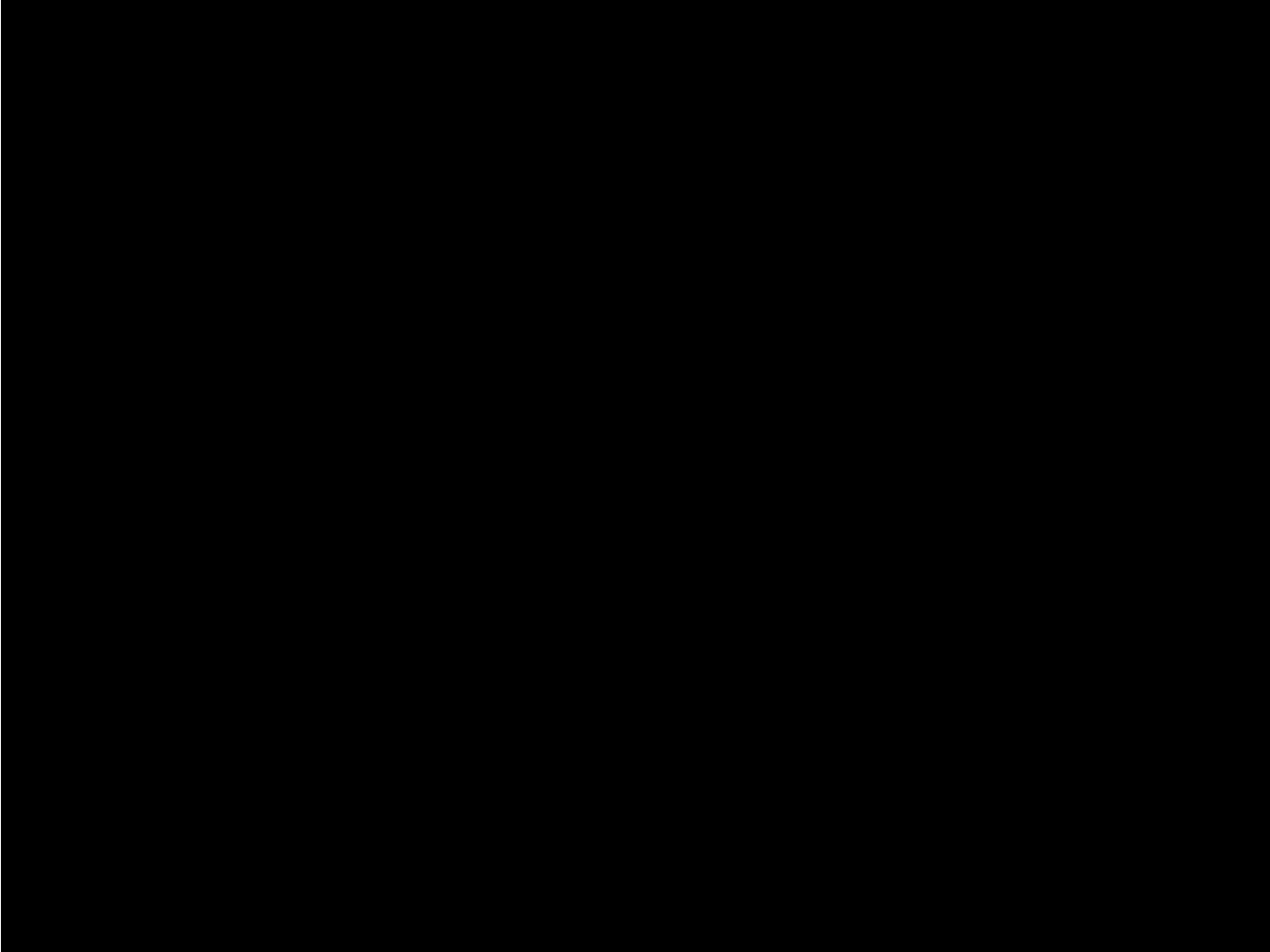
7661

Left

RENDER QUEUE TIME:

 < 20 minutes

Render





# Nested Dielectrics

# Nested Dielectrics

- Best Practices
  - Overlap geometries slightly
  - Lower priorities are deemed more important
  - In this case, the glass is 0, the ice is 1, and the liquid is 2



The background of the slide features a complex, abstract wireframe pattern. This pattern consists of numerous interconnected lines that form a mesh of irregular polygons, creating a three-dimensional, organic structure that resembles a network or a series of flowing, interconnected tubes. The lines are thin and grey, set against a plain white background. A solid blue horizontal bar spans the bottom portion of the slide, providing a contrasting base for the text.

Questions and Feedback



**PRESENTATION FINISHED**

**ANY QUESTIONS?**

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