High Definition Designer Lithophane Moon Lamp (HD / Full Resolution / High Quality)

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VIEW IN BROWSER

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Summary

HD version of the original Moon Lamp. Maybe a gift. This is easy to print. This is an eye catcher.

Household > Home Decor

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This is a high definition recreation of the original and beloved Designer Lithophane Moon Lamp by Frank Deschner (@FrankDeschner). Maybe a gift. This is easy to print. This is an eye catcher. This is a remix.

Globe: 21 cm / 8.2 in diameter
Original bayonet lock by Frank Deschner, compatible with all existing stands
Stand using the cheapest option for a light fixture: the IKEA Svallet (70358487) lamp stand, which currently costs only 4€ (end of 2023 in Germany)

Recreated based on the latest high quality model of the original creator of the moon lithography Leung Chan (moononournation). Following Franks instructions, Frank originally reduced the mesh count from +5 mil. of the original lithophane down to 1 mil. This was especially noticeable at the top, where MeshLab messed up some of the geometry, resulting in spikes that needed to be sanded down manually after printing and (in my cases) resulted in a more uneven finish / light leaking from the top. I repeated Franks efforts creating a lamp with the same dimensions, without compromising on the mesh count. It features Franks “patented” and proven bayonet lock design and went through several test prints as well. I was able to produce way more consistent prints with my new model. Mesh editing was done fully in Fusion 360 (which has been a pain ;)).

The “Floating Moon Rock Base” stand design (as seen in the second picture and the one w/ the dragon) can be **downloaded here**.

Moon Globe

Highest-resolution Moon Globe based on NASA GCI recreations by moononournation, diameter approx.: 210 mm / 8.2 in
Hole for light bulb, approx. diameter: 55 mm / 2 in
Fits all existing stands

Light Stand

Height: 85 mm / 3.4 in
Socket hole diameter: 40 mm / 1.6 in

Lamp Fixture / Kit

IKEA Svallet (70358487)
(Lamp shade will be destroyed in the process of removing the light fixture, cable stays intact, see instructions below)

Smart Light Bulb

IKEA Trådfri E14 Multi-Color (70439196)
(Lamp cap / diffusor needs to be removed / cut, to fit through the hole of the moon lamp, see instructions below)

Print Instructions

Moon

Infill: 100 % or solid 4-5 perimeters (moon will be printed hollow in any case)
Layer: 0.2 mm (recommended), higher detail 0.12mm (as seen in the picture, warning: very long print time / +48 hrs)
Supports: no!

Stand

Infill: 30 % cubic
Shell: 3 perimeters for good stability
Layer: 0.15 mm
Supports: no

Printer

ELEGOO Neptune 4 Pro, also tested on a Prusa MK3s

Filament

Moon: Spectrum PLA Special Stone Age Light

Stand: Polymaker PolyTerra PLA Marble White

Print time

Moon: approx. 24 hrs w/ 0.2mm layer height, +48 hrs w/ 0.12mm
Stand: approx. 4 hrs

Assembly Instructions

My new version of the model should require no post processing / sanding. To assemble the stand follow the original instructions from the IKEA Svallet stand: The stand was designed to avoid detaching electrical cable from the bulb socket. There is a cut all the way to the center hole, to push the cables through.

1. Be safe, make sure the Svallet lamp is off and unplugged
2. Unscrew the screw in the back of the lamp shade
3. Pull the socket with cable away from the globe, to make more space for pliers
4. Carefully cut a wider hole, to take the whole bulb socket out (I found it easier to break off pieces of the plastic instead of trying to cut them)
5. Take the printed stand and gently twist it to make space for cable
6. Push the cable through the cut and place socket in the cutout (it should match the socket profile)
7. Screw the screw back to the bulb socket to secure the cable
8. Put a bulb into the socket and attach the stand to the Moon globe
9. Turn on and enjoy ☺

If you want to use the IKEA Trådfri E14 smart bulb for your lamp, the top cover of the bulb needs to be removed, in order to fit through the hole at the bottom of the moon. To do so take a sharp & thin knife (be careful) and make a deeper and deeper cut along the seam on the bottom of the bulb. The top cover should become loose (there is a little bit of glue between the top cover and the bulb) and with a little bit of twisting you can remove the cover and use the lamp.

License

You can print the model for yourself, friends and anyone who wants to have this lamp in small quantities. I don't mind if you charge them for your material and efforts. Please don't try to sell the physical model commercially (Etsy etc.).

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This remix is based on

Designer Lithophane Moon Lamp
by Frank Deschner

Moon Lamp stand from Ikea Svallet lamp parts
by veritas

NASA CGI Moon Kit 2019 Moon Lamp
by moononournation

Model files

moon-globe-hd.stl

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