

# THE HAZUG FILES

STAR WARS STAR TREK WARHAMMER 40.000

FAN FICTION & ORIGINAL FICTION  
CONVERTED & SCRATCHBUILT MODELS

<http://thehazugfiles.uk/Index.htm>

## 28MM SCALE STAR TREK MOVIE ERA STARFLEET SHUTTLE



In the film *Star Trek V: The Final Frontier*, a shuttle from the *USS Enterprise* is used instead of the transporter to move characters between the vessel and the surface of planets. This document is intended as a companion to the document '28mm Scale Star Trek Movie Era Starfleet Figures' and provides instructions for scratch building a model of the shuttle out of plasticard that is in scale with these figures

### Copyright Notice.

Star Trek is the intellectual property of CBS/Paramount. This project is unofficial and CBS/Paramount have not approved of it in any way.

## **Parts List.**

The model is made from plasticard. The following amounts and thicknesses are required.

1 x approximately A4 sized 2mm (80 thou) thick sheet.

1 x approximately A4 sized 1mm (40 thou) thick sheet.

2 x approximately A4 sized 0.5mm (20 thou) thick sheet.

1 x approximately A4 sized 0.25mm (10 thou) thick sheet.

## **Tools.**

Craft knife.

Side cutters.

Metal ruler.

Pencil.

Plastic glue.

Super glue.

2 part epoxy putty.

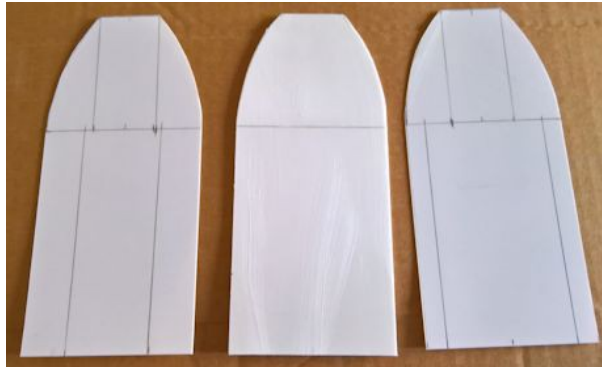
Pinning wire (optional).

Sandpaper.

## Build Instructions.

### Making the hull.

To start with the centre panel is cut from 2mm thick plasticard and two upper/lower hull bases are cut from 0.5mm thick plasticard.



**The bases. From left to right top (0.5mm), centre (2mm), and bottom (0.5mm).**

The upper and lower support frames are then glued to the hull bases. On each hull base glue one of the cross braces along the straight edge at the back of the plate and the other at the point where the plate begins to taper inwards. The two long side supports are then glued between these so that they are positioned at the start of the sloping ends of the cross braces. The frames are then completed with the addition of the curved forward supports. These should be aligned with the ends of the straight edge at the front of the base plate and run straight back to the forward cross brace.

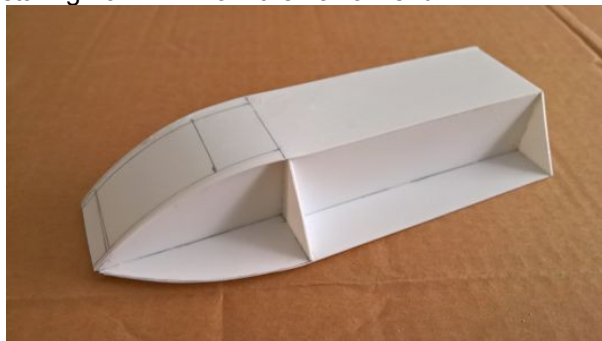


**Top and bottom frames.**

With the support frames complete the basic hull covers can be added. It is advised to use super glue at this point instead of plastic glue for quicker setting.

First the shuttle roof is glued to the upper hull frame. This fits flat along the top of the frame starting at the back of the model so that the start of the taper is level with the start of the curved forward support. The tapering section of the shuttle roof can then be bent to match the curve so that the end meets the front of the base plate and glued in place.

It will be helpful later on if you draw a rectangle on the tapered end while the roof is still flat. This should be 26mm wide and 40mm long starting 10mm in from the narrow end.



**The roof fitted to the upper frame. Note the rectangle marked for aligning the viewport later.**

The hull sides are fitted in a similar fashion on the sloped edges of the frame between the base and roof. Starting at the rear of the model glue the hull side to the frame and then bend it in to follow the curved section. The hull side does not meet the edges of the curved section, instead it extends past it. Once it is glued into place it should be trimmed to fit neatly. Repeat this for the other side.

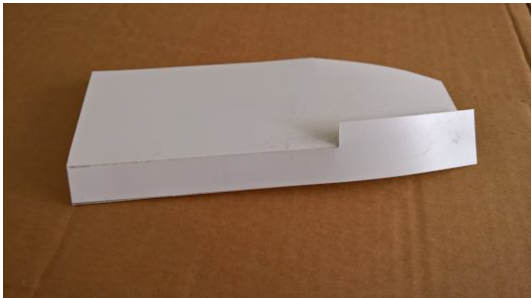


**Upper side plate, before and after trimming.**

The lower hull is covered in the same way as the upper section. Start with the floor and then move on to the sides, trimming the forward curved sections to fit the frame neatly.



**The floor fitted to the frame.**



**Lower side plate, before and after trimming.**

The upper and lower hulls are then glued to the centre panel so that the front and back edges meet and there is a shallow (1mm) groove along each side.



**The complete structure of the hull.**

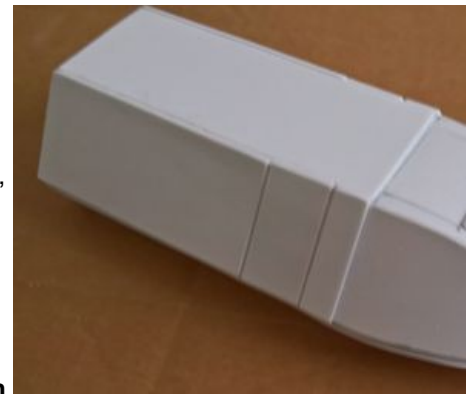
### **Adding details to the hull.**

The viewport frame is made from four 1mm wide strips. First glue one of the top/bottom strips along one of the narrow edges of the rectangle drawn on the front of the hull. Next glue the two side strips along the sides. These will need to be bent to fit the curve. Finally glue the final top/bottom strip across the end of the rectangle to close the frame.



**The viewport.**

The upper hull is now covered in the 1mm thick hull plates. First the outer roof is glued to the top of the model so that it meets the back of the hull and runs for the full length of the flat section of the roof. Each side then has the rear plate glued so that it meets the rear of the hull while the narrow forward plate is glued so that it aligns with the front of the roof plate. This leaves a gap into which the upper door is glued, leaving a slight gap between it and the other two plates either side of the door. Sand these down at the top to produce a flat edge. Repeat this for the other side.



**The upper hull covering and hatch.**

The lower hull is covered in 0.25mm thick plates. The bottom of the model is covered by the base detail that includes the two rectangular holes that represent the shuttle's lift engines. These holes should be further forwards when the plate is glued over the flat area of the bottom of the model. Next a lower side piece is glued to each side of the lower hull so that the cut out for the door aligns with the door on the upper hull. Finally the door is glued into the cut out area, once again leaving a gap either side and beneath while having the top level with the centre gap.



**The floor detailing and the lower hull detail with hatch glued in place.**

The roof detail is glued along the centre line of the roof so that it is 12mm in from the front of the upper hull roof plate and with the wide end forwards.



**The roof detail.**

The rear hatch requires two pieces to be cut but only one of them needs the internal details cutting out. This is then glued over the other piece that is left solid and blank.

The hatch is then glued to the back of the model centrally so that there is 3mm of hull visible above it. If necessary trim the bottom of the hatch so that it is level with the bottom of the back of the model.

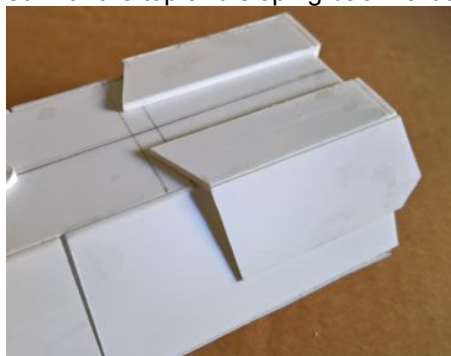


**The hatch pieces separately and glued together.**



**The hatch fitted to the back of the model (3mm gap to top).**

The impulse drive exhausts are then glued to the back of the model against the hatch. The impulse drive tops are glued to the roof, aligned with the exhausts with the longer edge towards the centre of the roof. The impulse drive sides are then glued to the sides of the hull, aligned with the top and sloping backwards.



**The impulse engines. The rear pieces fitted around the hatch and the top and side pieces aligned with this.**

The wing centres are glued in the central gap 10mm in from the back of the model on each side. Then the wing outsides are glued to the ends of the wing centres. This produces a hollow wing that needs filling with epoxy putty to make them solid.



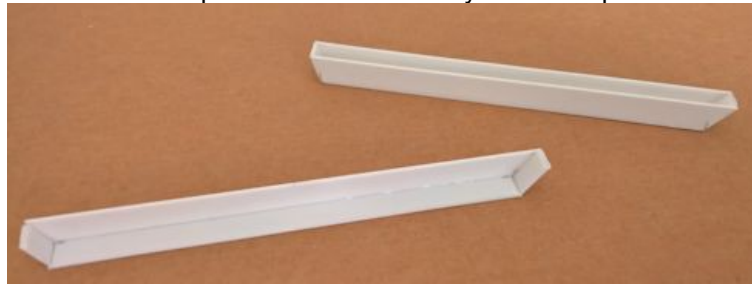
**The centre and end pieces of a wing showing the frame they create.**



**A wing filled with epoxy putty.**

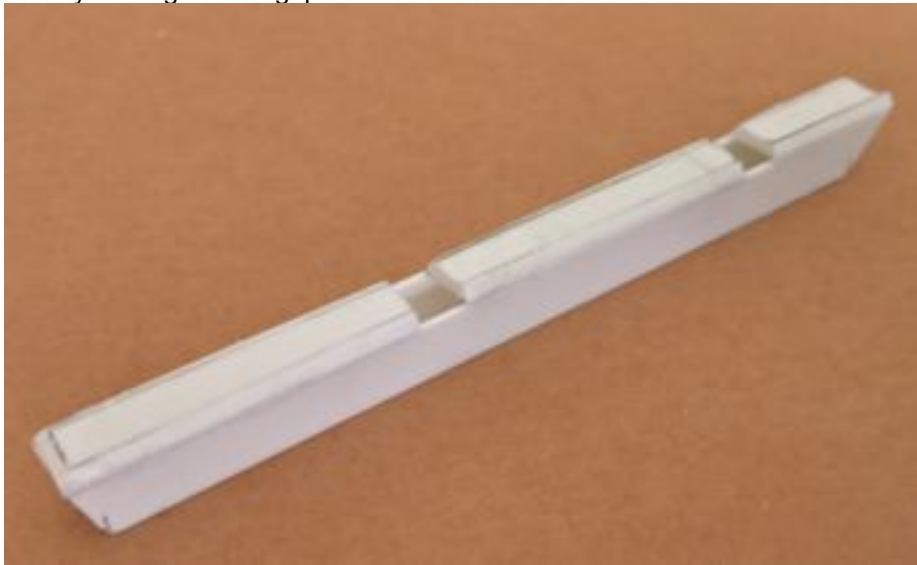
### **Warp nacelles.**

The warp nacelle front, rear and bottom pieces will need sanding at each end so they will fit together neatly. They are then glued between two side pieces to form the body of the warp nacelle.



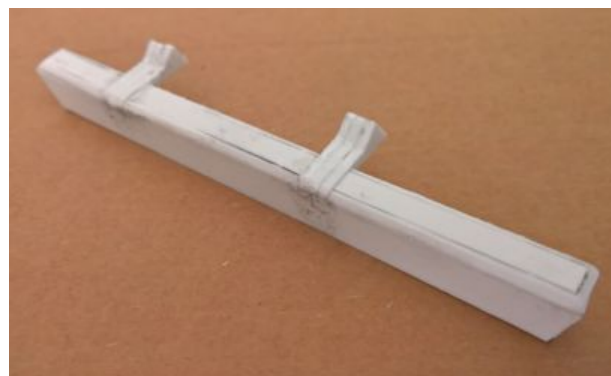
**Warp nacelles, including one showing configuration of front, rear and bottom pieces.**

The forward, centre and rear upper pieces are then sanded in by 1mm along each side to create an angled chamfer. The front piece is also sanded by 1mm at the front and the rear piece by 2mm at the back. They are then glued to the body leaving a 6mm gap between each.



**Warp nacelle top pieces.**

The mounting pylons are each made from three of the mounting pylon pieces glued to one another so that they can be fitted into the gaps left on the top of the warp nacelle itself. The pylons are then sanded to match the nacelle.



**A single pylon and two mounted on a warp nacelle.**

A second nacelle is then constructed with the pylons pointing in the opposite direction to the first.



### **Adding detail to the warp nacelles.**

Only two detail pieces are needed to complete the warp nacelles, the outside detail plate and the front detail strip.

The outside detail plate is glued to the outside of the nacelles (opposite to the direction the pylons point) while the front detail strip is glued to the bottom of the front face.

The nacelles are then glued to the hull of the shuttle so that the bottom of the pylons are level with the bottom of the shuttle hull. The back of the rear pylon should be 16mm in front of the back of the hull.



**Warp nacelle with details mounted on the right side of the shuttle hull.**

### **Painting.**

At this point the construction of the shuttle model is complete. It can now be painted.

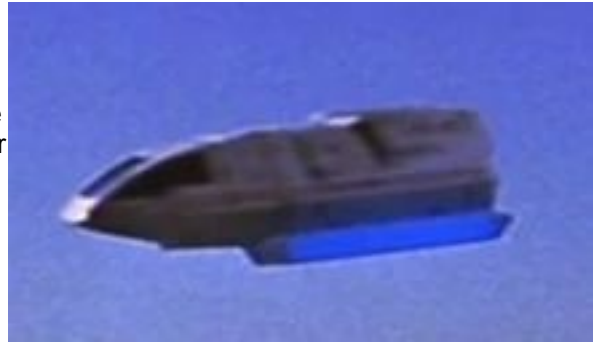


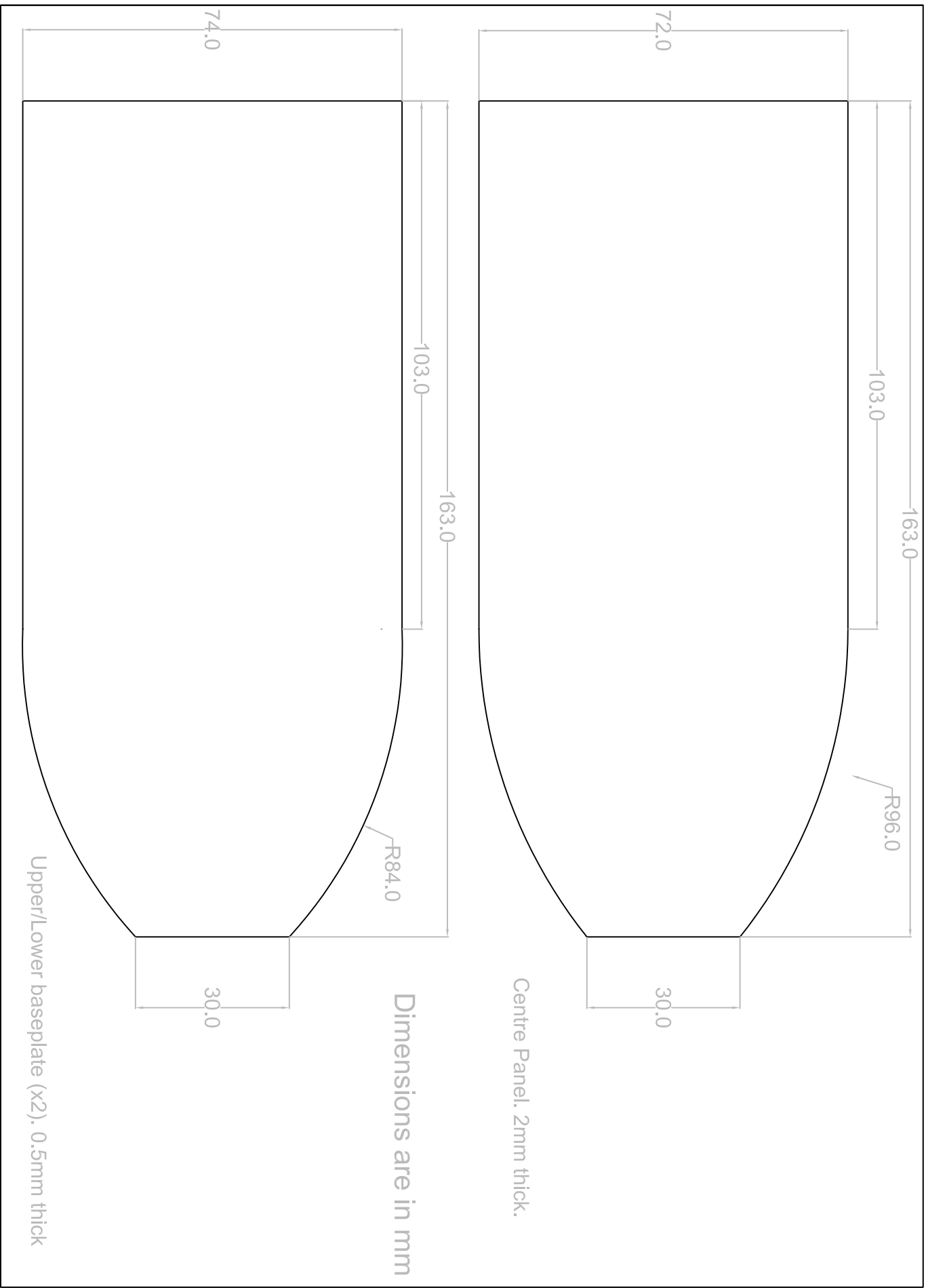
**A painted shuttle.**

### **Star Trek: The Next Generation Variant.**

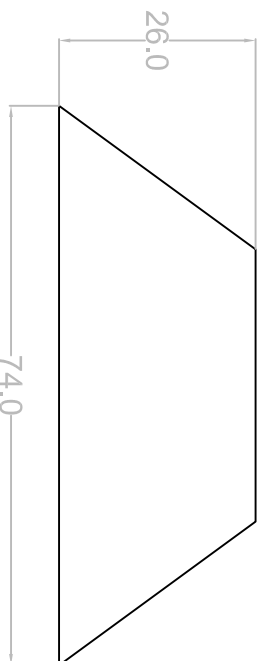
A variant of this shuttle was seen in Star Trek Generations. The only differences between this and the version from Star Trek V: The Final Frontier are the addition of side windows at the front and the removal of the small wing structures. The instructions presented here could easily be modified to produce this variant instead for use with Star Trek: The Next Generation games and figures.

Image taken from Star Trek Generations. Copyright Paramount Pictures.

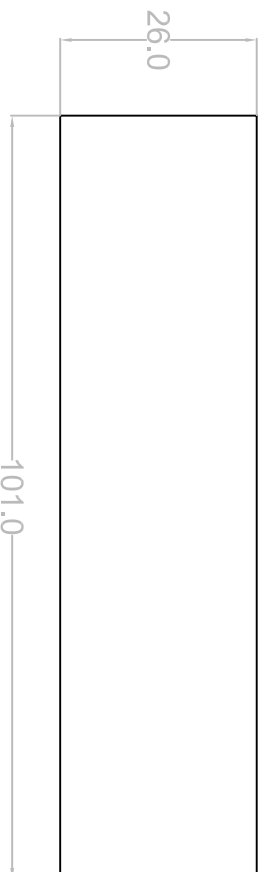




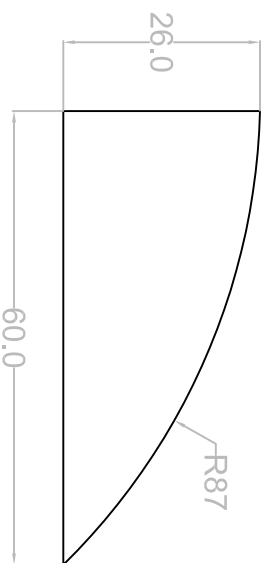
Upper cross brace (x2). 1mm thick



Upper side support (x2). 1mm thick



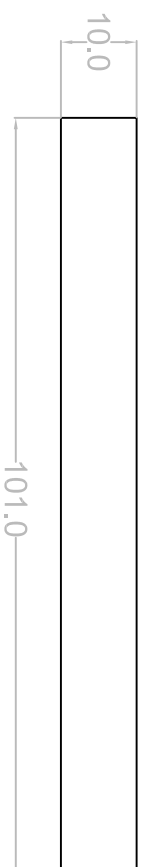
Upper forward support (x2). 1mm thick



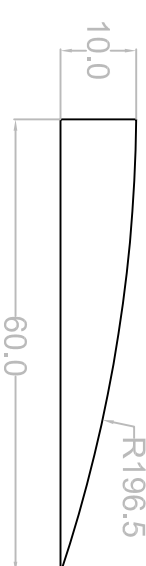
Lower cross brace (x2). 1mm thick



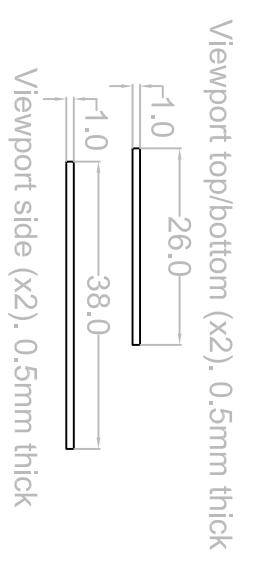
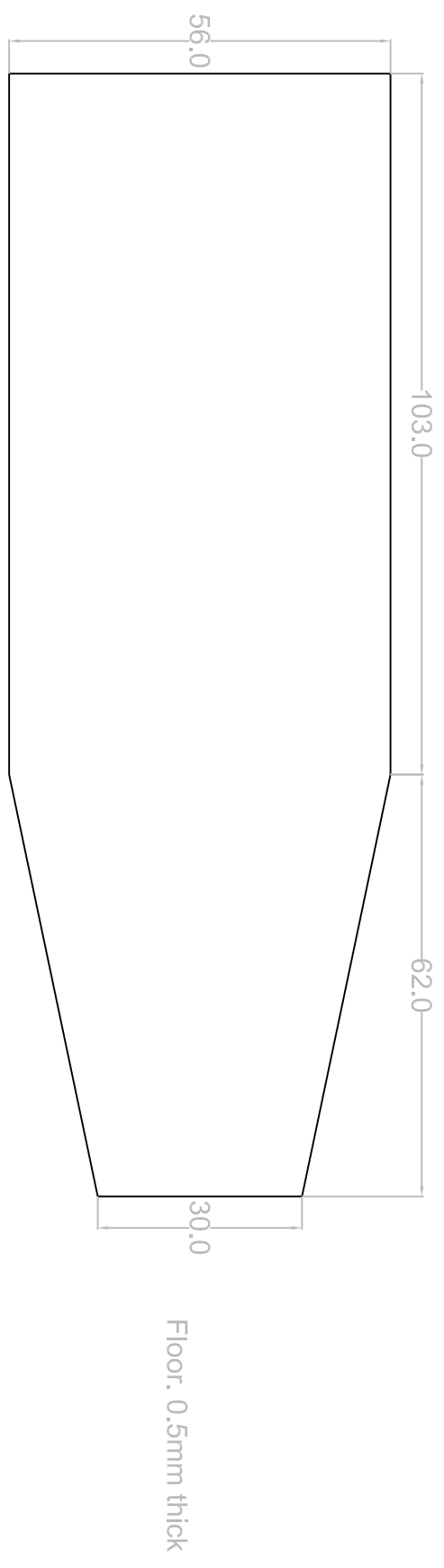
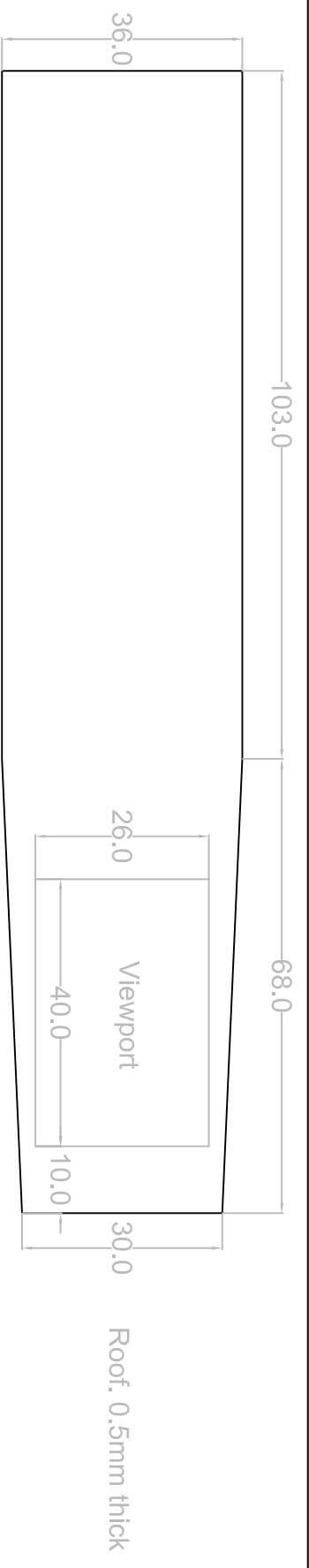
Lower side support (x2). 1mm thick



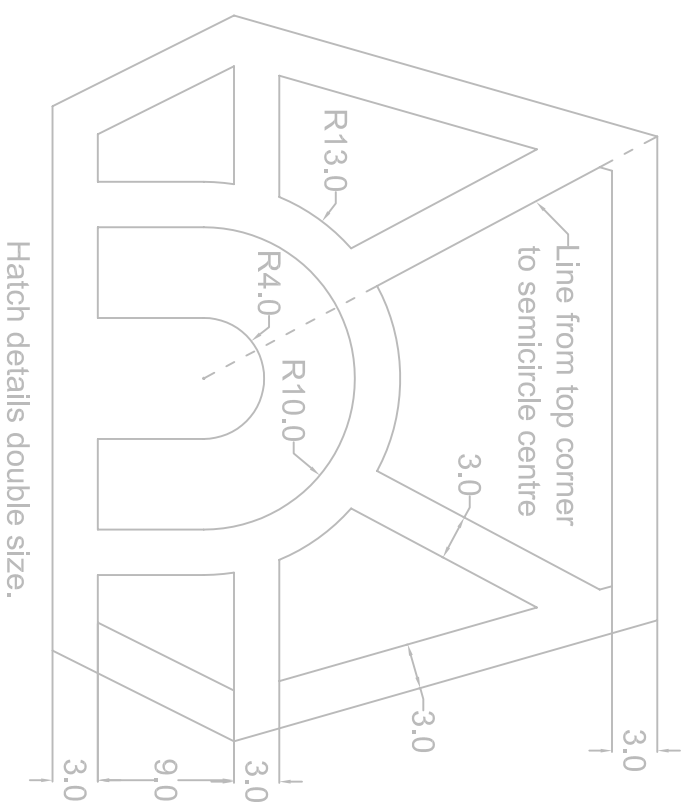
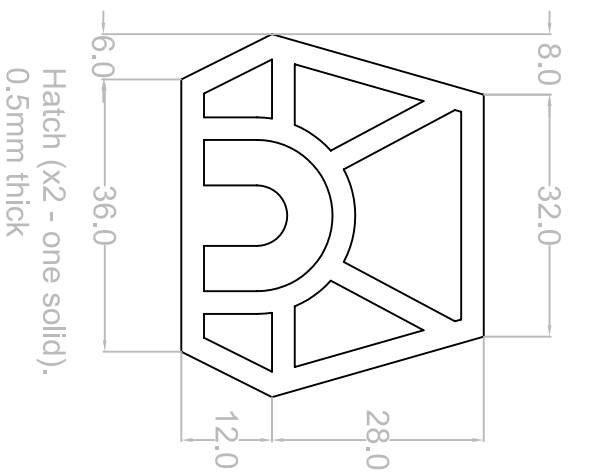
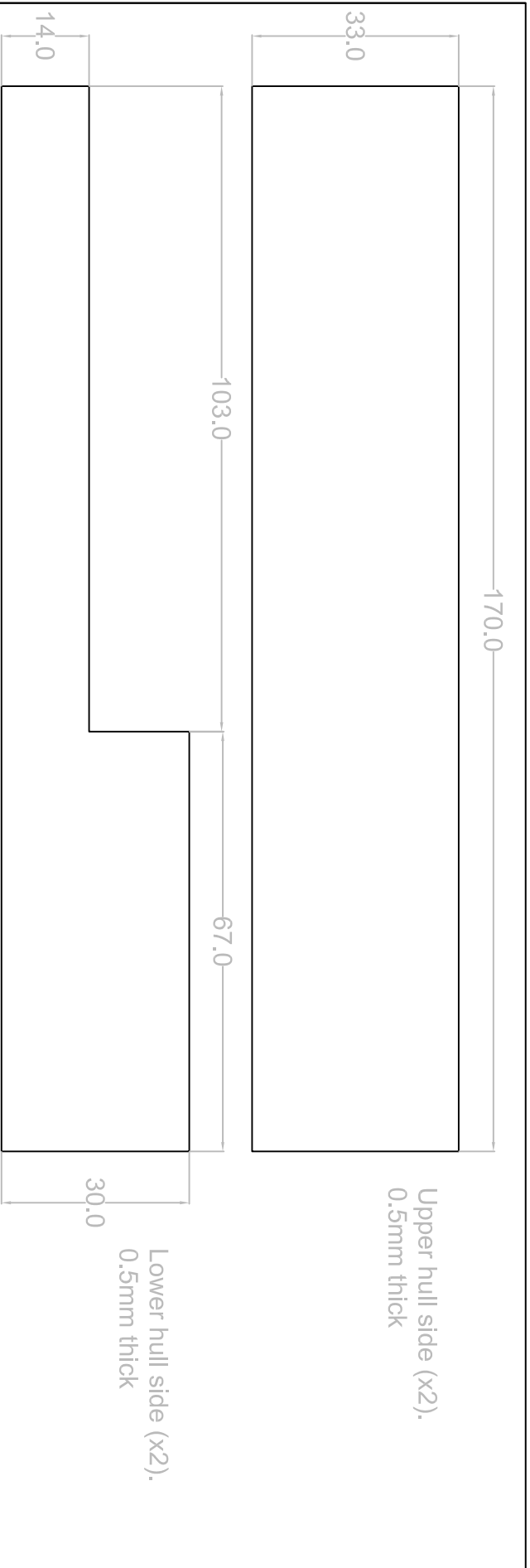
Lower forward support (x2). 1mm thick



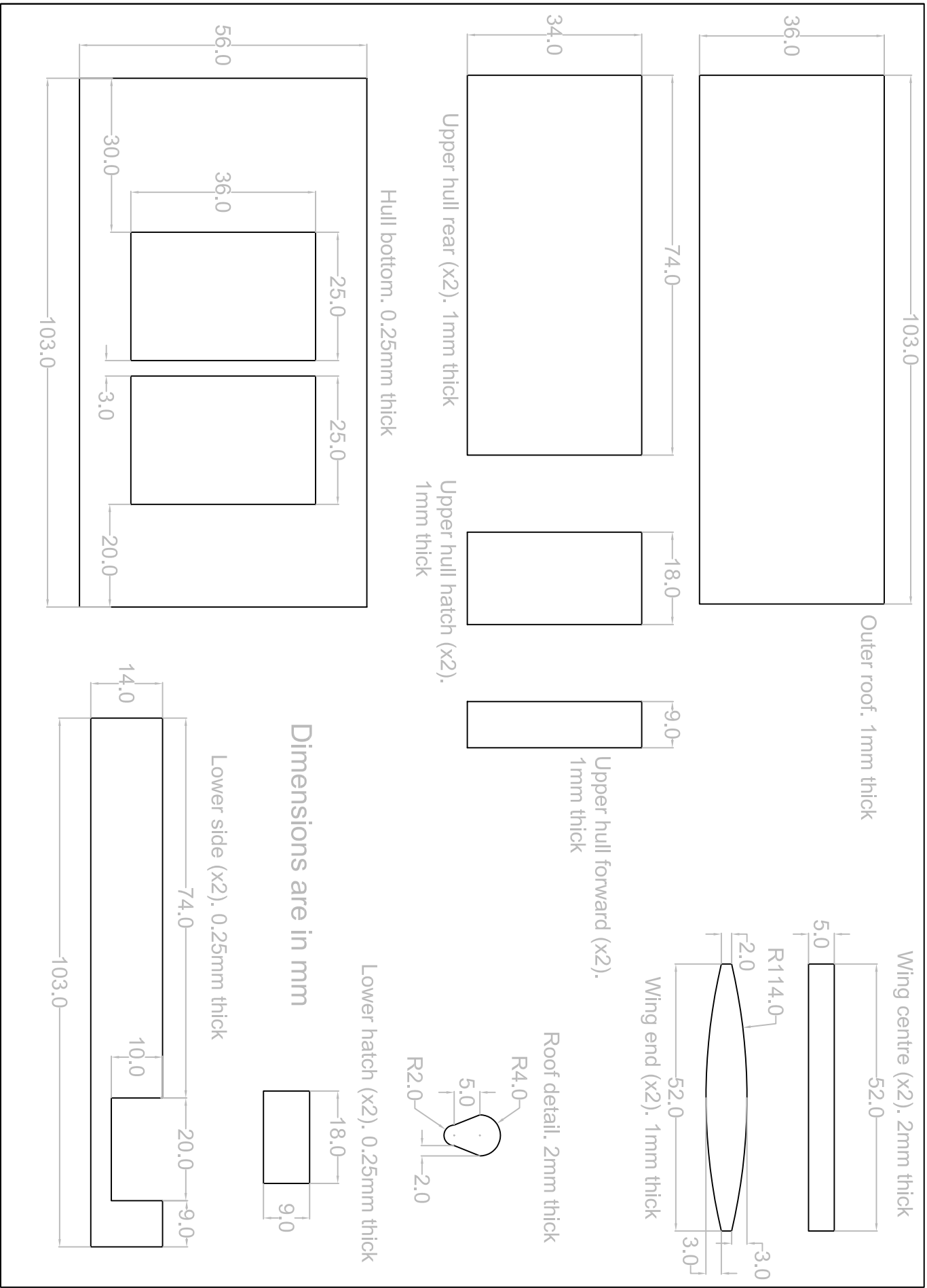
Dimensions are in mm



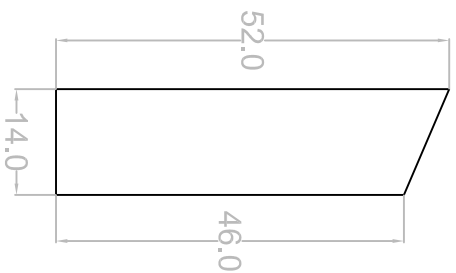
Dimensions are in mm



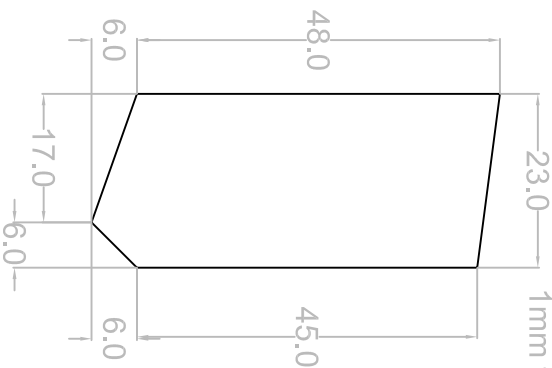
Dimensions are in mm



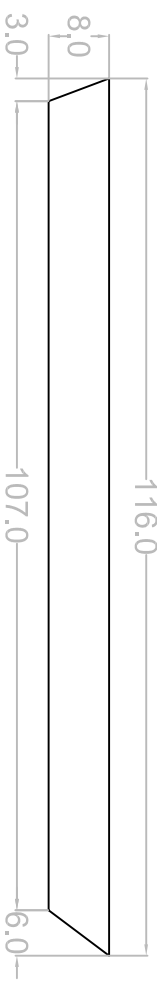
Impulse drive top (x2).  
2mm thick



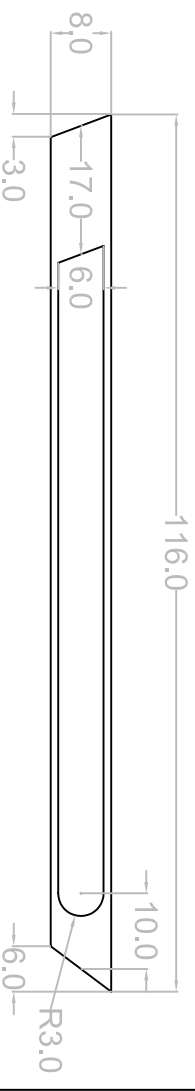
Impulse drive side (x2).  
1mm thick



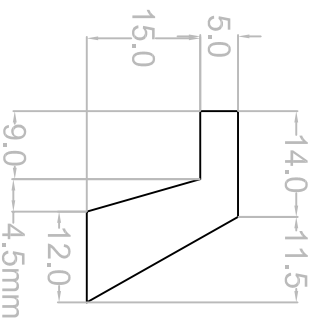
Warp nacelle side (x4). 1mm thick



Warp nacelle outside detail (x2).  
0.25mm thick



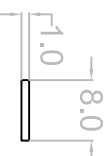
Warp nacelle bottom (x2). 1mm thick



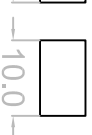
Impulse drive exhaust (x2).  
2mm thick

Warp nacelle front (x2).  
1mm thick

Warp nacelle front detail (x2).  
0.5mm thick

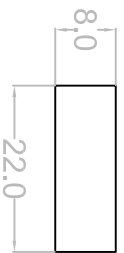


Warp nacelle rear (x2).  
1mm thick



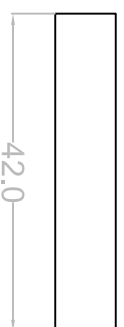
**Dimensions are in mm**

Warp nacelle top rear (x2).  
2mm thick



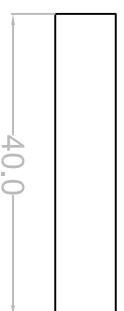
Sand sides 1mm, back 2mm

Warp nacelle top middle (x2).  
2mm thick



Sand sides 1mm

Warp nacelle front (x2).  
2mm thick



Sand sides and front 1mm

Warp nacelle pylon (x12). 2mm thick

