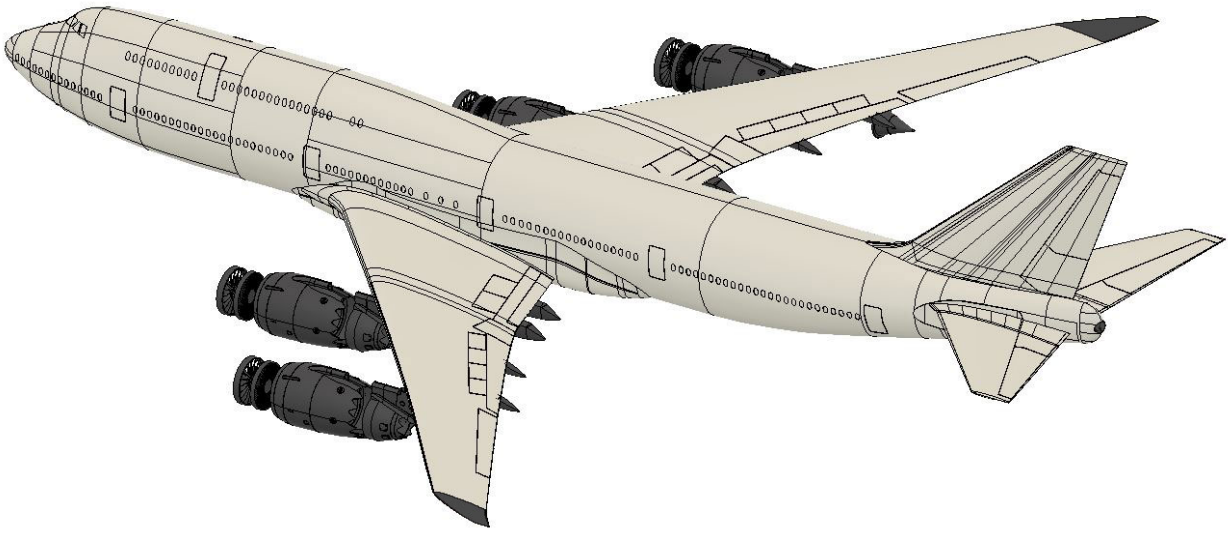
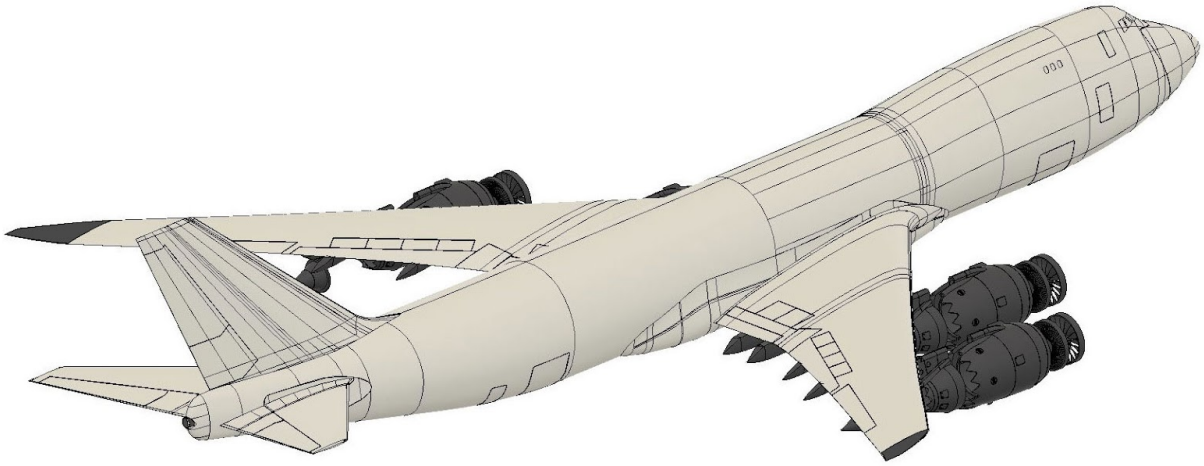
TITAN MODEL KITS



1:72 747-8i /8f
Assembly Guide



Thank you for purchasing a Titan Model Kit. These kits are intended for experienced intermediate to advanced adult scale modelers. Kits will require you to measure, mark, cut, scratch-build, and modify various pieces. Builders are cautioned to review the assembly instructions in their entirety prior to beginning any work. These instructions are provided only as a guide. You may choose to alter the sequence of steps, change techniques, or omit steps at your discretion. You will find the following tools useful in your build: hobby knife, dial calipers, ruler or measuring tape, drill with various bit sizes, rotary tool (Dremel or equivalent), sand paper of various grit, sanding block, styrene model cement (solvent based), and cyanoacrylate glue (Superglue or equivalent).

Assembly instructions may contain images that do not correspond precisely to the physical kit parts. Physical parts are in a state of continuous improvement and you may have earlier or later versions of an individual part or kit than what is shown in the assembly instructions. The images are intended to provide you with general orientation only. Additionally some images are used to illustrate concepts which are common to multiple kits.

Screenshots of CAD models are used for concept illustration only and the images may contain elements that may or may not be present in the physical parts. For instance, cabin window and door outlines are shown in these images to help in visual orientation and are not present in the physical parts. Screenshots may omit adjacent parts for clarity.

Table of Contents

I. PARTS PREPARATION

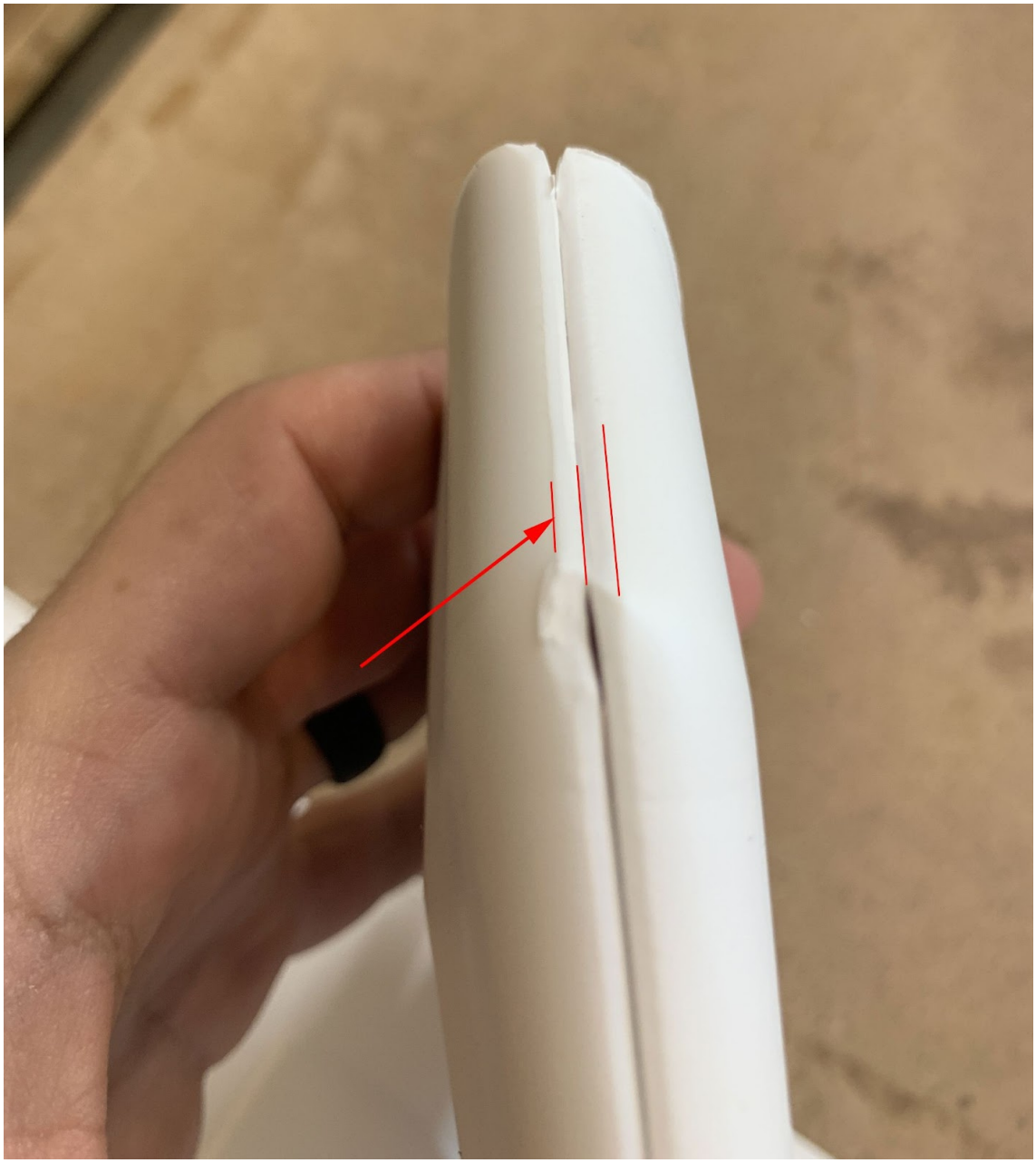
I.A VACFORM PARTS

I.A.1. Remove parts from sheet:

Carefully remove the parts by cutting along the silhouette of the part with a sharp utility knife. You may find it helpful to mark the cut lines with pencil prior to cutting. Always cut from the top of the parts, never from the bottom. Multiple shallow passes will always yield a better result than trying to cut through on a single pass.

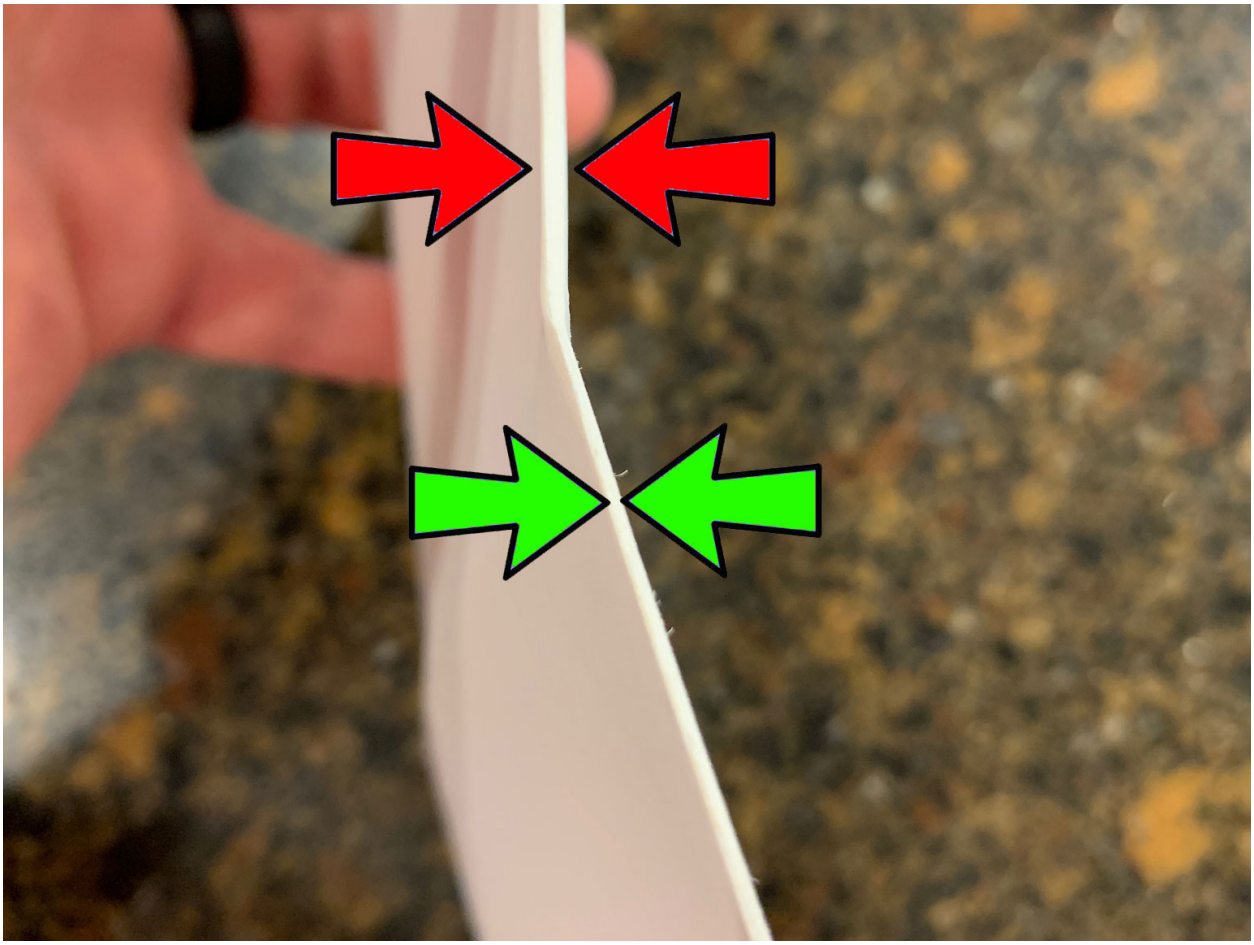
I.A.2. Remove stock thickness:

Once parts are cut away from their sheet they will still need to have the sheet thickness removed from them. As can be seen from the below photo, the .090” sheet thickness between the red lines should be removed. Coarse sandpaper in a sanding block is recommended to remove this material. Work slowly, checking progress often.



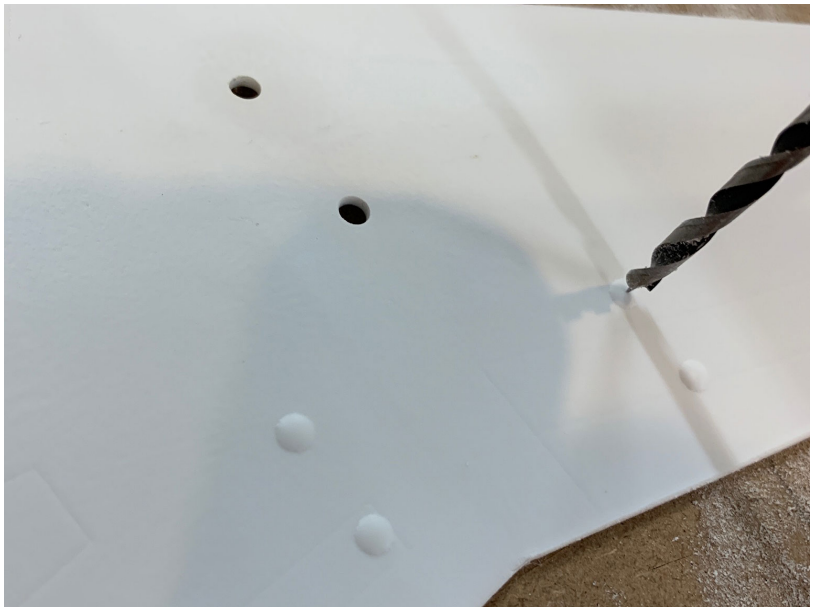
I.A.3. Thin trailing edges:

As delivered, the trailing edges of the wings and tail parts are the thickness of the plastic sheet used to produce them. If left alone, assembling raw parts will result in a trailing edge that is too thick for scale. Using 220 grit sandpaper, thin all trailing edges from the .090" material thickness to approximately .010". Work slowly, checking thickness and consistency as you go. This will result in trailing edges that are more "to-scale"



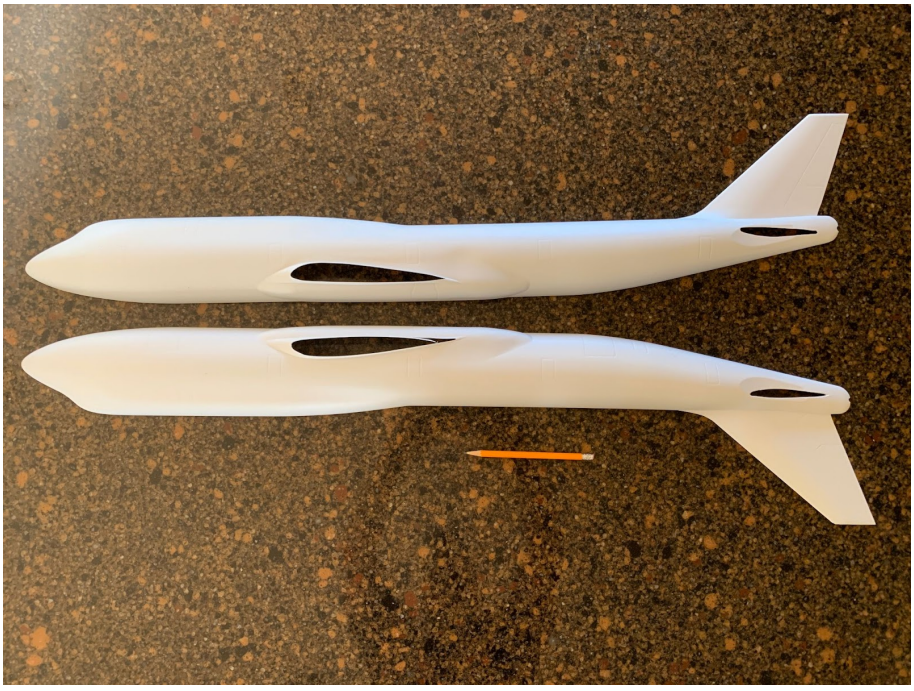
I.A.4. Drill out engine and flap track attachments:

Engine and flap track fairing attachment points should be drilled out with a ⅛” (3mm) brad-point drill bit. Hole diameter may then need to be enlarged to accommodate certain engines.



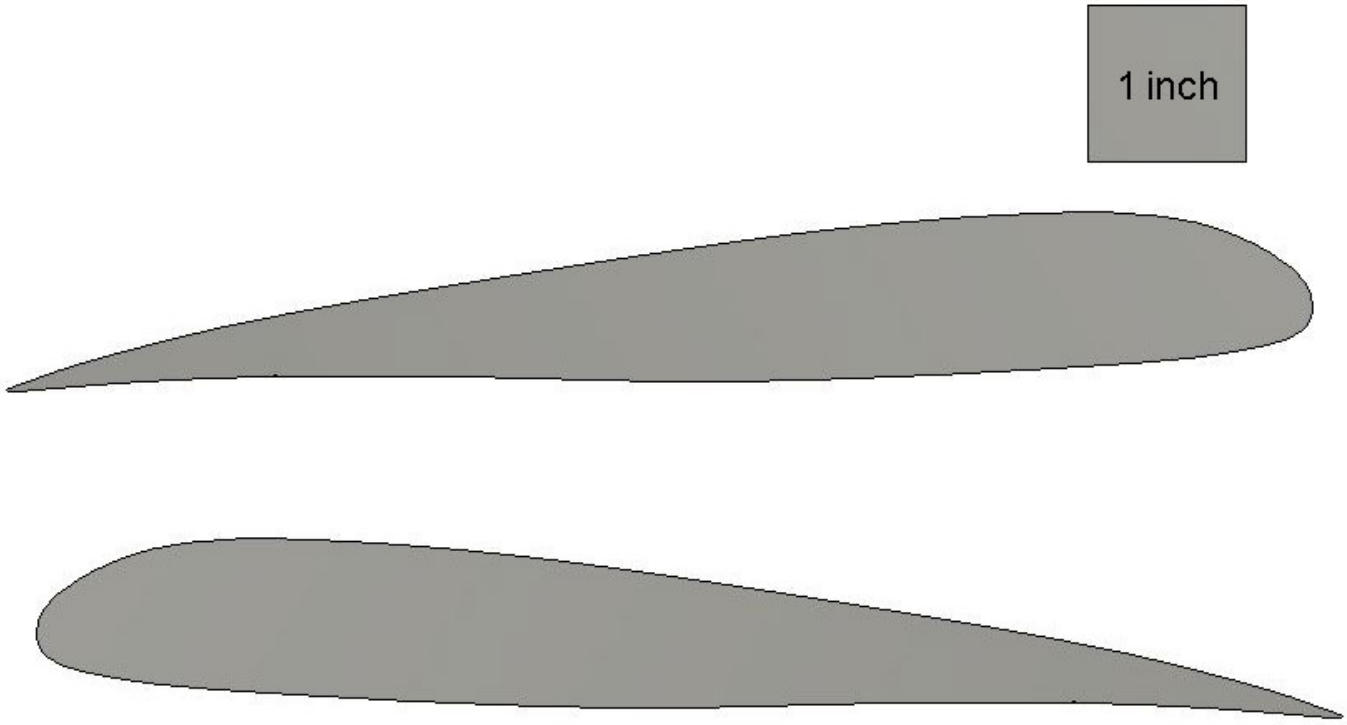
I.A.5. Cut out wing & tail passthroughs

Remove plastic to allow for the wing and tail assemblies to pass through the fuselage halves as shown. The attached templates can be scaled and used to help you know exactly where to cut.



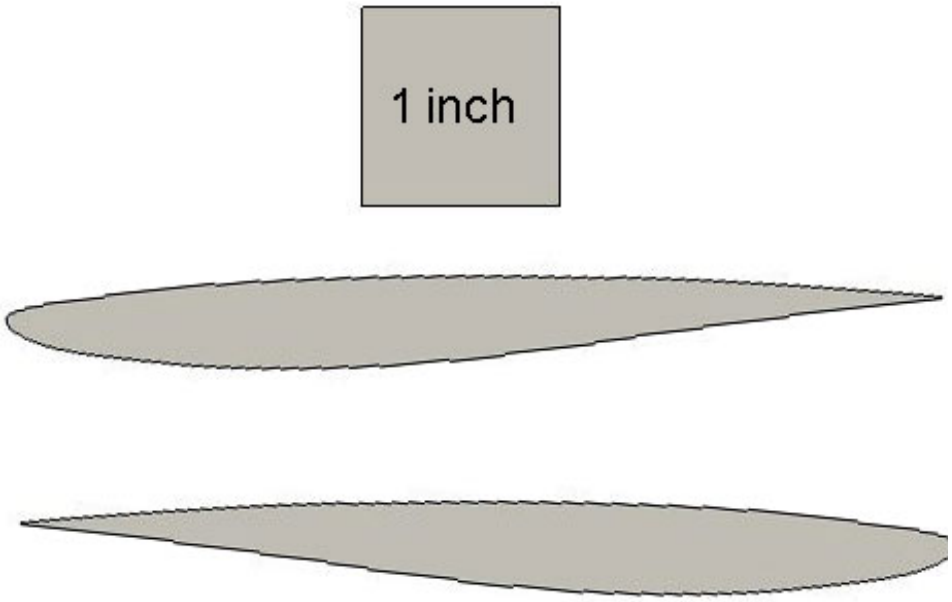
Wing Passthrough Template

If you desire more guidance on the plastic to be removed to accommodate the wing and tail passthroughs, the below templates can be scaled with a copy machine to ensure that the block below is exactly 1 inch wide. Use as template to remove material for wing passthrough.



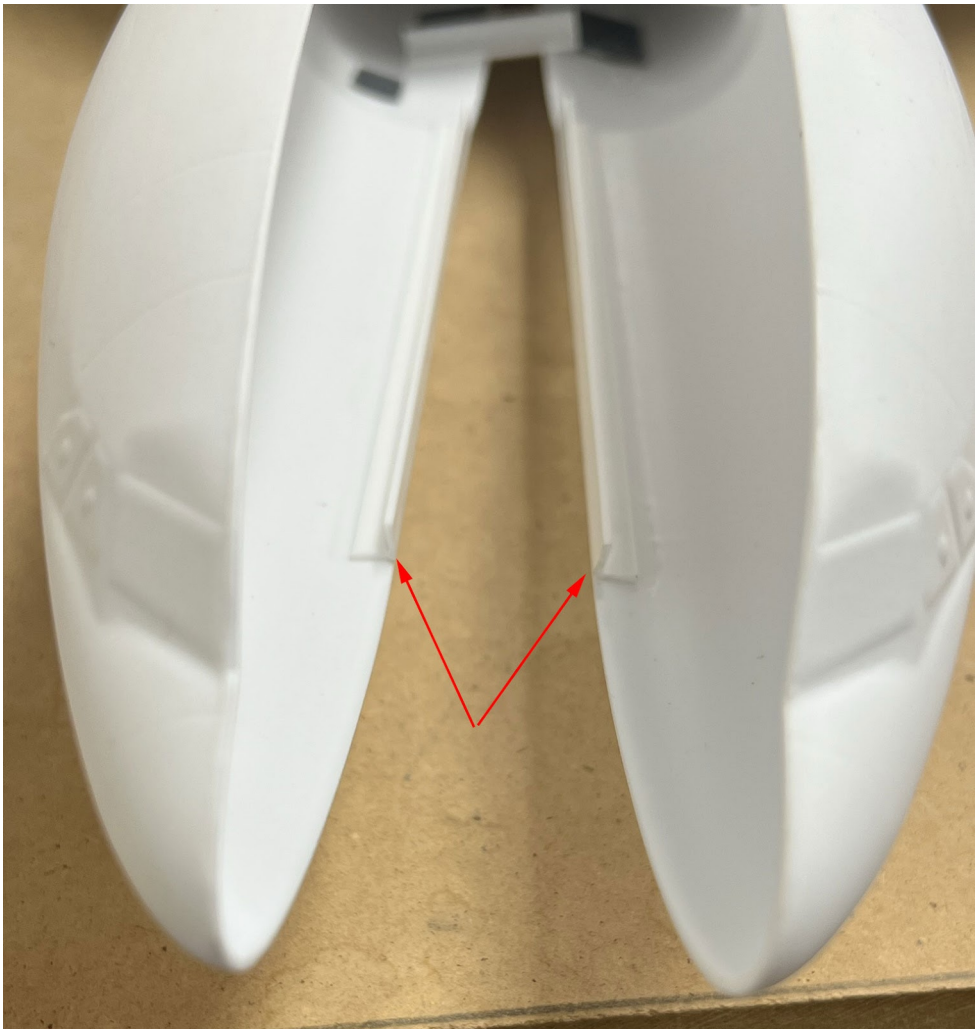
Tailplane Passthrough Template

Scale this page with a copy machine to ensure that the block below is exactly 1 inch wide. Use as a template to remove material for tailplane passthrough.



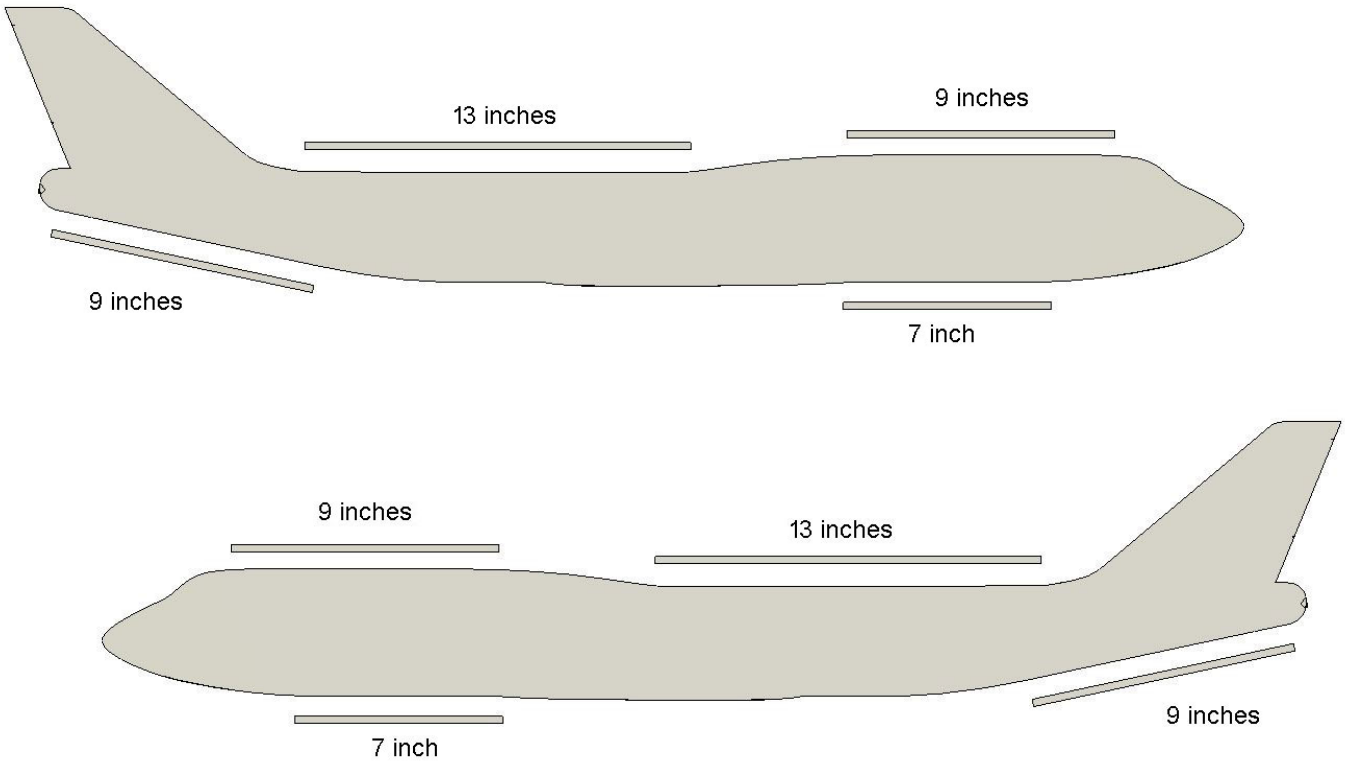
I.A.6. Install 90° angle styrene reinforcement strips

¼” styrene angle strips are provided to add rigidity to the fuselage and to increase the area of the fuselage joint for glue-up. Install as shown below. Install on BOTH fuselage halves. You may wish to add additional bracing or joint reinforcement using scrap styrene at your discretion.

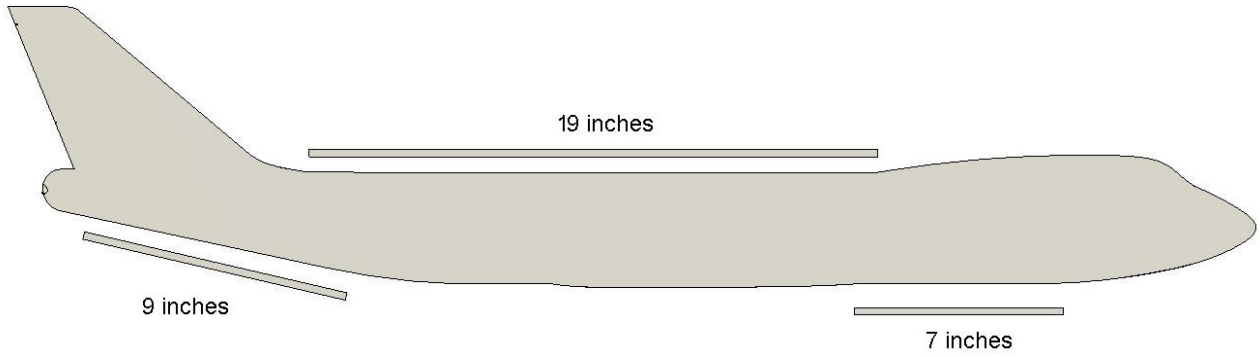


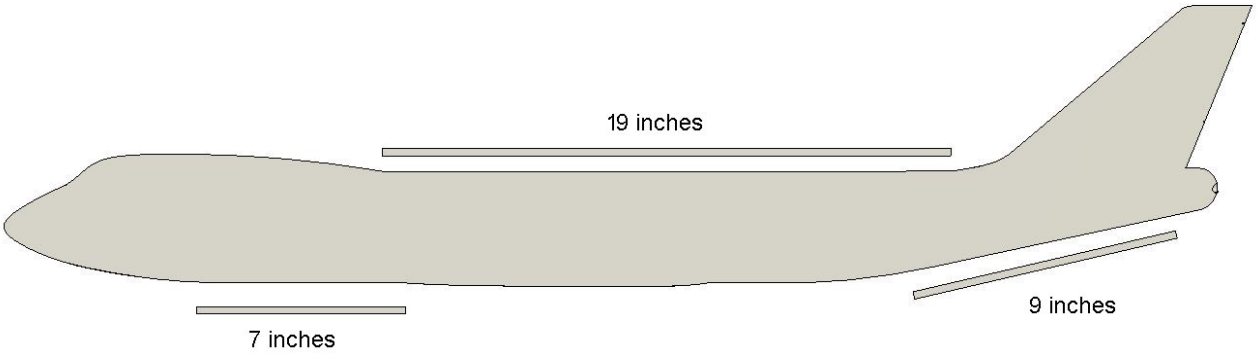
*concept is illustrated with a photo from the A330 kit but the procedure is the same here

747-8i


13 inches
9 inches
9 inches
7 inch
9 inches
13 inches
7 inch
9 inches

747-8f

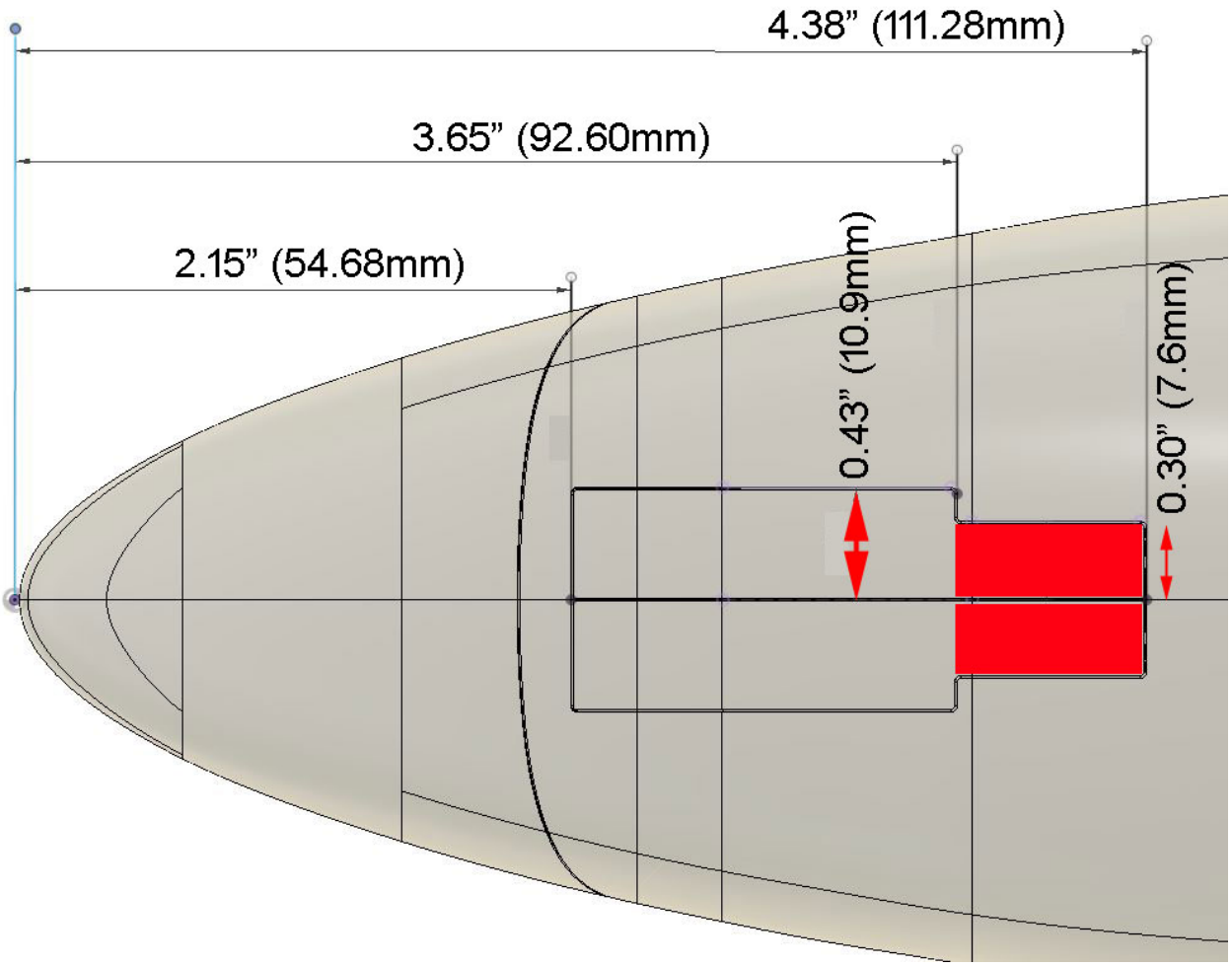




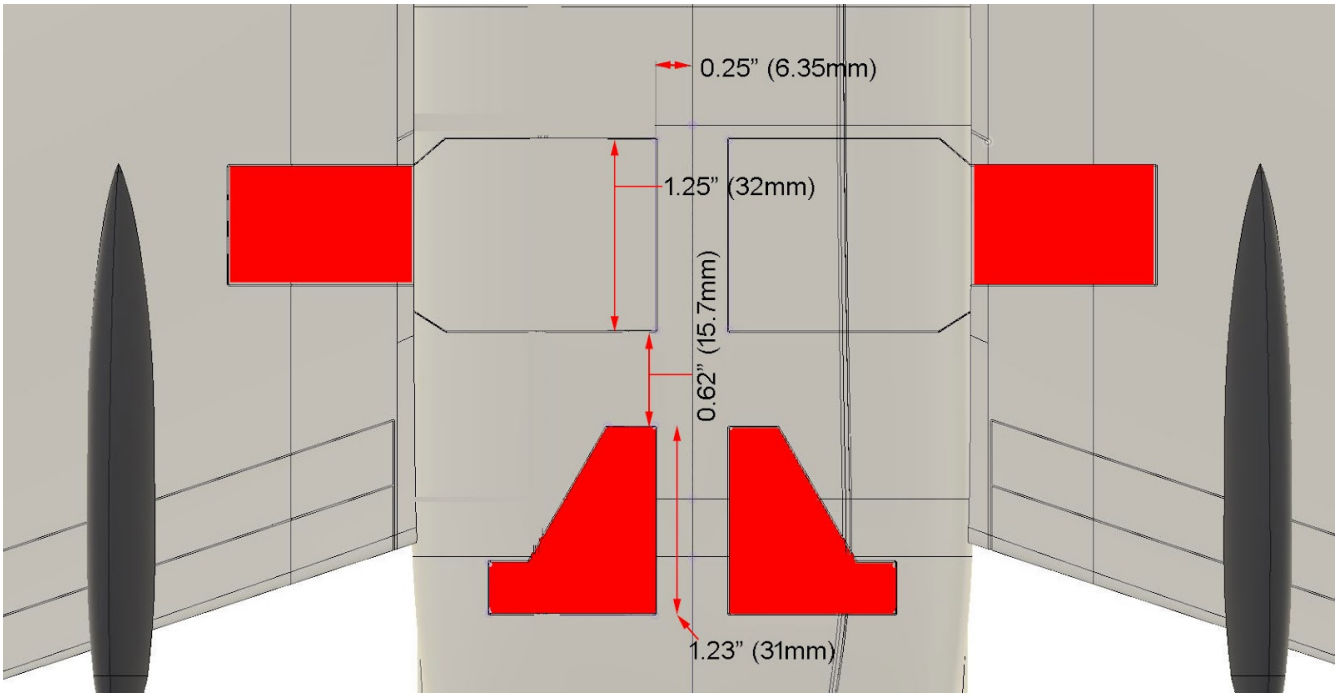
I.A.7. OPTION: Landing Gear Cutouts:

Typically, only the aft nose gear doors are open during normal operations. Use the panel lines on the model or use the measurement guide below to remove the desired material.

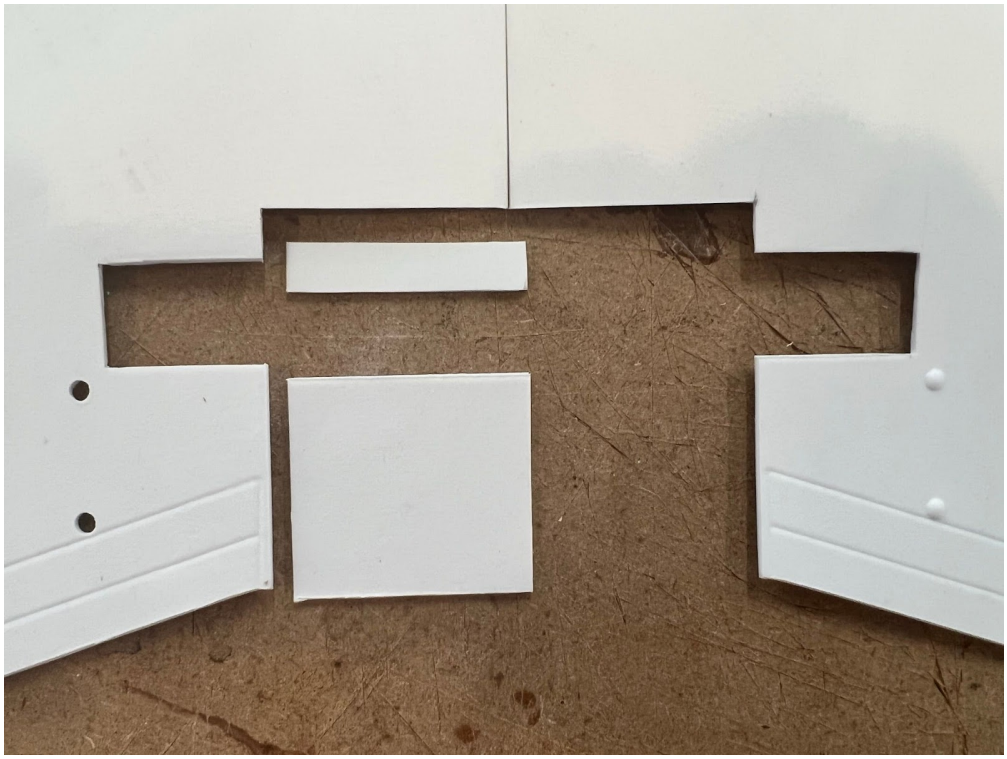
Measurements for Nose Gear Door Cutout



Measurements for Main Gear Door Cutouts



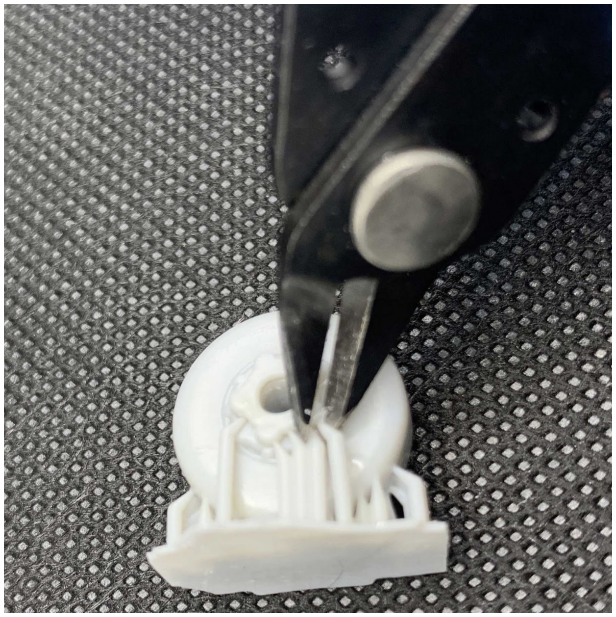
Additional material will need to be removed from the lower wing halves to accommodate installation of the main landing gear bays.



I.B RESIN PARTS PREPARATION

I.B.1. Remove support columns:

Some 3D-printed parts (wheels especially) may come with printer supports still attached. Carefully remove supports with a utility knife or sprue cutter and gently sand attachment point dimples away.



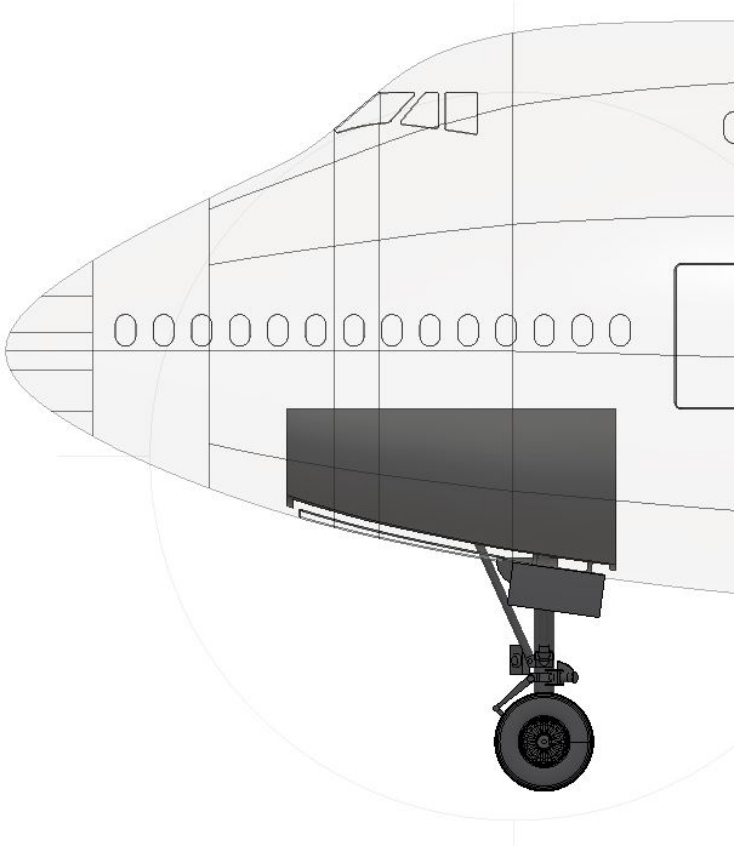
II. ASSEMBLY

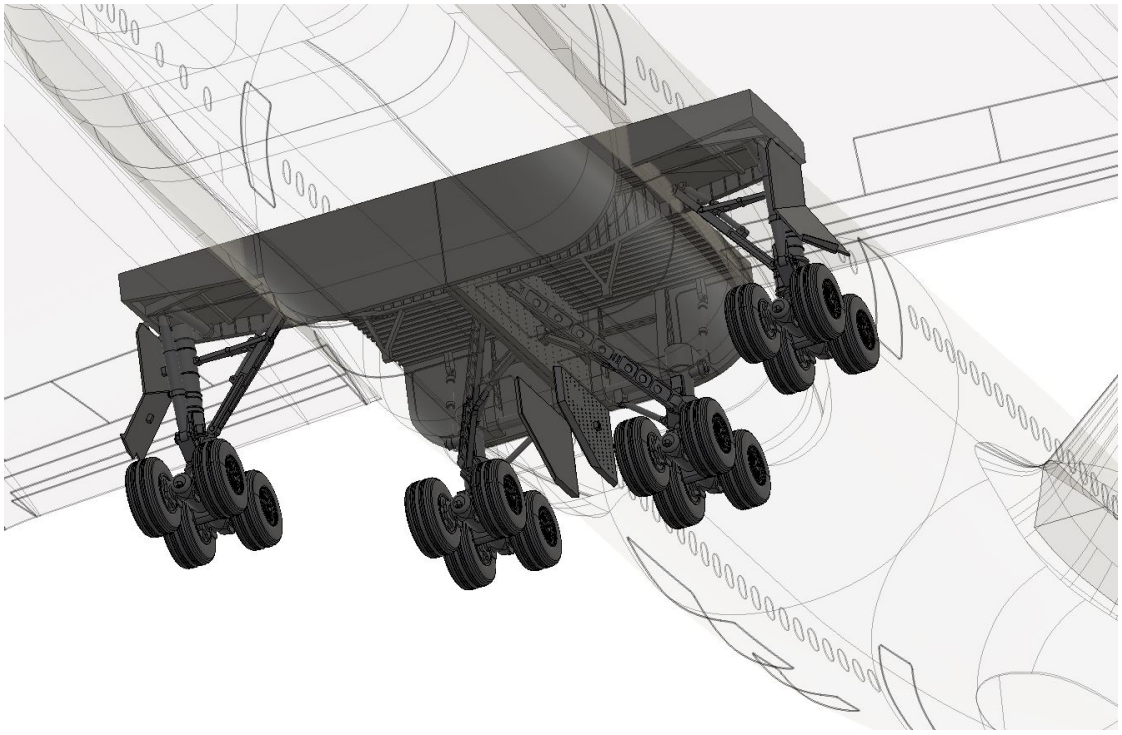
II.A. GENERAL

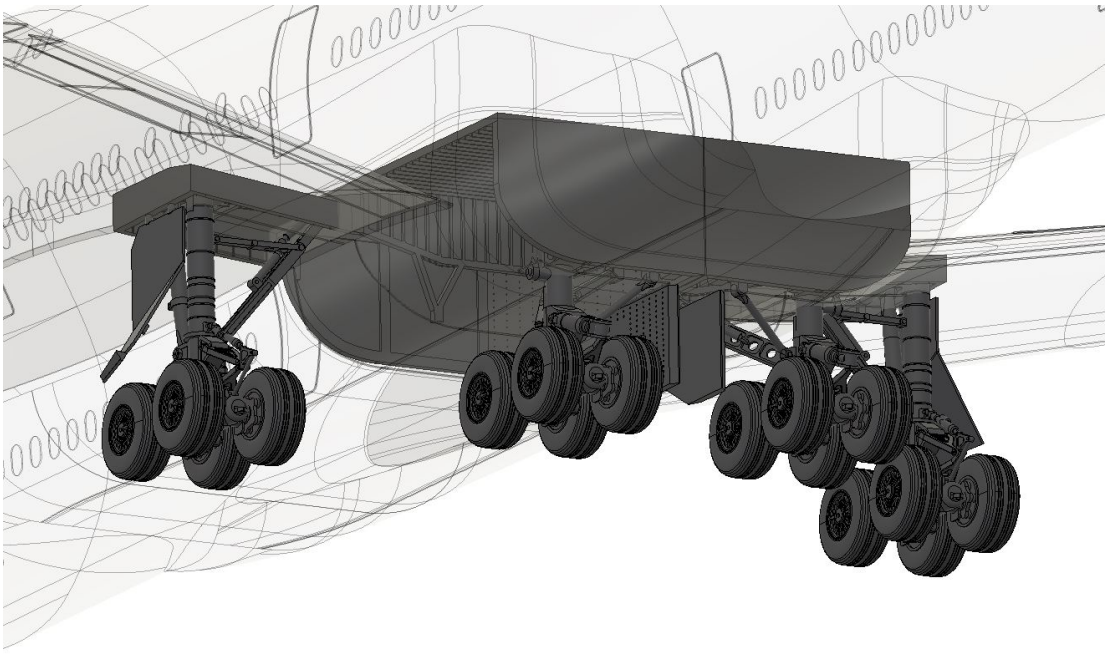
Vacform parts are made from high impact polystyrene (HIPS) plastic. Vacform parts should be glued to one another using solvent based ‘glue’. 3D printed parts should be glued to one another and to vacformed parts using cyanoacrylate (Superglue or equivalent) or 2-part epoxy.

II.B.1. OPTION: Install wheel wells:

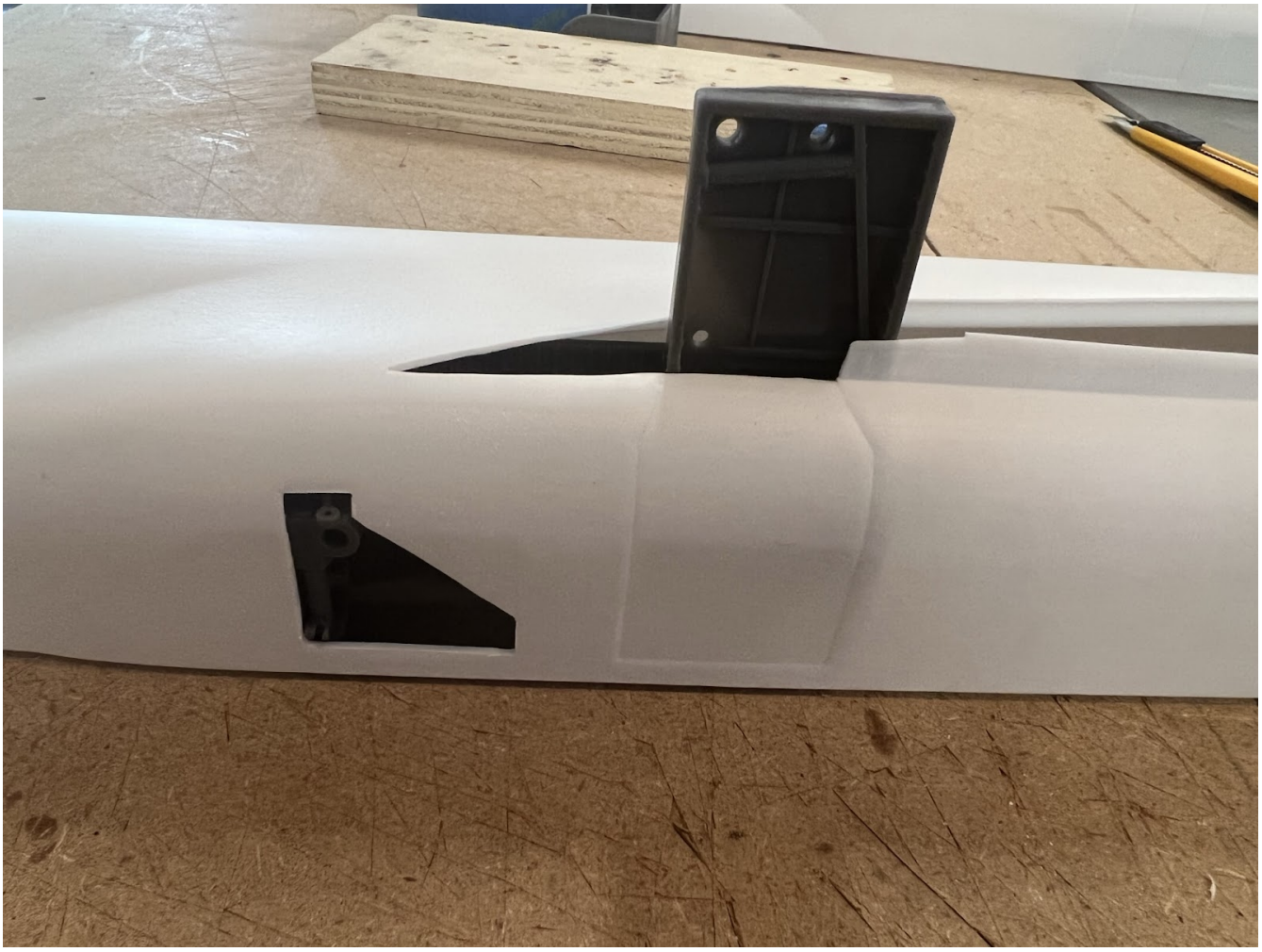
Wheel wells should be installed prior to assembling fuselage halves and wings.







Main gear wells must be installed in the fuselage halves first. Wings will have to be fitted after the fuselage halves are glued together. Take your time dry-fitting everything in order to ensure that glued assembly goes smoothly.



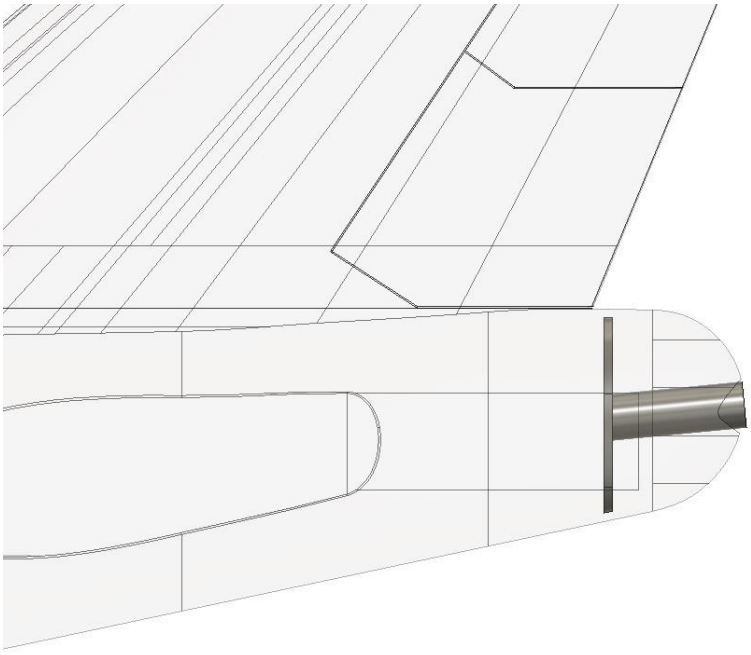
Pro Tip:

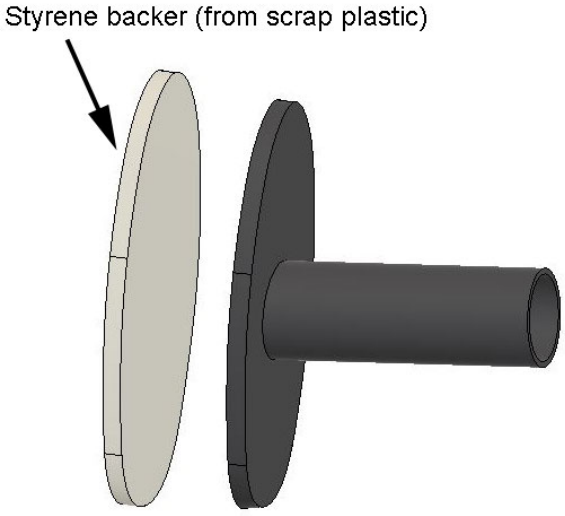
The strongest joint is a chemically welded styrene-to-styrene joint–one that is glued with solvent glue. For extremely strong construction use scrap styrene to ‘wrap’ your wheel wells. This can be done before installing them, or after and can be done for both the main wheel wells and the nose wheel well. The goal is to make a styrene box to contain the resin part and take stress off of the resin-styrene joint.

*concept is illustrated with a photo from the 777 kit but the procedure is the same here

II.B.2. Install APU exhaust

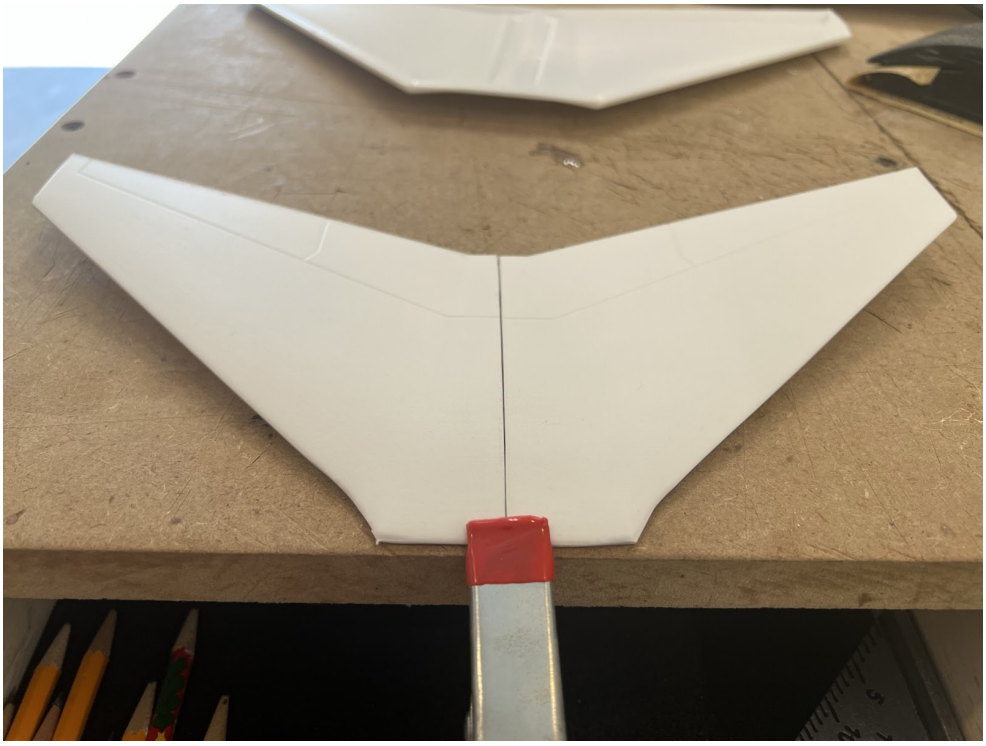
The APU exhaust should be installed prior to cementing the fuselage halves together. You will need to thin the vacformed part using sandpaper or a rotary tool with grinding bit in order to accept the resin APU. As recommended for the landing gear bays, you may find it helpful to cut some scrap styrene to help in mounting the APU exhaust as shown below.





II.B.3. Assemble horizontal tail

Dry fit and then assemble the horizontal tail halves. You may want to clamp the parts to a flat surface to ensure preservation of the dihedral while the glue dries.

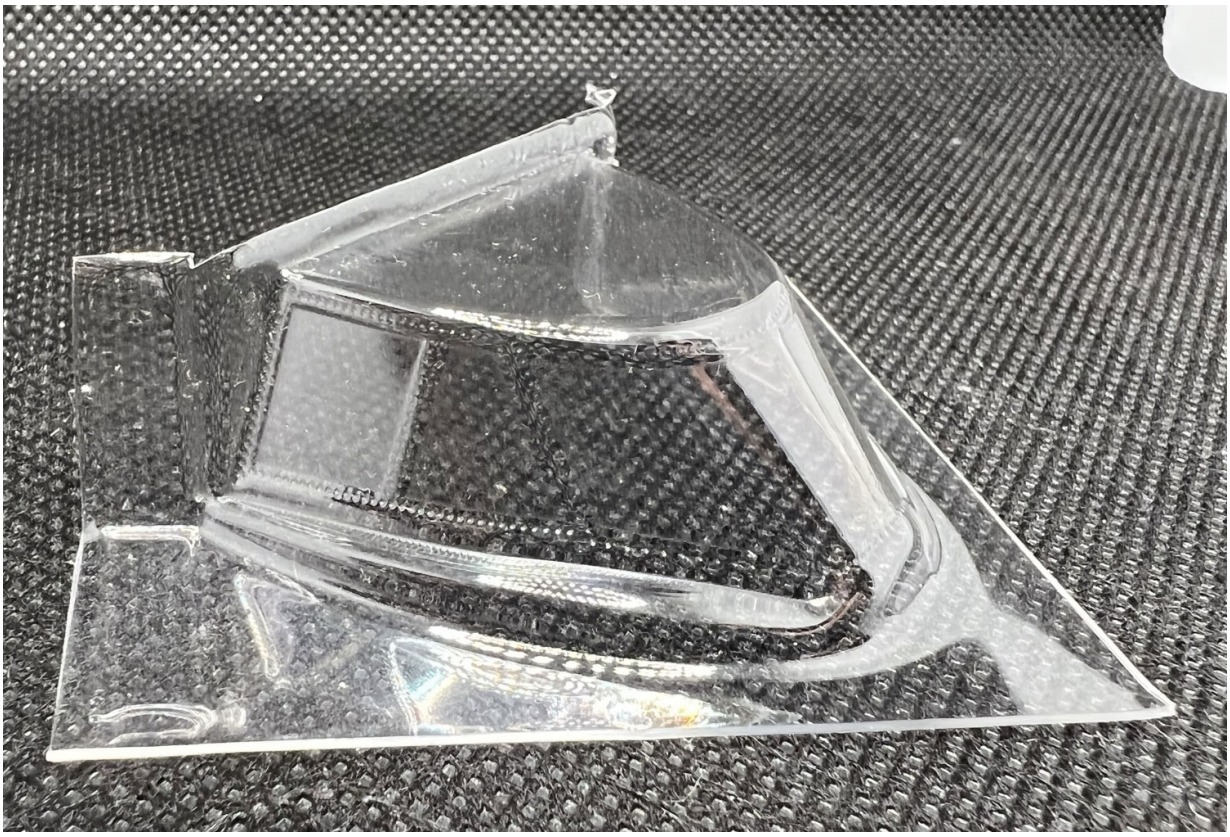


The fully assembled horizontal tail can be inserted into the fully assembled fuselage at any time.

II.B.4. Assemble wing top and bottom

II.B.5. OPTION: Install clear cockpit windows

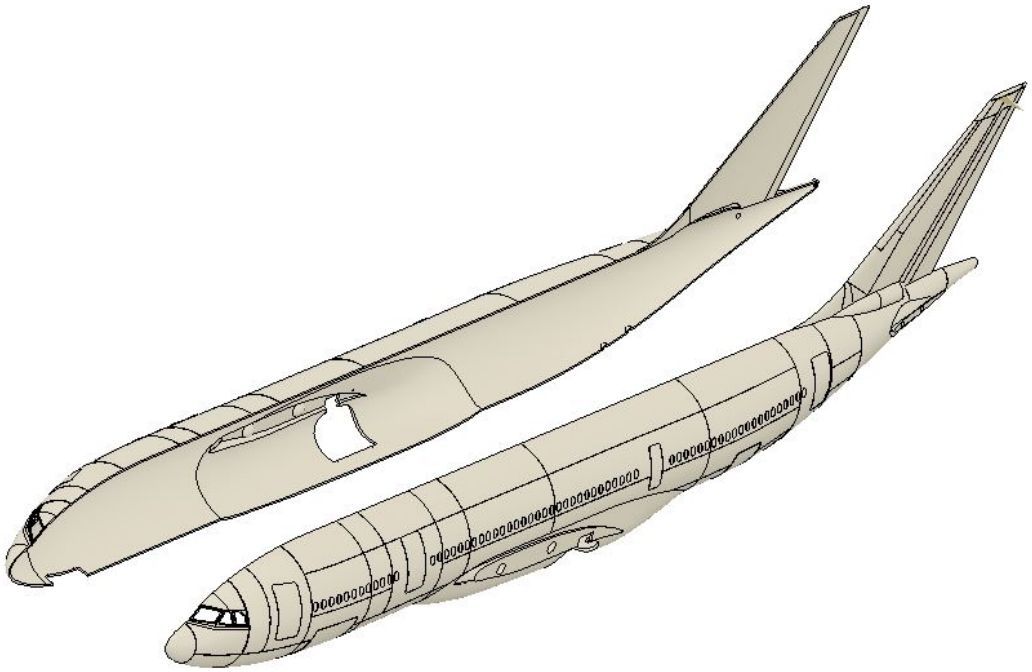
You have the option of building your kit using the included clear cockpit windows or you may opt to use a cockpit window decal (sold separately with your decal purchase from DRAWDecal.com). Installation of the clear cockpit windows is considered to be an advanced procedure.



Pro Tip:

Cutting the window transparency into left and right halves will allow you to install the windows prior to joining the fuselage halves. This will give you the ability to work with the parts from both the inside and outside of the model.

II.B.6. Assemble fuselage halves



*concept is illustrated with an image from the A330 kit but the procedure is the same here

If you are building your kit WITHOUT the optional landing gear, you may choose to perform the next step (joining the wings) prior to joining the fuselage halves. The sequence is entirely your preference.

II.B.7. Join the wings

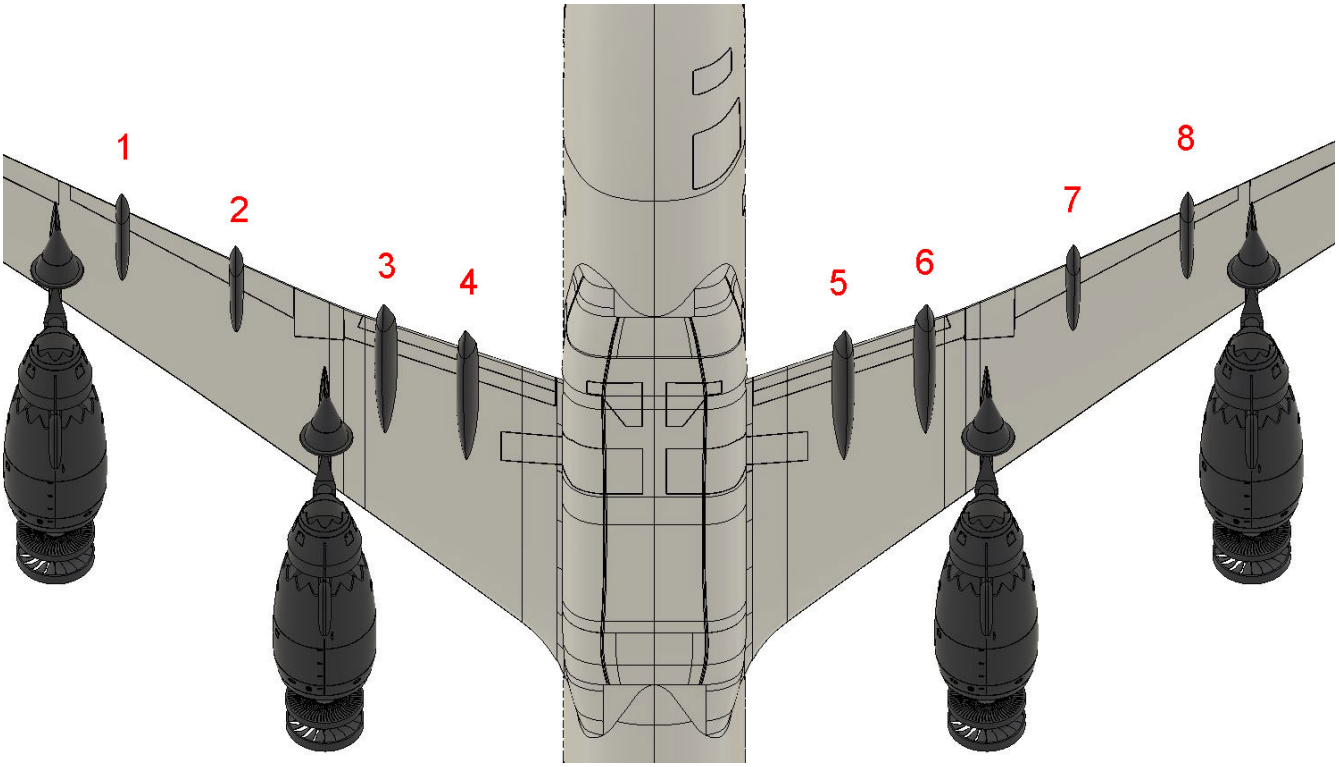
Using scrap plastic, glue up a wing spar and install. The wing spar should be 3.8” (96.5mm) wide.

*concept is illustrated with a photo from the 777 kit but the procedure is the same here

If you are building your kit WITHOUT the optional landing gear set, then fully assembled wings can be passed into the fully assembled fuselage and cemented in place by flowing liquid modeling cement into the joint. If you are building your kit WITH the optional landing gear set you will need to attach the wings after assembling the fuselage halves. Plenty of time spent dry-fitting will ensure that this assembly goes smoothly.

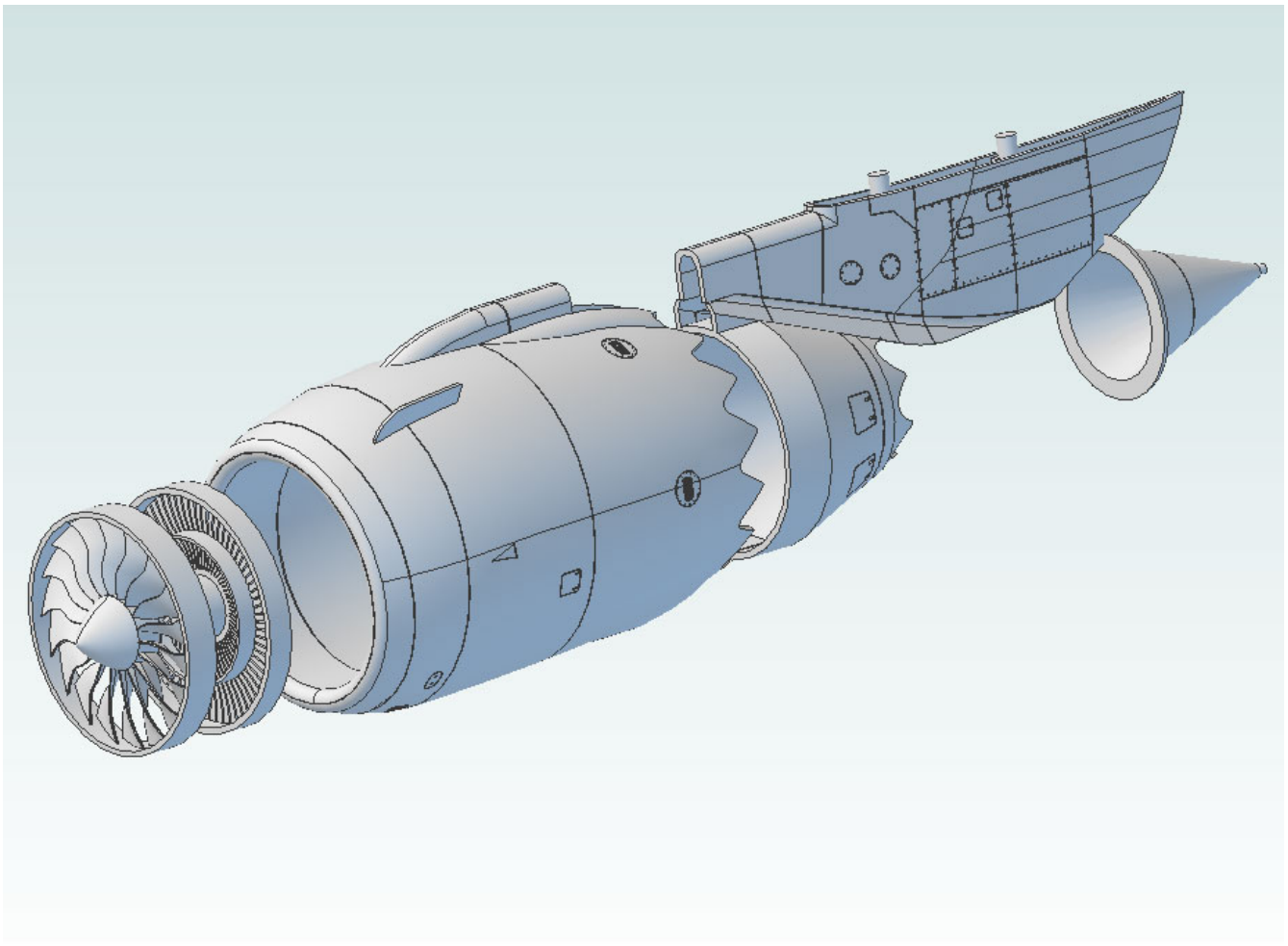
II.B.8. Install flap track fairings

After the wings and fuselage parts are all joined together, add the resin flap track fairings to their respective positions.

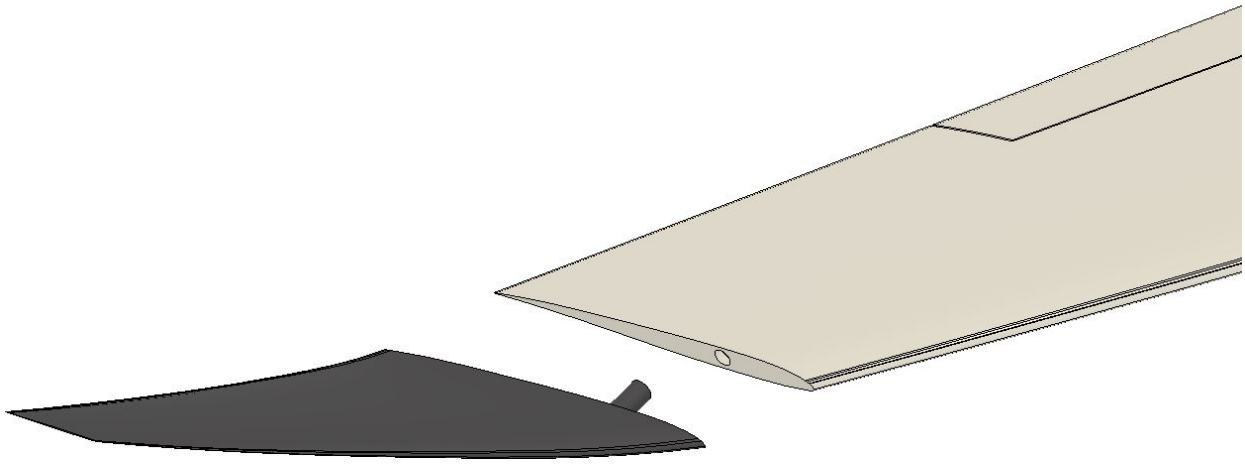


II.B.9. Install engines

Assemble each engine and attach to wings using cyanoacrylate glue or 2-part epoxy. The engine positions are labeled on the parts bags. Ensure that each engine is attached in its correct position on the wing. If you are unsure, the airflow fence always faces inboard.

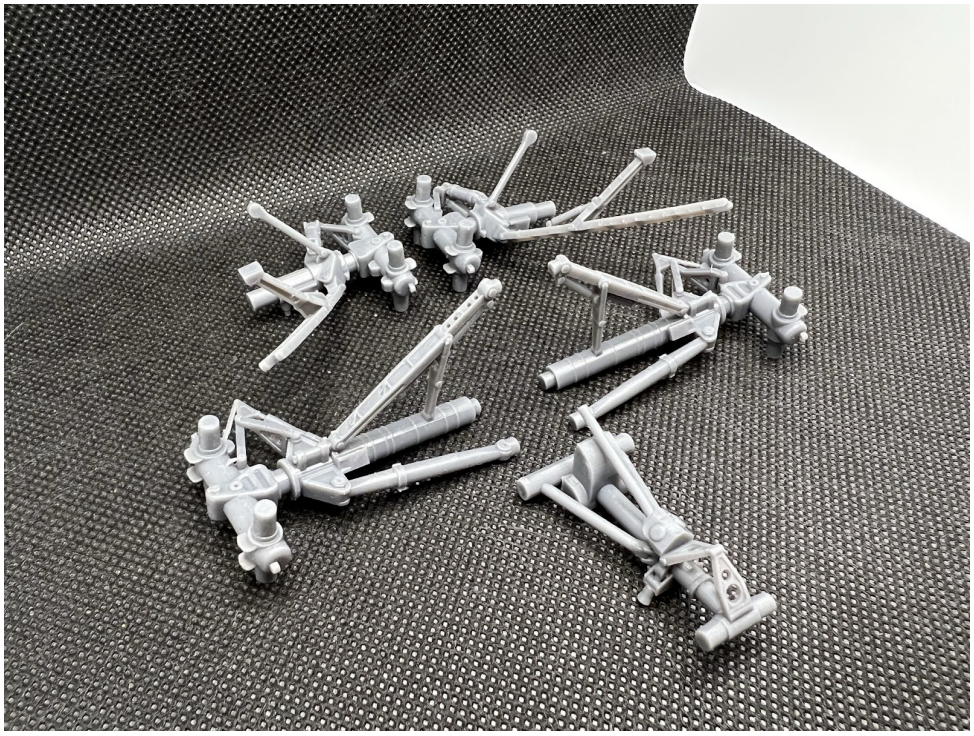


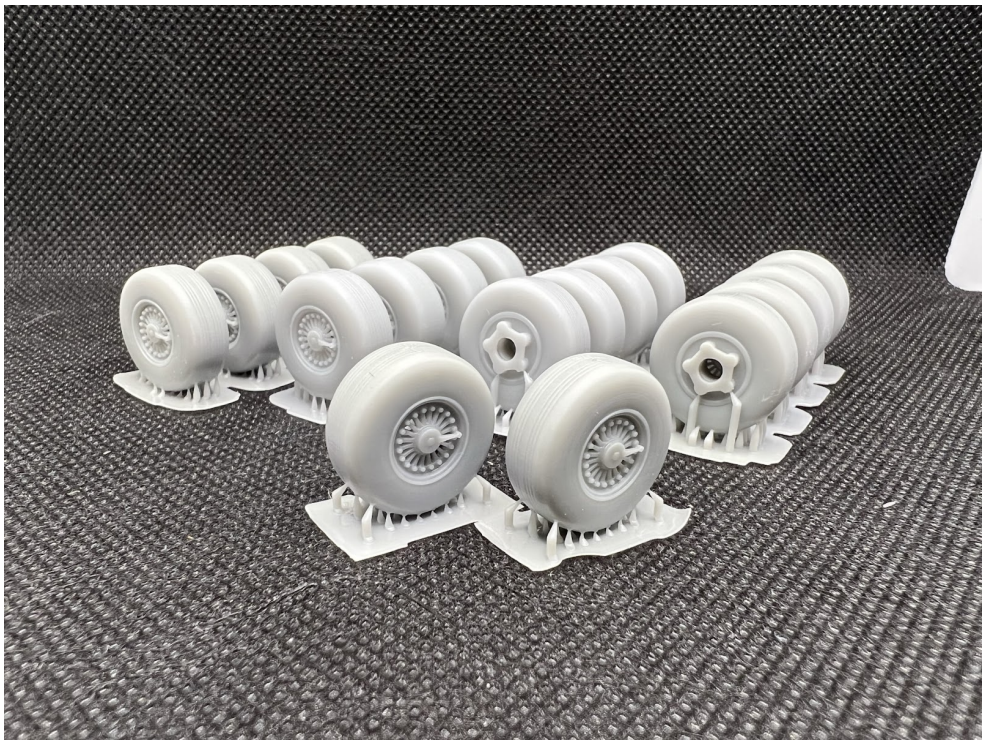
II.B.10. Install Wingtips



Mark the wings and drill a hole to receive the resin wingtips. Glue in place.

II.B.11. OPTION: Assemble and install landing gear





II.B.12. Attach antennas and red beacon lights

Antenna locations can vary depending upon individual aircraft configuration. This kit comes with a few of the most common antennas and beacon lights. Your individual build may require additional antennas to be scratch-built, or you may not need to use all included antennas. Always consult your reference photos.

III. References

Boeing B747-8 walk around-preflight

LUFTHANSA's 747-8i 'Baden-Württemberg' : A Walk Around of D-ABYG

https://airlinercafe.com/walkarounds/?wpv_view_count=75097&wpv_post_search&wpv-aircraft=boeing-747-8f

https://www.boeing.com/resources/boeingdotcom/commercial/airports/acaps/747_8.pdf