

KEYSHOT RENDER QUALITY

How to Improve Quality
Without Increasing Rendering Time

RENDER QUALITY

- Render Size
- Lighting Presets
- Samples
- Denoise
- Transparency



31 seconds, 32 samples
800 × 600 × 100 dpi



2:31 seconds, 32 samples
2400 × 1800 × 300 dpi

RENDER SIZE

Keynote or PowerPoint presentation do not require high-resolution images

SCREEN RESOLUTION

Measure size in pixels

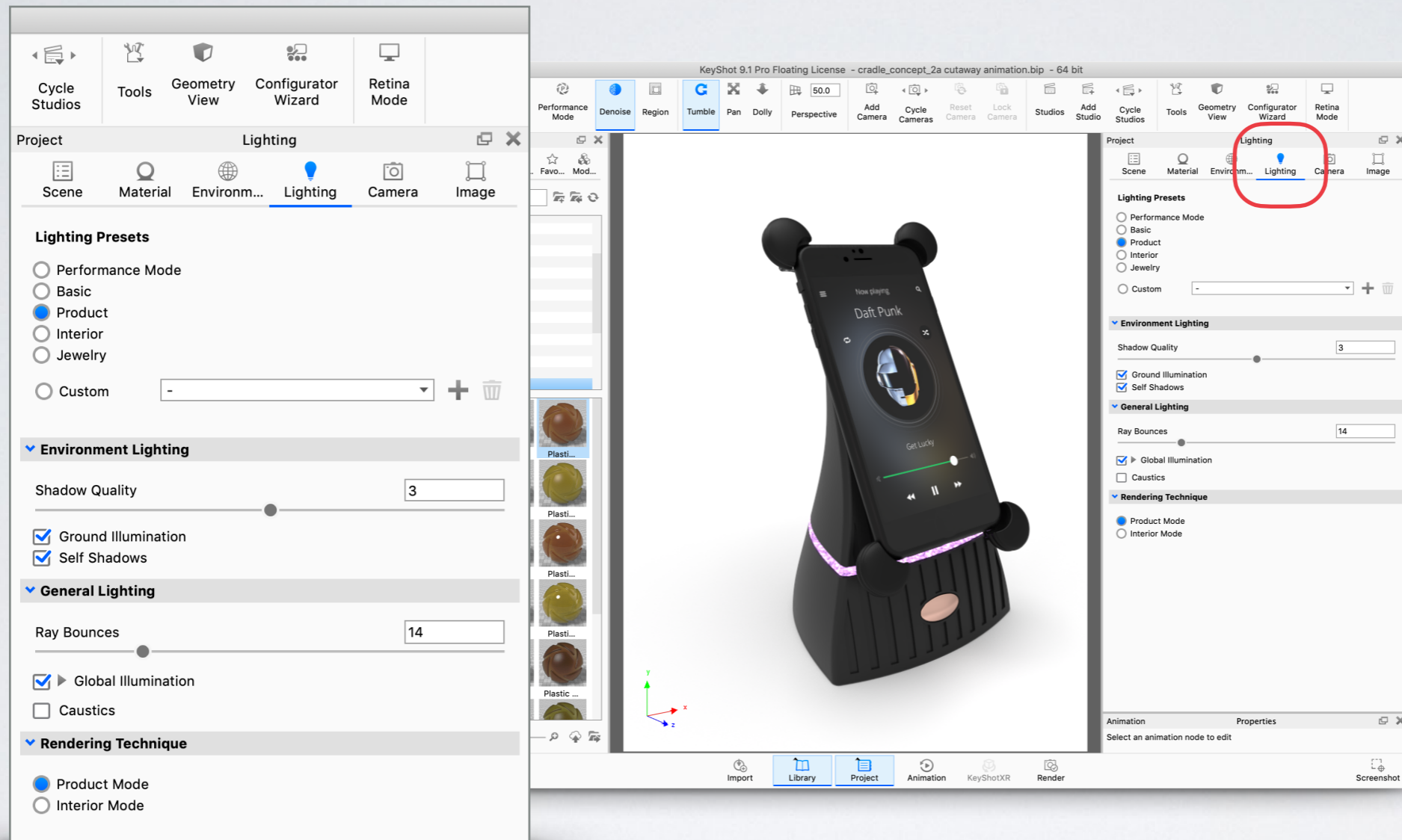
(800 × 600)

Pixel Per Inch (dpi)

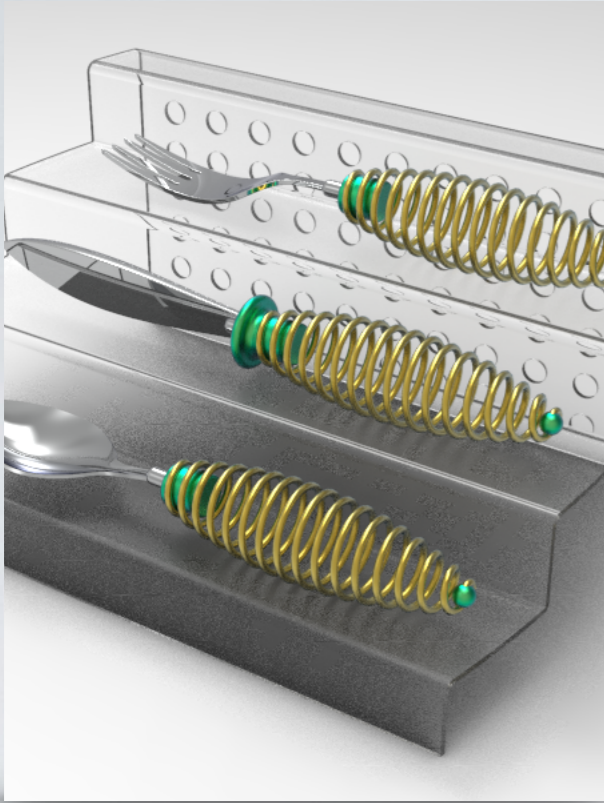
100 pixels



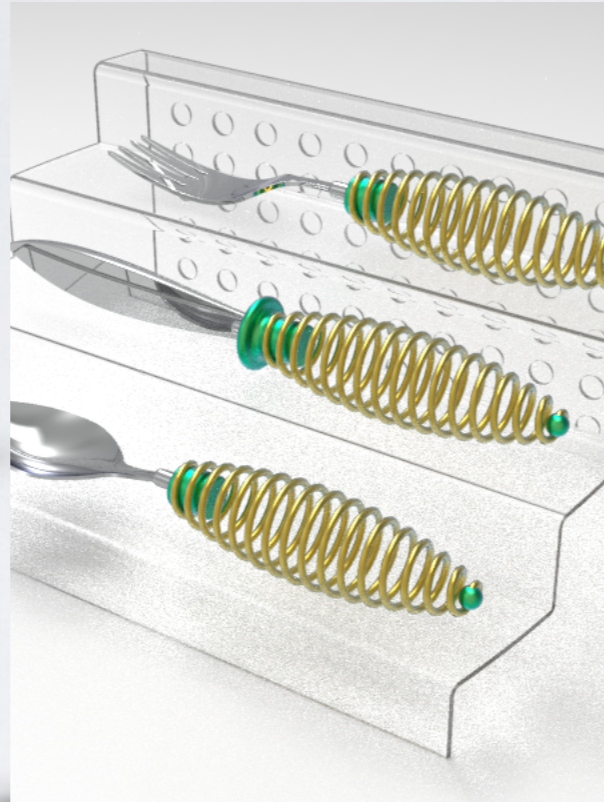
LIGHTING PRESENTS



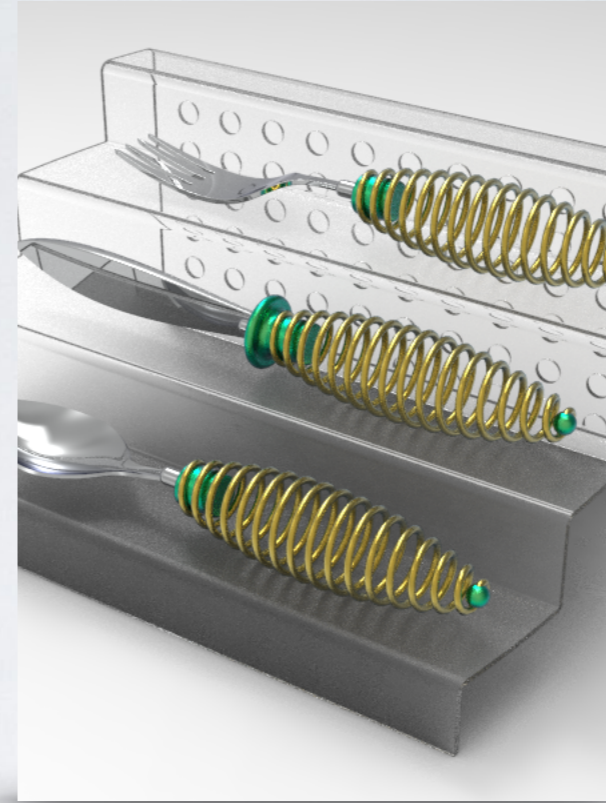
Make sure the Lighting mode is set to match scene



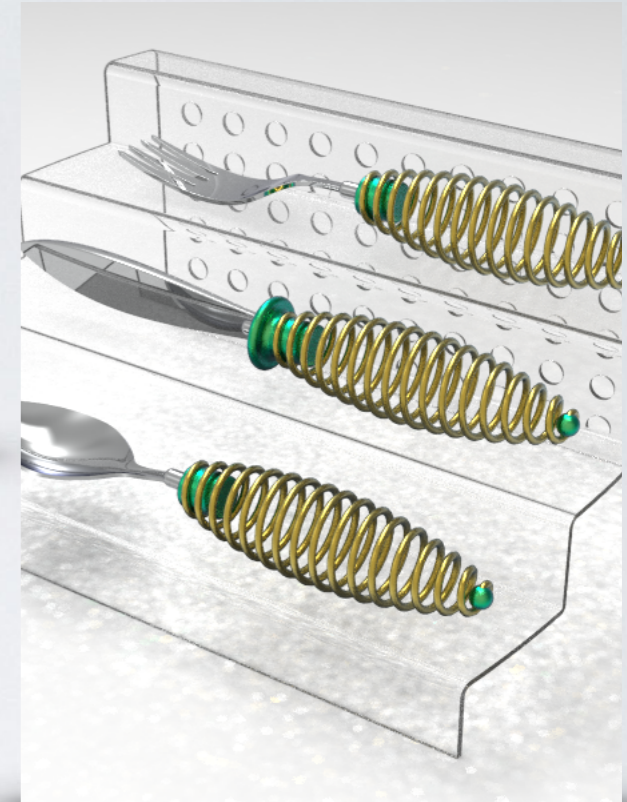
Basic



Product



Interior



Jewelry

LIGHTING PRESETS

Use the lighting preset that is best for situation



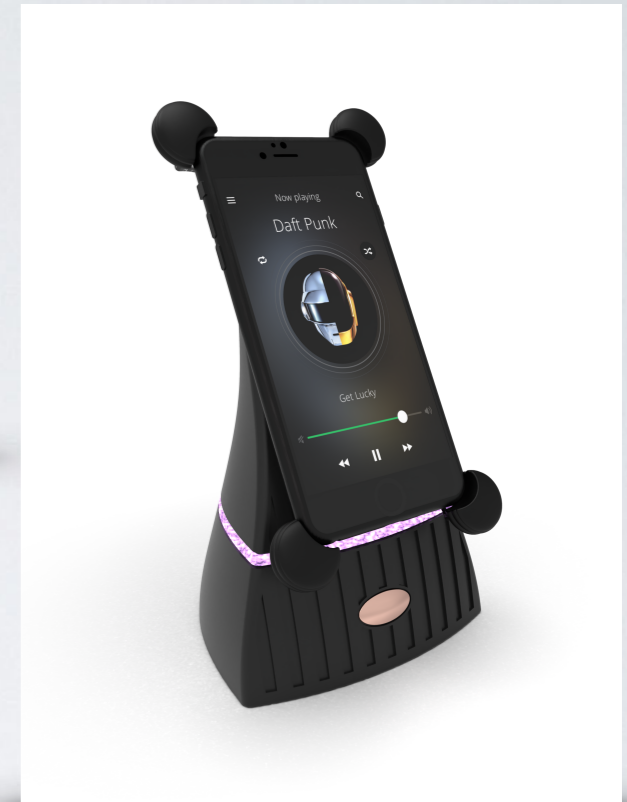
Basic 68 secs



Product 153 secs



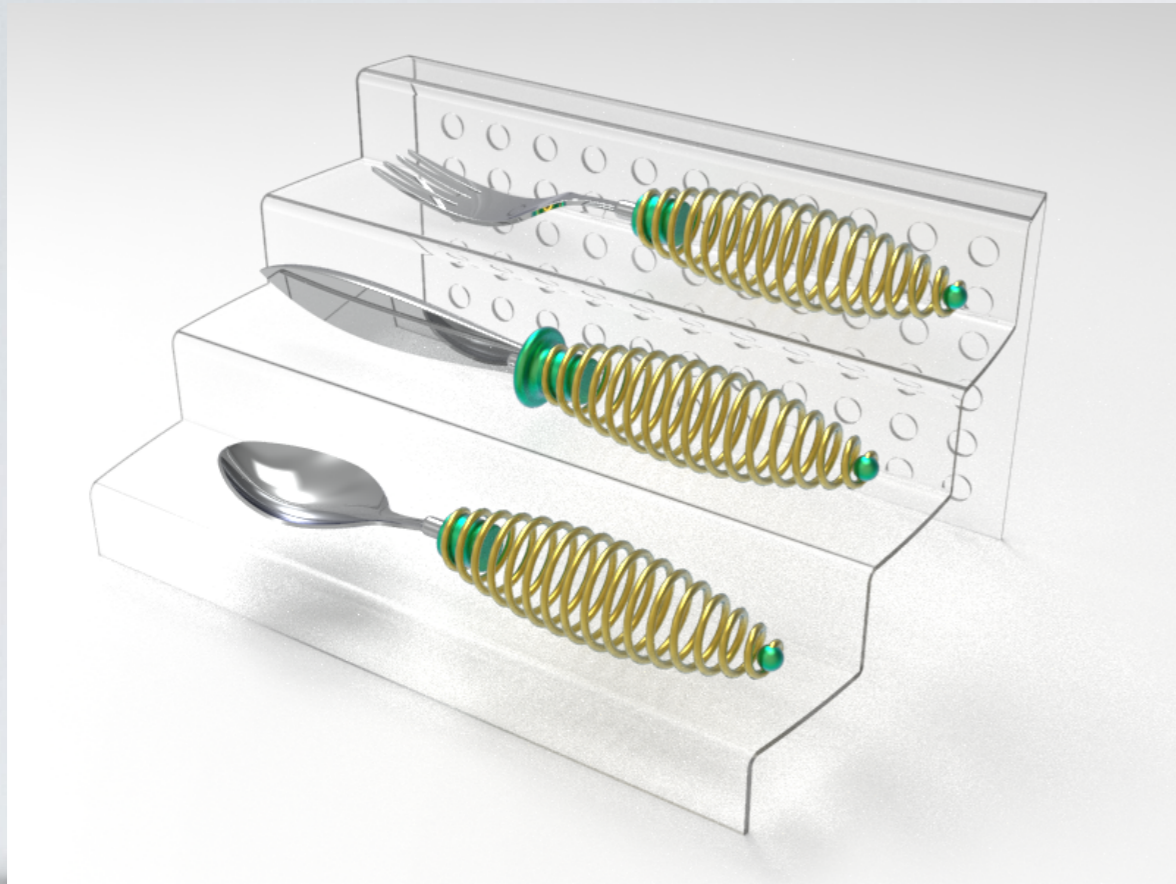
Interior 96 secs



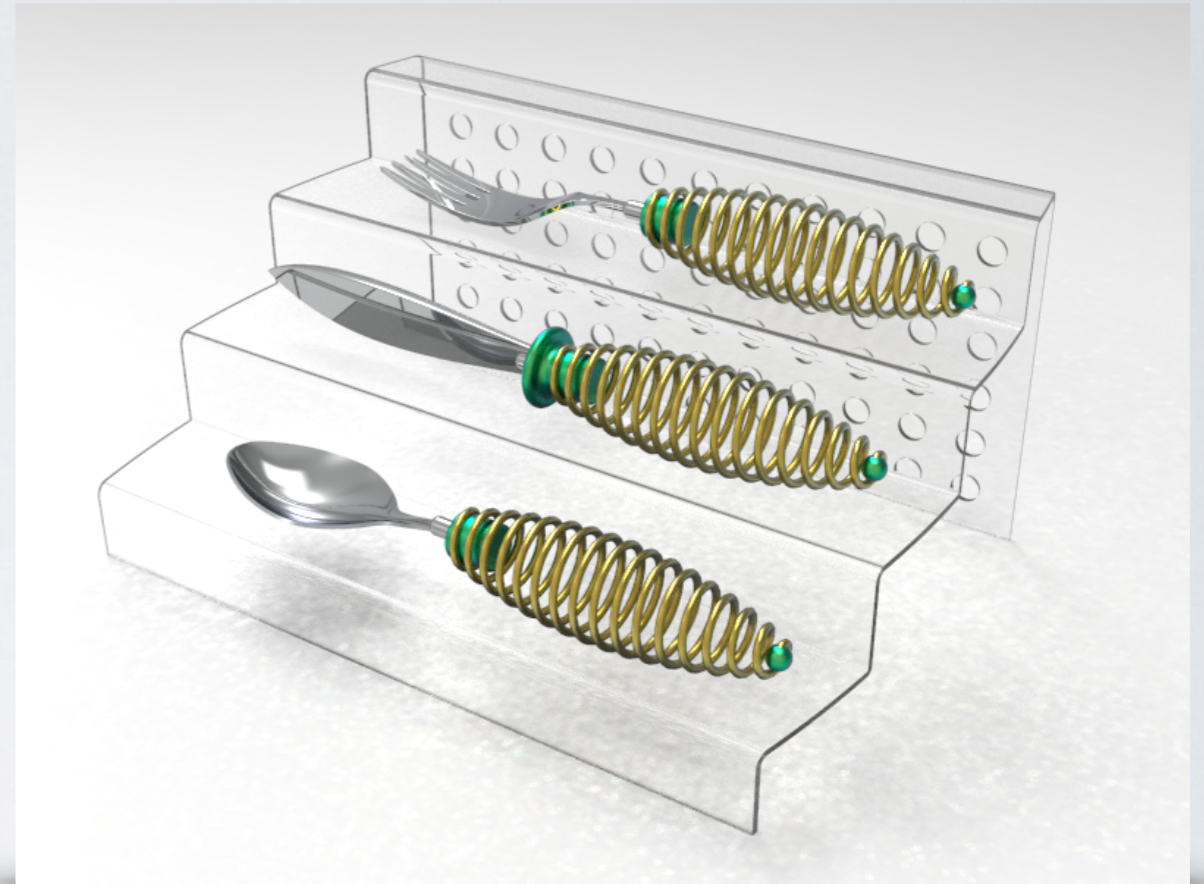
Jewelry 151 secs

LIGHTING PRESETS

Use the lighting preset that gives the best results
in the shortest time



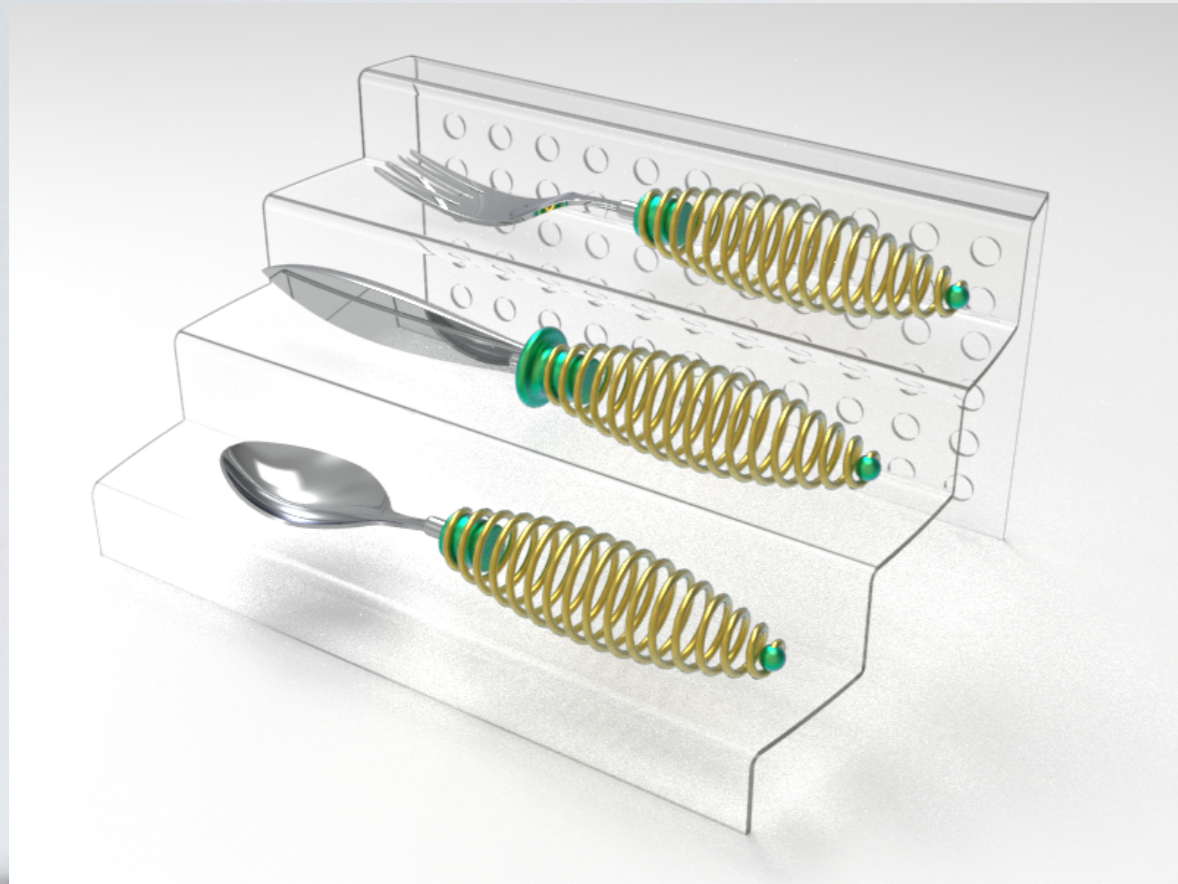
Product Preset, 128 Samples



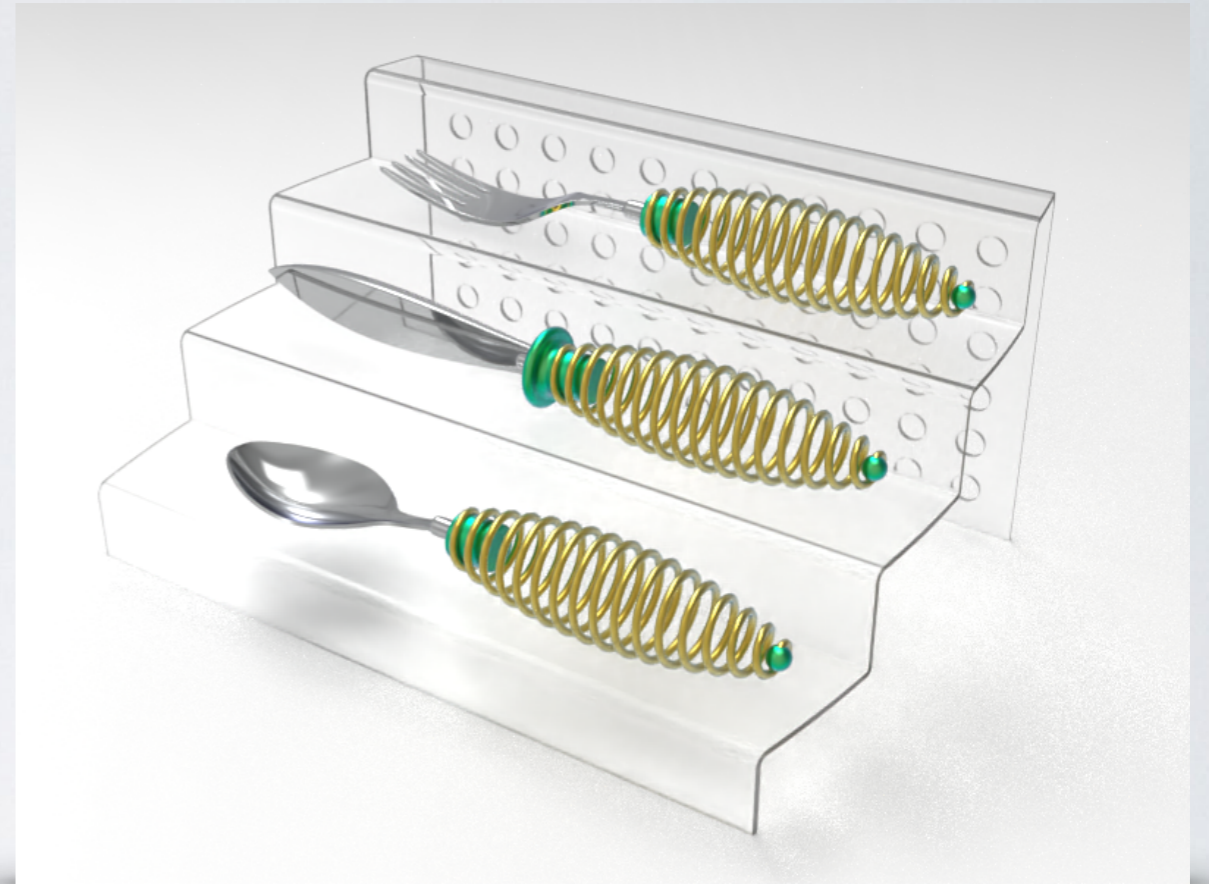
Jewelry Preset, 128 Samples

LIGHTING PRESETS

Using the “higher” preset does not always give a better result, even with more samples



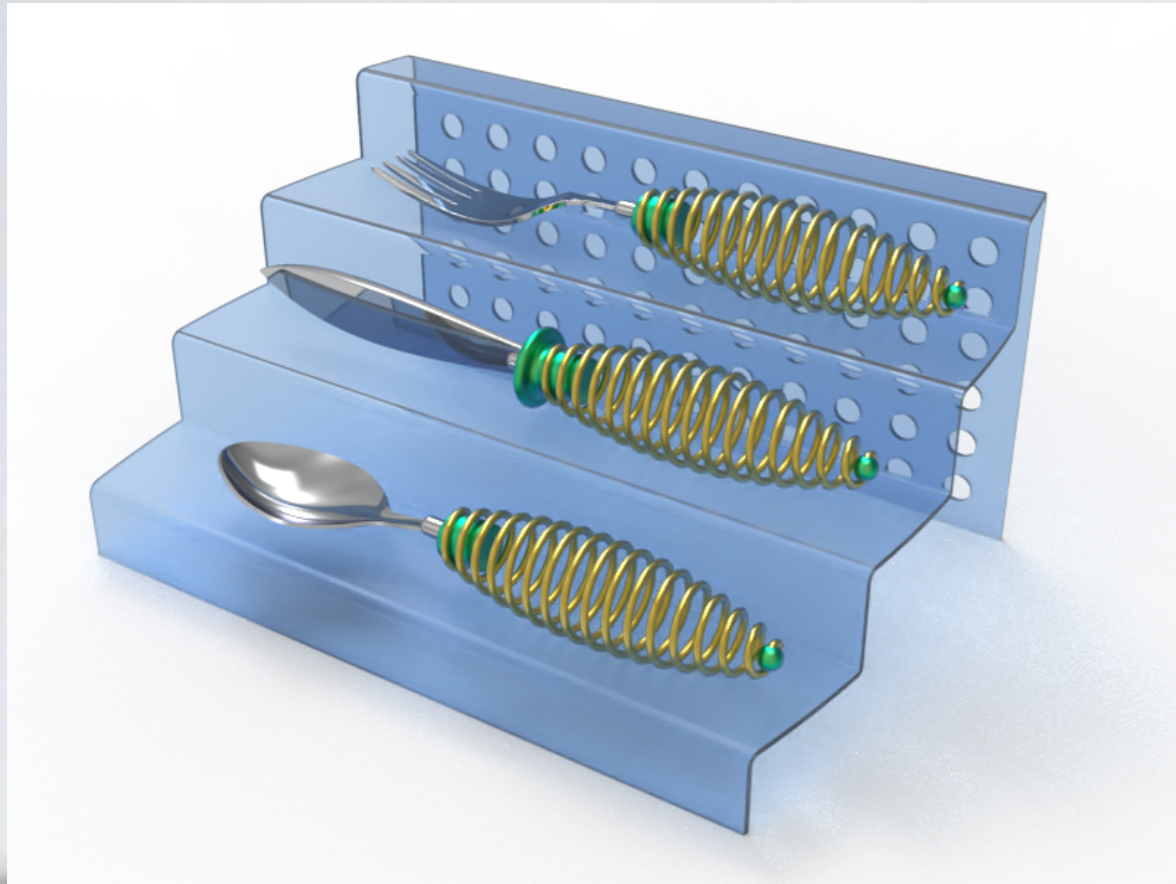
Product Preset, 128 Samples



Product Preset, 32 Samples, Denoise

LIGHTING PRESETS

Using other settings, like the magic Denoise, and lower samples gives better results



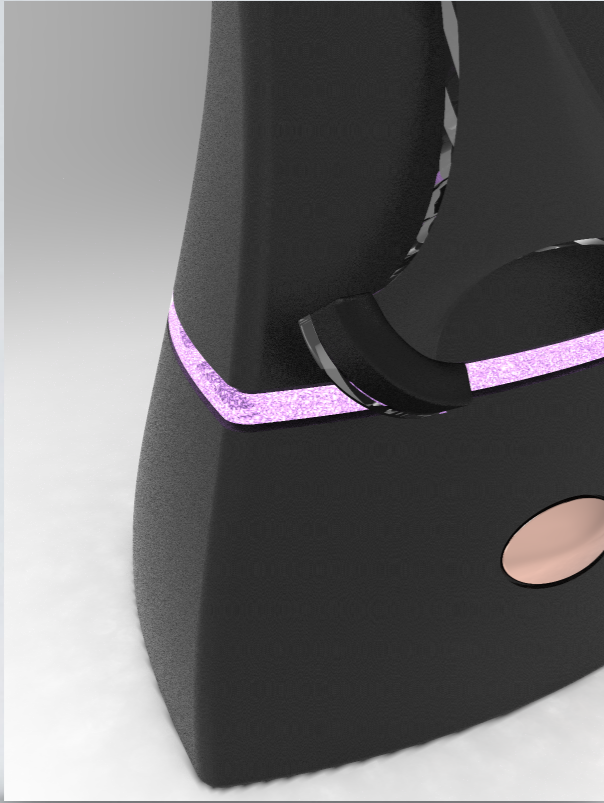
Product Preset, 32 Samples, Denoise



Product Preset, 32 Samples

LIGHTING PRESETS

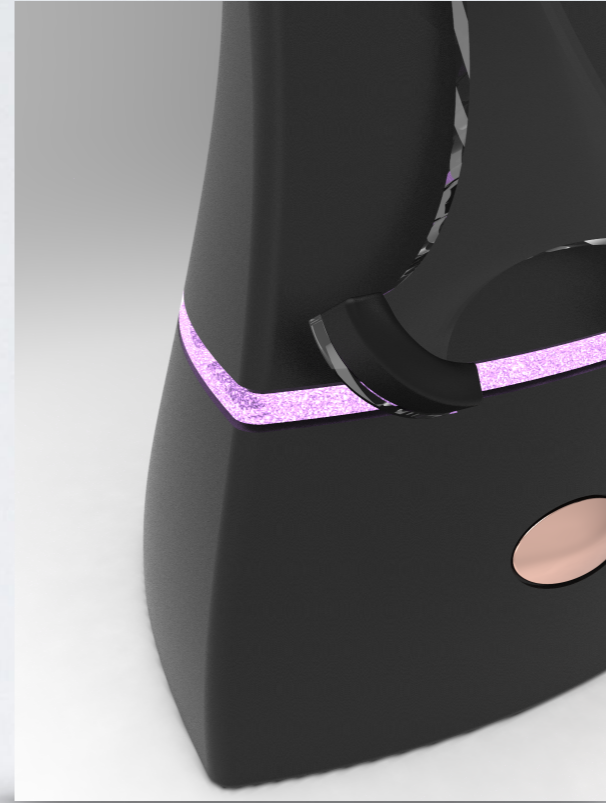
Denoise can give good results for specific materials



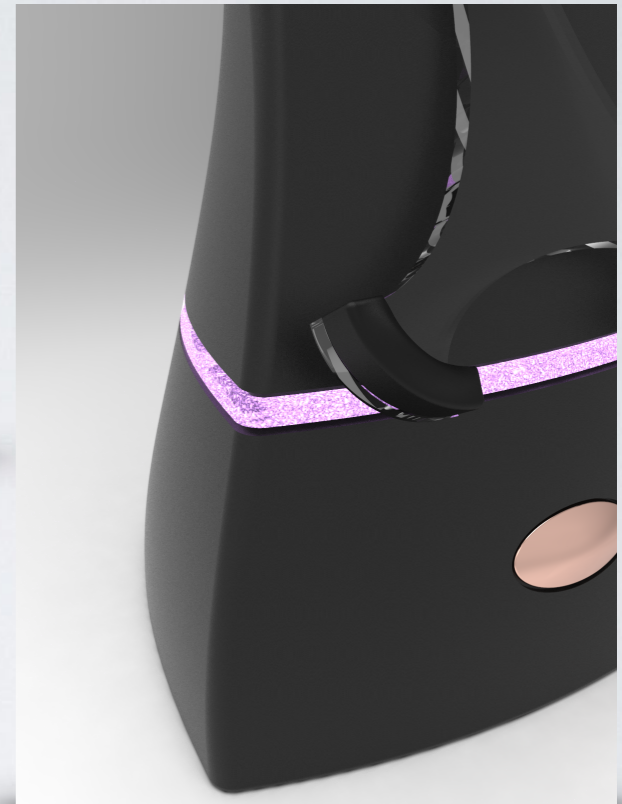
4 Samples



8 Samples



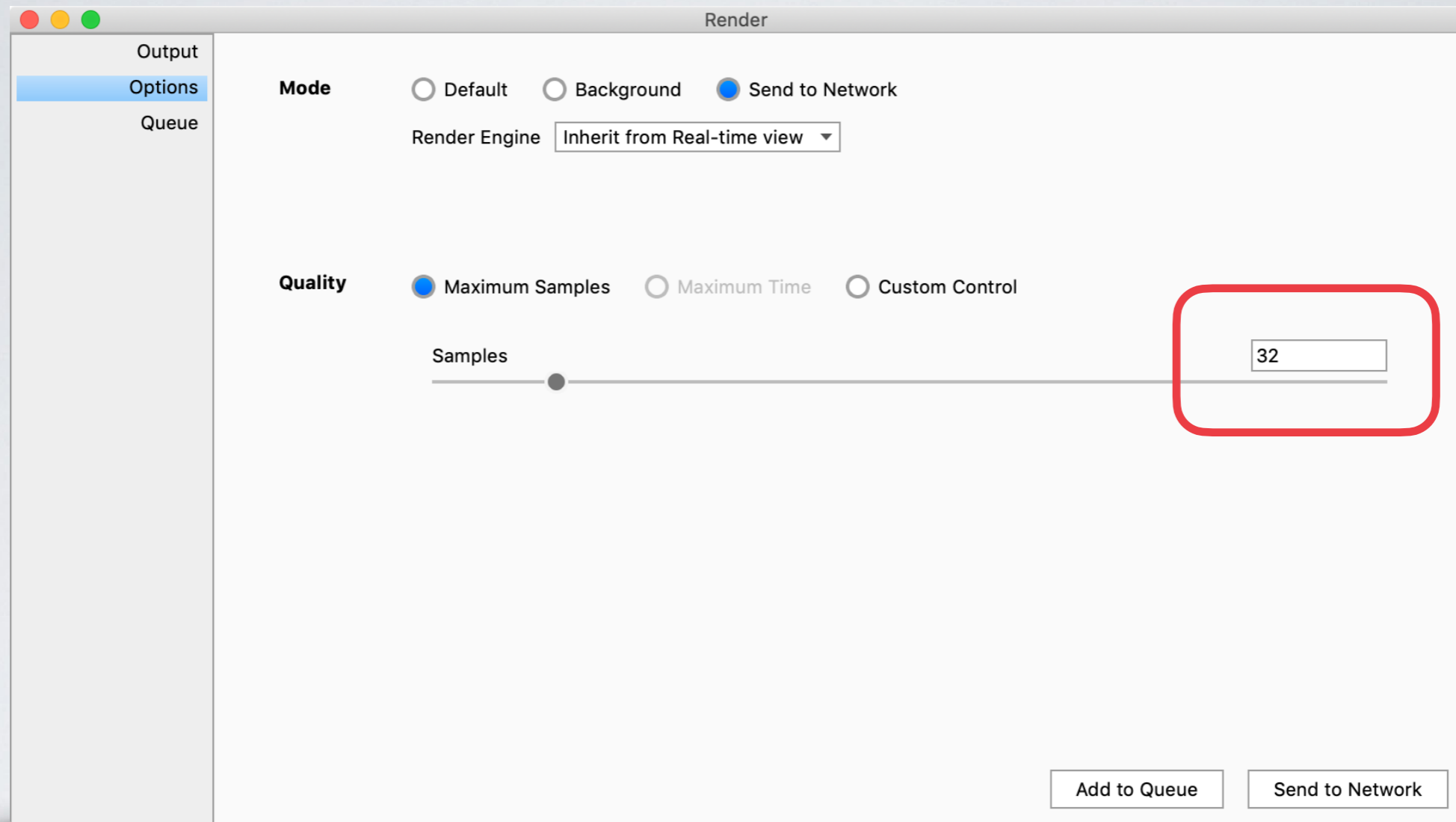
16 Samples



32 Samples

SAMPLES

Use the minimum amount but look for issues



SAMPLES

Samples is a Rendering setting and set through the
Render > Options panel > Max Samples.
Use this option when using Network rendering as shown above.

Frames Per Sec:	35.3
Time:	53s
Samples:	95
Triangles:	820,402
NURBS:	332
Res:	600 x 800
Focal Length:	50.0
Denoise:	Idle (1s)



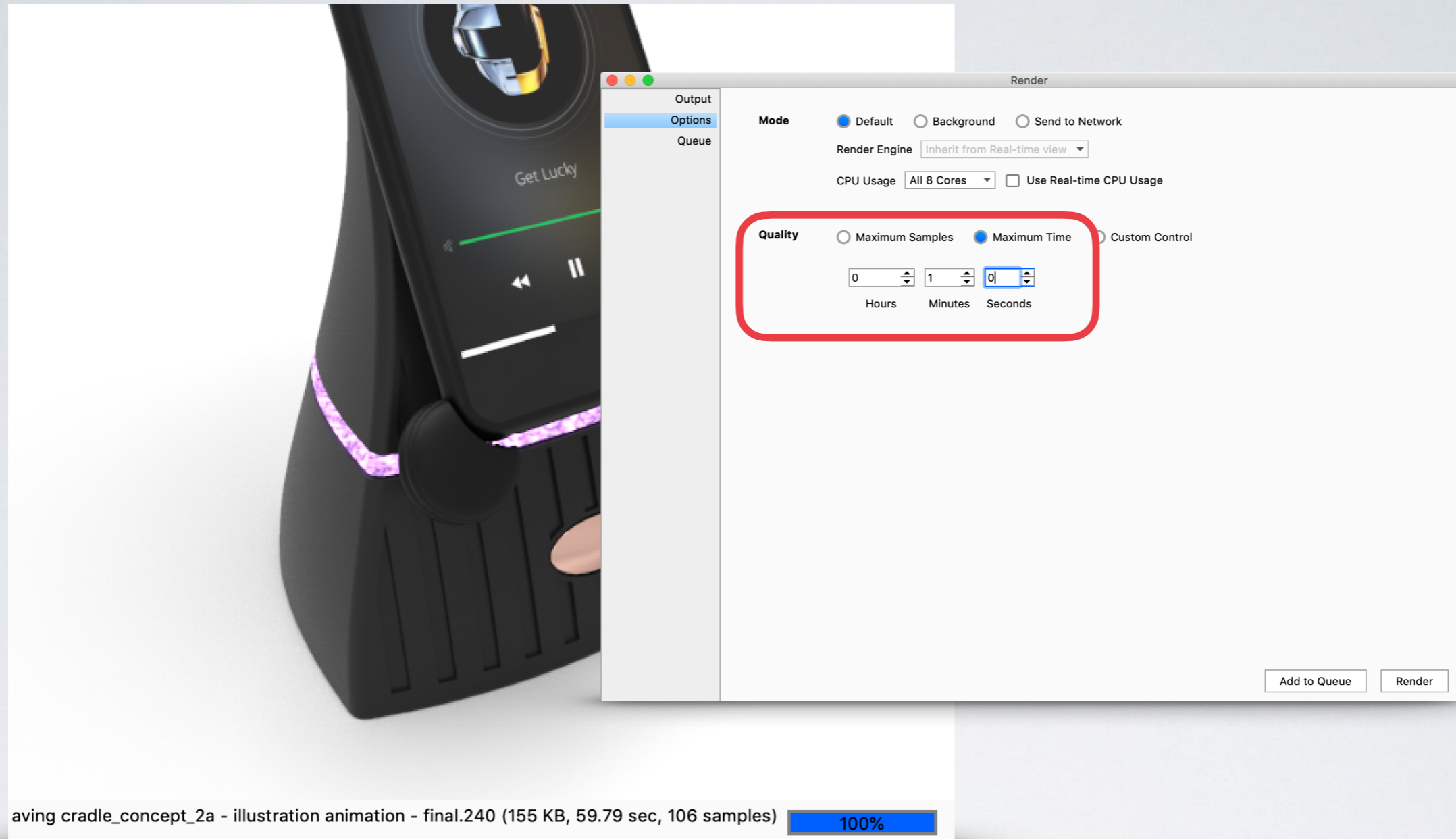
HOW TO DETERMINE SAMPLES - METHOD 1

Turn on Heads Up Display (H) and let interactive render settle.
Notice the Samples rate when render looks appropriate



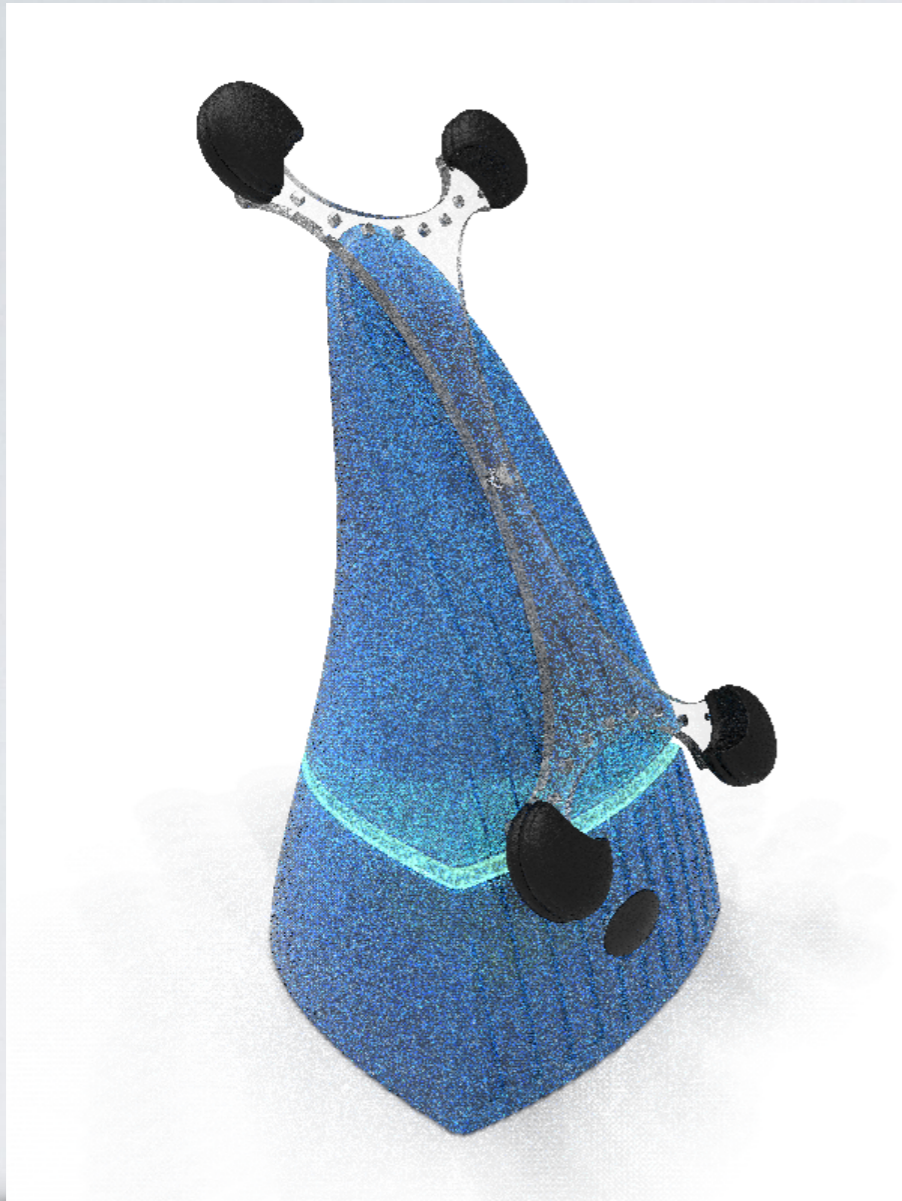
HOW TO DETERMINE SAMPLES - METHOD 2

Turn on Render Region and let interactive render settle. Notice the Samples rate when render looks appropriate. Move Render Region around to view different areas.

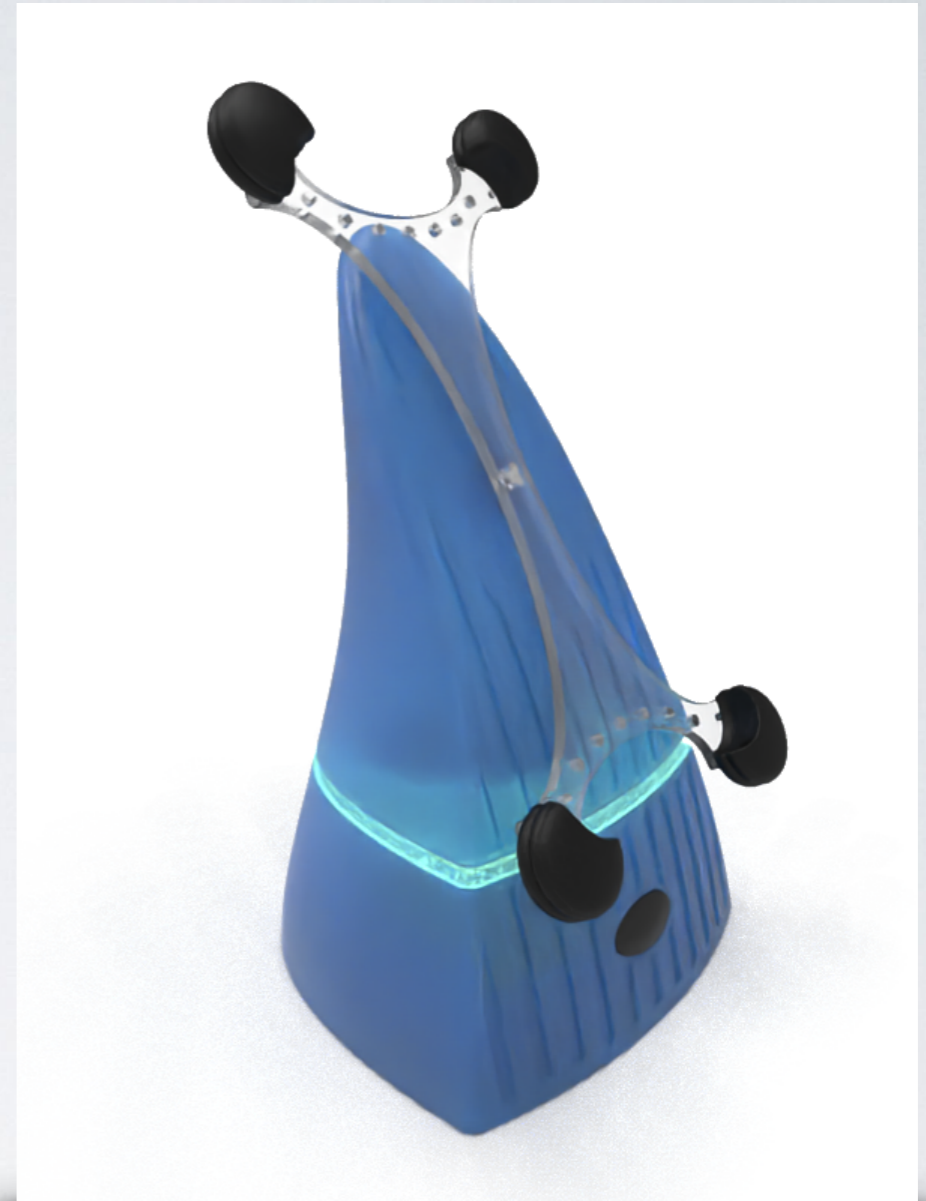


HOW TO DETERMINE SAMPLES - METHOD 3

Render locally in Default mode with Max Time set to different values. Check the sample rate at the end. Use this for Send to Network option.



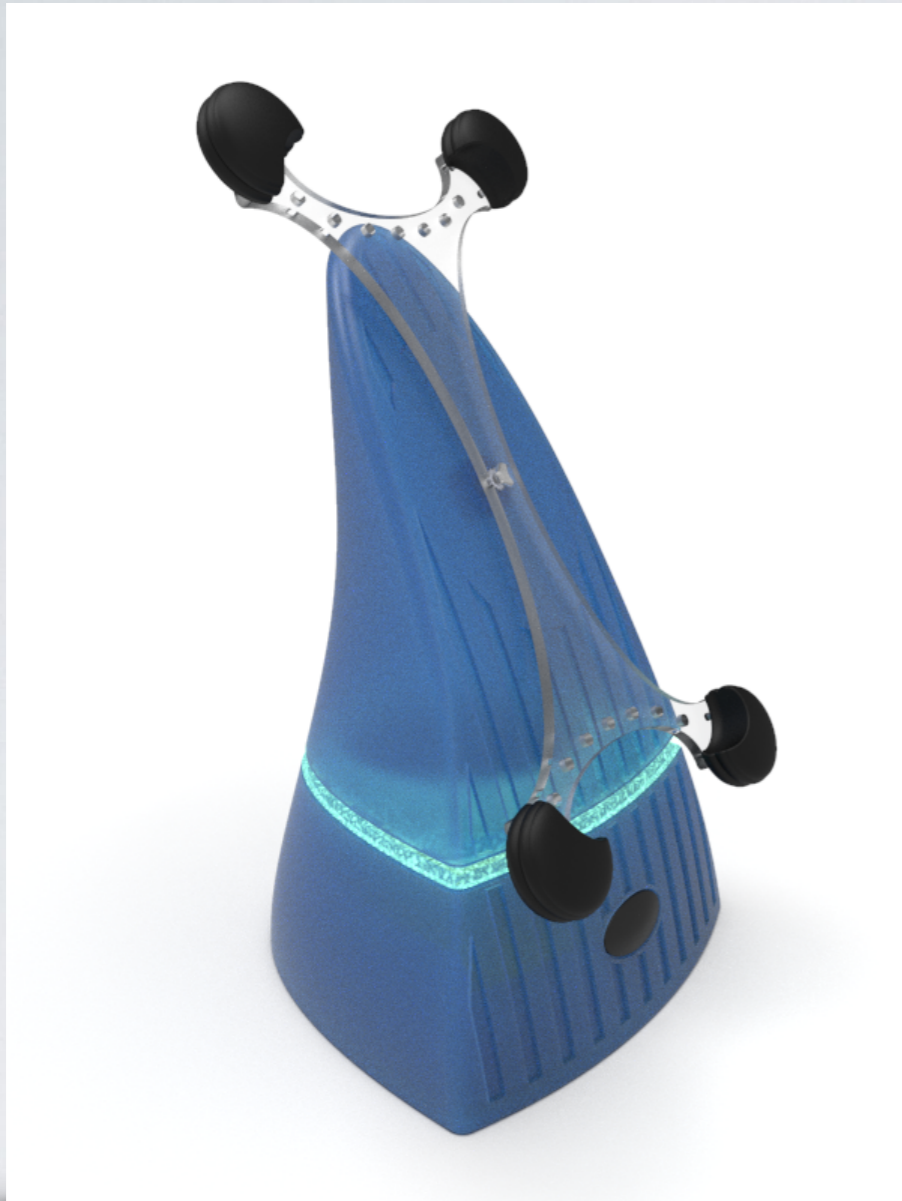
Not turned on



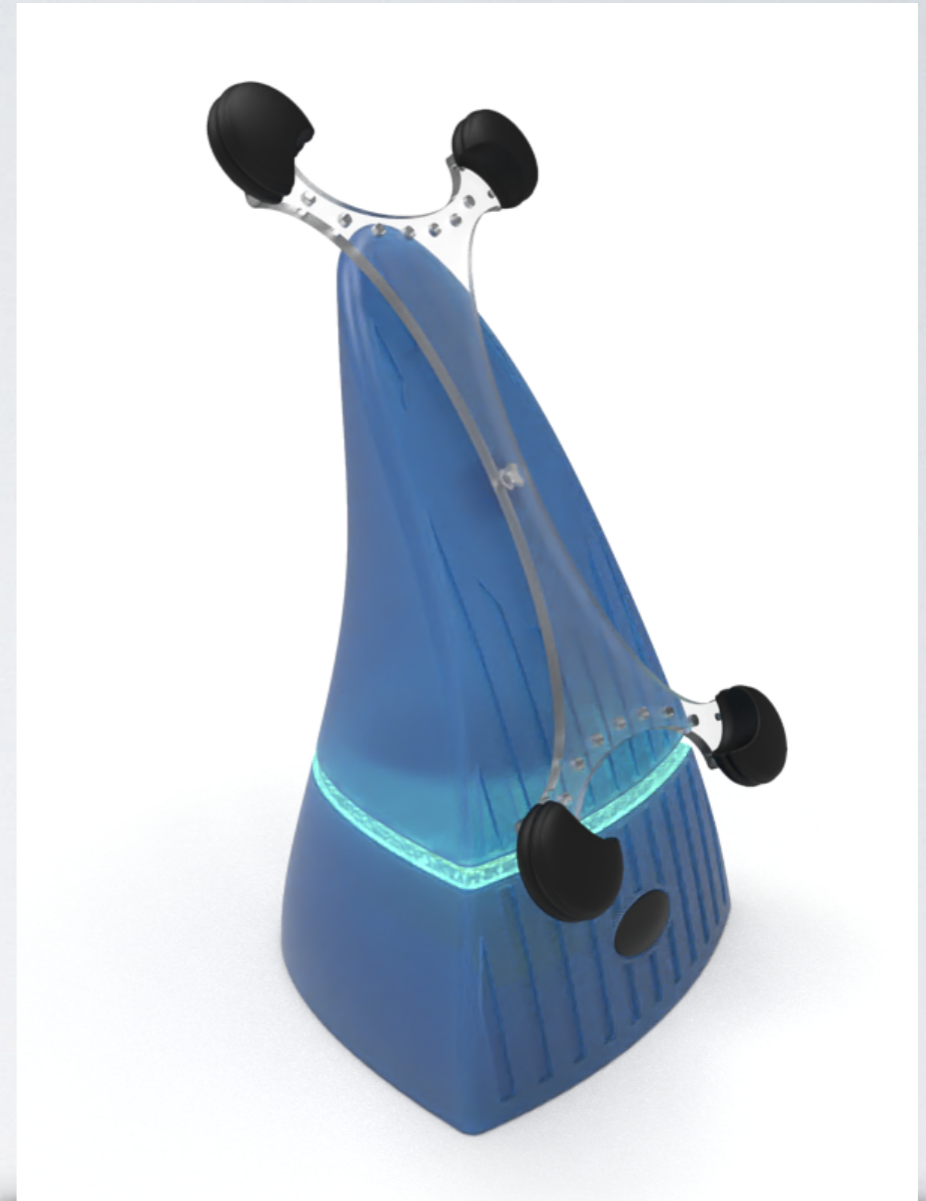
Applied after 5 secs

DENOISE

Used during iterative phase



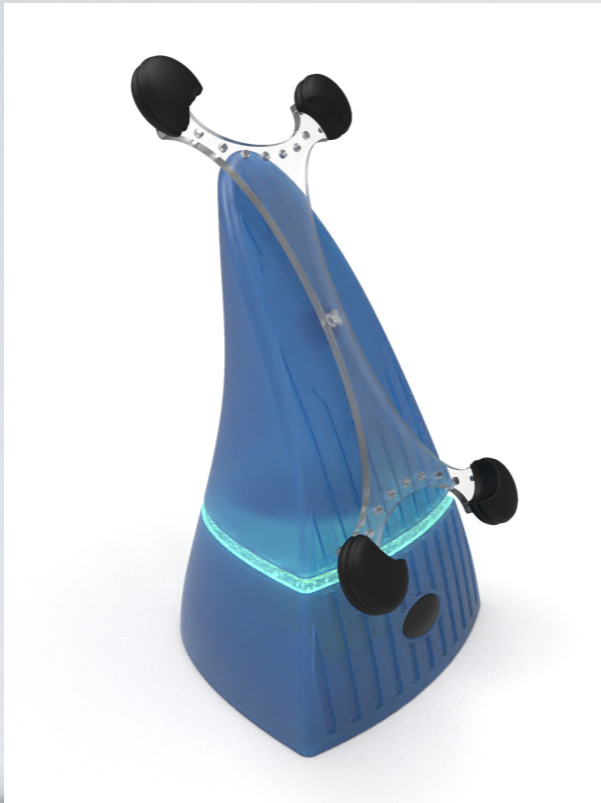
Not turned on, 128 samples



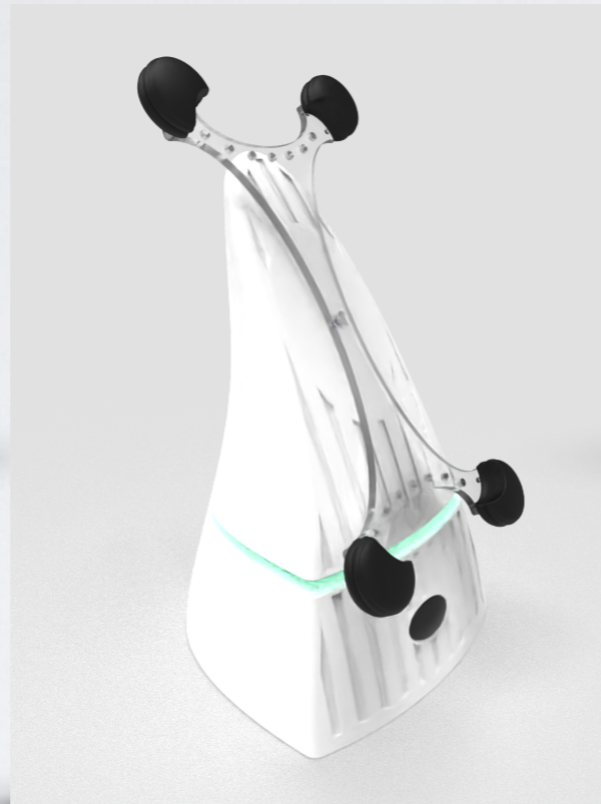
Applied, 32 samples

DENOISE

Used during rendering



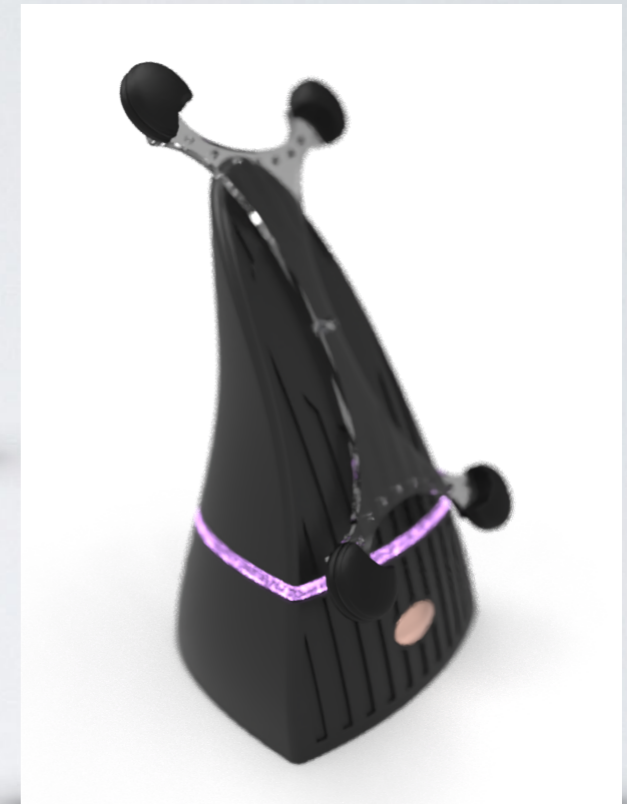
Cloudy Material



White Material



Scatter Material



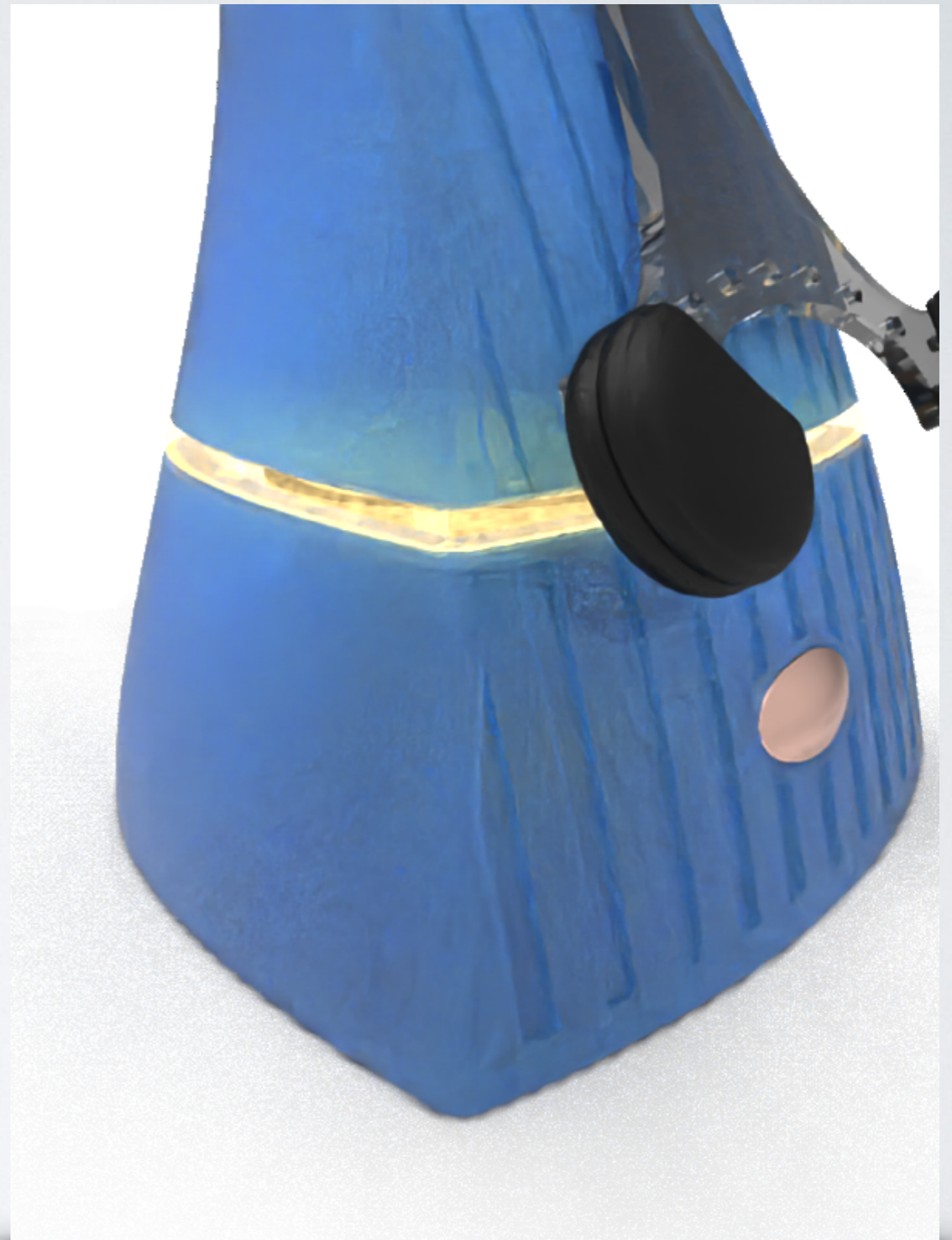
Depth of Field

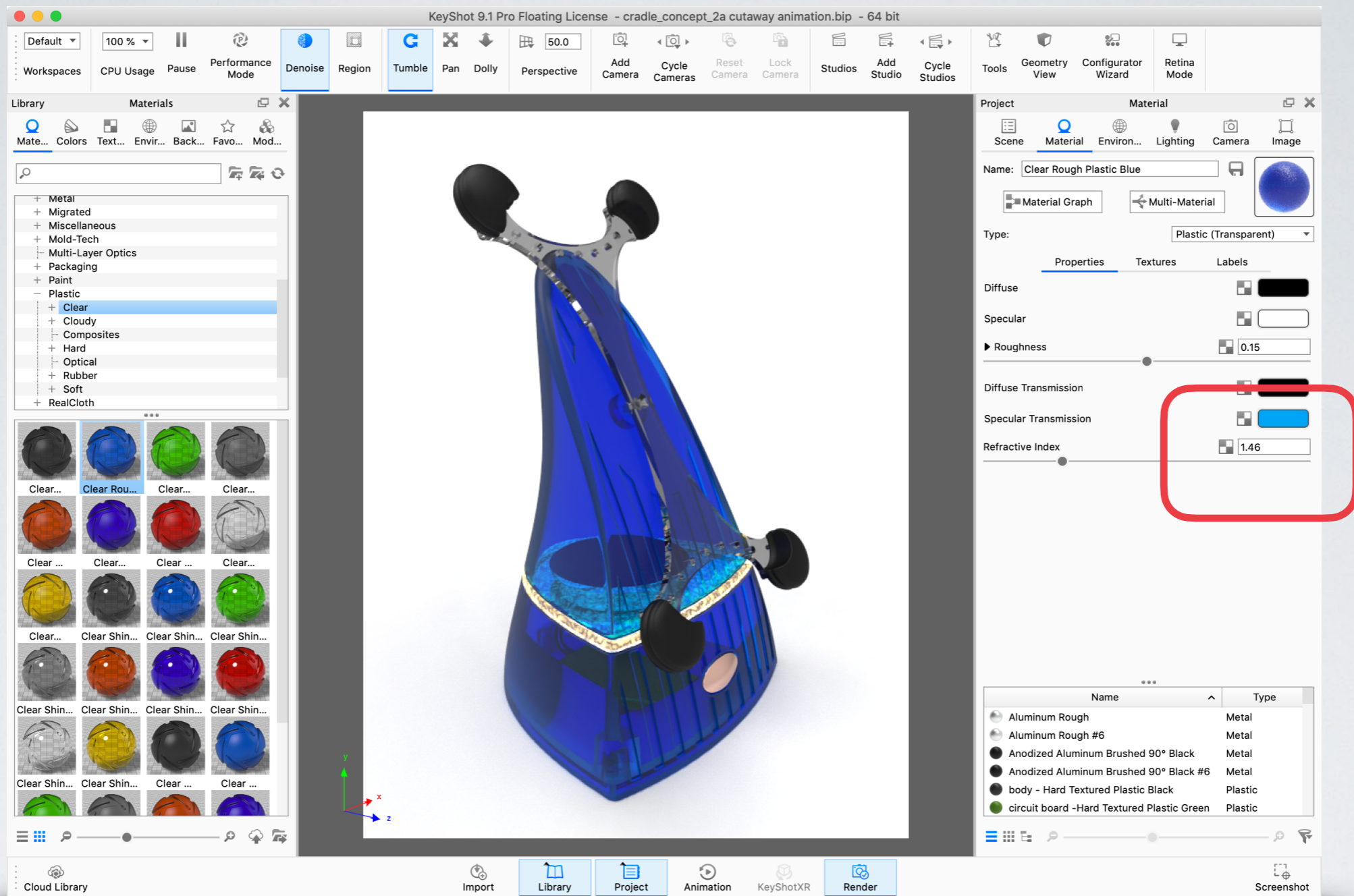
DENOISE

Best for these situations

DENOISE

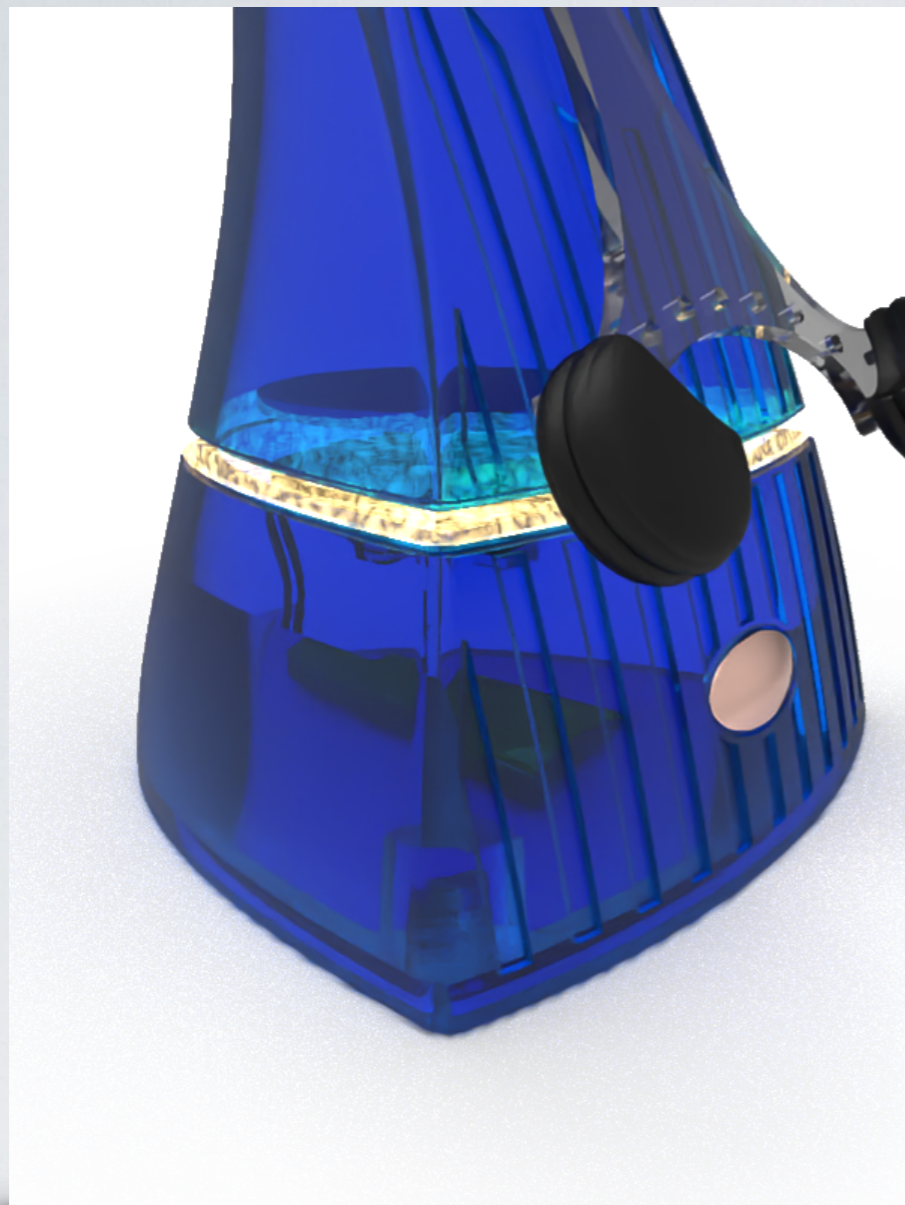
Does not effect quality of
shadows



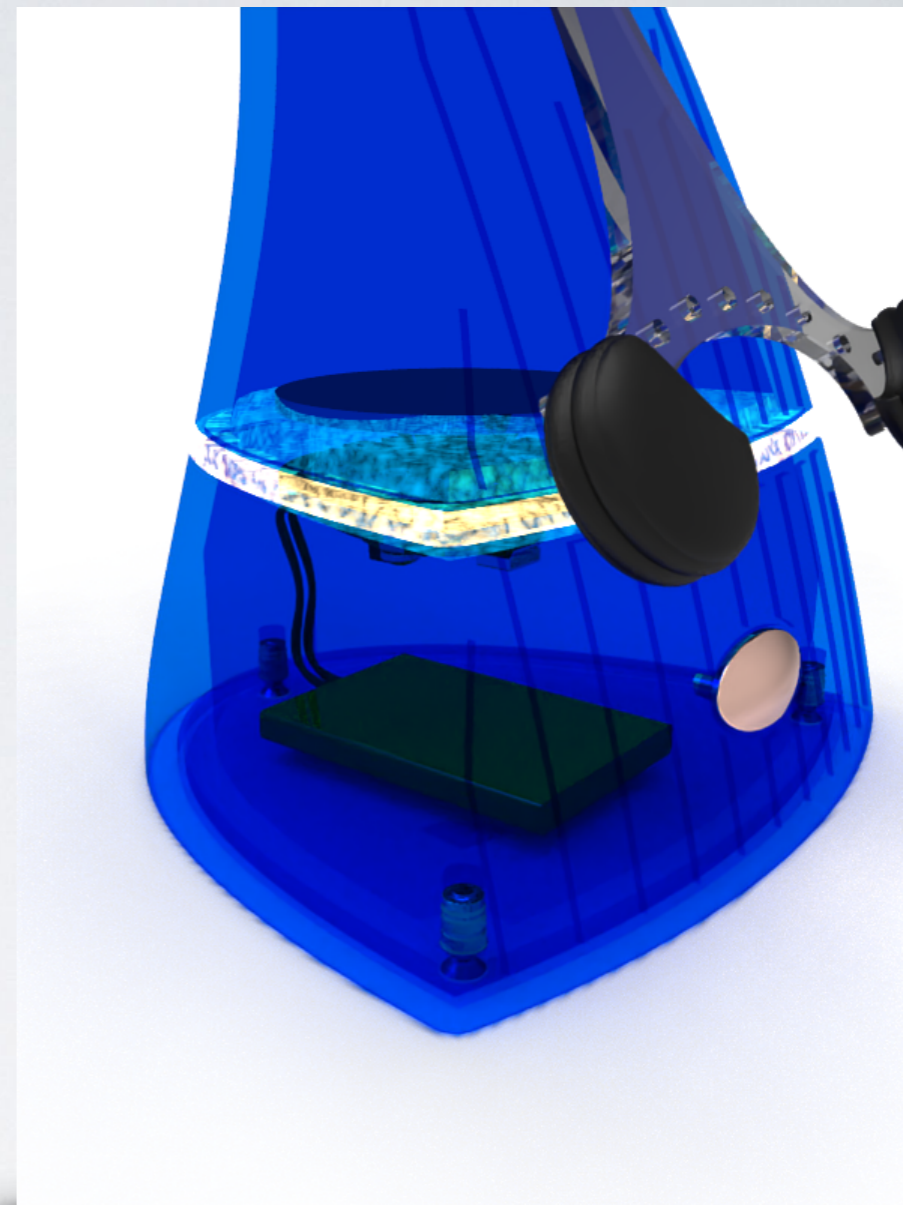


TRANSPARENCY

Refractive Index can influence appearance

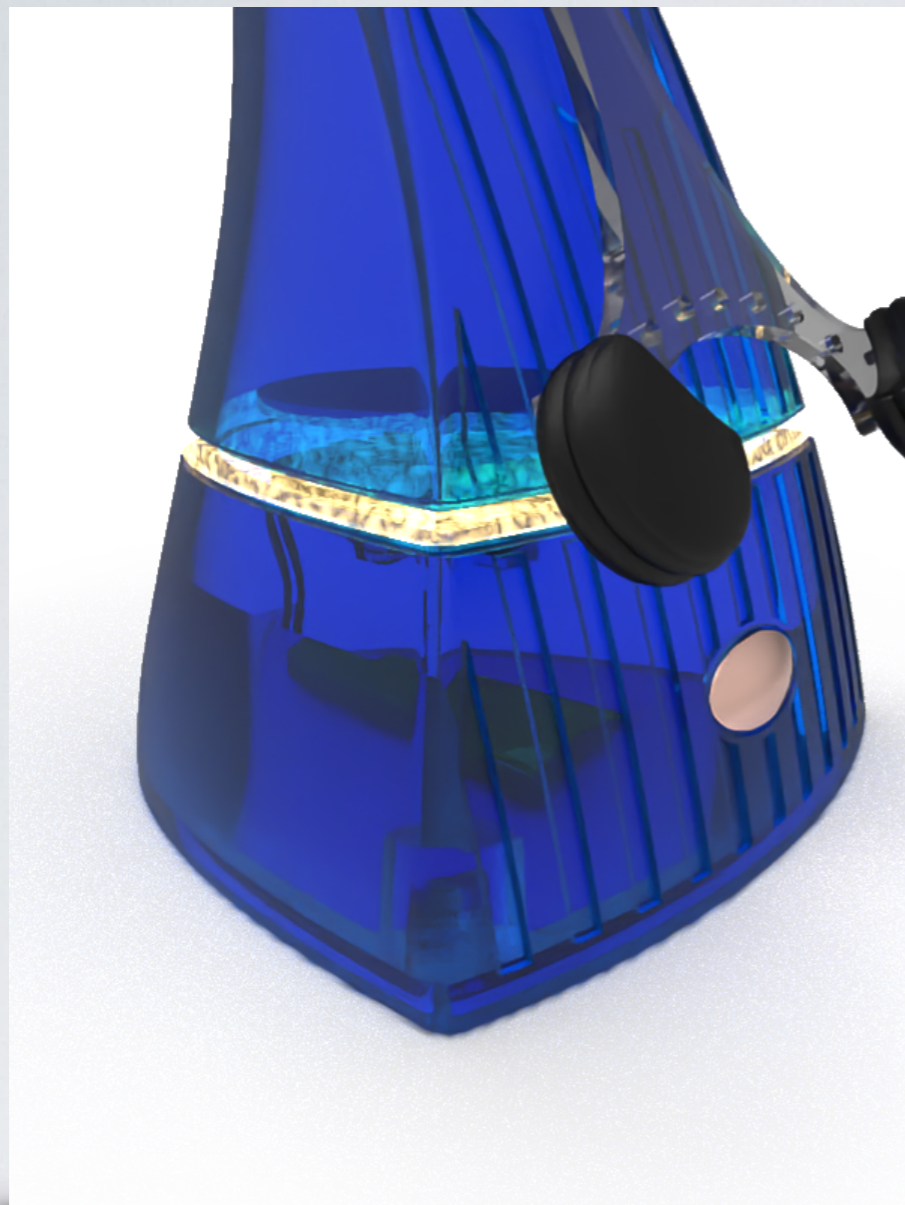


Default Refractive Index: 1.46

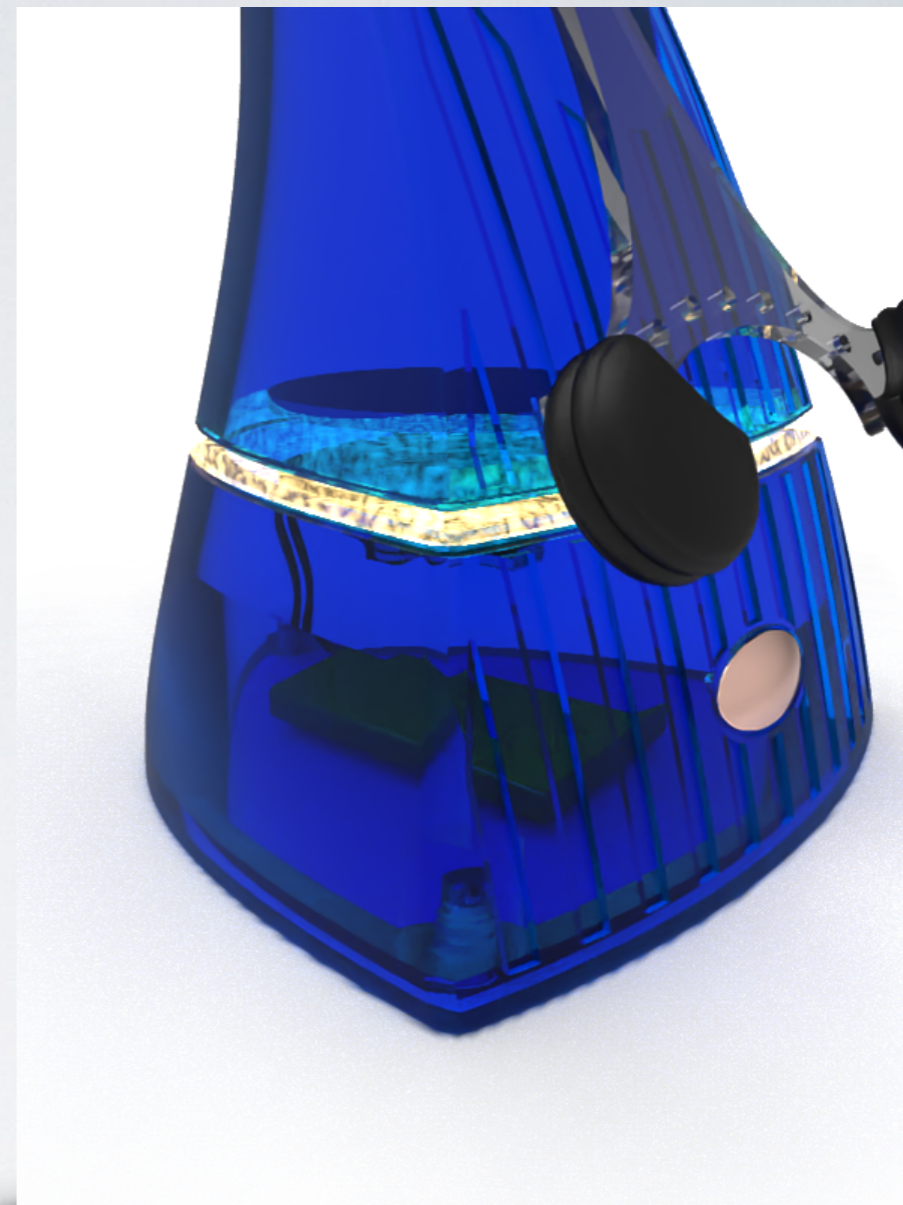


Refractive Index: 1.0

REFRACTIVE INDEX



Refractive Index: 1.46



Refractive Index: 1.2

REFRACTIVE INDEX