

OneWeb Gen1 satellite 1:25 model



space_valentin

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Summary

1:25 model of the OneWeb Gen1 telecommunication constellation satellites

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With this model you can get a small piece of the OneWeb Gen1 constellation on your desk. Since February 2019 **more than 600 of them** have reached or are en route to **their 1200km @ 87.9deg working orbit!**

This ~1:25 model was prepared based on the pictures shared by **OneWeb / Airbus OneWeb Satellites** on social media and tries to convey as much details as possible at this scale.

Print instructions

The model is quite small, therefore easily printable even on the smallest build plates.

For each .stl the color(s) are indicated as a prefix in the name and the number of copies as a suffix (e.g. for "BLACK-BLUE_SA_x2", 2

copies of the piece must be printed, with black then blue filament).

3 pieces (the solar array pair and the docking target) need a color change for the last 2 layers, which is easy by **adding a filament change directly in your slicer**.

The different pieces are designed for FDM printers and around a layer height of 0.2mm and a nozzle diameter of 0.4mm. No support is needed. The tolerances used are 0.2mm vertically and at least 0.07mm in-plane to provide a snug fit (keep that in mind if you want to re-scale the model!). If the tolerances are not accessible to your printer (or your printer is better tuned than mine 😊) you may have to use sandpaper or a hobby knife to adjust them until they fit and/or use (more) glue.

Additional (non-printed) parts

To complete the model, you will need to source (or find ersatz pieces for):

- One rod of 3mm diameter and ~75mm length to mount the model on its desk stand. I use transparent acrylic pop-cake sticks since they are very cheap, easy to buy and perfect for the job, but you can also use pieces of wood dowels, or carbon-fiber/brass rods.
- One piece of 1mm diameter steel piano string of 125mm for the solar array axis. Insert it through the main body after installing the side panels and bend 90deg the last 7.5mm in opposite directions. The solar panels can then be clipped at the extremities and glued in place if necessary to hold their placement.
- A silver paint pen for the label on the desk stand.

Assembly instructions

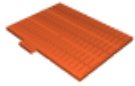
I recommend using common white glue (and patience 😊) to assemble the pieces instead of contact glue that often leaves white residues and can be messy.

Assembly is pretty straightforward; I included 2 little montages presenting how the different pieces are assembled together as pictures.

Model files



gold_main-body_x1.stl



black-blue_sa_x2.stl

☐ Add a pause in your slicer to change the filament color to blue for the last 2 layers.



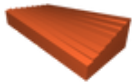
silver_battery_x1.stl



silver_toppanel_x1.stl



silver_sidepanel_x2.stl



silver_antennadetailed_x2.stl



silver_gatewayreceptionbench_x1.stl



silver_maingatewayreflectormast_x2.stl



white_maingatewayreflector_x2.stl



silver_str_x2.stl

☐ Very small file! A brim can be useful if you have bed adhesion issues.



silver_het_x1.stl



black-silver_dockingtarget_x1.stl

☐ Add a pause in your slicer to change the filament color to silver for the last 2 layers.



black_deskstand_x1.stl

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