

# USS Magnificent

Version 1.0, Card Model Designed by David Lukens (C)2020  
[David@insanityunlimited.com](mailto:David@insanityunlimited.com), [David@geekindustries.com](mailto:David@geekindustries.com)  
[http://insanityunlimited.com/model\\_plans/](http://insanityunlimited.com/model_plans/)



I hope you enjoy this model. I distribute it for free so that as many people as possible can build it. If you think it is worth something, please drop something in the tip jar. Please [send me](#) a picture of your completed model when you are through. It makes a big difference to know that people are getting something out of all the work that goes into designing a model. These models easily consume several hundred hours to design, layout, and build. Thanks.

-Dave

QR code for the tip jar:

[Paypal Link](#)



# Forward

All of the photos used in this guide can be found in higher resolutions in the gallery:

[http://www.insanityunlimited.com/gallery/paper\\_models/uss\\_magnificent/](http://www.insanityunlimited.com/gallery/paper_models/uss_magnificent/)

## Tips and Tricks

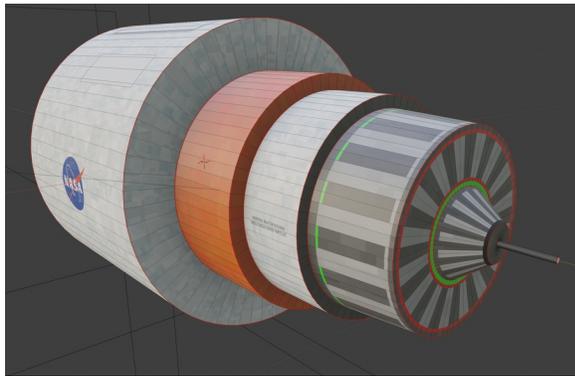
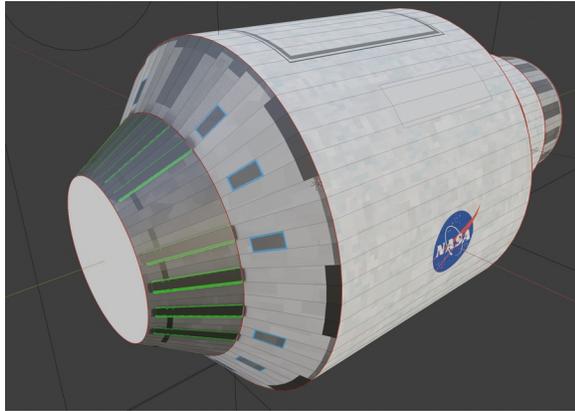
Here are a few things that have come up in testing the build that make life easier from several different angles.

- By default, print the pages on 60-70lb card stock.
- Use the high resolution images in my gallery for reference as needed. There are both CG and photos there.
- Print out the parts with the highest quality setting your printer will use.

General Tips – These may or may not be useful to your building style

- Take your time.
- Test fit parts.
- If you don't like how a subsection of parts came out, then make another set.
- For large flat pieces, reinforce them from the inside with chipboard as desired.
- Use a metal straight edge as a guide for making scoring marks and long cuts.
- Use a chisel style blade for small cuts and corners.
- Edge color where needed with pencils/markers/paint.
- If you have a better technique for making some of these components, do it.

# Forward Reactor



Laminate everything on the page that begins with part A4.

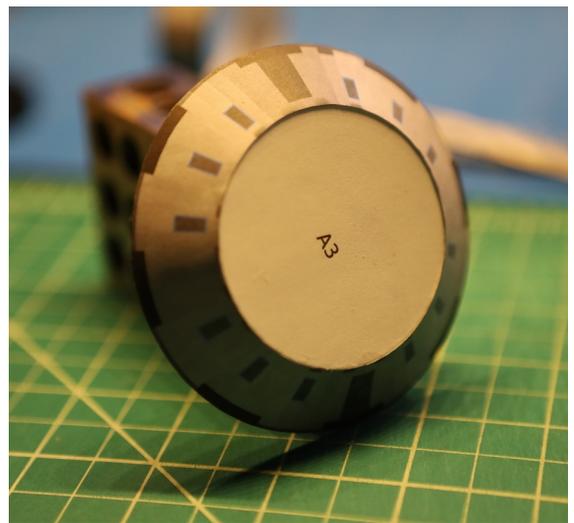


Roll part A13 into a cylinder and cap it with A8 and A1. The seam on A13 will be the

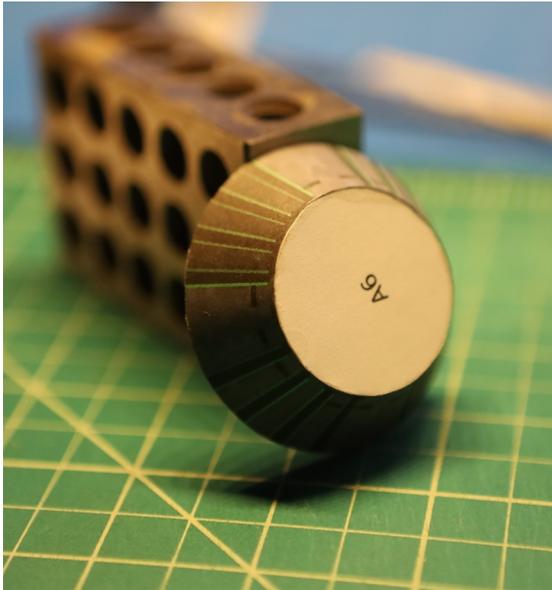
bottom. The two light shadows on A8 are centered on the bottom. Note that A8 goes on the end that is closer to the light grey squares where the struts will be glued later on.



A19 is turned into a cylinder and is capped by A2 and A9. A2 is glued in with the majority of the shadows on A19 against it. You can cut out the center of the formers so you can manipulate them from the inside.



A20 is rolled and is capped by A3 and A1.

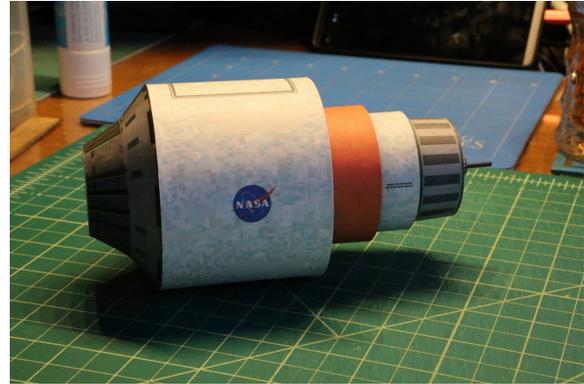


A16 is rolled capped by A6 and A3.



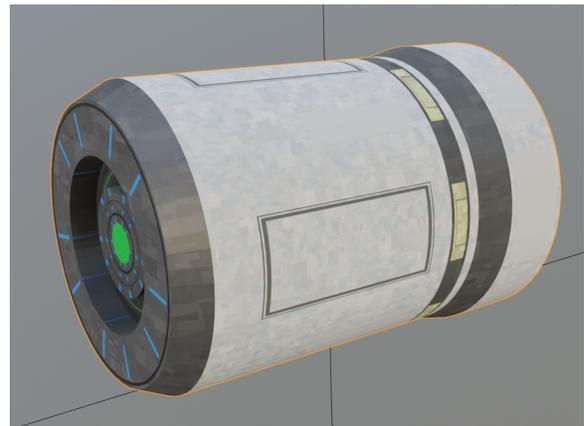
A17 is rolled and capped by A5 and A11.

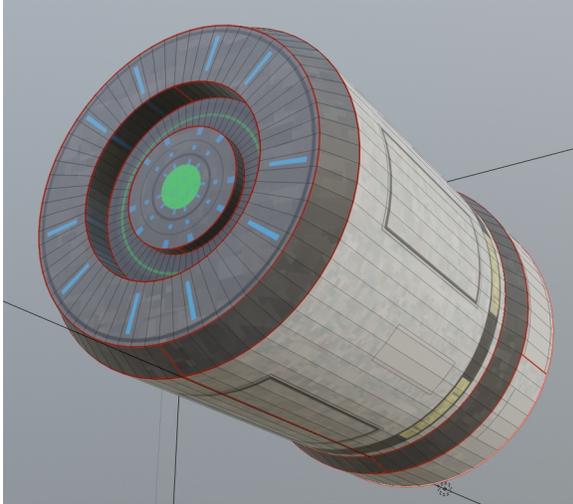
A14 is rolled into a cylinder. A15 is rolled and glued, and capped by A7 and A12.



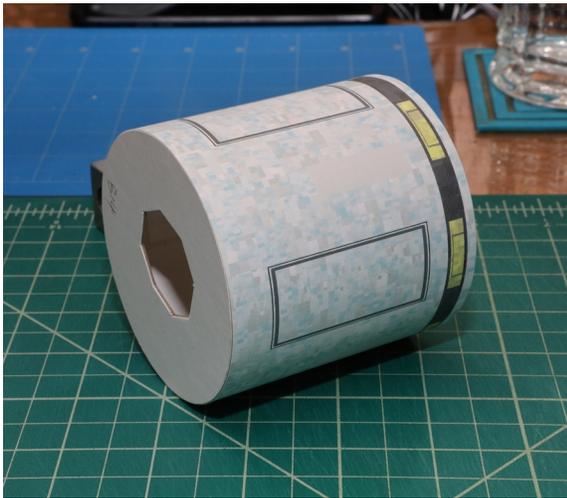
Take all of these components and glue them together with the seams facing down. The order of parts will be A6, A16, A3, A3, A20, A1, A1, A13, A8, A2, A19, A9, A4, A18, A10, A5, A17, A11, A7, A15, A12, A14.

## Rear Reactor





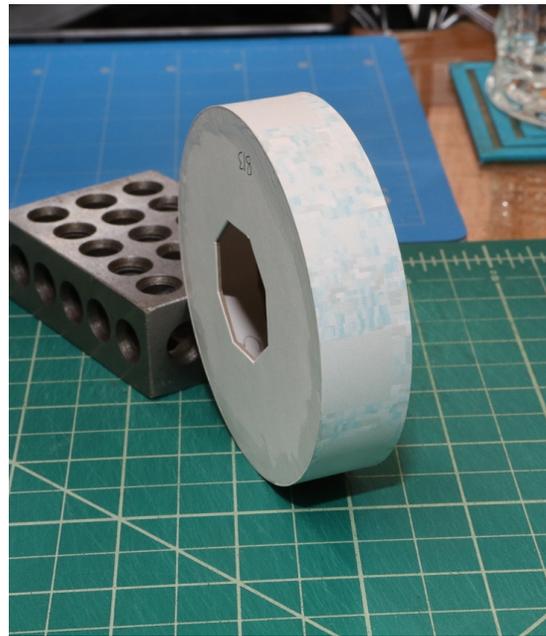
Laminate the page that begins with part B13. Laminate B11 and B12, B6, and B7. The red lines in the image above represent all the seams between parts. You are looking at it from below and facing mostly aft.



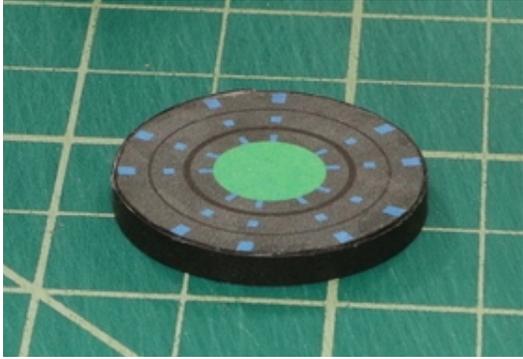
Roll B1 into a cylinder and cap with B14 and B15.



Roll B9 and cap it with B16 and B11.



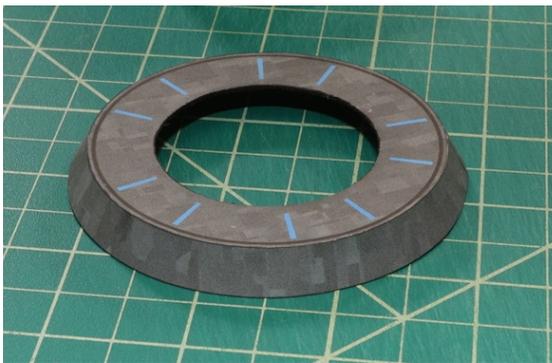
Roll B2 and B3 into a cylinder. Make sure the grey squares that run along the edge are all facing the same way. Cap with B12 and B13.



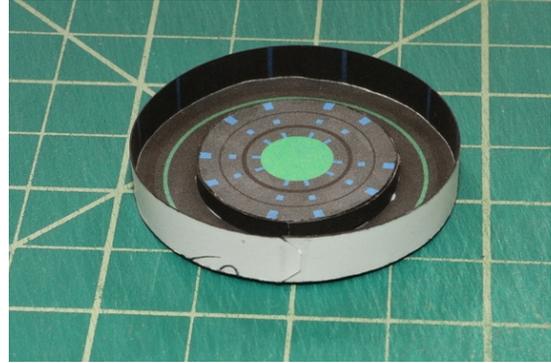
Roll B5 and cap with B6.



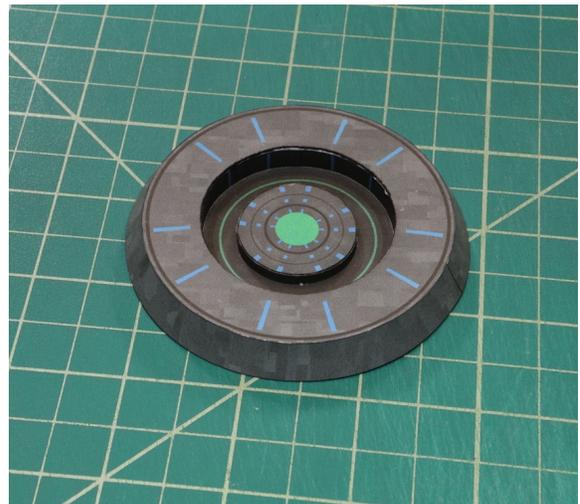
Roll B4 and insert B7 into it.



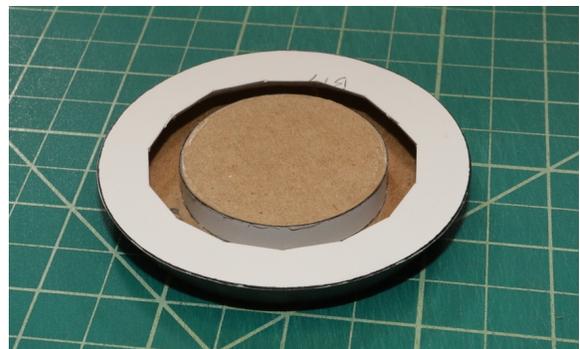
Roll B10 and cap it with B8.



Glue B5 and B6 inside of B4 and B7. The seam on B4 will be the top of the ship and the seam on B5 will be the bottom. This will help hide the seams when done.



Glue this assembly inside of B8.



Flip this over and glue B17 on the back.

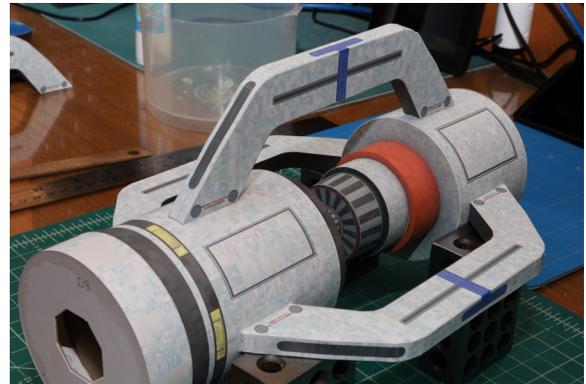


Take these parts and blue them together in order. All the seams should be aligned and will be the bottom of the ship.

## Reactor Struts

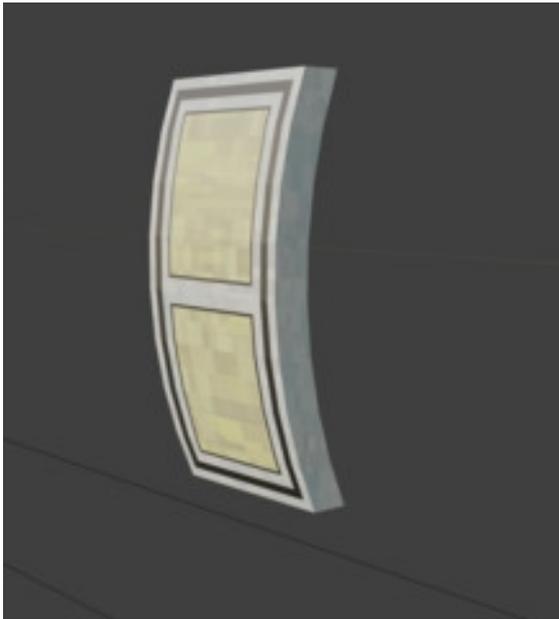


These are made up of two sides, a top, and an inside face. I suggest reinforcing the inside of either side, as they are structural to the model. The sets are made up of two of each combination: C1, C3, C5, C7 and C1, C2, C4, C6.

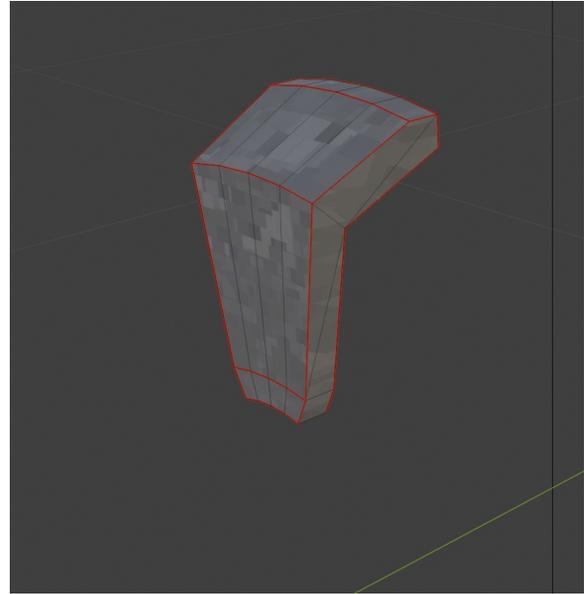


Once the struts are complete, they should be affixed to each of the reactor components in the light grey rectangles. These are set at 45 degrees off from horizontal and vertical, so the top two should have the blue stripe facing each other and the bottom two struts should also have the blue stripe facing each other.

When done, you should have something like this:



Roll D1 and affix sides D2 and D3 to it. You will make two of these. They go on the widest part of the rear reactor in the light grey boxes at 9 and 3 o'clock.



Take parts D4-D9 and assemble them as you see above. The red lines in this image represent all the seams between parts. You will need five of these. These go onto B8 between each of the pairs of blue hashes.

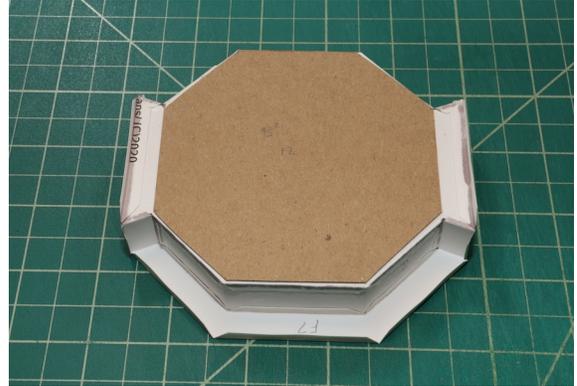


## Engine Mount

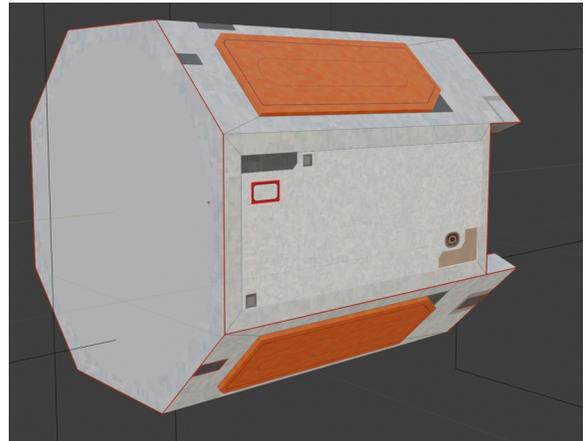
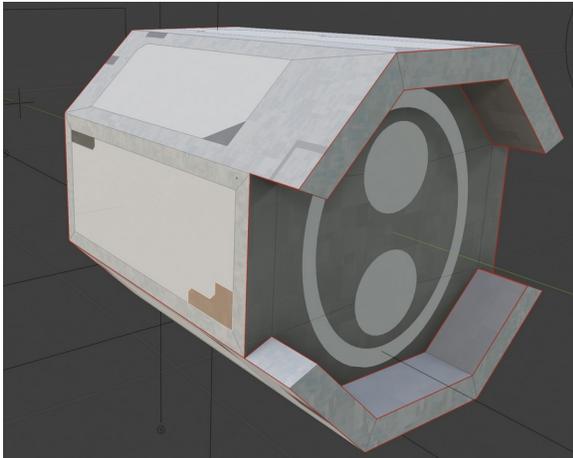
Laminate E2 and E3 so that they are more rigid. Then roll E1 and cap with E2 and E3.



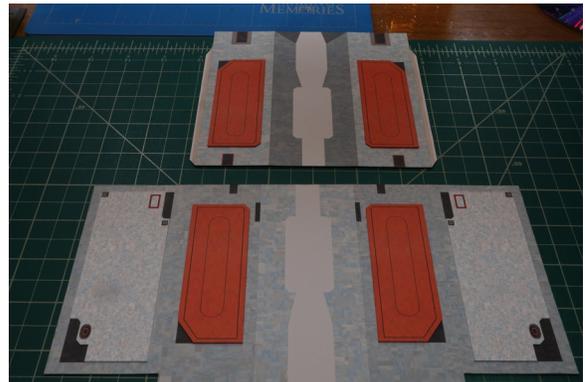
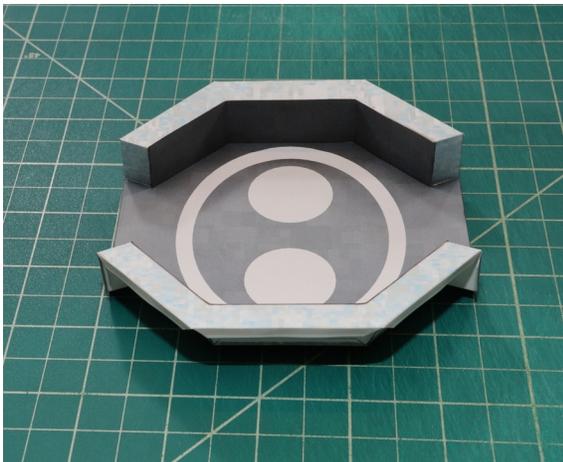
Start by gluing F4 and F5 to F2. Glue F6 to F5, which is the top of the rear bulkhead. Glue F7 to F4, which is the bottom.



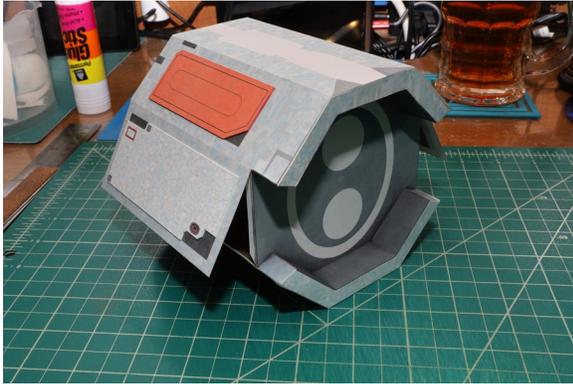
## Engine Section



Laminate G1-4. These will need to be edge colored and will make the panels that go onto the body of the engine section. Glue them onto the body. Do this before you assemble the engine section.



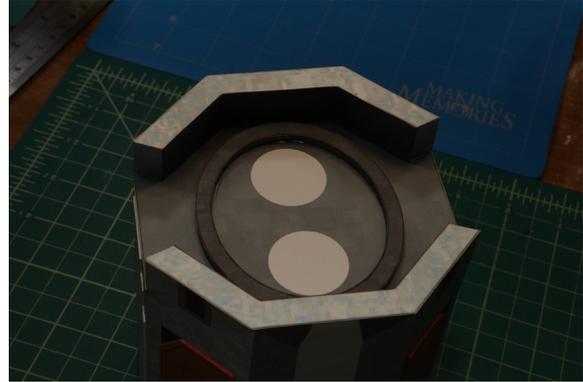
Now glue the front and rear bulkheads (F1 and F2 assembly) to the two large pieces that make up the exterior of the engine section. The larger of the two pieces goes on top.



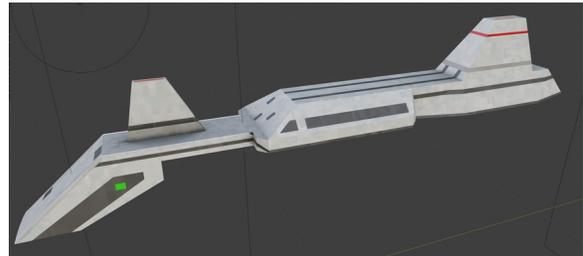
Make the engine ring from G5-G7. G6 makes up the inside edge and G7 is the outside edge. Align the seam on G6 and G7 so that they are both visible from one direction. This will be the bottom of the ring.



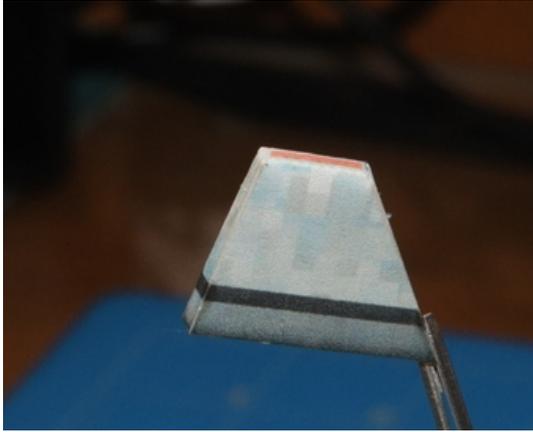
Glue the ring to the rear bulkhead on the engine section.



We will now be making the decks that go on the top and bottom of the engine section. We will need two of these in total.



H1 and H2 are assembled to make the larger of the two extensions on the deck assembly.



H3 and H4 are assembled to make the smaller extension.

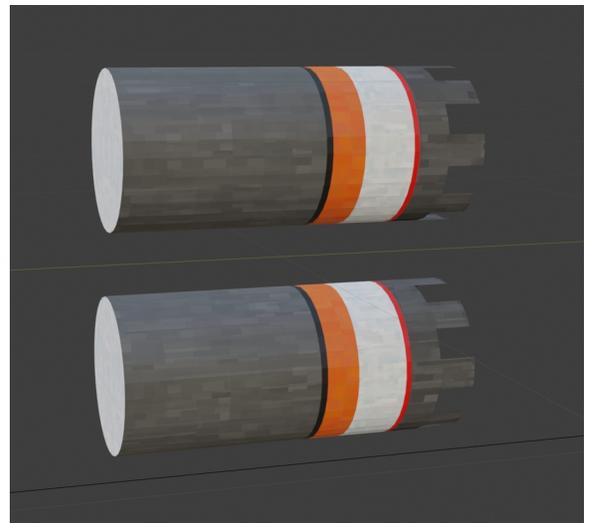


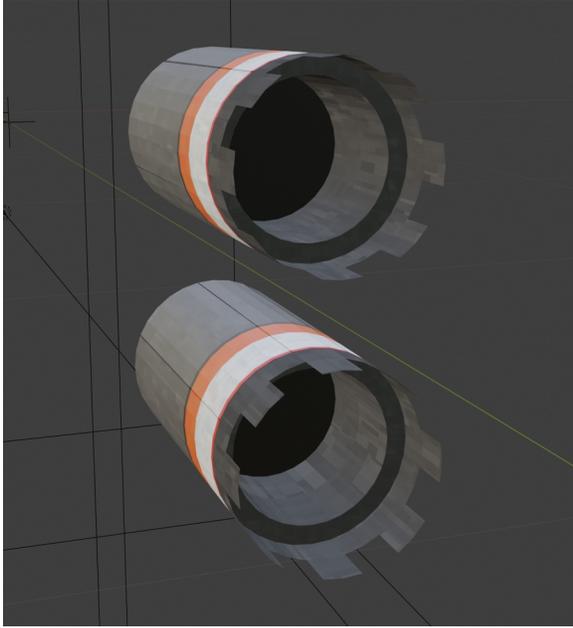
The main portion of the deck assembly is made from the remaining parts on page H. The base is H5, H6 and H7 are the sides for the front half, H8 is the front half, and H9-H11 are the rear.

Do not attach the two extensions yet. This will go on after we glue this to the engine section, which will also happen later.



Construct four wedges from I1-I4. I3 and I4 are the sides, I1 is the main piece, and I2 is the top. Do not yet attach these to the main body of the ship. We will attach them later on.



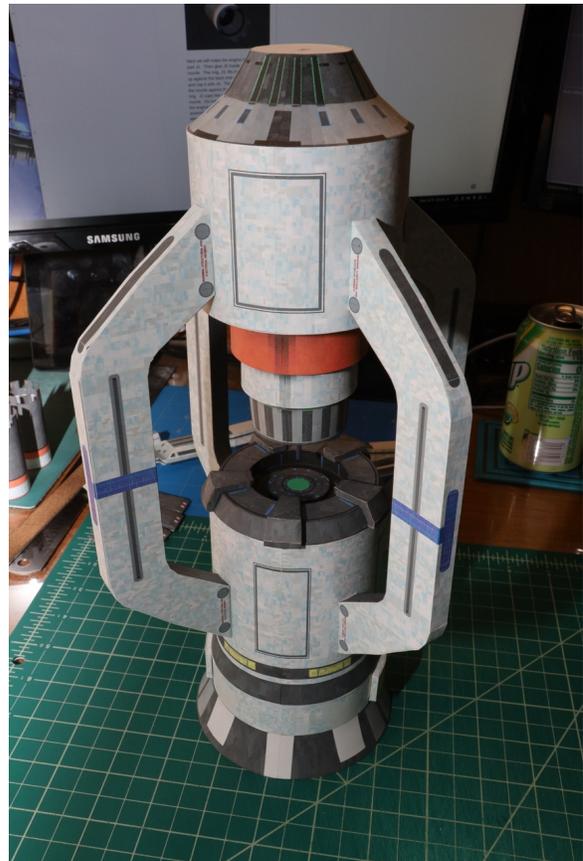
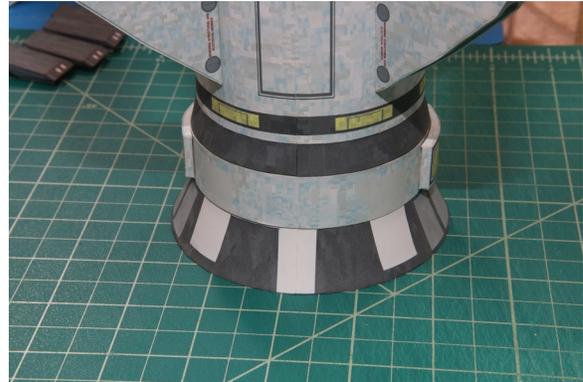


Next we will make the engine nozzles. Roll part J1. Then glue J5 inside the end of the nozzle. The ring, J3, fits inside J1 pressed up against the back end of J5. Then roll J6 and cap it with J4. This gets glued inside the nozzle against the inside edge of the J3 ring. J2 caps the non-business end of the nozzle. Do not yet glue this to the back of the engine section. We will need to assemble other assemblies together before attaching the nozzles.



## Joining Assemblies

Glue the center section of the ship to the engine mount. Align the seams on the bottom of the two assemblies so that they all line up.



Add the wedges to the rear of the reactor housing and engine mount.



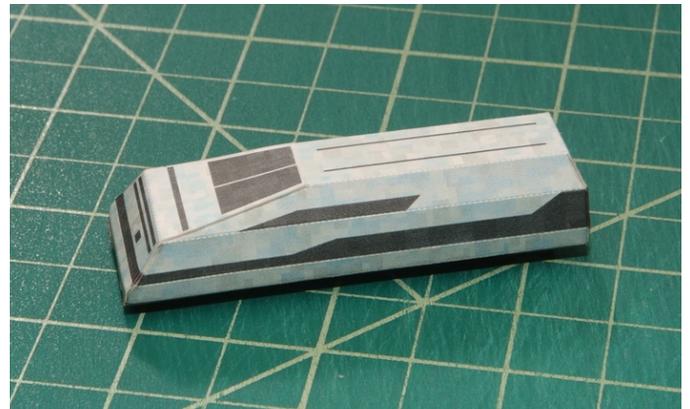
Glue the center section to the engine section.



## Detail Pieces

Page K contains the pieces for the front  $\frac{1}{3}$  of the ship. Construct them, but we won't attach them until the front section is complete.

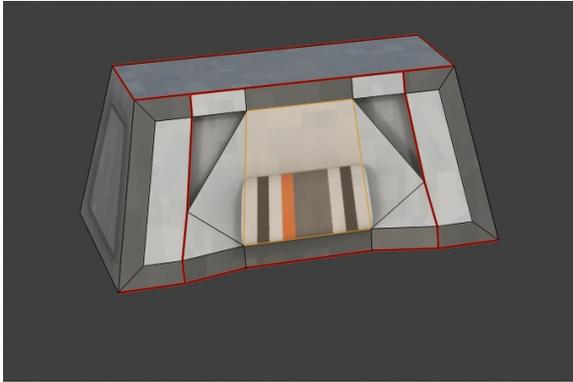
Start by joining K1 and K2 together to form the bridge.



Roll K4 into a cylinder and put K3 on the flat end of it. These four will make the airlocks.



K5-K7 are rolled to make the antennas that will go on the bow.



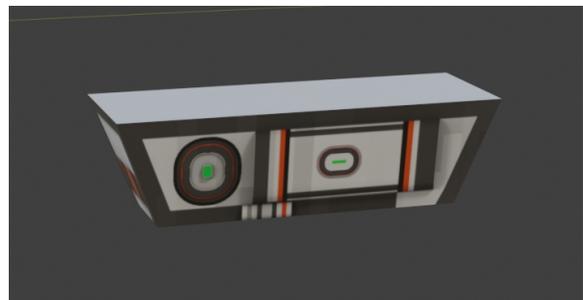
K8-K12 are assembled to make part of the joiner between the upper and lower bow.



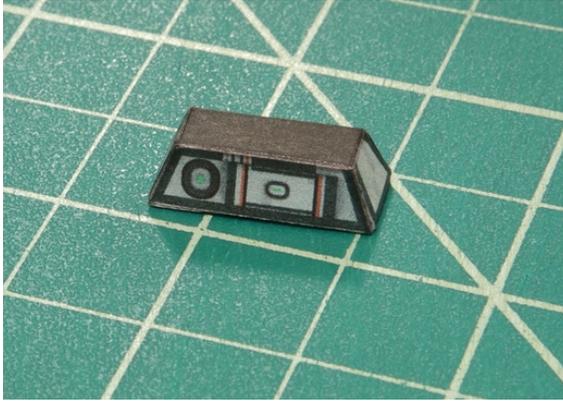
K3 is formed to be part of another portion of the joiner.



K14-K19 are assembled to make the bridge pylons.



K20 and K21 form another portion of the joiner.

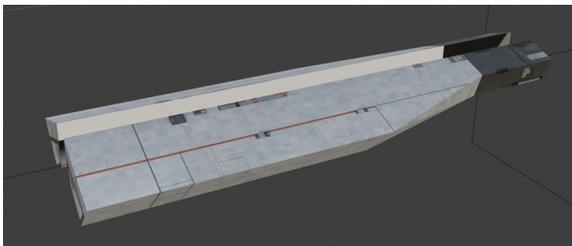


K22-K24 make the struts that will go between the upper and lower bow.

K25 makes a blister that will go on the upper neck.

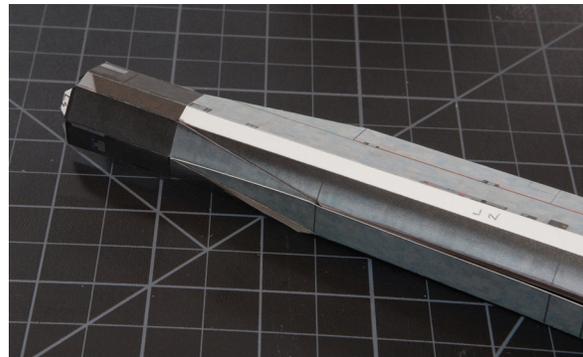


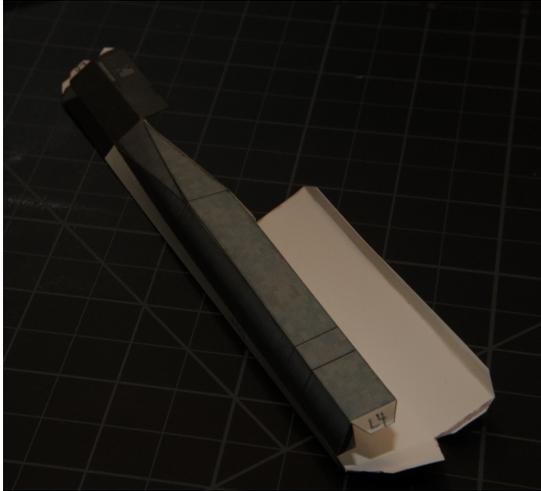
## Cheeks



The cheeks are a left and right pair. Start by joining L3 to L2. Then join L1 to L2 and L3. Once that is all dry, finish wrapping the parts so they become a complete assembly.

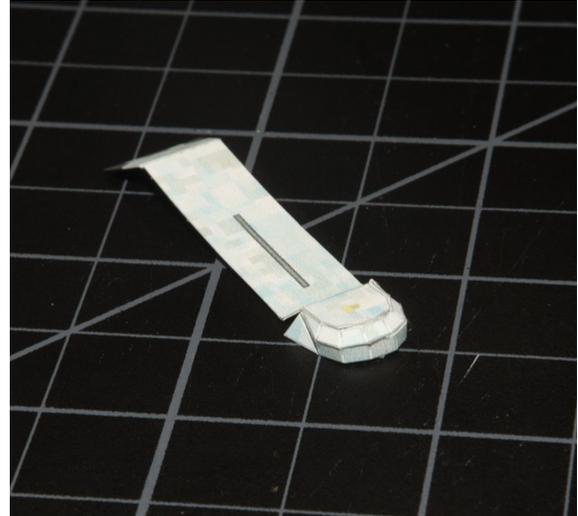
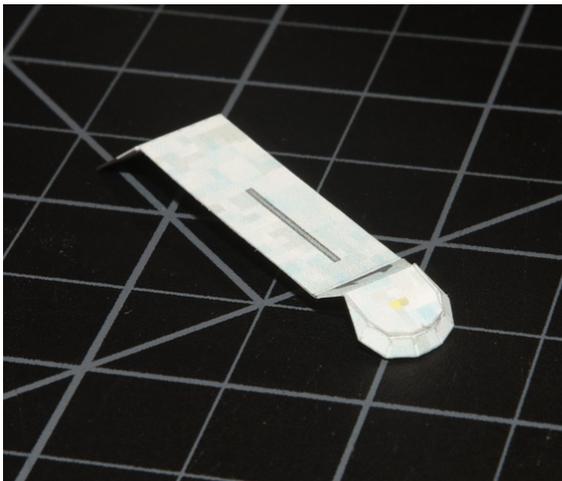
Do the same thing to L4-L6.



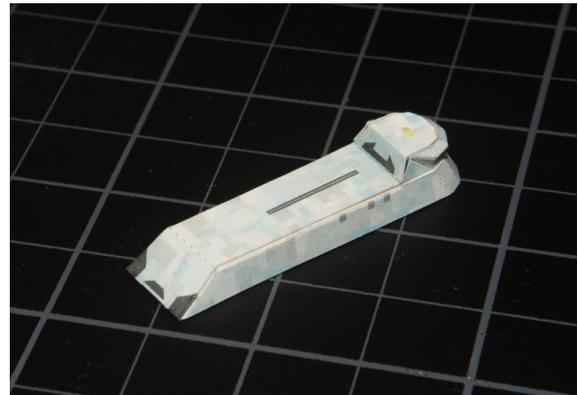


## Observation Deck

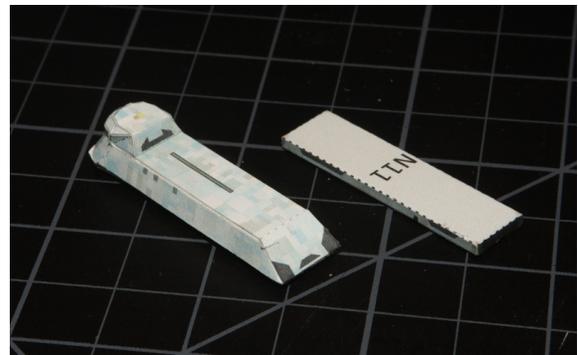
Begin the deck by gluing N15 and N16. Then add N17. These parts are small enough that they do not include glue tabs.



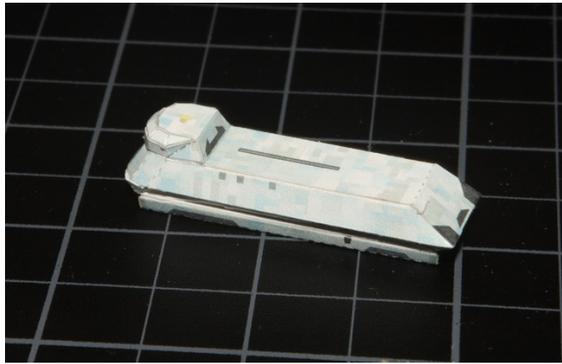
Glue these parts to N14.



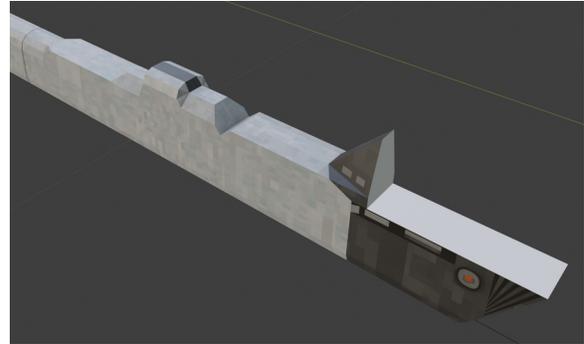
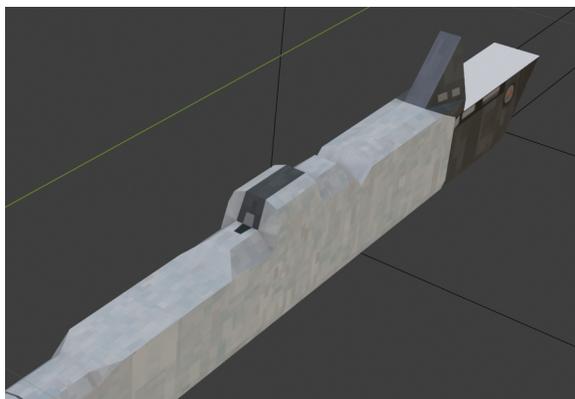
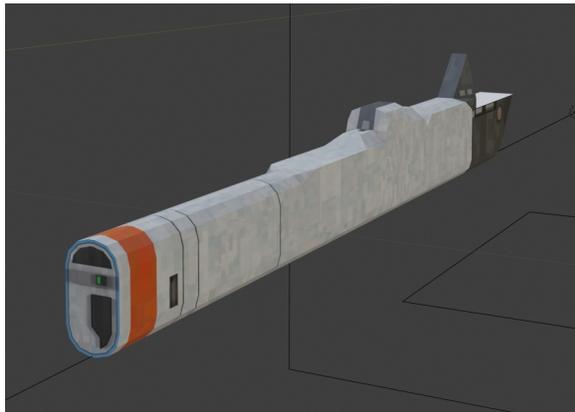
Glue N13 under these parts and put N12 under N13. Then Form N11 into a rectangular box with N12 as the top.



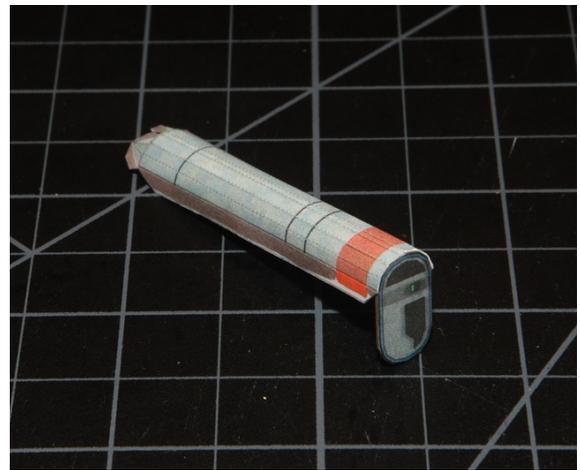
Glue the box underneath the observation deck.



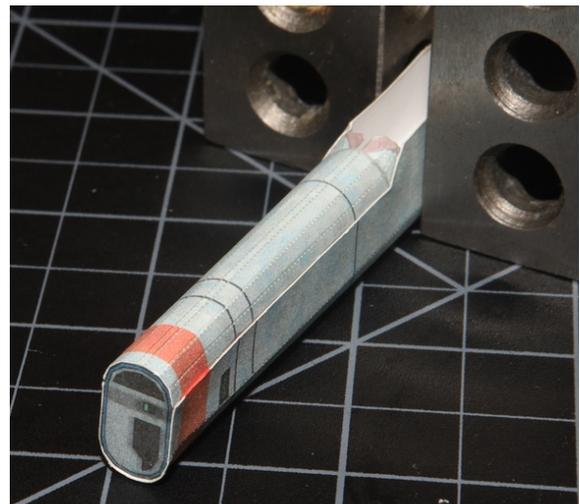
## Lower Neck



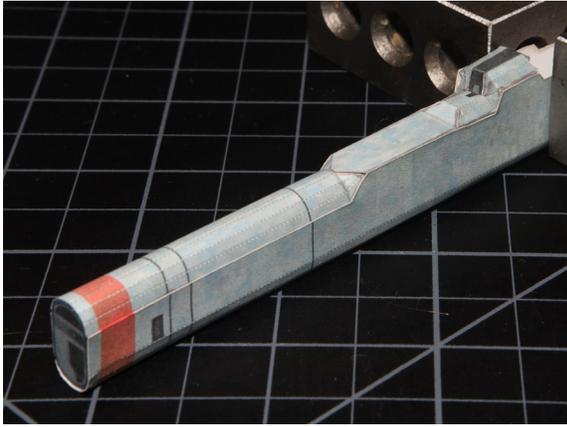
Begin the lower neck by gluing N4 to N3.  
Then glue N1 inside N3 after curving N3.



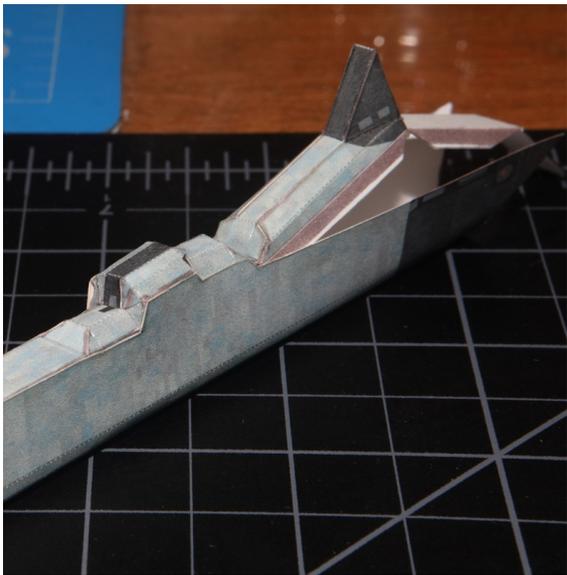
Curve N2 and glue N1 and N3 to the  
forward section.



Shape part N5, glue it to N4 and inside N2.

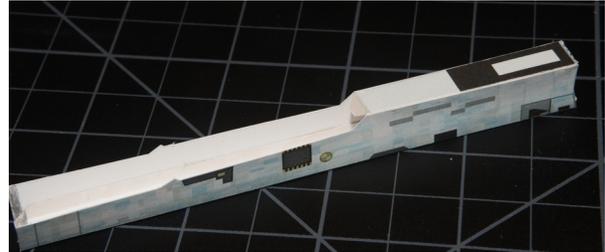


Shape N6, and glue N7 and N8 to either side as seen in the following image. Then glue it inside N2.

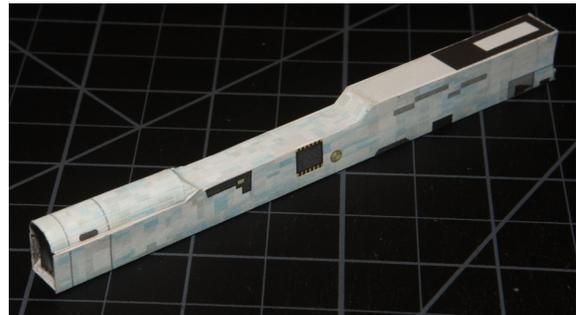


## Upper Neck Underside

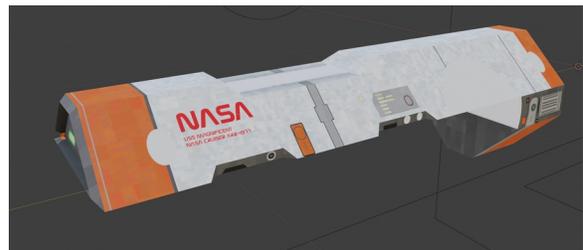
Begin this sub-assembly by flying P4 and P5 to P3, then glue P8 to the back area of these parts.



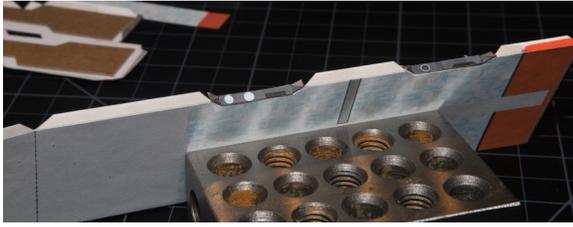
Glue P7 to the center of this section of parts. Glue P2 just inside the leading edge of P3-P5. P2 will end up sitting in front of P1 so that P1 can be inset into the beam. Glue P6 to the front of the beam.



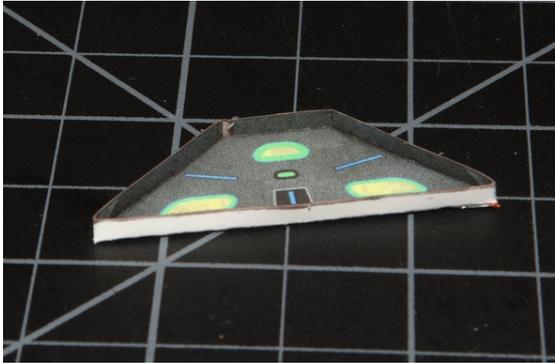
## Upper Neck



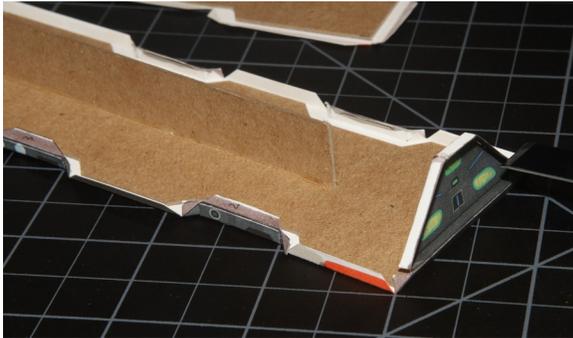
Begin the upper neck by flying O2 and O3 into the notches on O1.



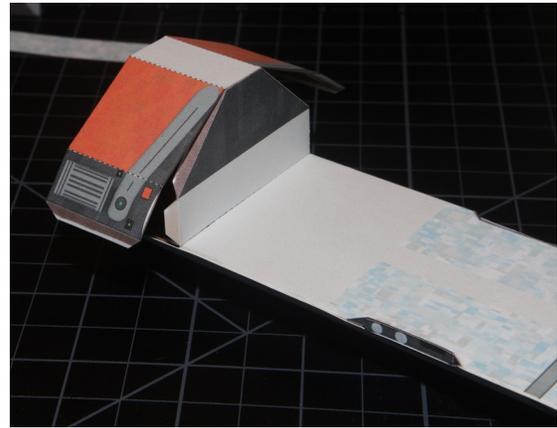
Glue O5 around O4.



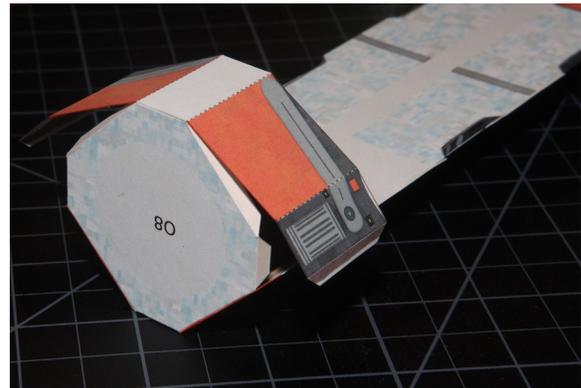
Glue O4/O5 to the leading glue tab on O1. Then glue O9's leading glue tab to O4/O5. Once that dries, glue O9 to O1. Repeat the same operation with O10.

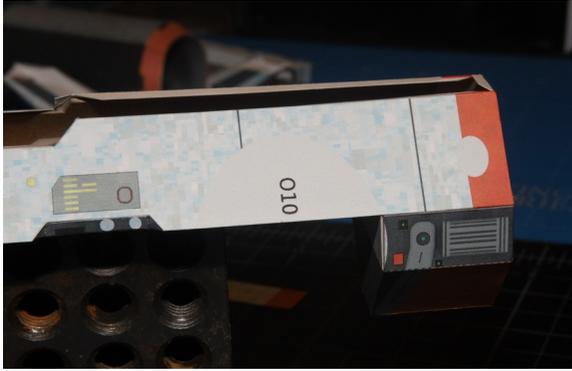


Glue O6 to O1.



Glue O8 to O9, O10, and O6. The top will remain open at this point.

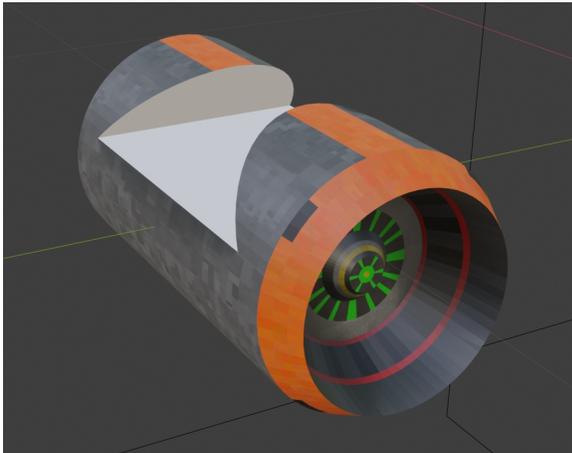




Now glue O7 to the top of the neck.



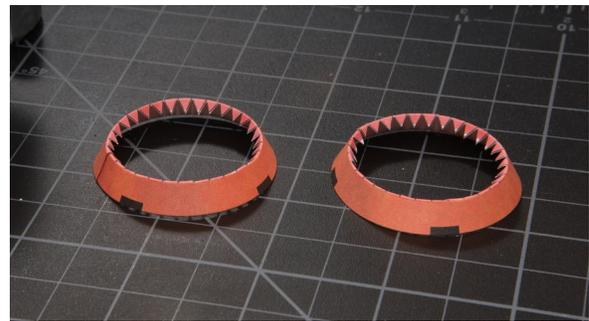
## Generator



Begin the generator with part M1. Apply it to the upper neck and then glue into a cylinder.



Next form M3 into what you see in this image. They will make the outside edge of the generator.

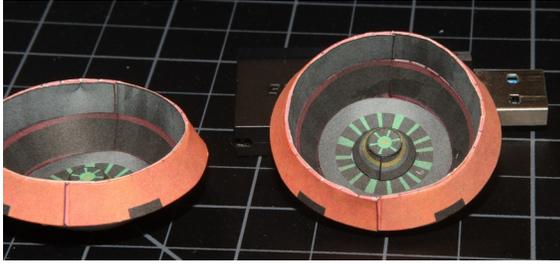


Form M7 and M8 into truncated cones. Roll M5 and make sure the printed side goes on the inside. M6 goes inside M5. Roll M4 so the printing is on the inside as well.

Glue M5 inside M4. Glue M7 and M8 to the center of M6.



Glue the combo of M4-M8 inside M3.



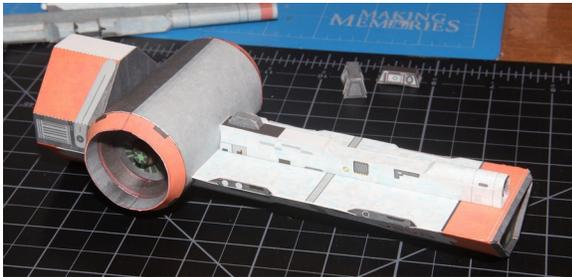
Glue these parts to either end of the generator cylinder.



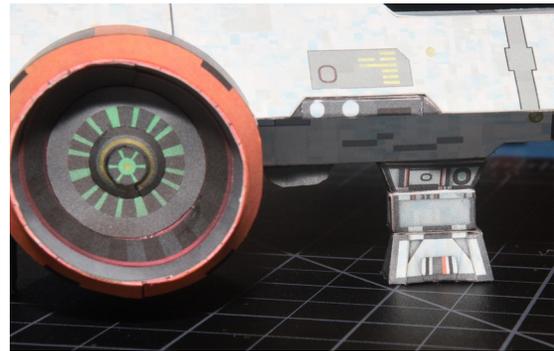
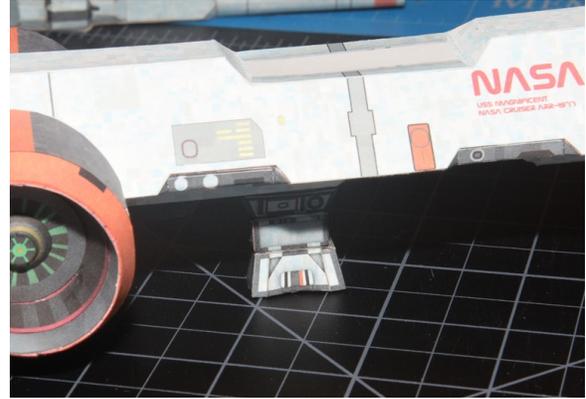
This completes all of the sub-assemblies.

## Putting It All Together

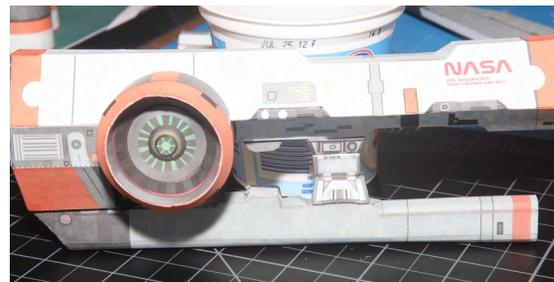
Glue the beam underneath the upper neck. Glue part K25 to the white rectangle on the beam.



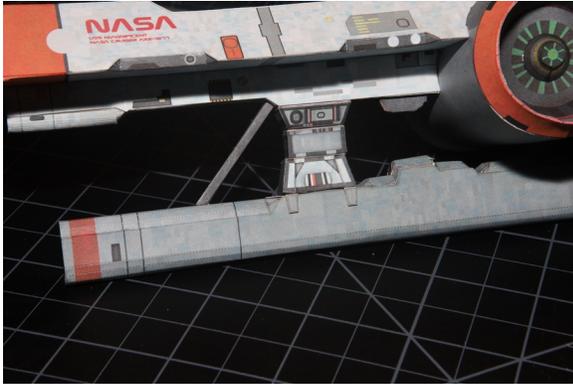
Glue the neck bridge, made up of parts K21, K13 and K11 to the underside of the beam.



Glue the lower neck to the bottom of the upper neck and the neck bridge.



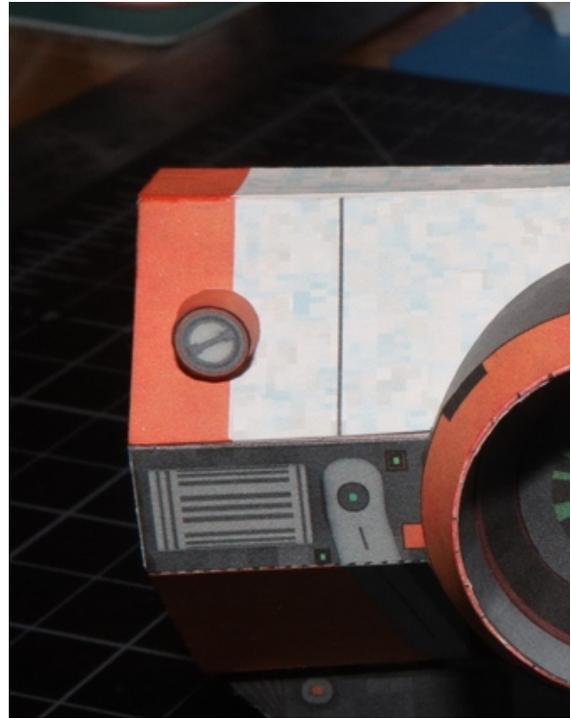
Now glue in the struts of parts K22-K24. The longest one is towards the rear of the neck and goes in first. The shortest goes closest to the front.



Glue the observation deck to the top of the upper neck.

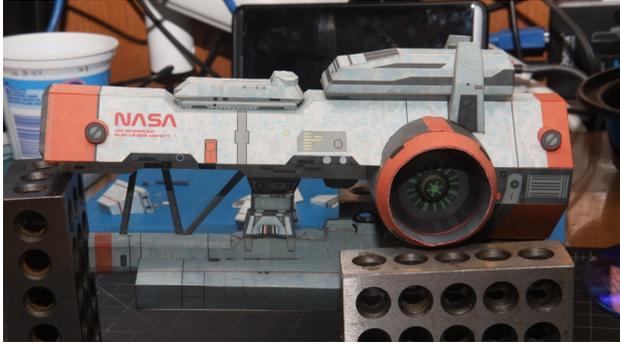


Glue the four airlocks to the light grey ovals on part O9 and O10.

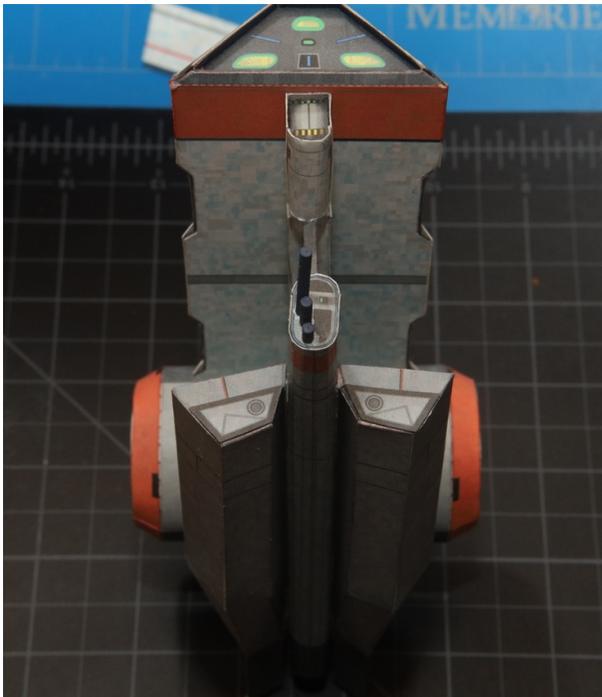


Now glue the cheeks to either side of the lower neck. The separation between dark and light grey should match that of the lower neck.

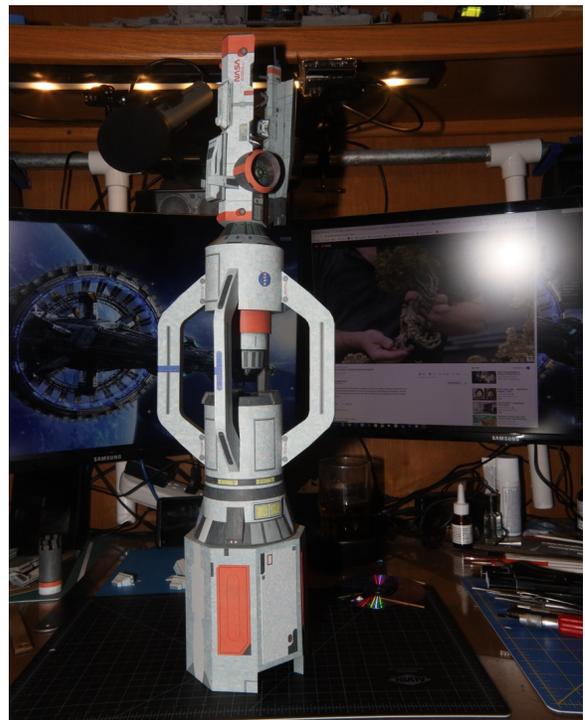
Then glue the bridge and the bridge pylons (K14 and K19) to the top of the neck.



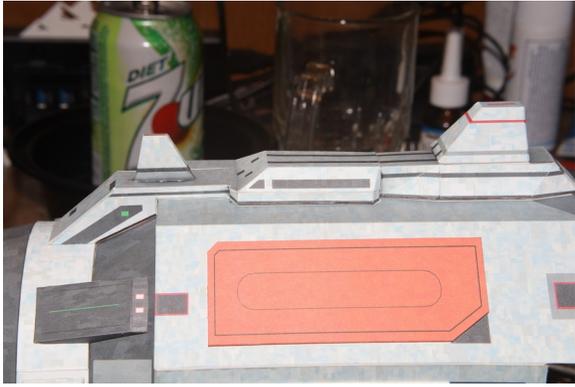
Glue the three antennas to the front of the lower neck.



Glue the forward  $\frac{1}{3}$  of the ship to the rest of the body.



On the engine section, glue the ribs and the two sails to both the top and bottom of the rear  $\frac{1}{3}$ .

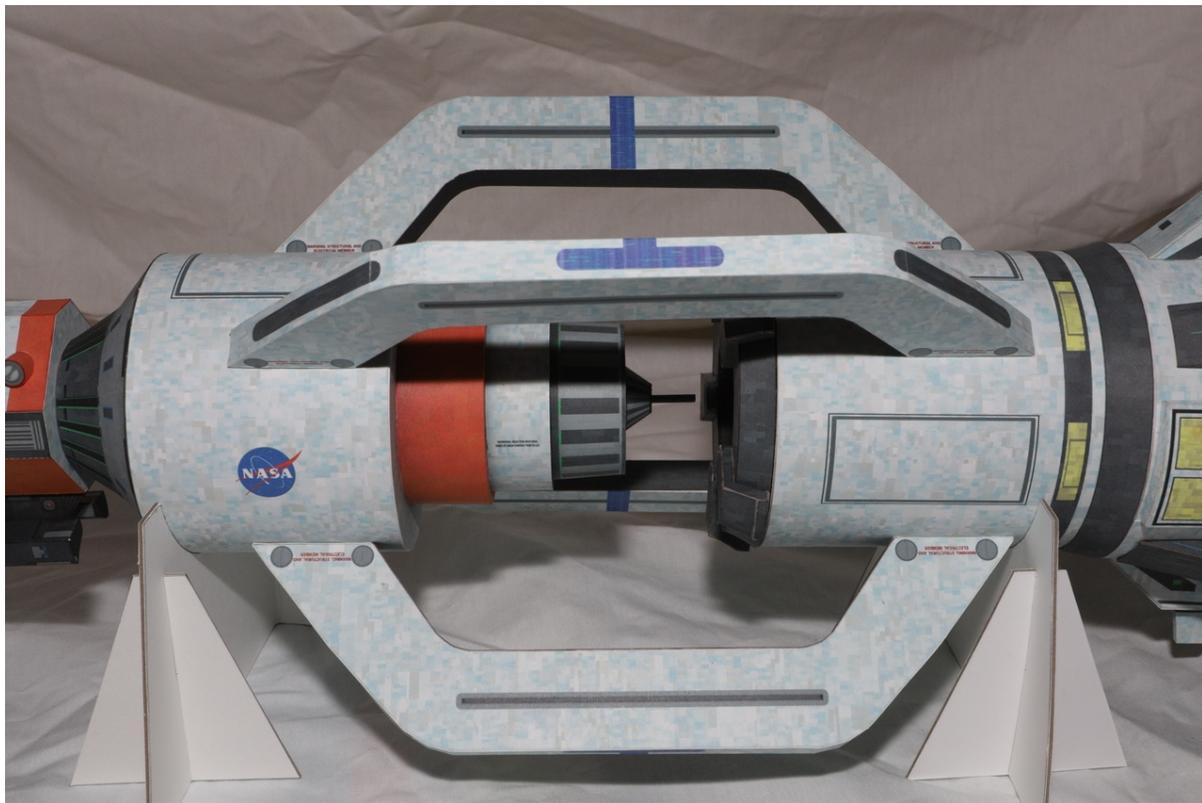


Glue the engine nozzles to the rear of the engine section. This is the last part to attach.



And now you are done! Now it is time for ludicrous speed!





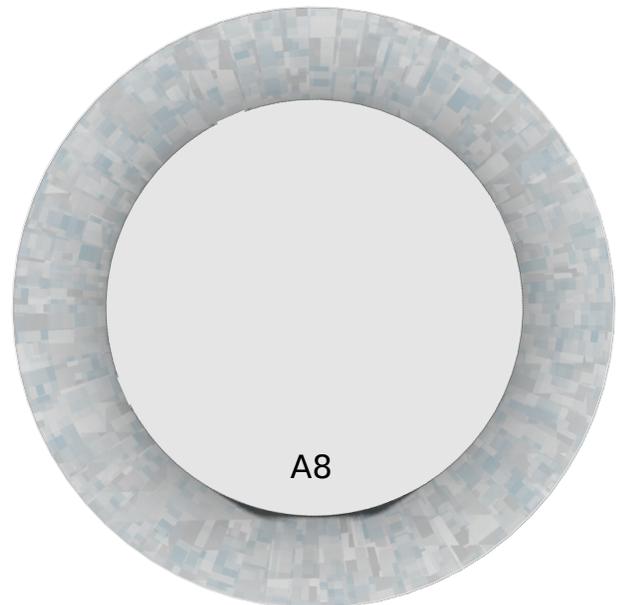
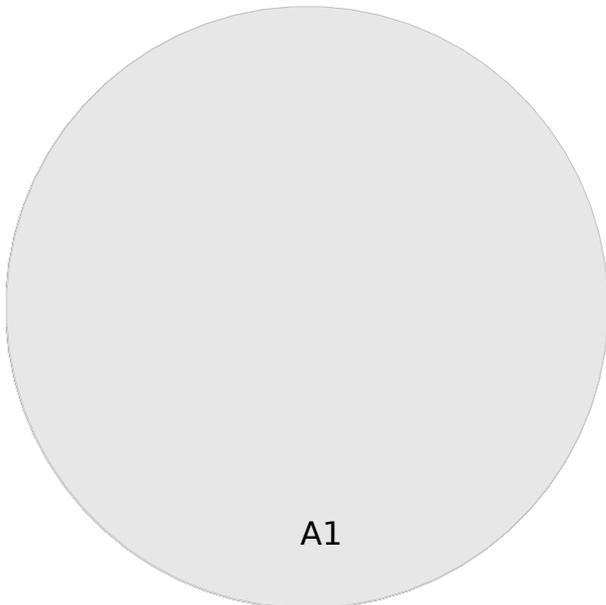
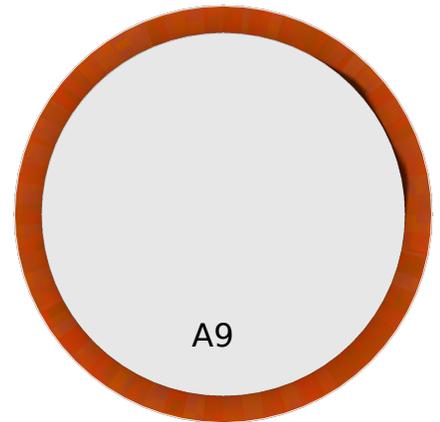
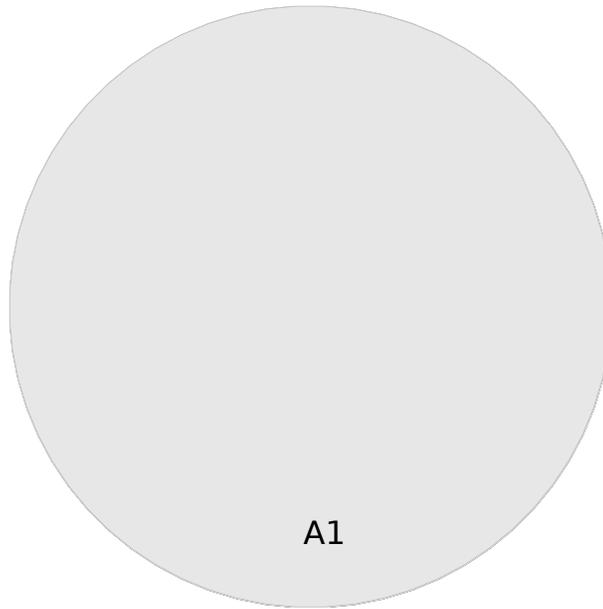
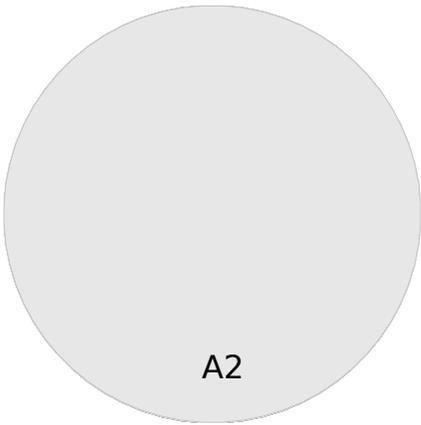
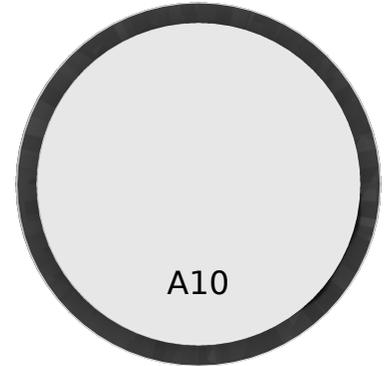
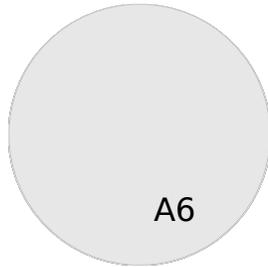
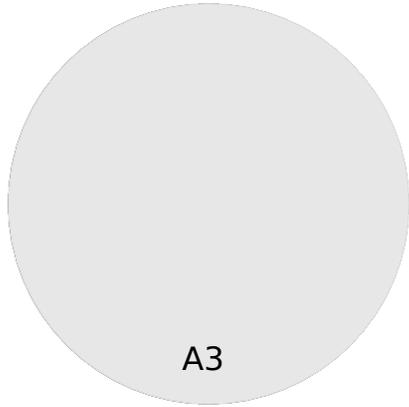
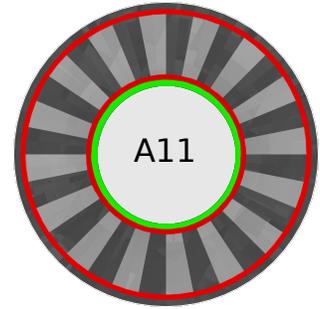
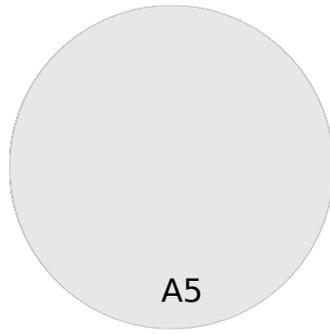
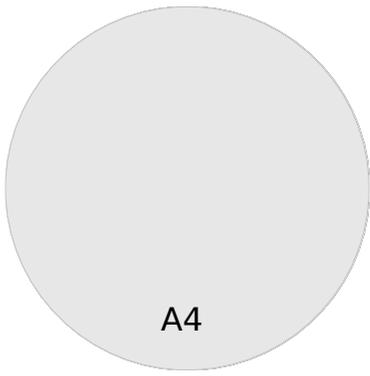




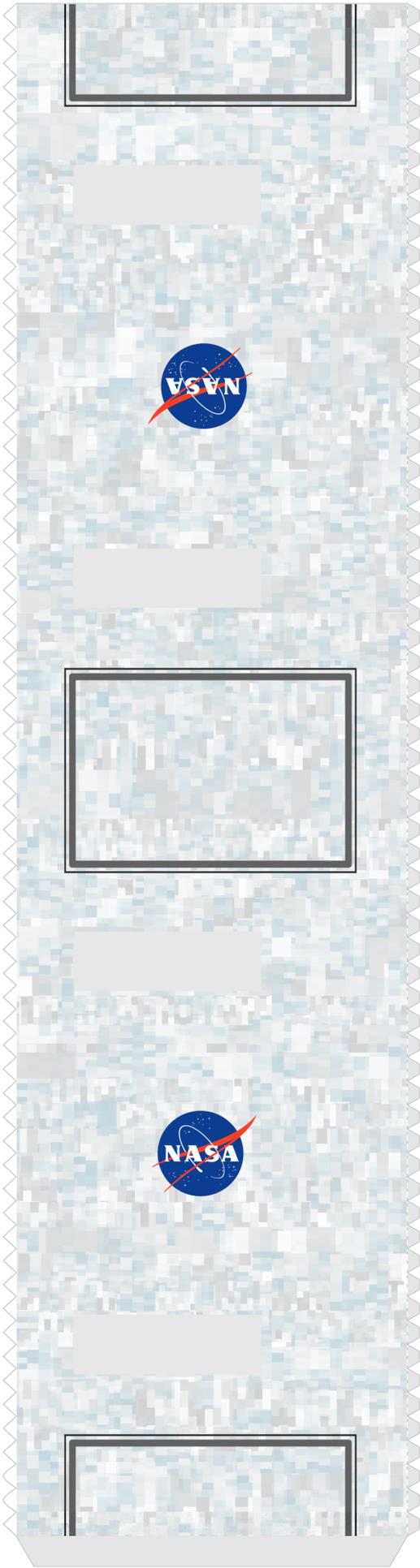




Laminate this page



A13



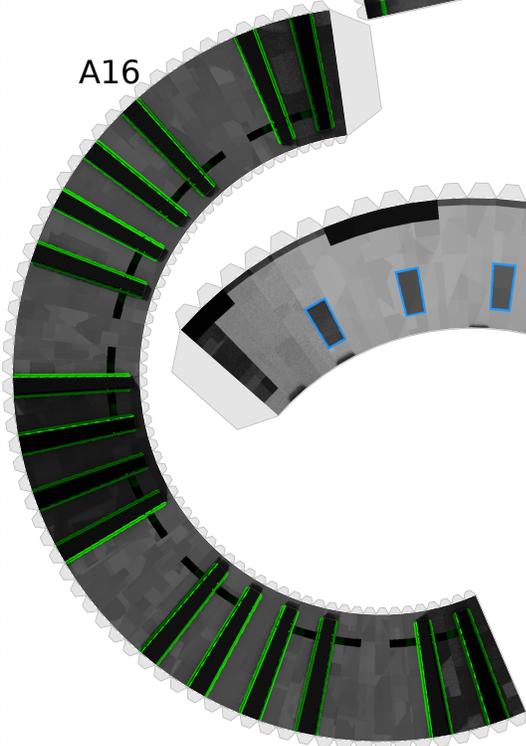
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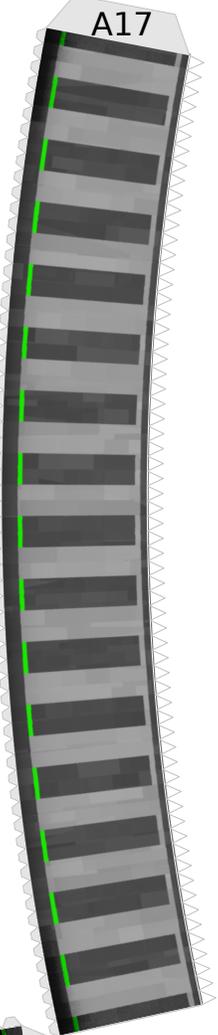
A15



A16



A17



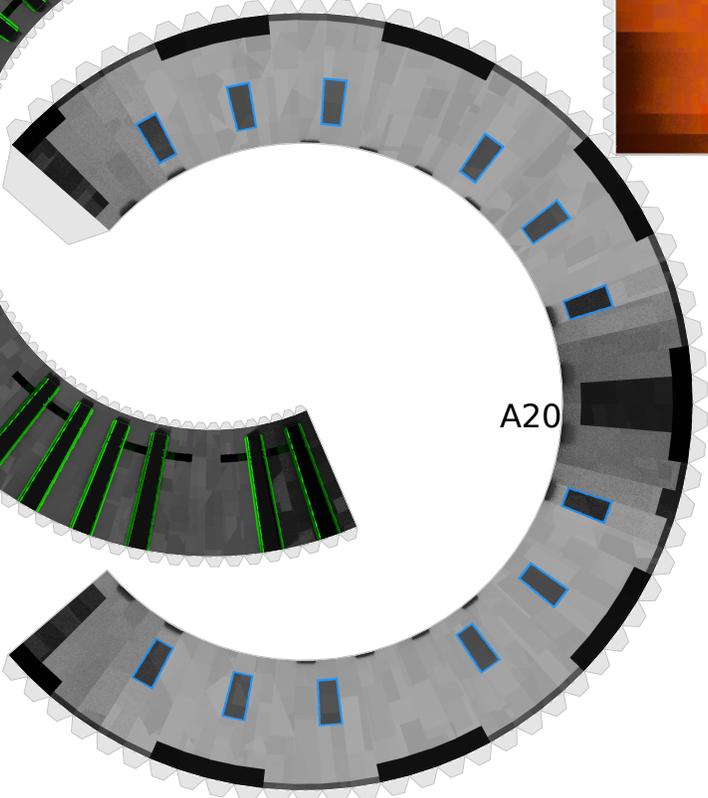
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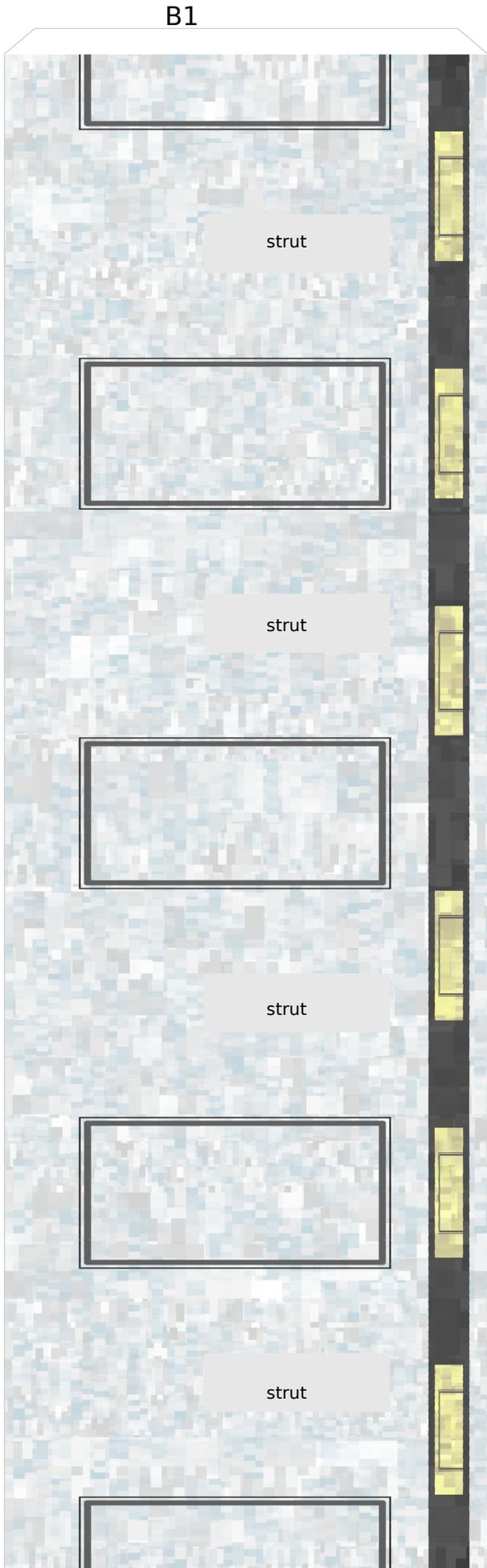


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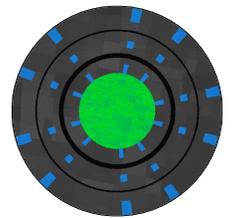


A20

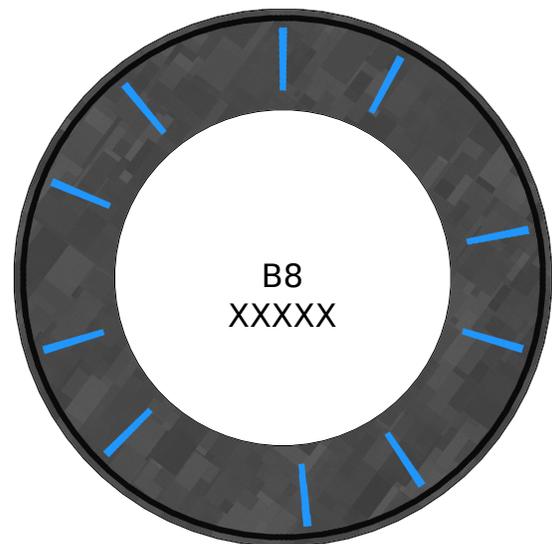
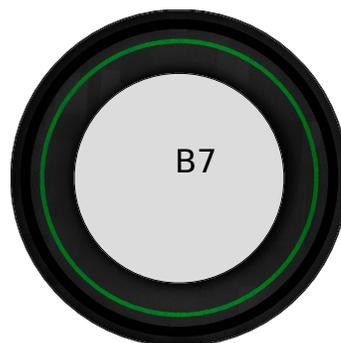




**B6**

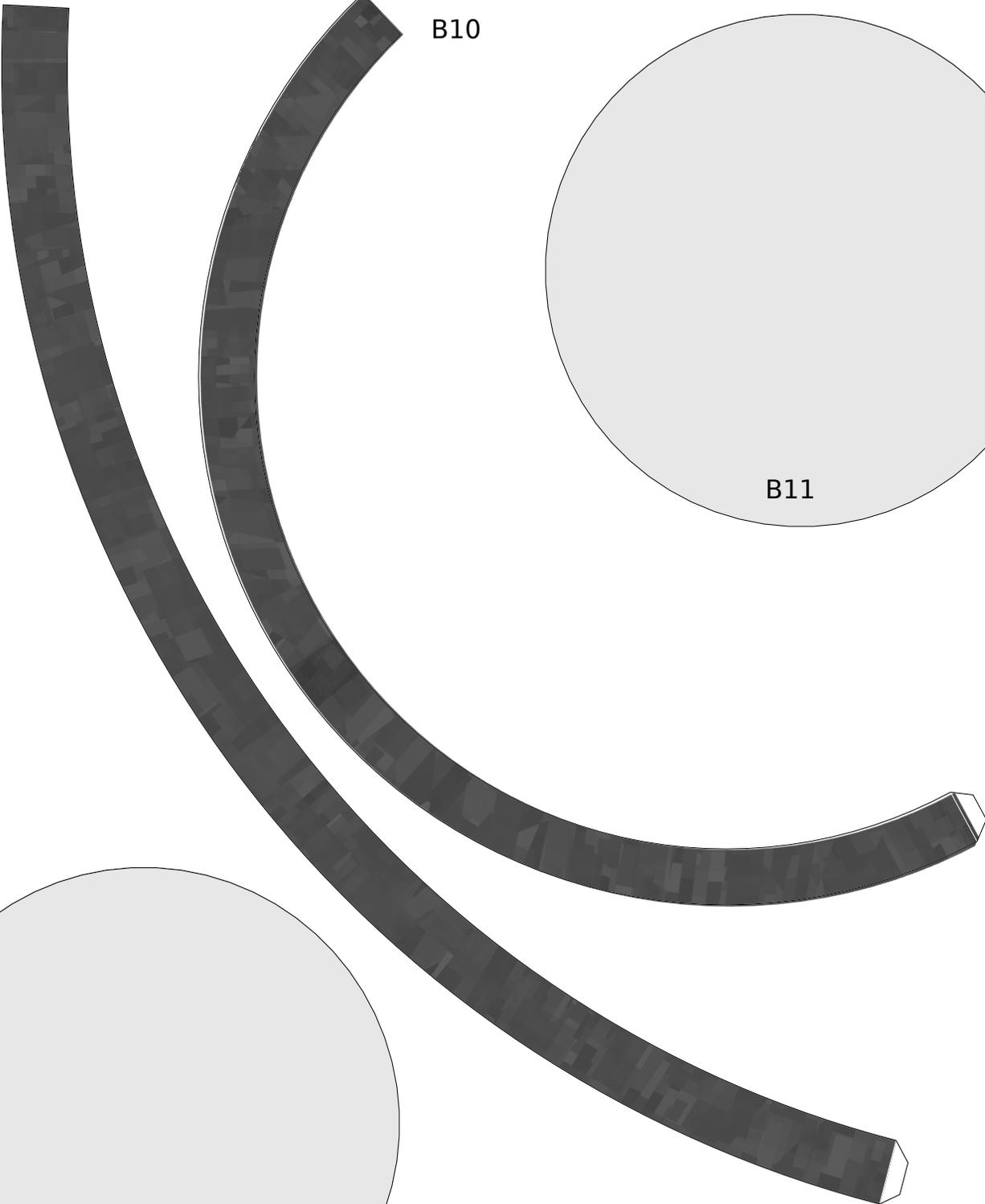


Laminate B6-B7



Laminate B11-B12

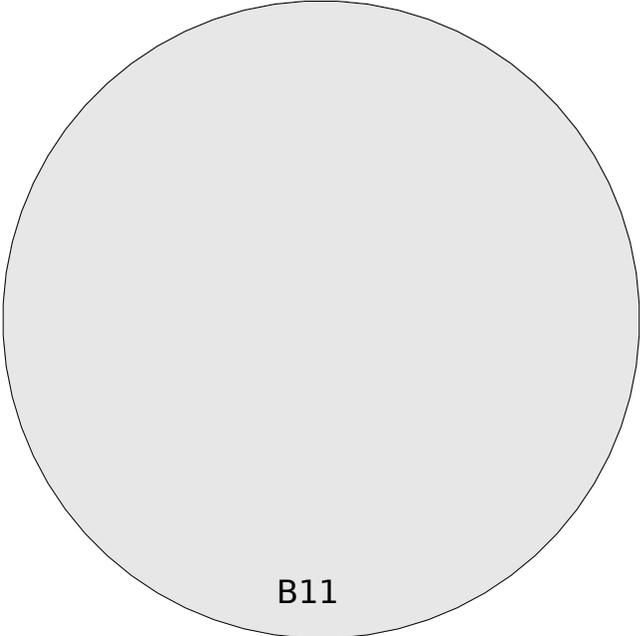
B9



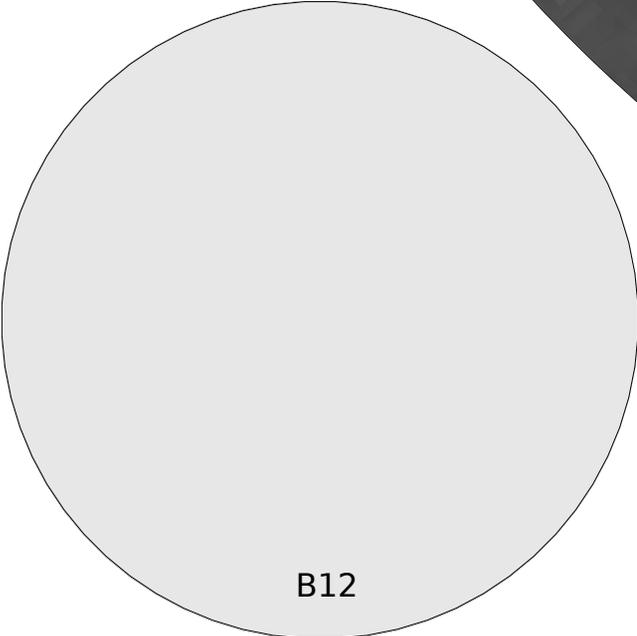
B10

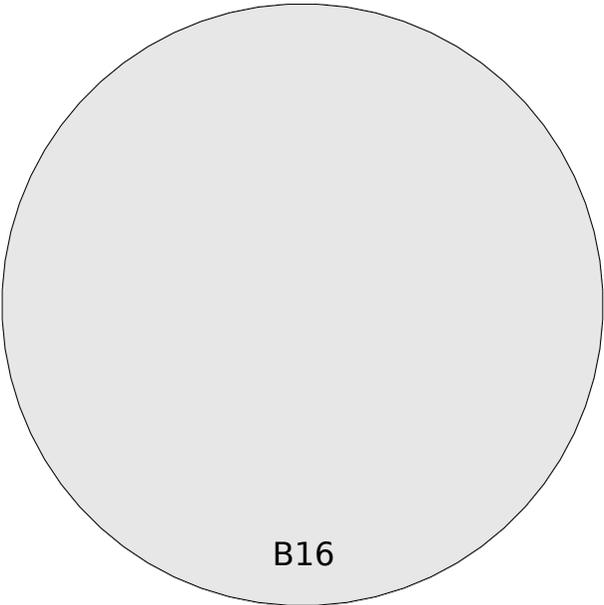
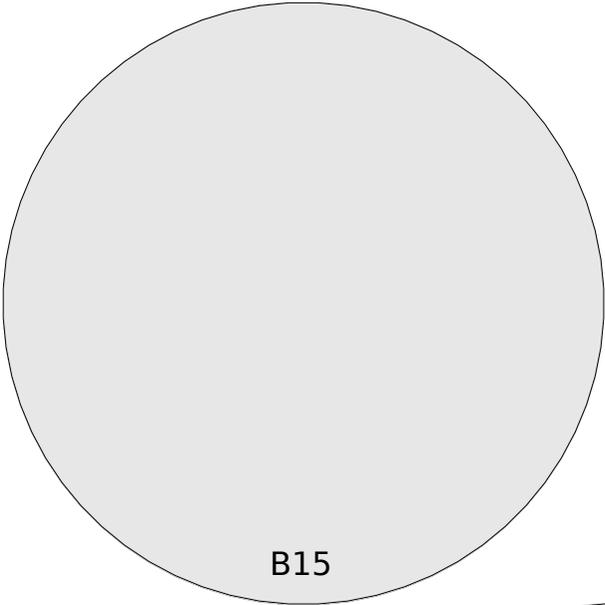
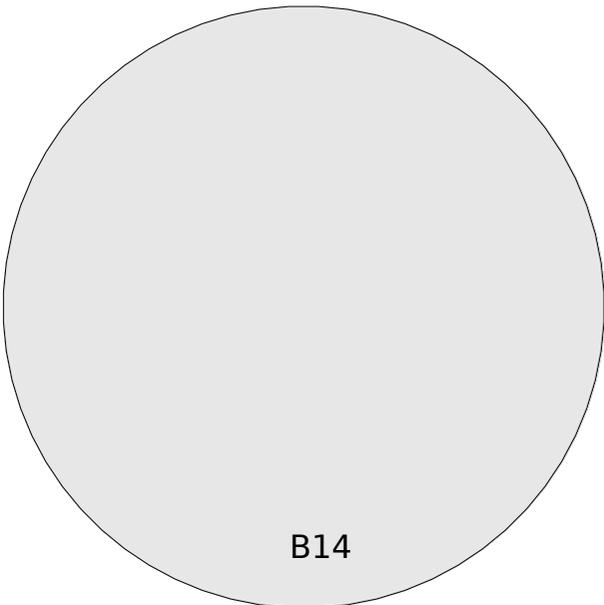
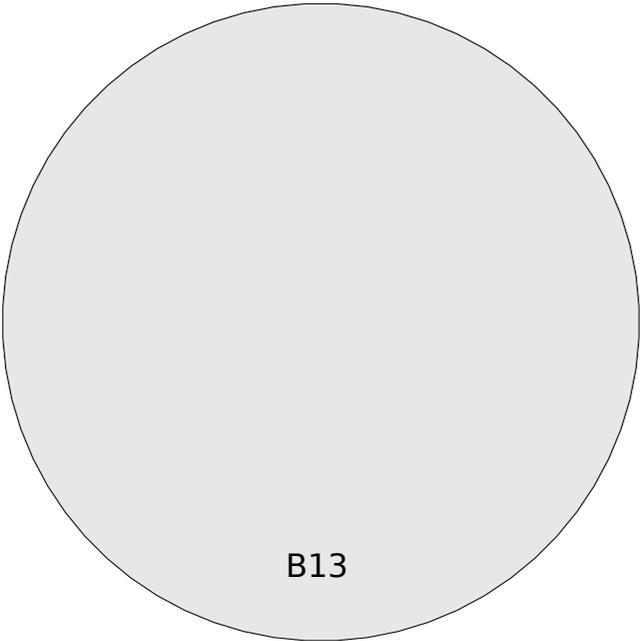


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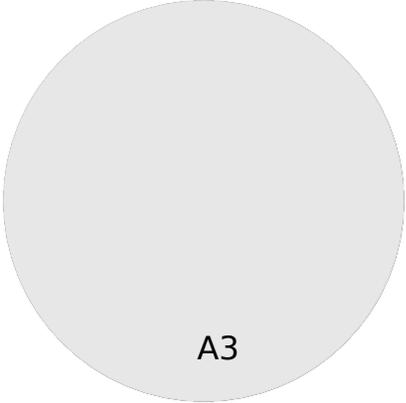
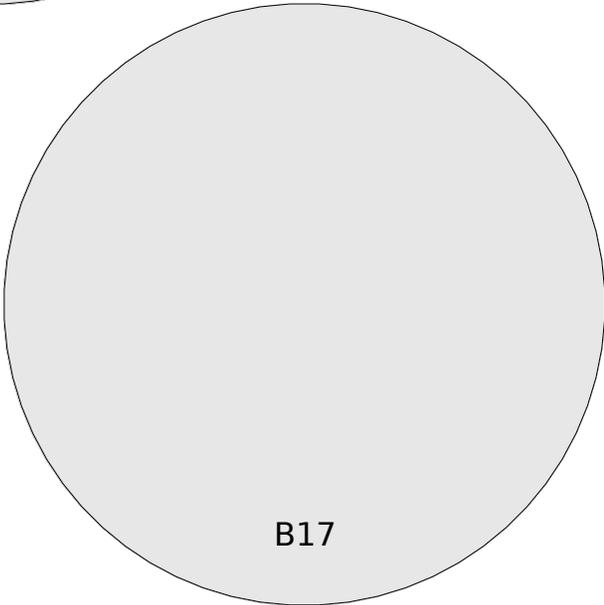


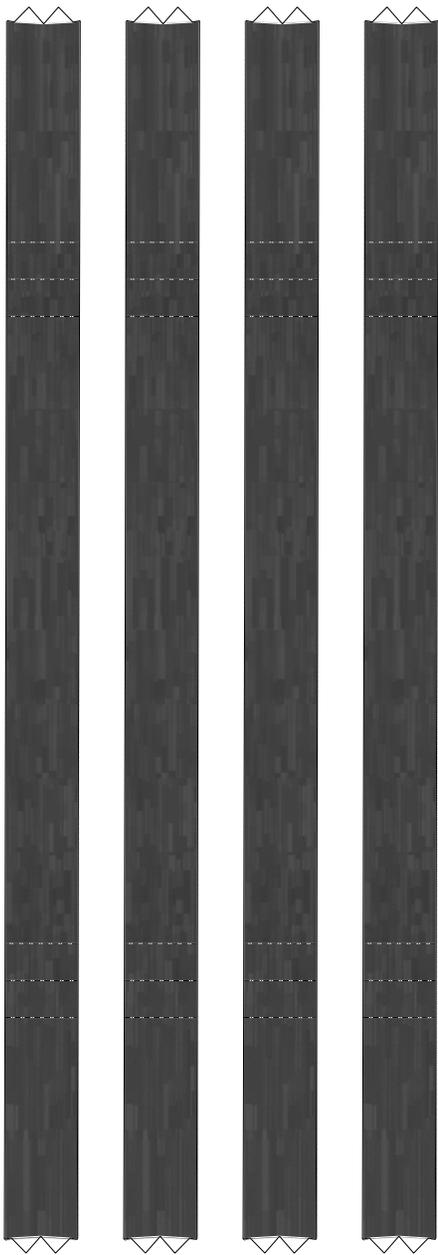
B12



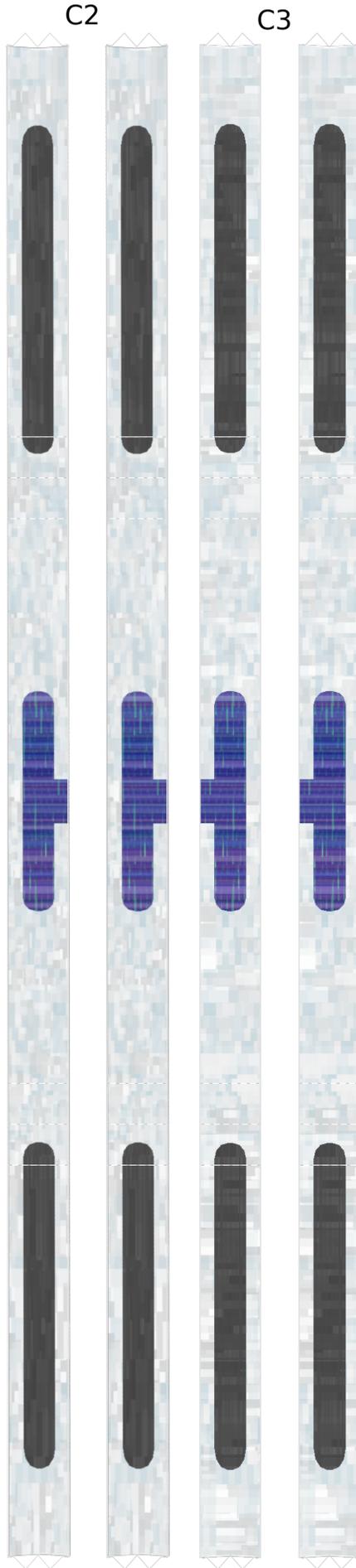


Laminate this page



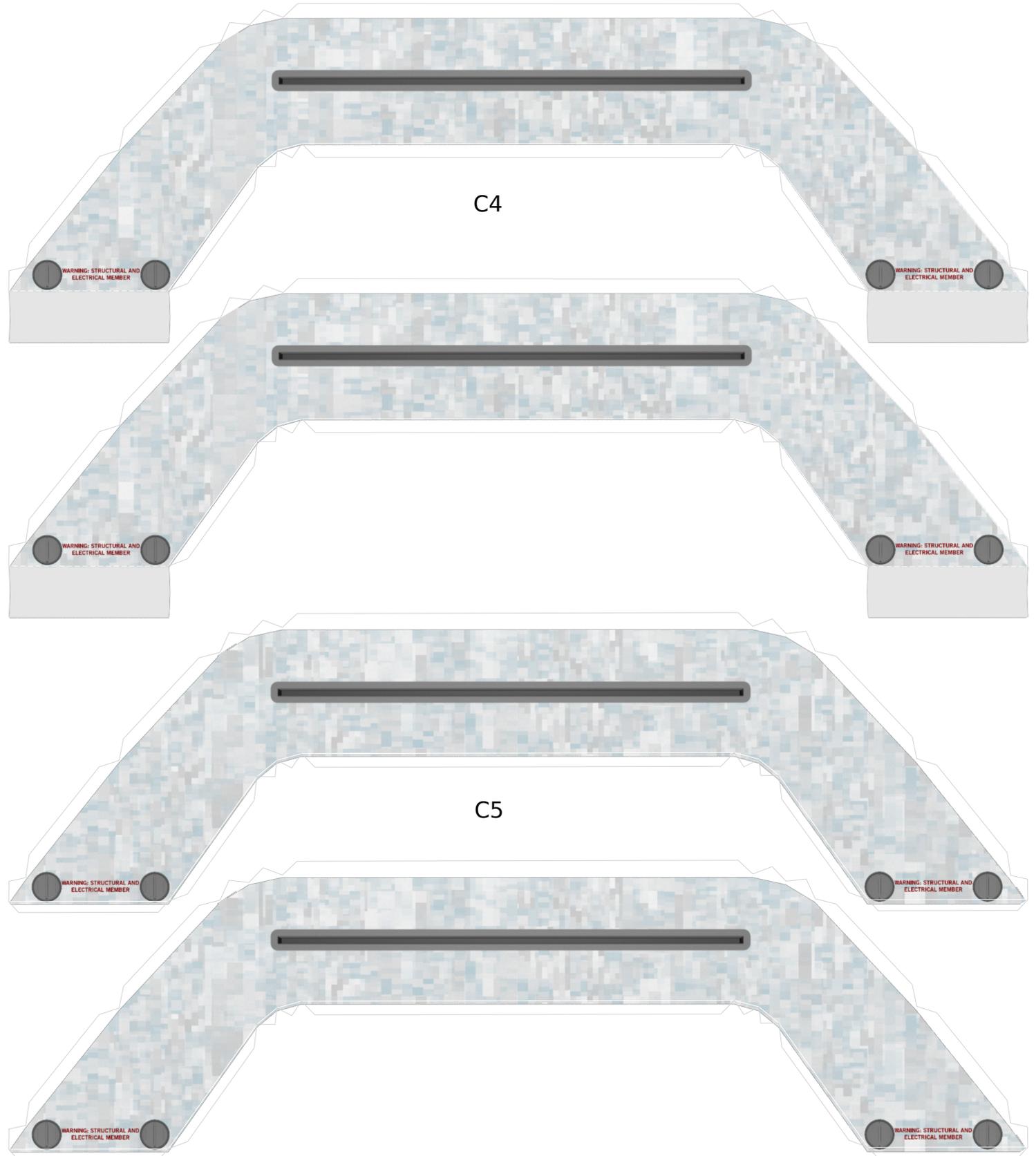


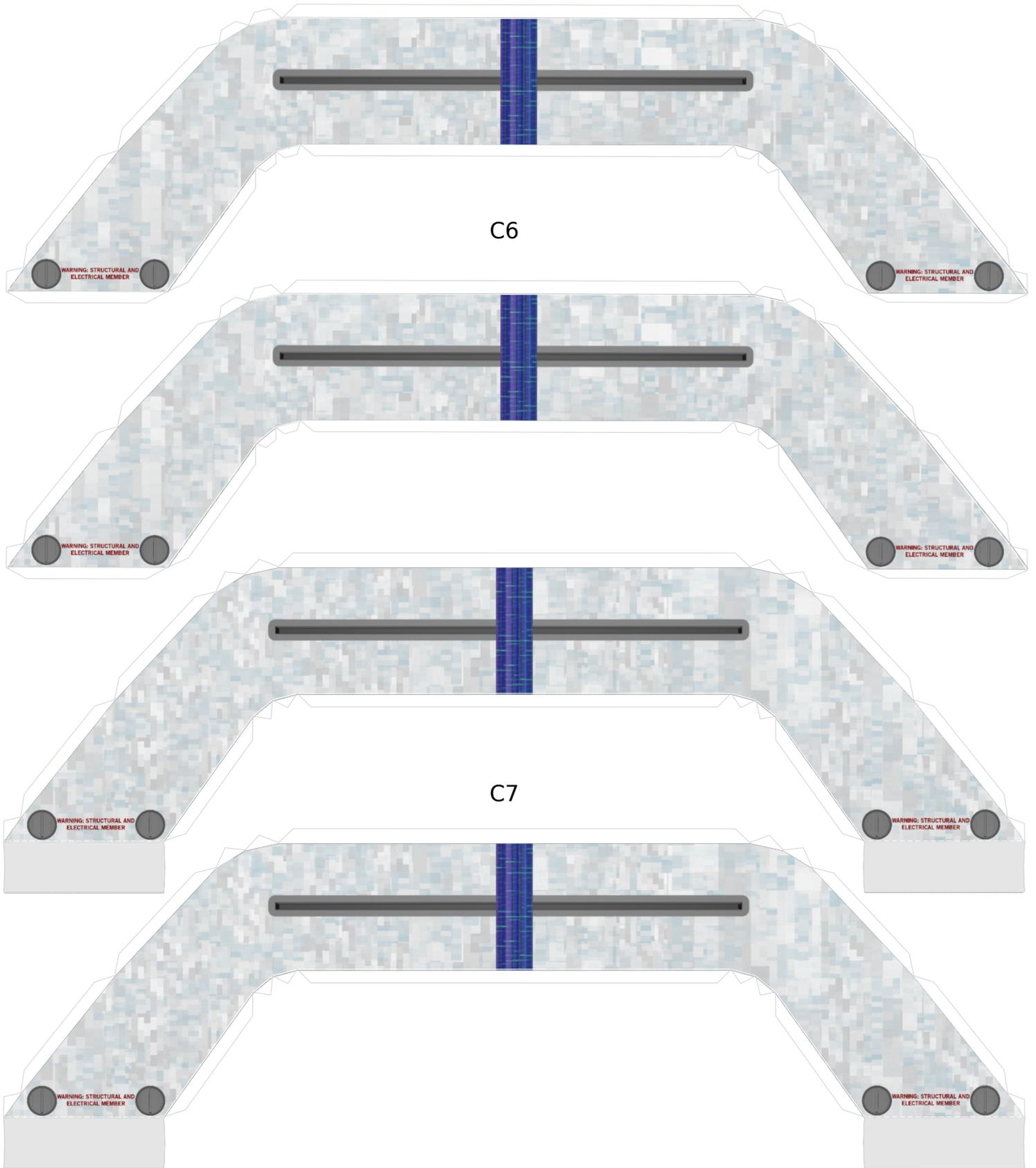
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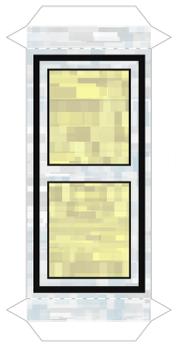


C2

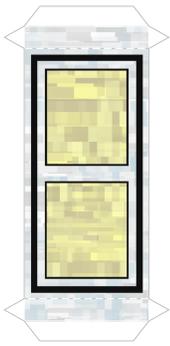
C3





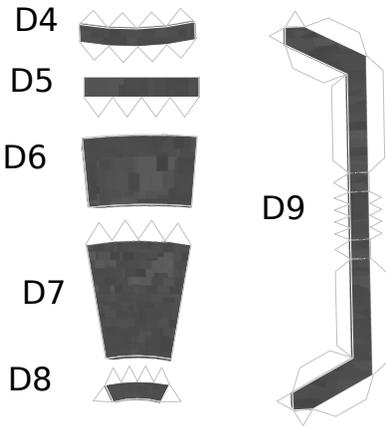


D1

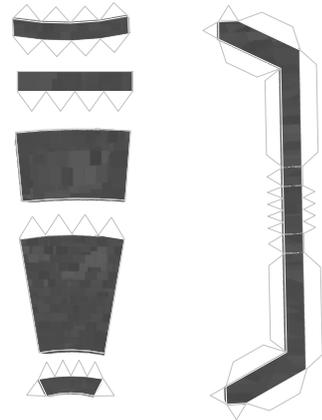
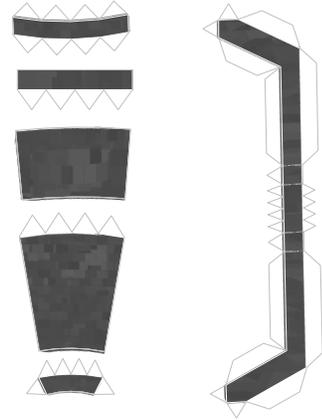
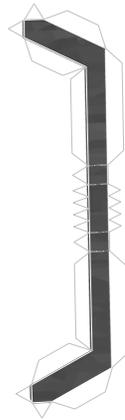
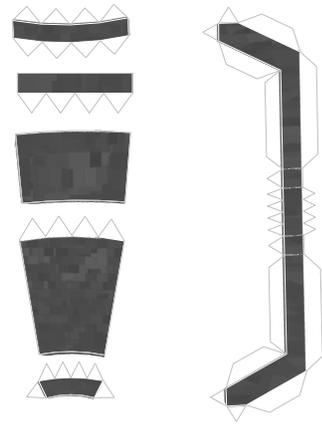


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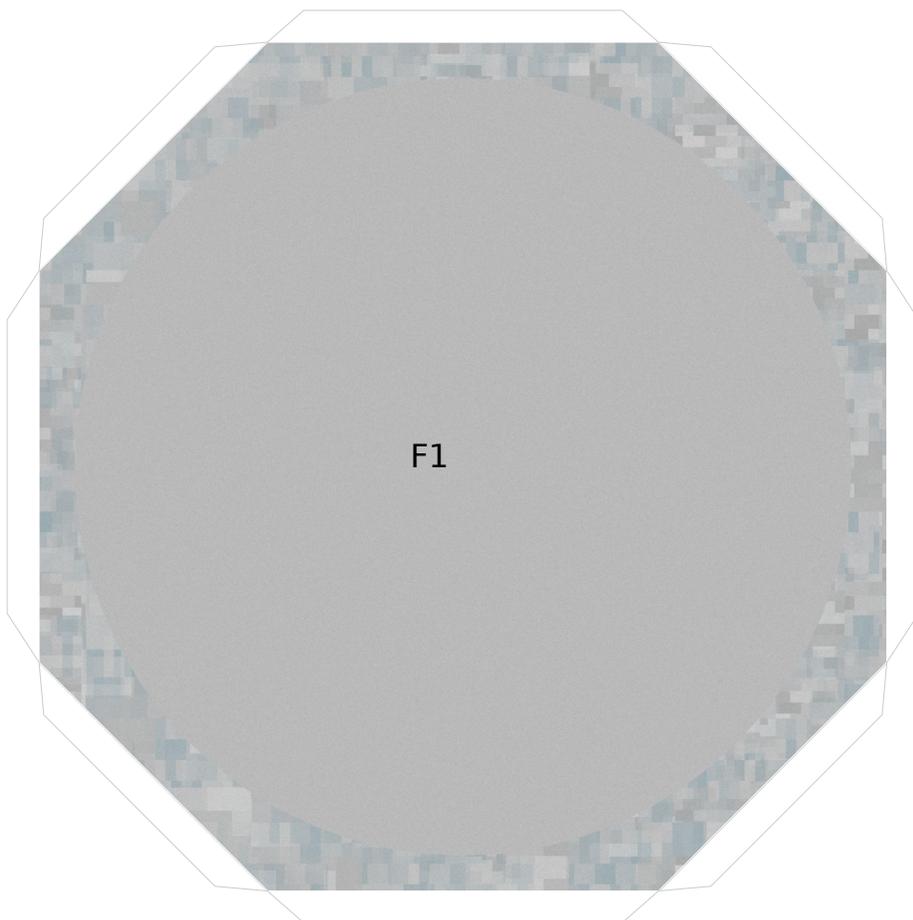
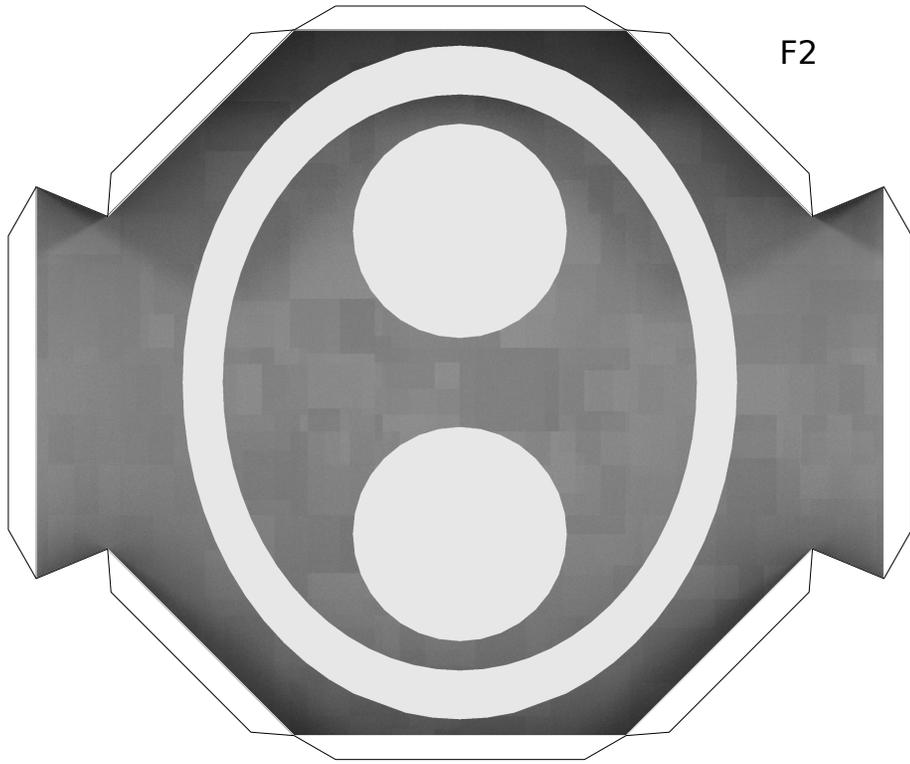
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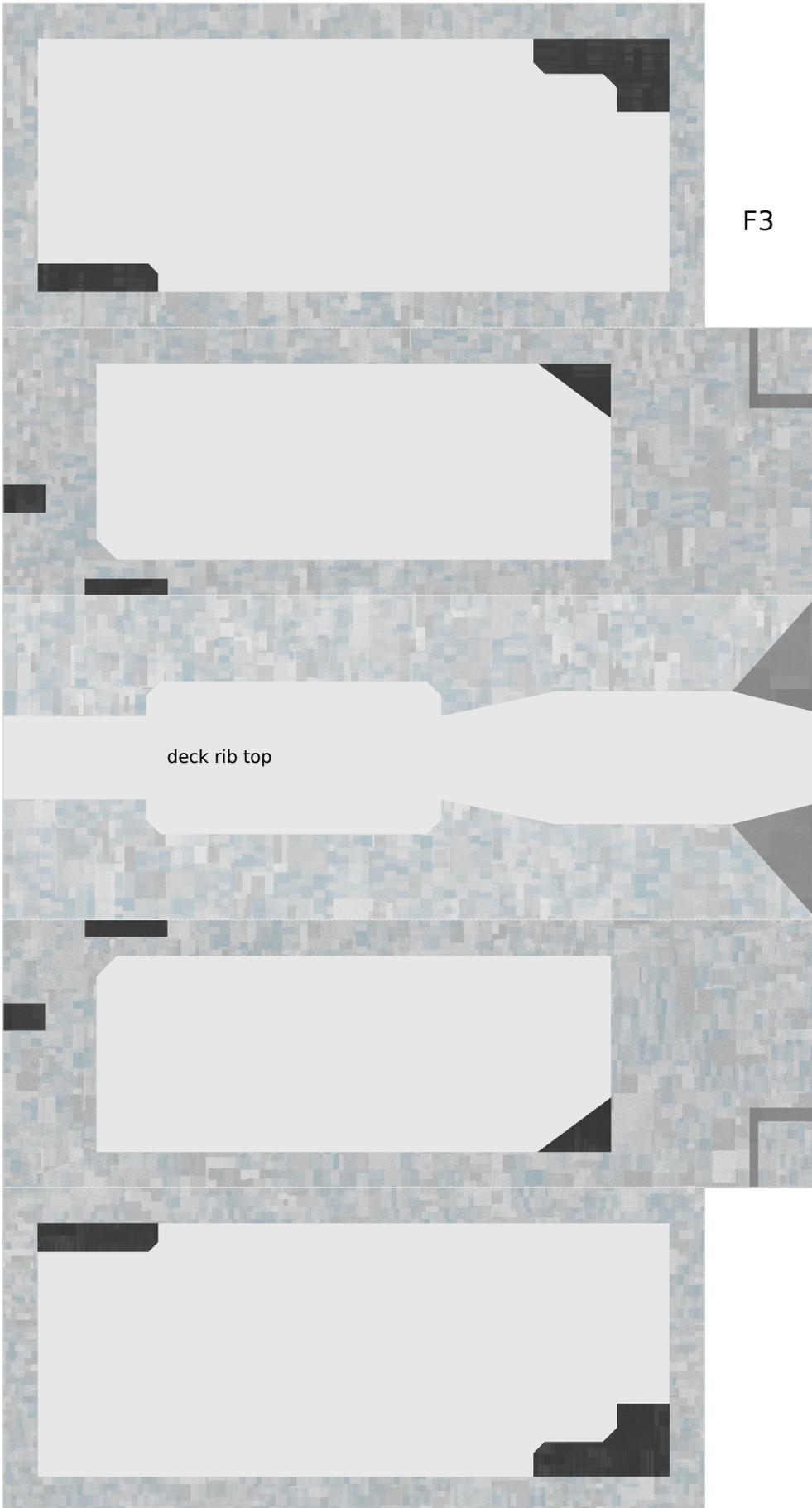


D9





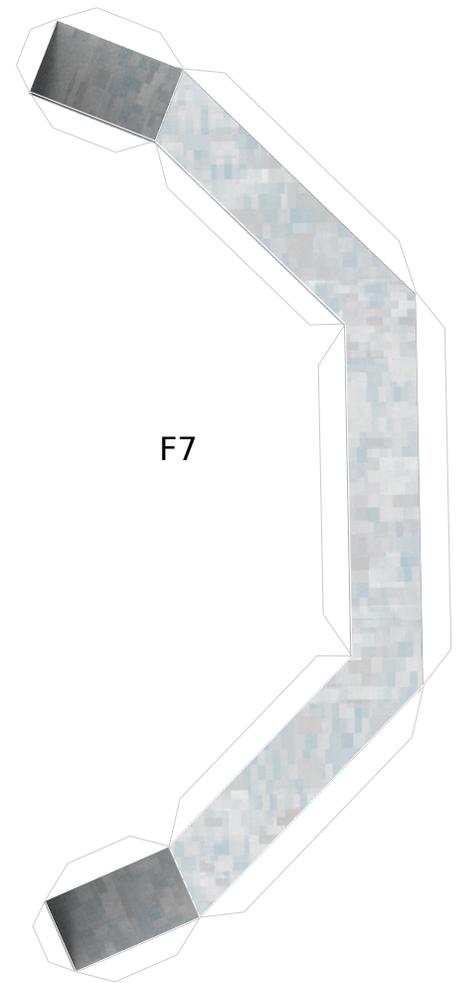
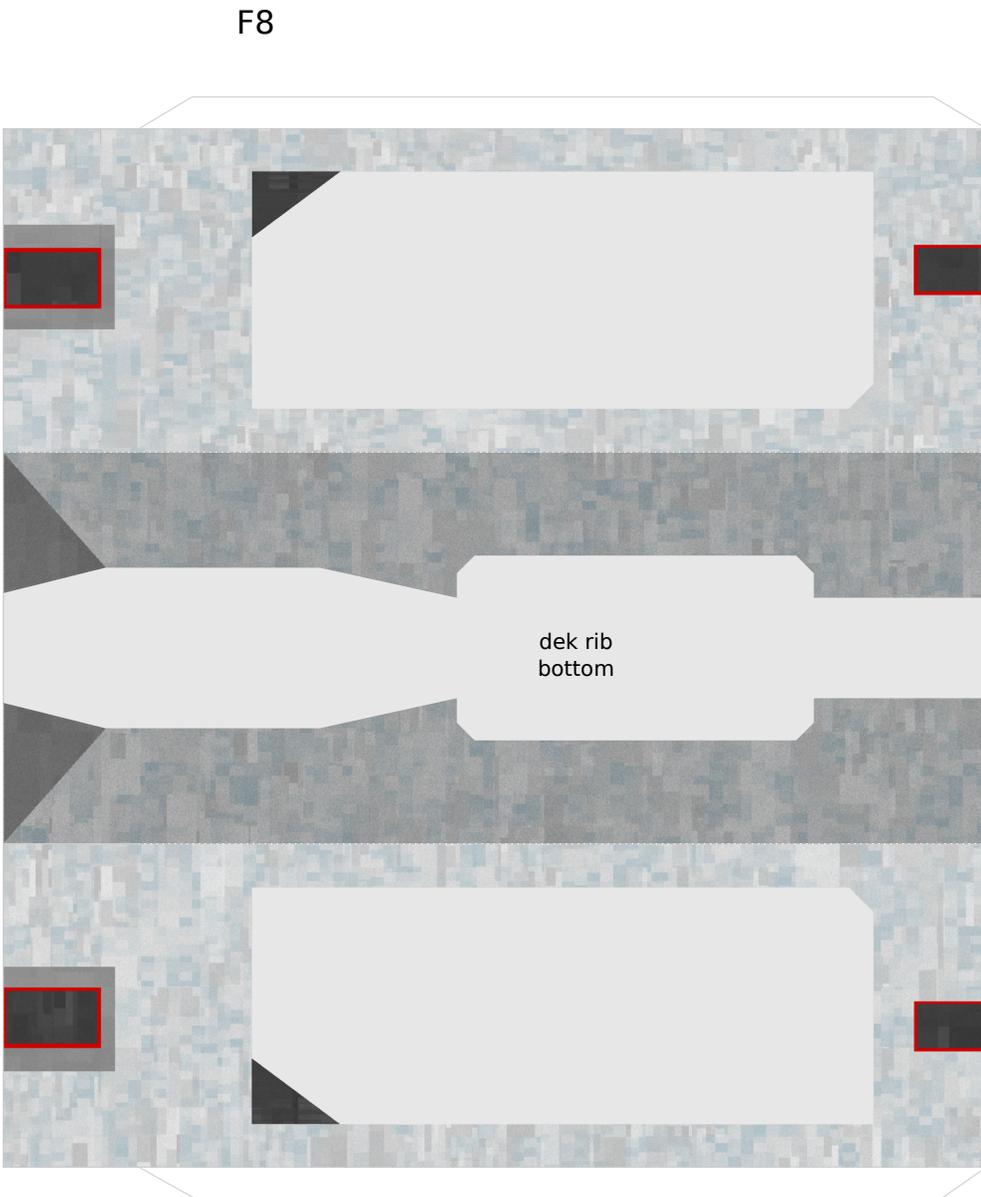
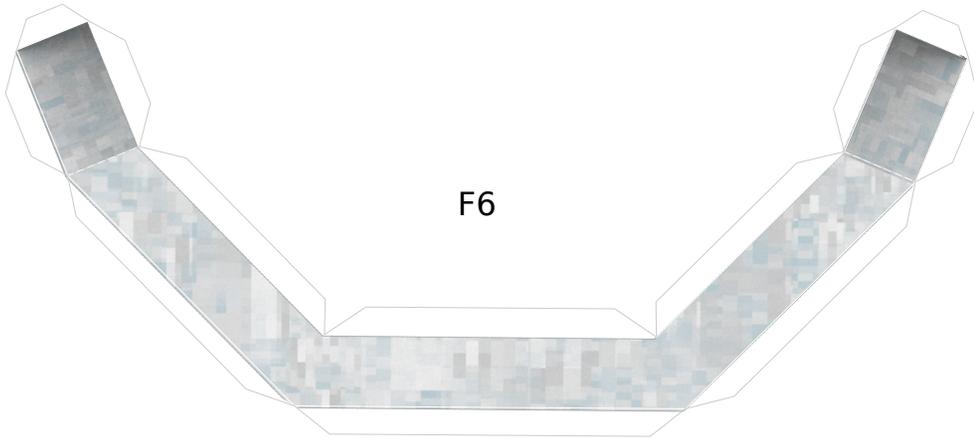




F4

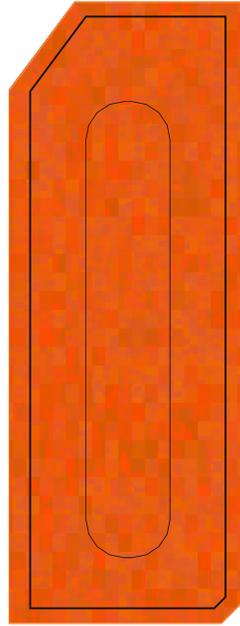
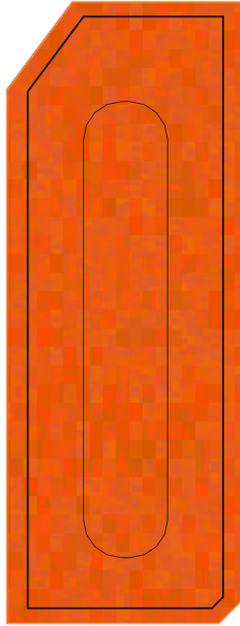
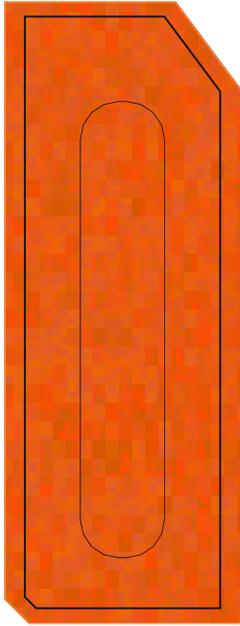
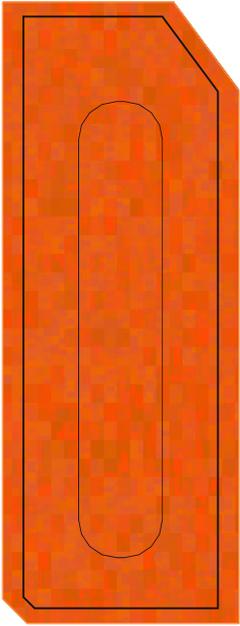
F5





G1

G2



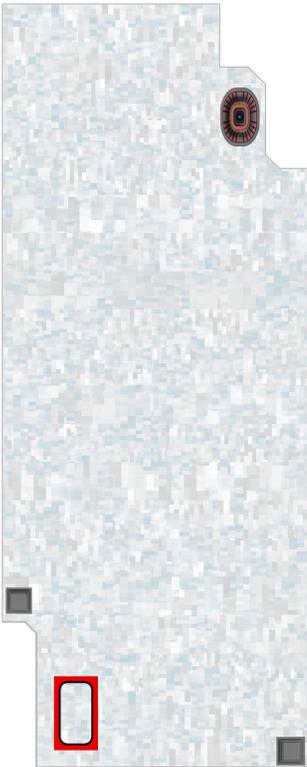
G7

G6

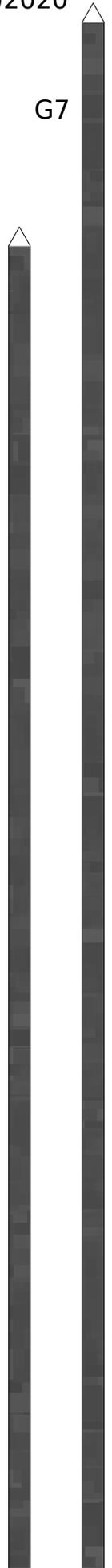
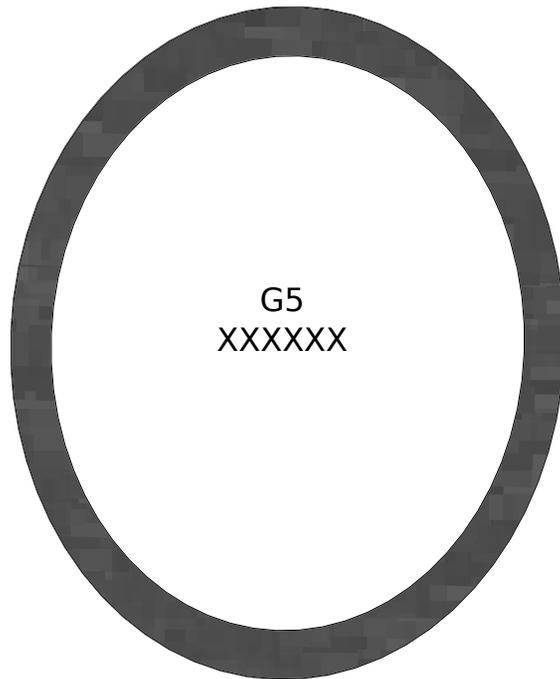
G3

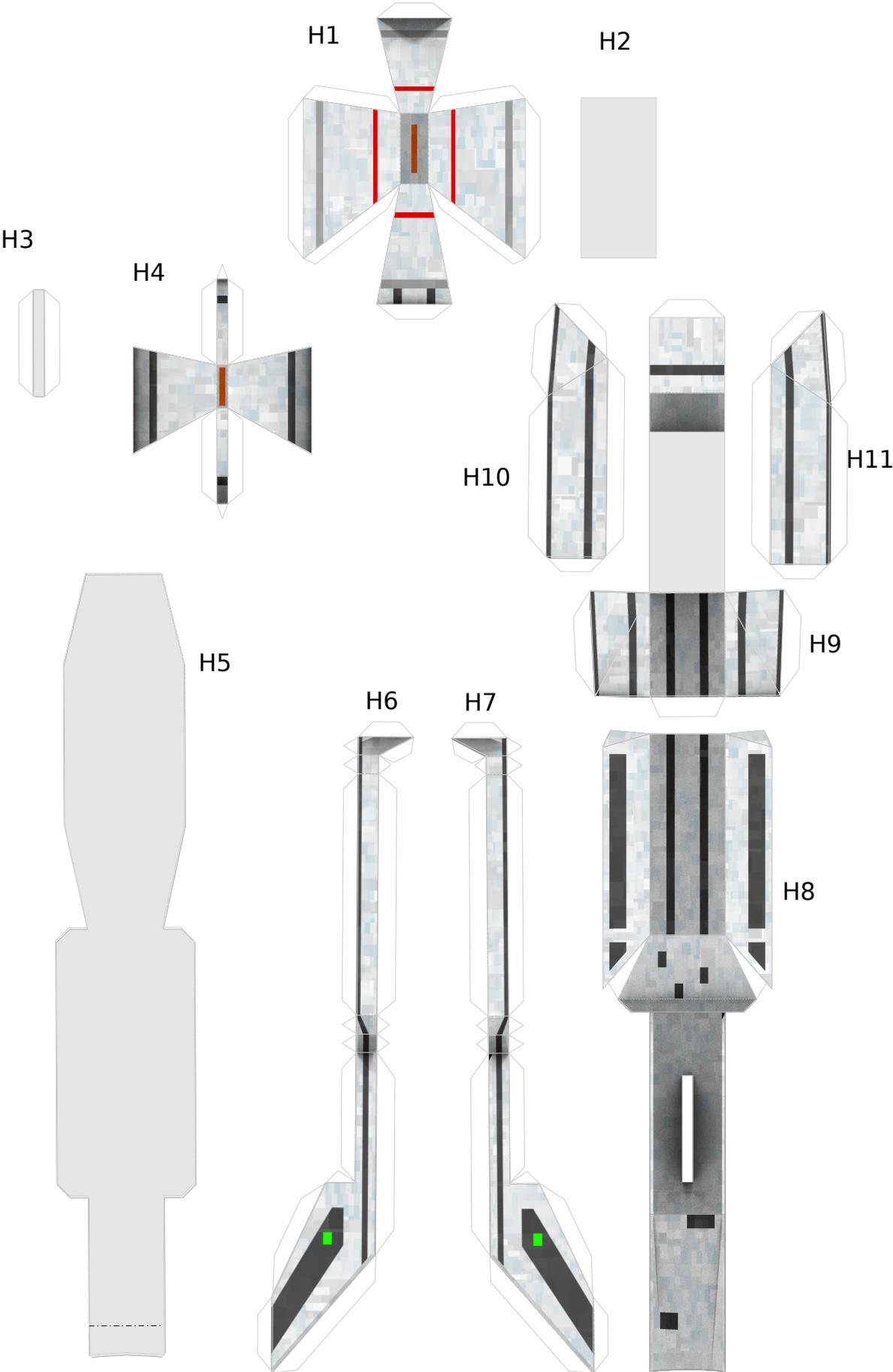
G4

Laminate G1 and G2 to 1mm. Laminate G3 and G4 to .5mm.



G5  
XXXXXX





I2



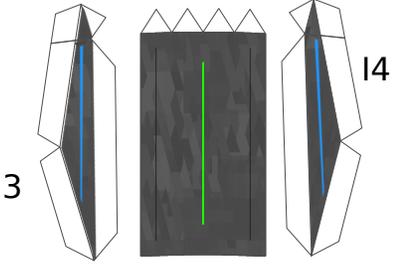
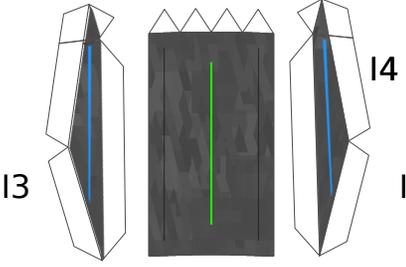
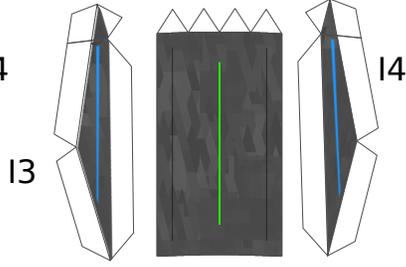
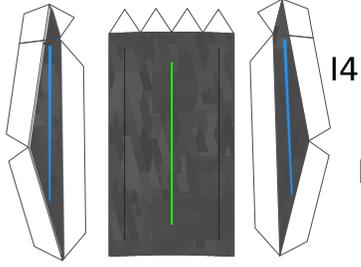
I2



I2



I2



I1

I1

I1

I1



J5



J6



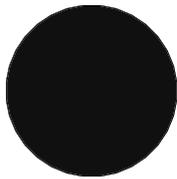
J5



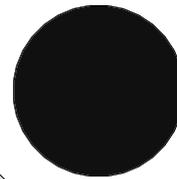
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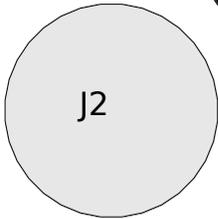
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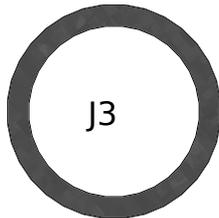
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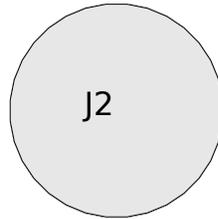
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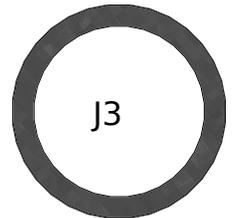
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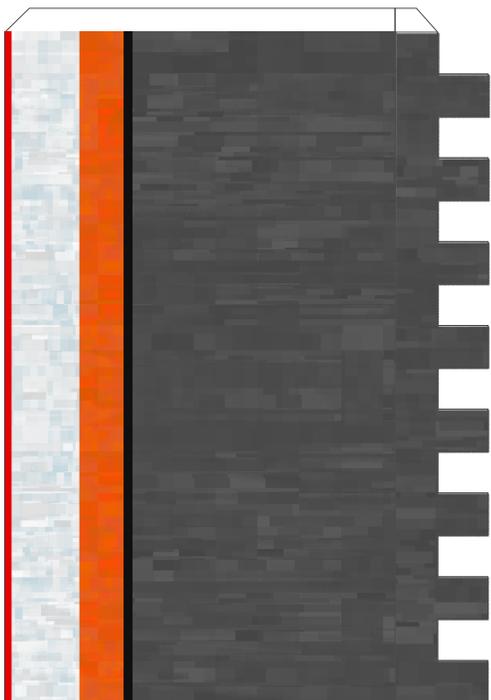
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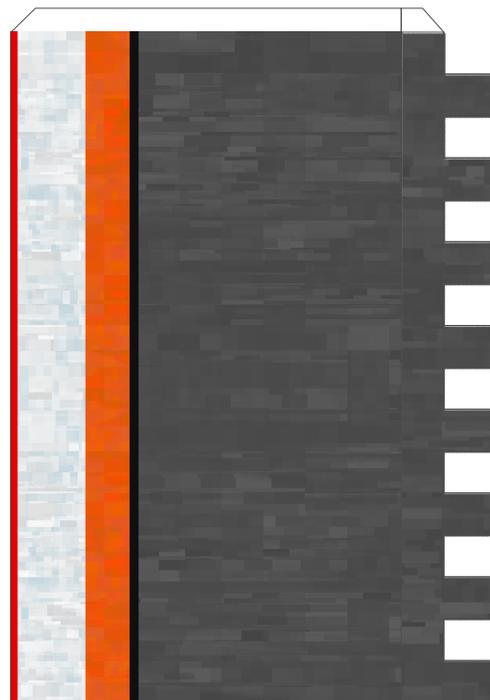
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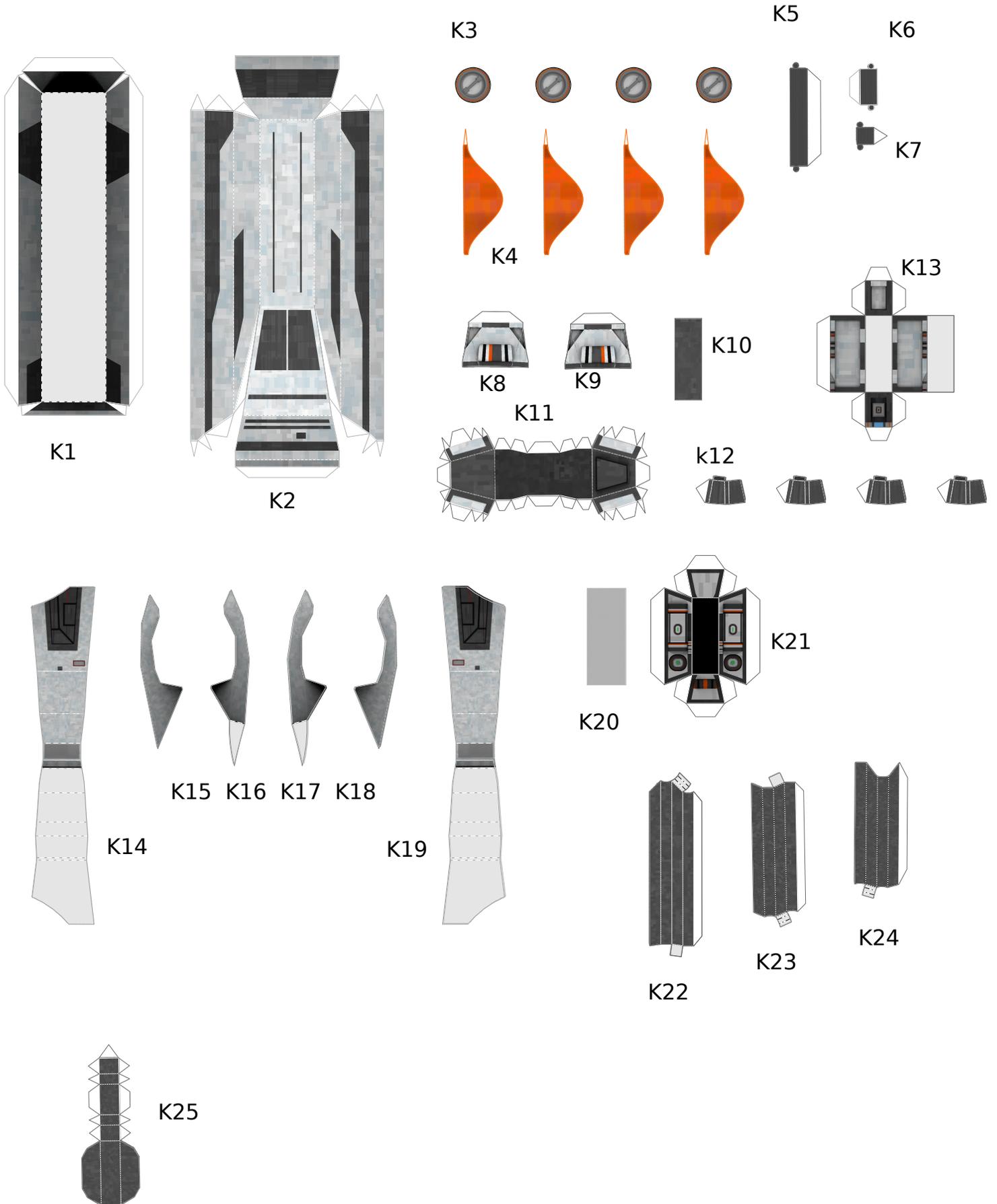


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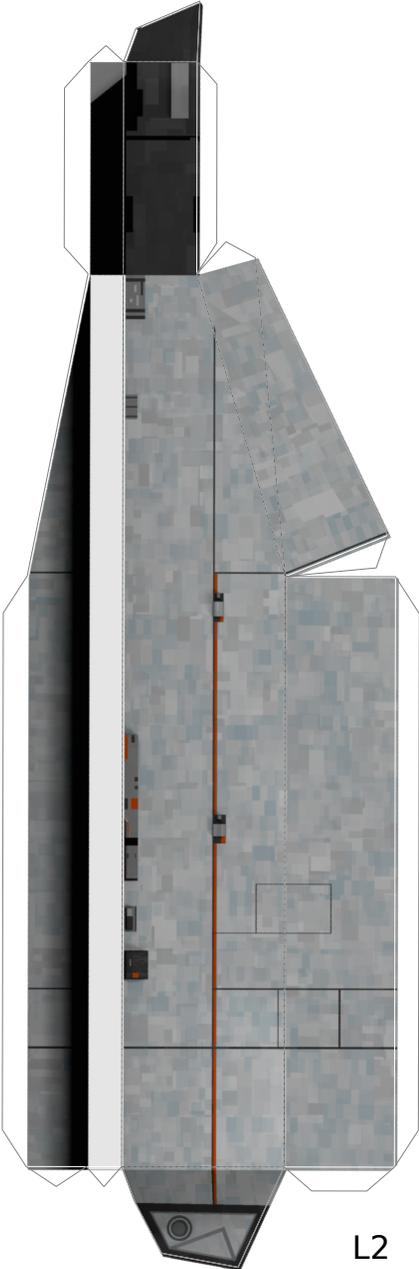
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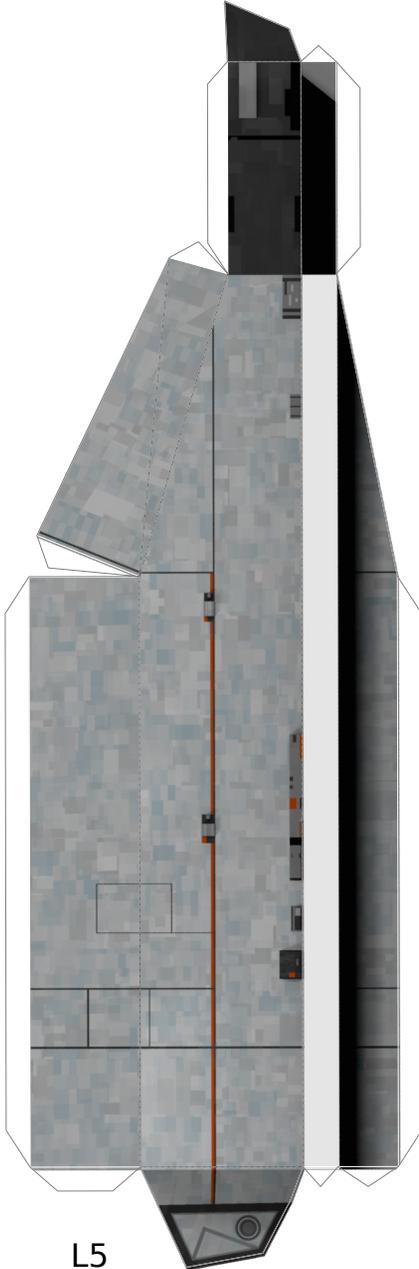




L1



L2



L5



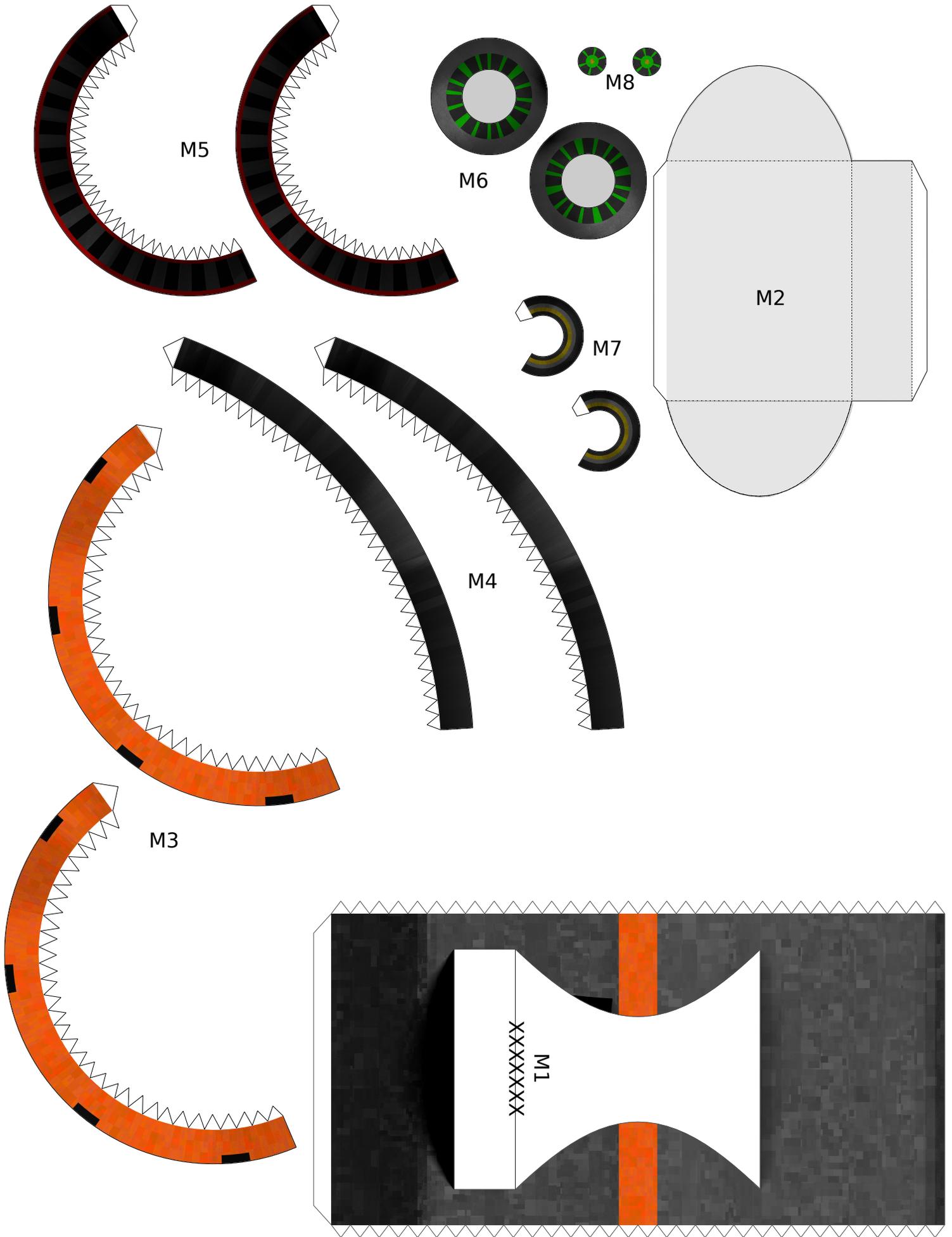
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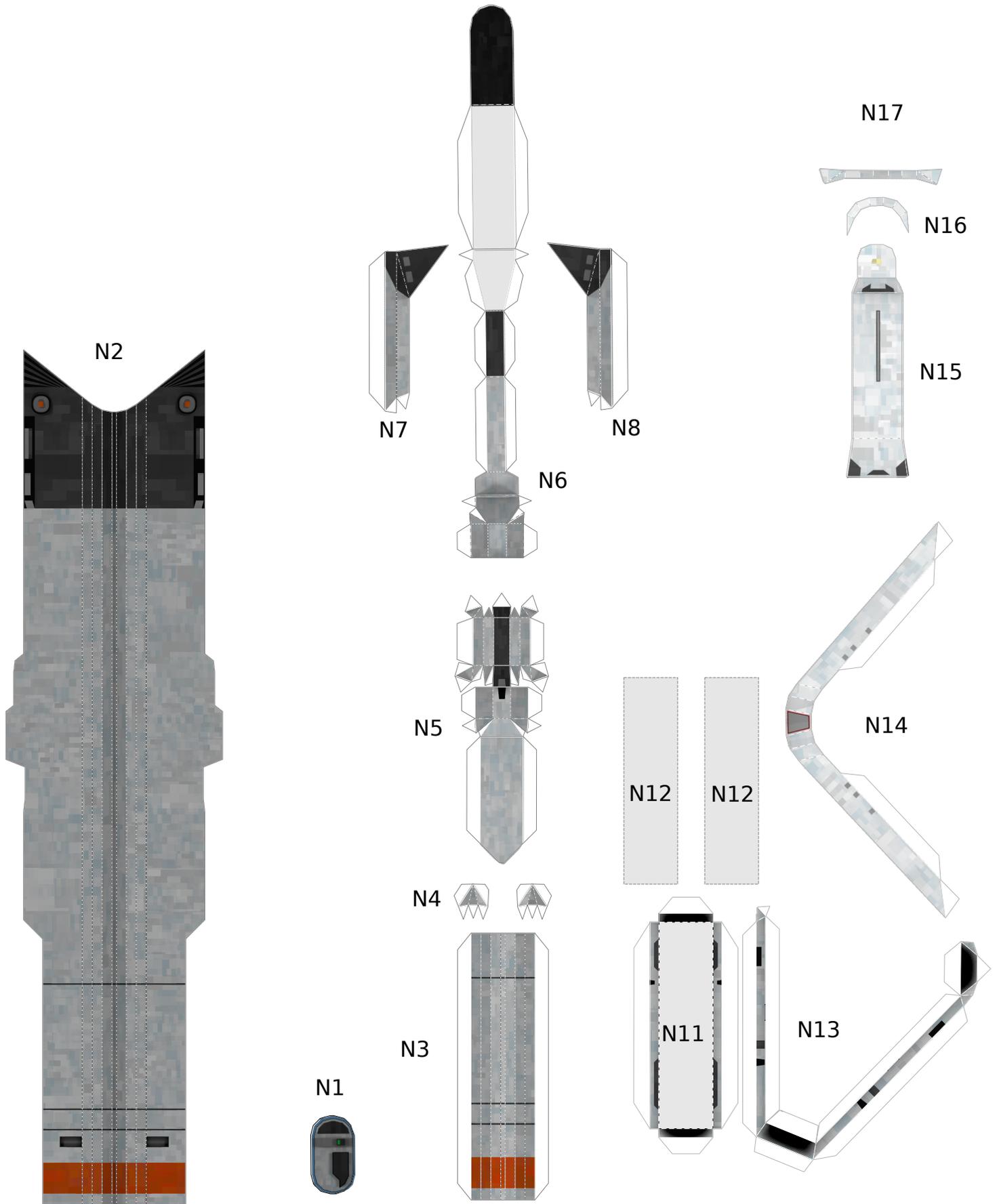


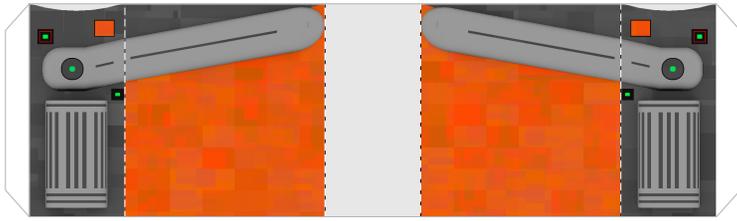
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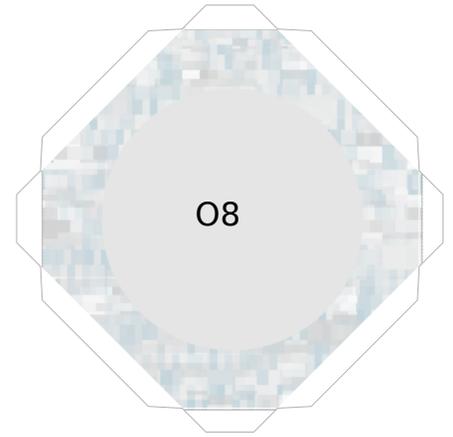
L6







06

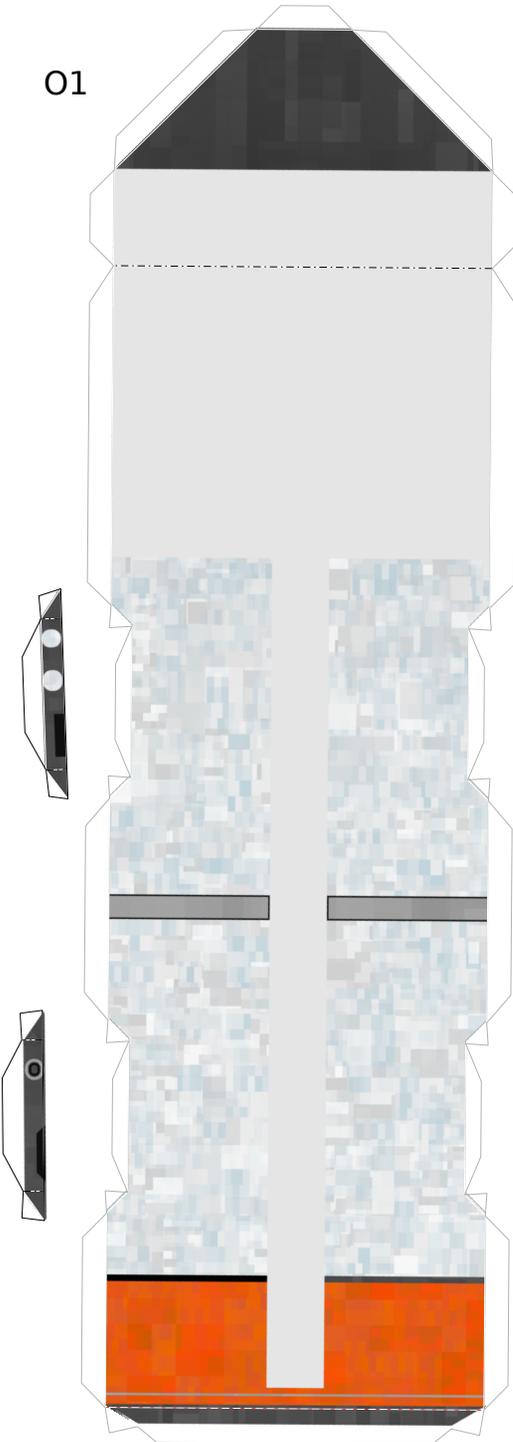


08

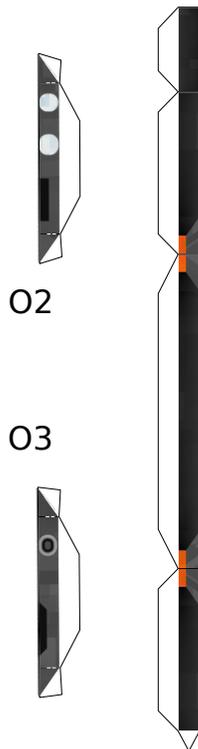
07



01



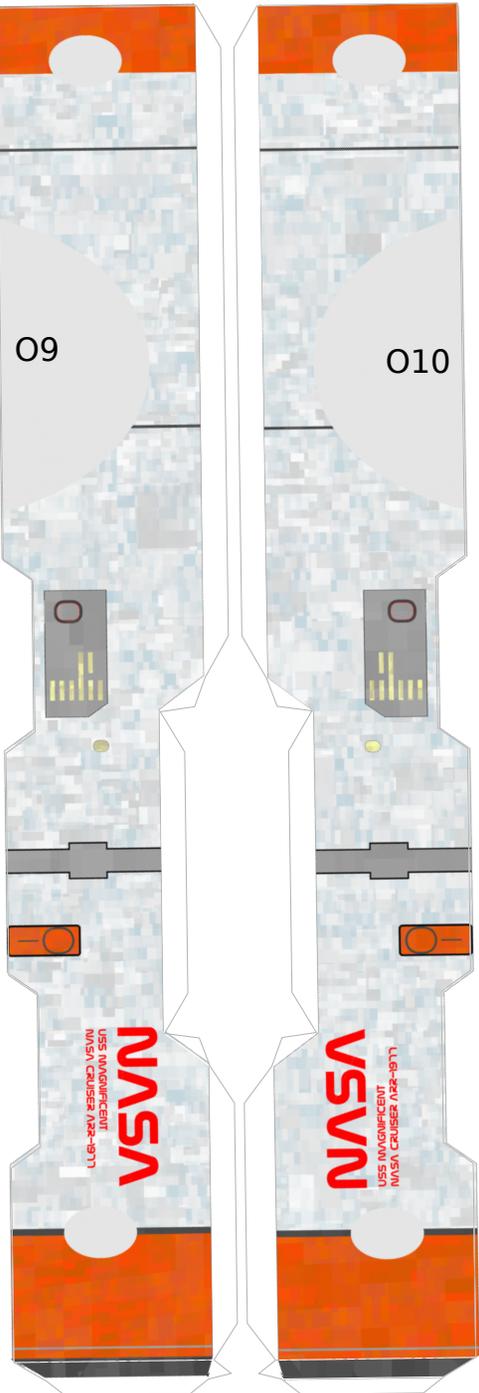
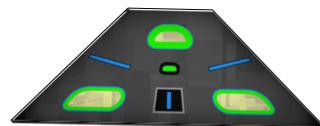
05



02

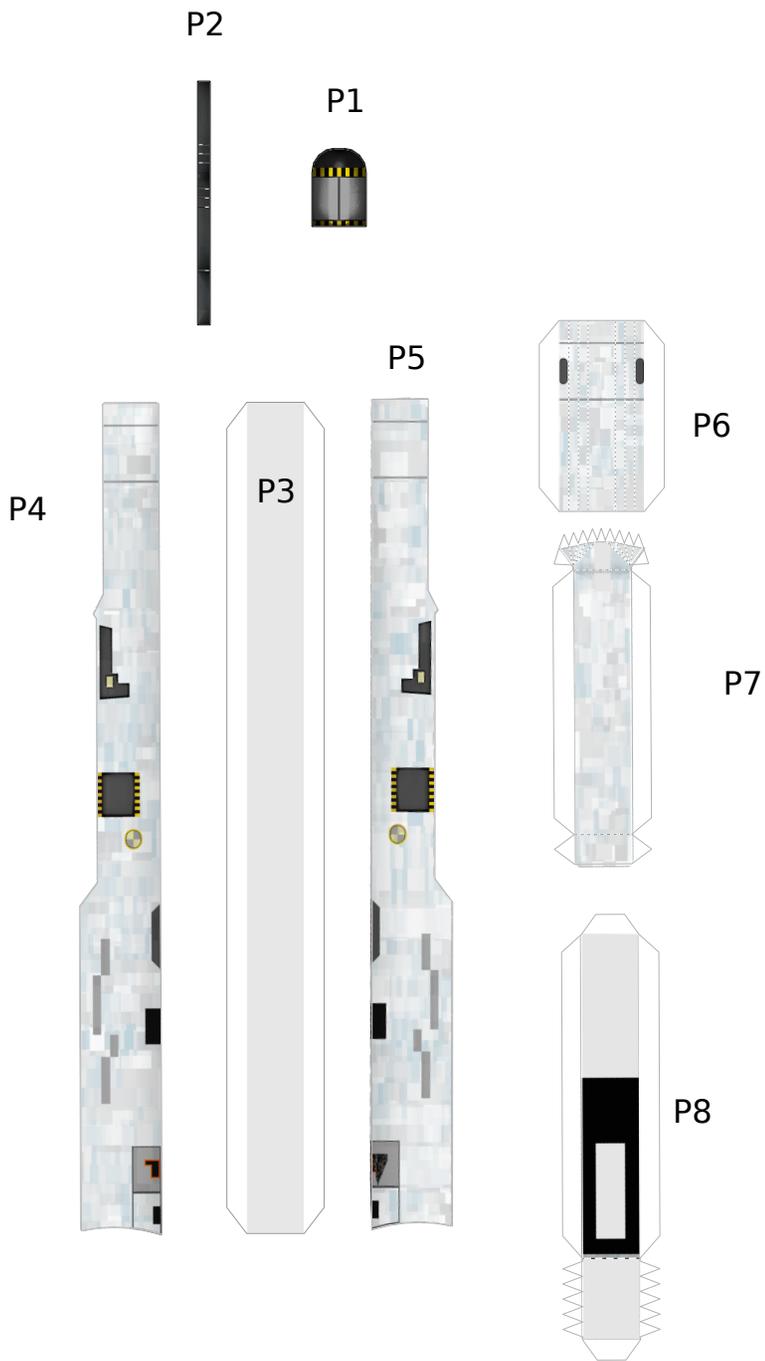
03

04



09

010



Laminate to 1mm thick

