

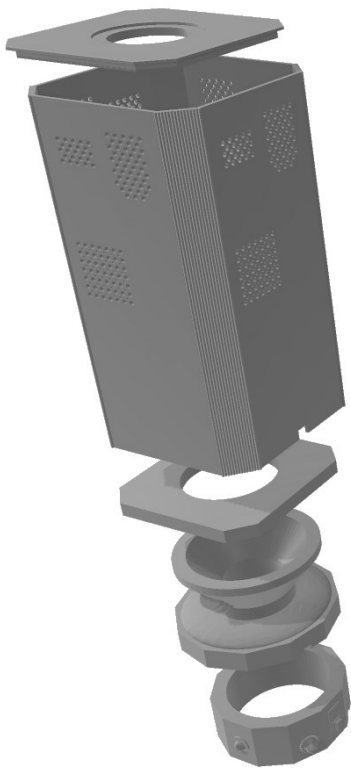
## Updated “Nomad” from Star Trek TOS “The Changeling”

By Gary Reign

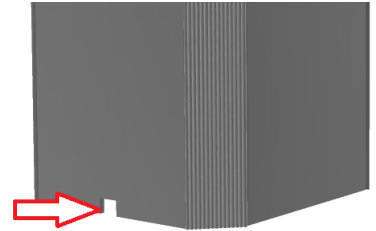
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Using the original files from “Alpokemon’s” excellent original model “Star Trek (TOS) – NOMAD by [alpokemon](#) (July 26, 2019)” available on Thingiverse at <https://www.thingiverse.com/thing:3771165>, I made some changes to allow for more successful printing using an MSLA (resin) printer. I also made some changes so the model more accurately represents the prop used in the show. Lastly, I added some pieces to assist with lighting and displaying the model. Note: You will need to download the original Thingiverse files to obtain all of the detail parts not included in my updated files.) My updated files can be found on Cults3d.com here: <https://cults3d.com/en/3d-model/various/star-trek-nomad-updated-design>

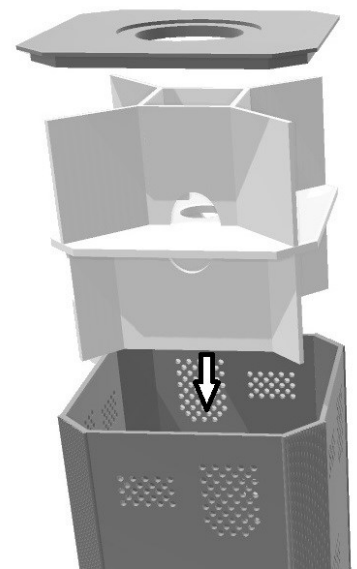
The comments below are for printing this model using an MSLA or resin curing printer. A filament (FDM) printer can also be used but some of the comments will not apply.



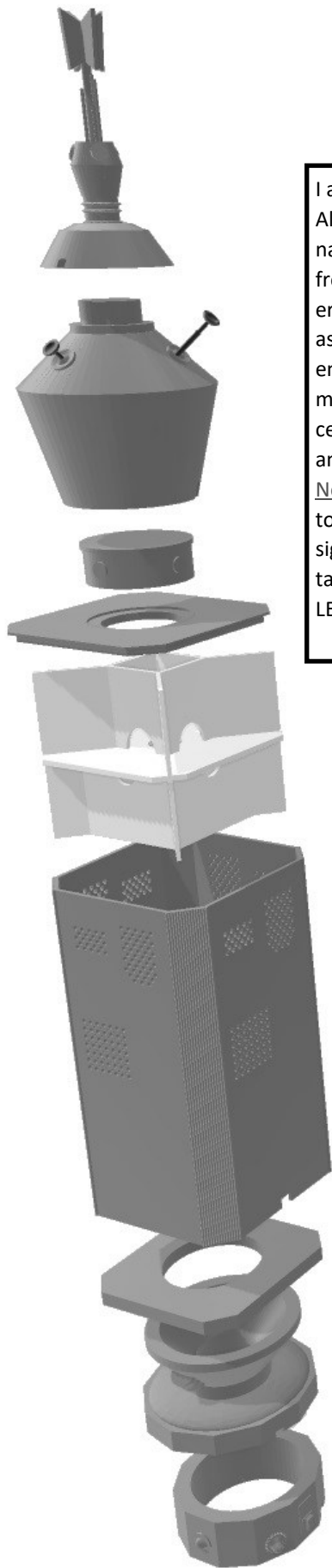
I created a new main body file with thickened walls and the addition of ‘pressure release’ vents (see red arrow) where the models touch the build plate. These vents are necessary to prevent the model from splitting open especially if printing with any of the larger format resin printers like the Elegoo Saturn. I modeled the hole pattern on the main body to more closely match the patterns on the original prop and included the fluting seen on the angled sides. I also made the main body with the top and bottom lids as separate pieces to aid in printing and making it easier to add lighting. The bottom part fits inside the body and rests on supports built into it. I also split the very bottom section into two pieces and added the pressure relief vents to those. Be sure to print these with those vents on the build plate. The vents should then be filled in with putty or styrene before finishing the model.



To assist with lighting, I created two pieces that slide down inside the model and rest on a ledge built into the main body model. These form a light block and also a place to mount the LEDs if you plan to illuminate the model. If you do not plan to light it, you can eliminate these pieces. The two pieces should be glued together as shown before inserting into the body from the top. Note the correct orientation of the two pieces as they are different and designed to support the LEDs for the top and bottom sections respectively. I recommend spraying them with white paint to help defuse the light.



Lastly, I designed a stand to hold the model and the electronics used to illuminate it and produce the sounds effects. The stand includes 4 holes for mounting switches to control the sound recordings and one hole for a power switch. You may need to print this on an FDM printer as it is too large for most MSLA printers. The base is designed to fit the model as printed without any reduction or enlargement of the stl’s. If you scale the model differently, you can print the base and then develop a new base cap piece in Tinkercad (or any CAD program) to make the transition from the base to the resized model.



I am indebted to Alpokemon for the original files and to Orlando from 'Interstellar Modeler' for his inspiration and assistance in helping me enhance and animate the model. Check out his excellent [YouTube channel](#) and videos on his [build of Nomad](#). Also a big thanks to Shelly from Evandesigns.com for her assistance with obtaining the LEDs for the model.

Here is an exploded diagram of the complete assembly. (Note, the exploded view does not include some of the detail pieces on the top plate of the model. See the original Thingiverse files for these.)

Below is pic of the completed model on the base.

