

## Instructions Thrust structure

This is the second part of what has to become a 1 : 48 scale Apollo / Saturn V model.

Please keep in mind that this model is by no means a “replica”, it is just build because I like to look at pictures of the real thing and to find out what is possible to “transfer” into paper.

**The pictures within this manual where taken before I have changed the colour of the fins.  
The parts remained the same so I didn't took new pictures.**

Print out the part sheets on 8.5"x11" or A4 size white paper card stock.

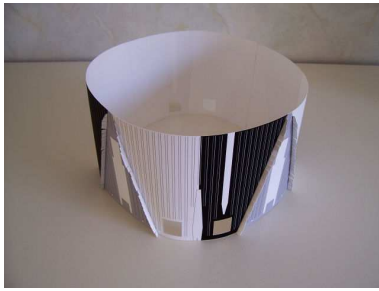
A special THANK YOU for Jonathan Leslie for hosting this model and his great support.

Have fun with this model, I know I did.

Greelt A. Peterusma

For any comments, suggestions, pictures of your builds or nice words you can contact me at:

[saturn5@planet.nl](mailto:saturn5@planet.nl)



Cut parts #1, (2X) cut the two square holes in those parts.  
Cut parts #2 (2X).  
Cut parts #3 (4X).

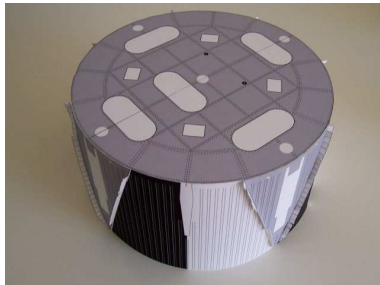
Glue together parts #1 and #2 with parts #3,  
please note that the sequence should be :  
Part #1, part #2, part #1 and part #2.

Fold the tabs on parts #3 before gluing to parts #1 and #2



Glue parts #4, #5, #6 and #7 on the inside of parts #1 and #2,  
use the red mark on the tabs as a guide to glue them in the right position.

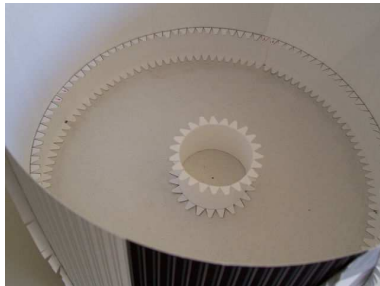
The last part may need trimming to fit.



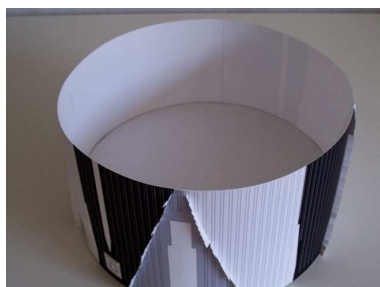
Glue parts #8 and #9 on cardboard forming a complete circle.

The total thickness should be 2 mm.

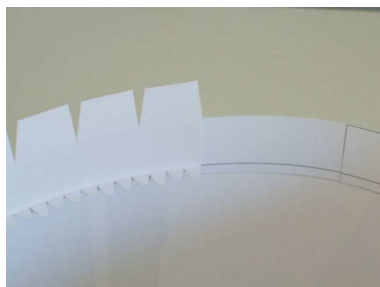
Glue the F1 base in place.  
Line up the red marks on part #8 and #9 and part #2.



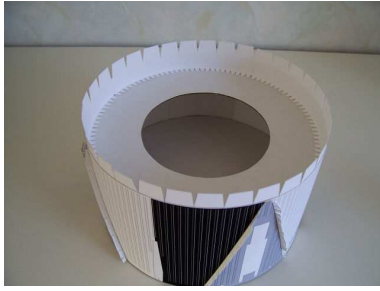
Cut part #10 and glue this on the inside of the F1 base.



Cut a piece of cardboard with a diameter of 216 mm and glue  
this inside the Thrust structure.



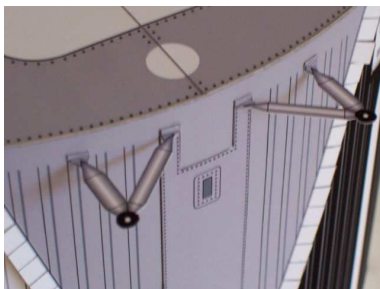
Cut parts #11 and #12, (4 of each).  
Glue part #11 inside the Thrust structure.  
Glue part #12 onto part #11



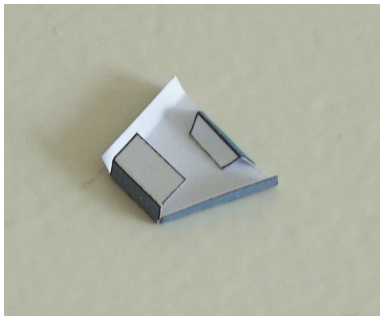
Cut a piece of cardboard with a diameter of 216 mm and a hole with a diameter of 120 mm and glue this inside the Thrust structure.



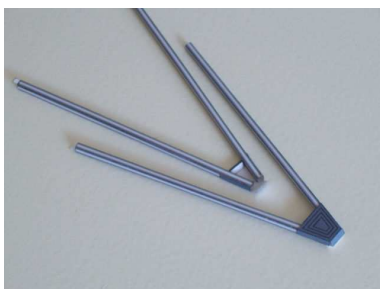
Cut parts #13 (4X) and glue them as shown.



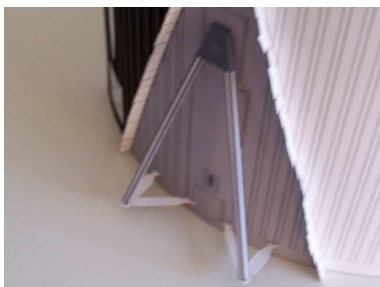
Cut parts #14 and #15 (4 of each) and glue them in position.



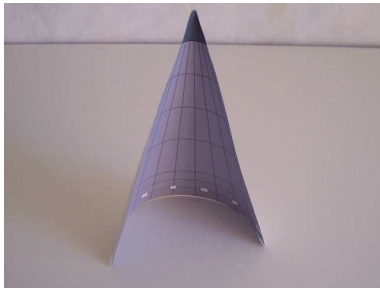
Cut, fold and glue parts #16 (4X)



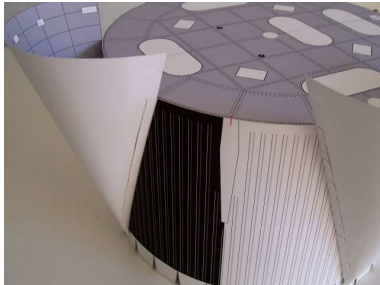
Cut, fold and glue parts #17 and #18, (4 of each).  
Glue parts #17 and #18 to parts #16.



Glue the combination of parts #16, #17 and #18 in position.



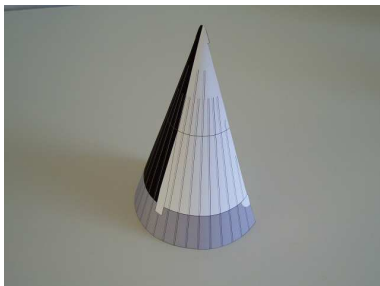
**Cut and form part #19 (4X) as shown.  
Please note that the printed side is on the inside.**



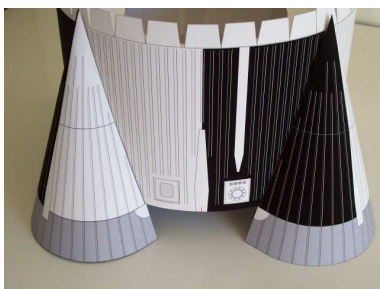
**Glue parts #19 in place.  
Note that the gluing tabs are on the outside.**



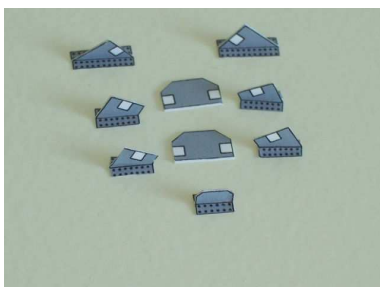
**Cut parts #20 and #21 (4 of each) and glue them as shown.**



**Cut parts #22 (4X) and form as shown.  
This time the printed side is on the outside.**



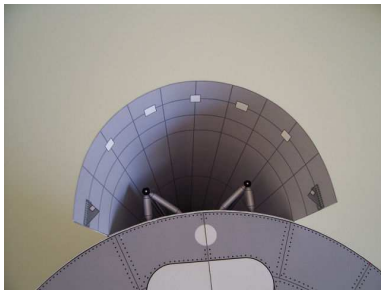
**Glue parts #22 onto parts #19.**



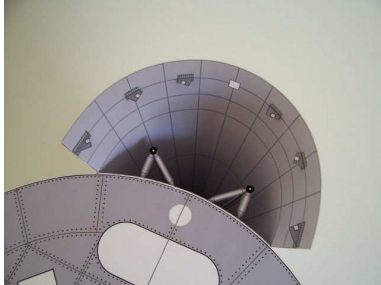
**Glue parts #23L and #23R (4 of each)  
Glue parts #24L and #24R (8 of each)  
Glue parts #25 (4 of each)**

**Glue part #26 (8X) on a piece of 220 – 240 grams paper.**

**The parts shown on the photo are the parts for one fin fairing.**

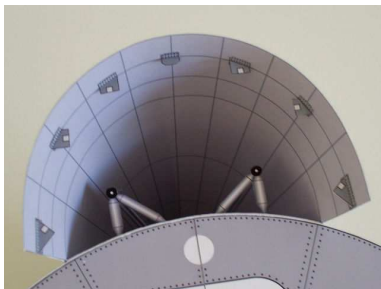


**Glue parts #23L and #23R in place.**



**Glue parts #24L and #24R in place.**

**Watch the orientation of those parts.**



**Glue parts #25 in place.**



**Cut, fold and glue parts #27, #28, #29 and #30.**

**The parts shown on the photo are the parts for one fin fairing.**



**Glue parts #26, #27 and #28 as shown.**

**Make a left and right version as indicated.**



**Glue the combination of part #26, #27 and 28 inside the fin fairing.**





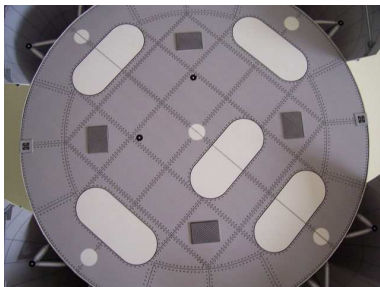
**Glue part #29 inside the fin fairing.**



**Glue parts #30 inside the fin fairing.**



**Cut, fold and glue parts #31 as indicated.**



**Cut parts #32 on the outer lines, fold in the middle and glue. When the glue is completely dry, cut the parts and glue them on the F1 base.**



**Glue part #33L-a around part #33L-b with the printed side towards part #33L-a, and the gluing tabs underneath.**

**Glue part #33L-b on the outside of part #33L-a.**

**Repeat this for part #33R.**

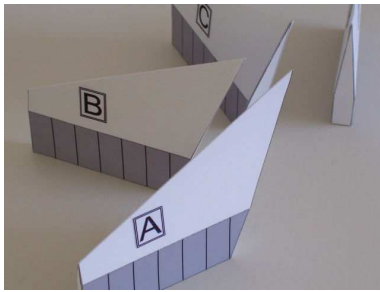
**Glue part #33L and #33R in place. (4 of each)**



**Cut and fold parts #34 (4X).  
Cut and fold parts #35 (4X).  
Cut and fold parts #36 (4X).**

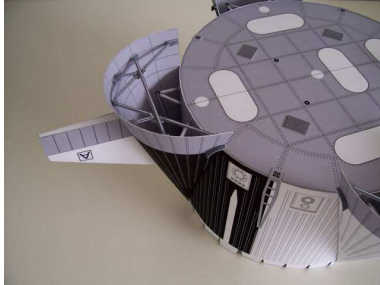
**Glue part #35 to one side of part #34, glue part #36 inside.**

**Glue the other half of part #34.**

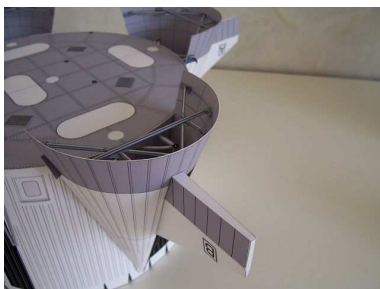


**Cut parts #37 and glue them on parts #34 on the position indicated.**

**Make a fin with on both size an A, a B, a C and a D.**

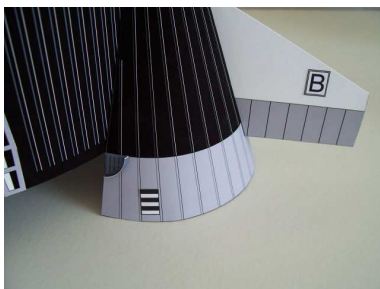


**Glue fin A to the fin fairing, notice the position in respect to the F1 base.**



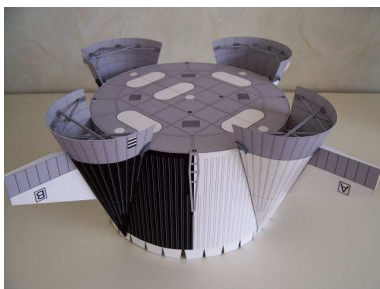
**With the F1 base turned up glue fin B to the right of fin A.**

**Glue the other fins (C and D) clockwise.**



**Glue parts #38 (first motion target) near fin B as indicated.**

**Repeat this for fin D.**



**Now your Thrust structure is ready.**

**Ad the previously made (or still have to make) F1 engines to the Thrust structure.**



**And this is the result.**

**Have fun building this.**