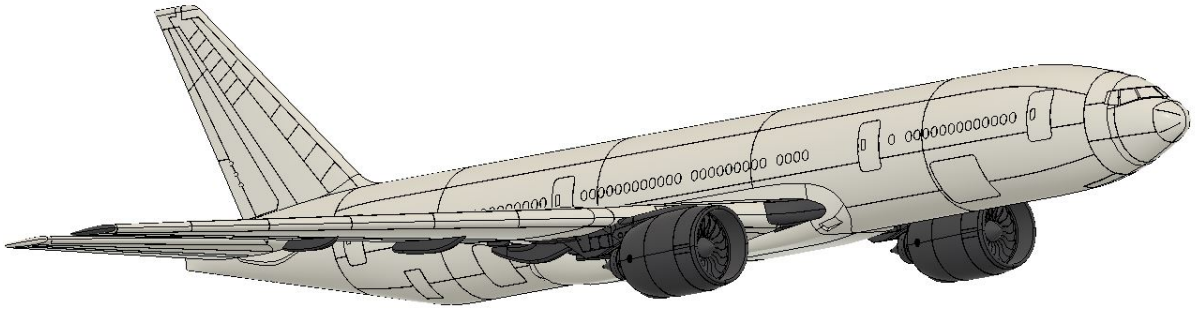
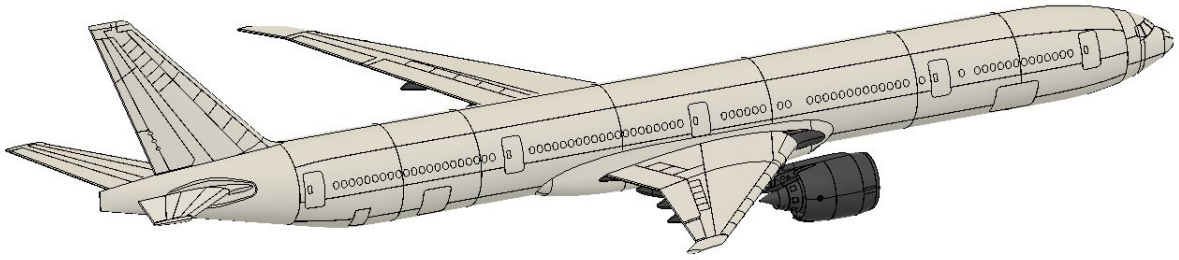
TITAN MODEL KITS



1:72 777 (All Variants)
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 general in nature and 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:

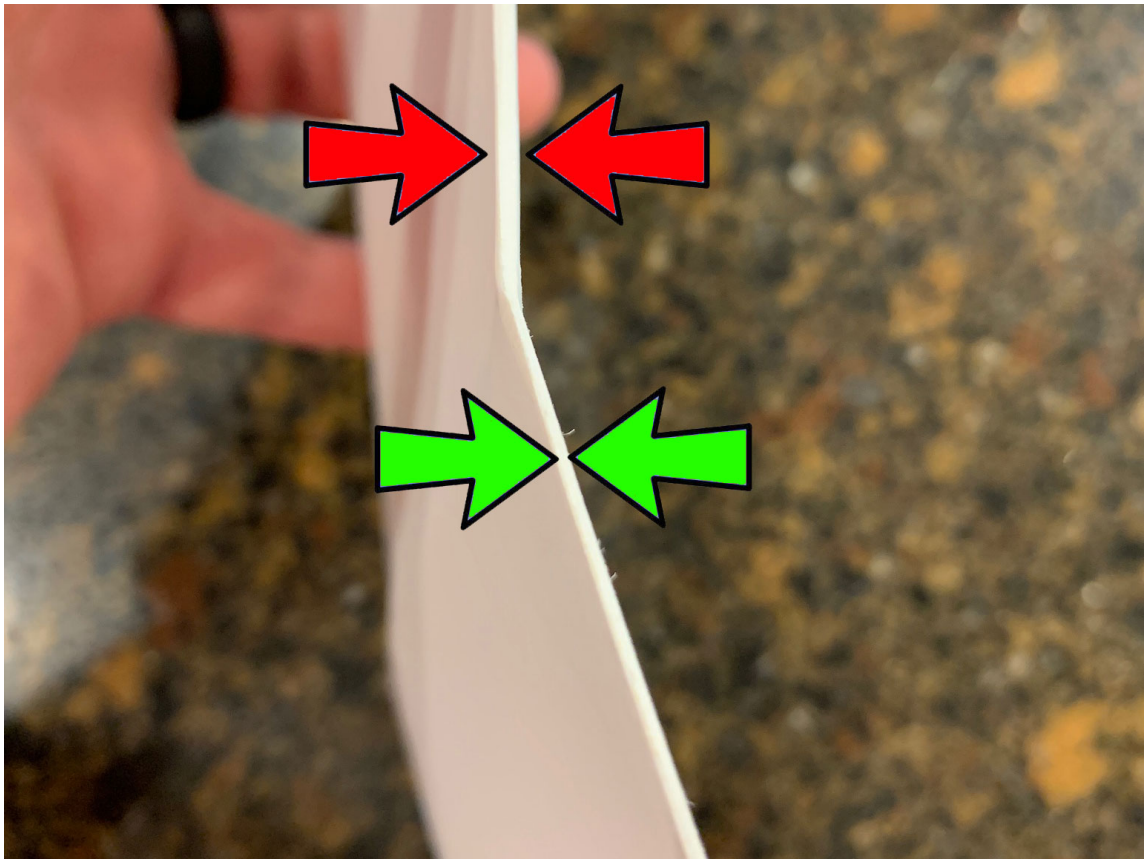
Carefully remove the parts by cutting along the silhouette of the part with a sharp utility knife. You may find it helpful to mark the cut lines with pencil prior to cutting. Always cut from the top of the parts, never from the bottom. Multiple shallow passes will always yield a better result than trying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

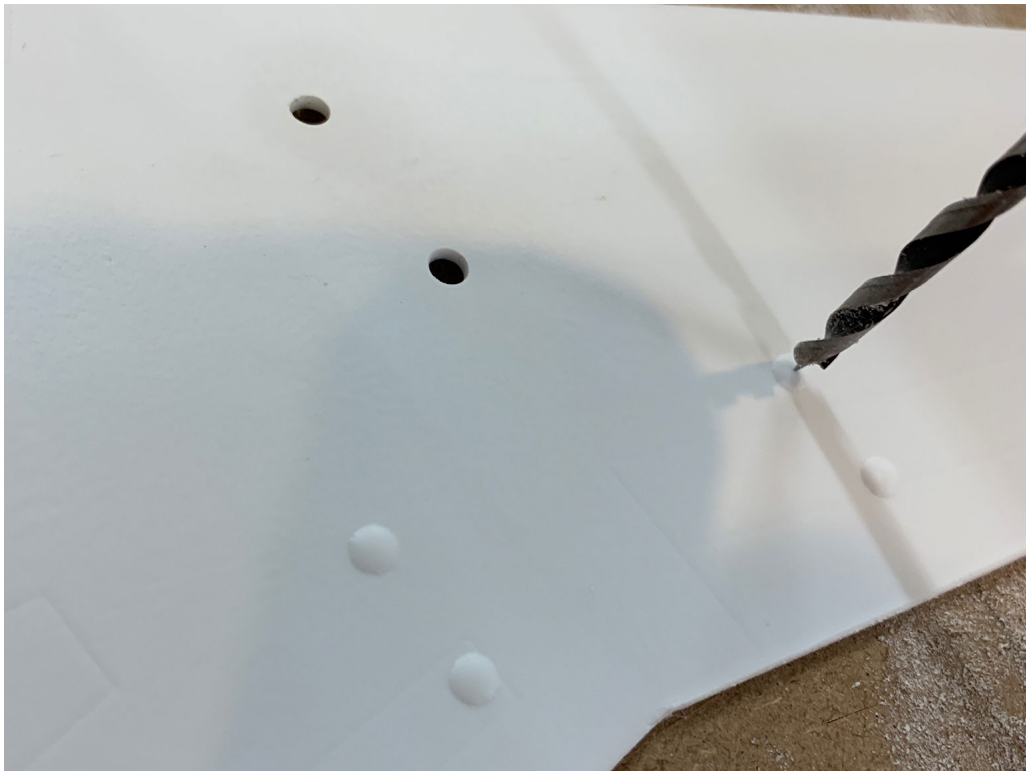
I.A.3. Thin trailing edges:

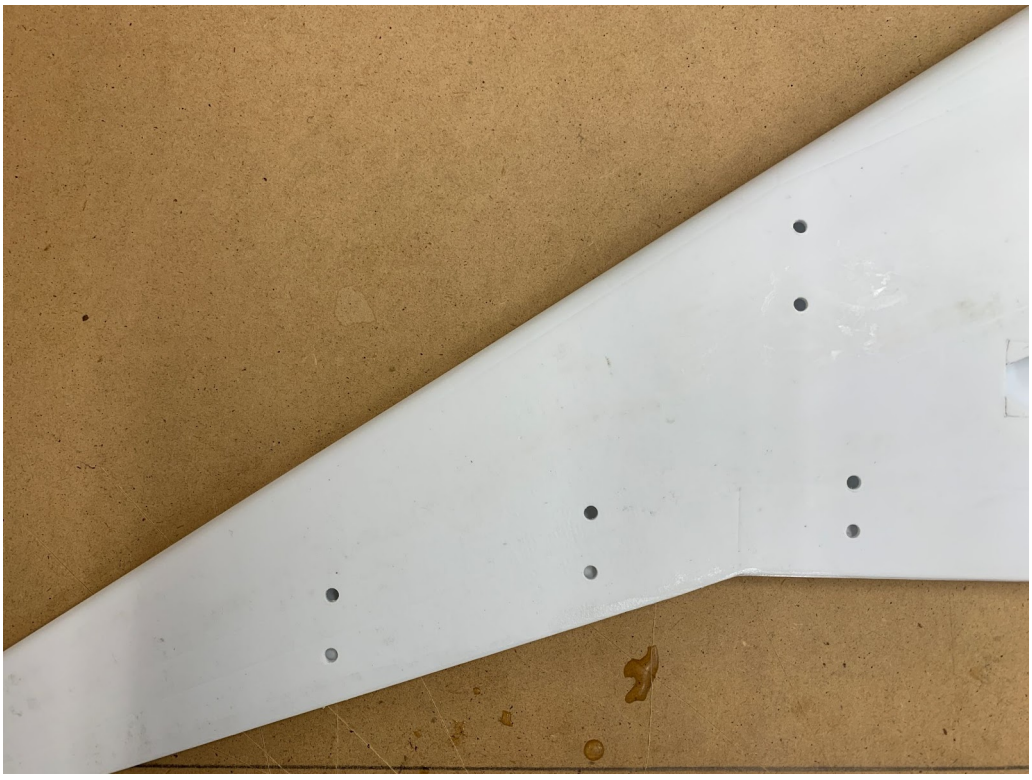
As delivered, the trailing edges of the wings and tail parts are the thickness of the plastic sheet used to produce them. If left alone, assembling raw parts will result in a trailing edge that is too thick for scale. Using 220 grit sandpaper, thin all trailing edges from the .090” material thickness 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.



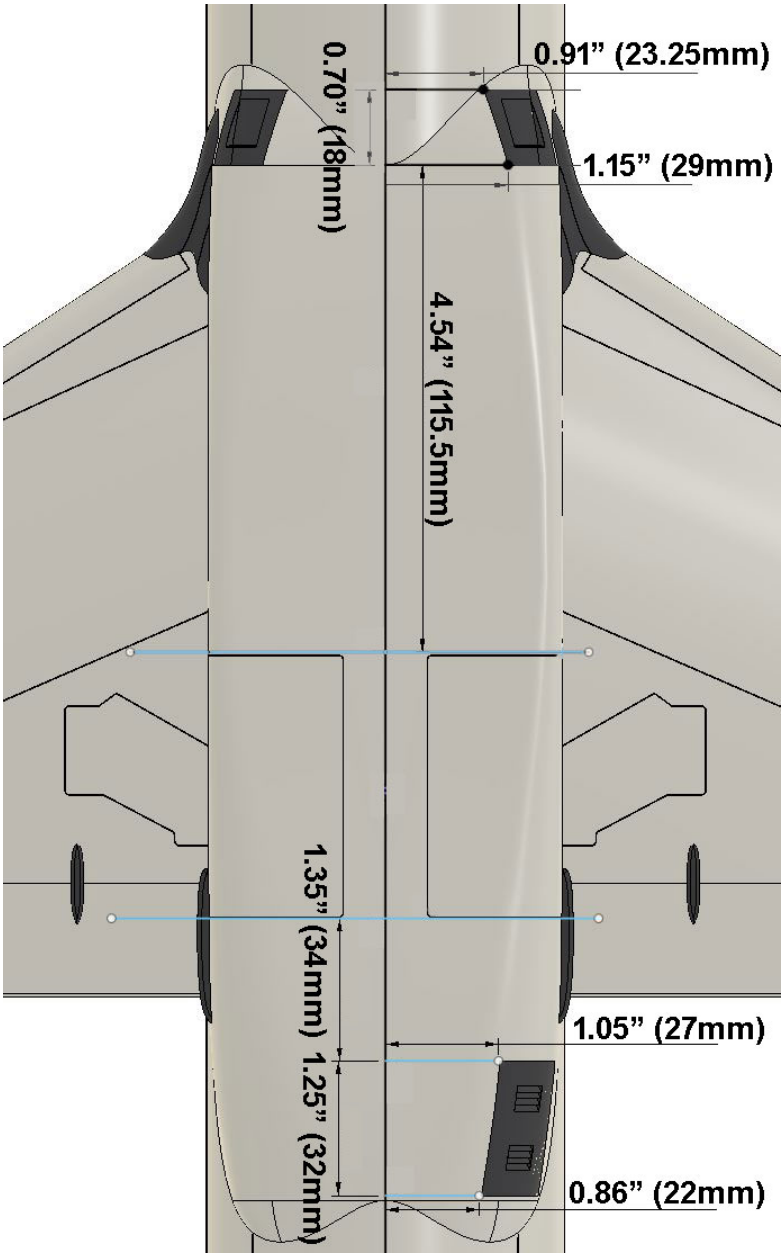


I.A.5. Cut out wing & tail passthroughs

Remove plastic to allow for the wing and tail assemblies to pass through the fuselage halves as shown.

I.A.6. Cut out belly intake and exhaust holes

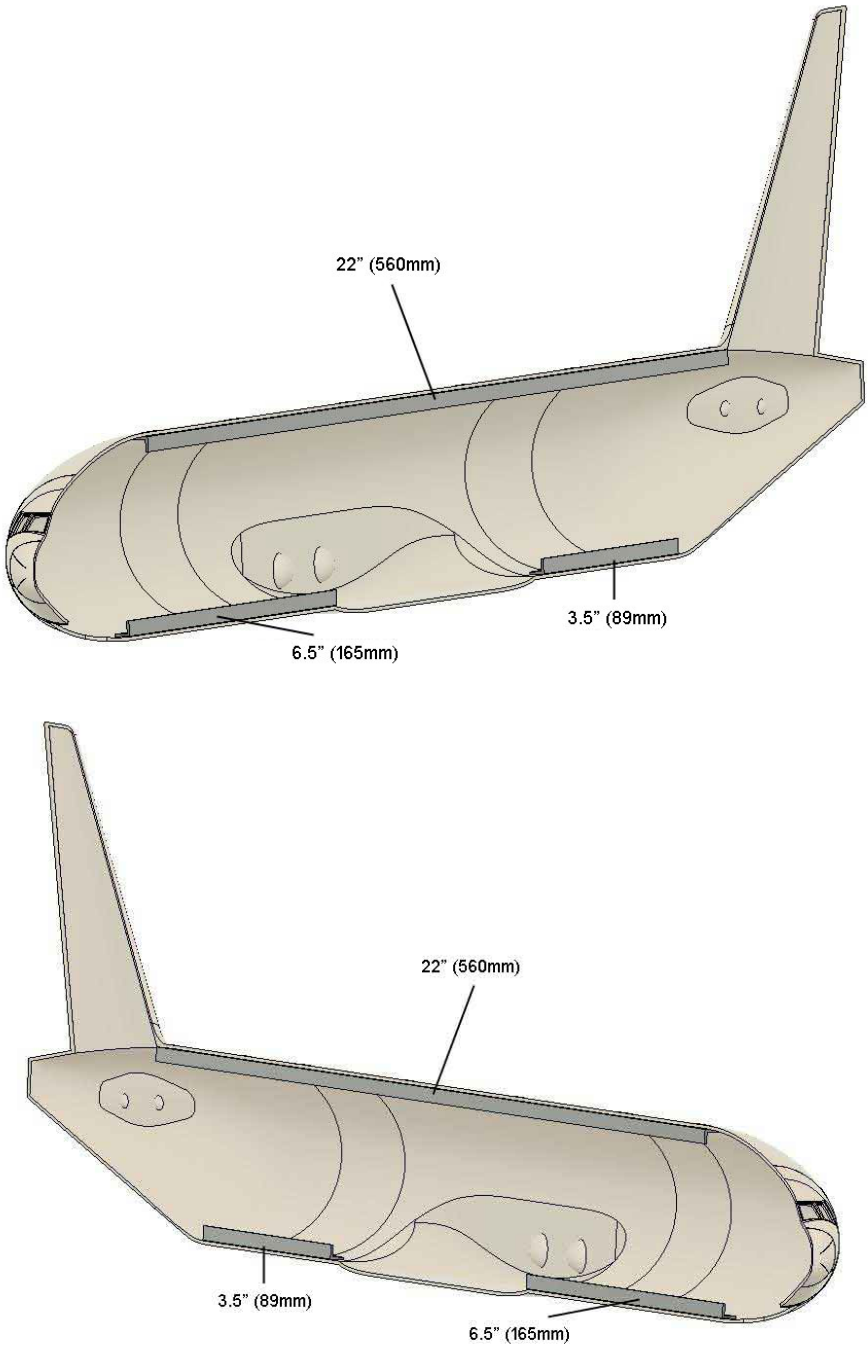
3D printed resin detail parts are provided for the belly fairing air intakes and for the port side exhaust vents aft of the wing trailing edge. Care should be taken when cutting out holes for the resin inserts.



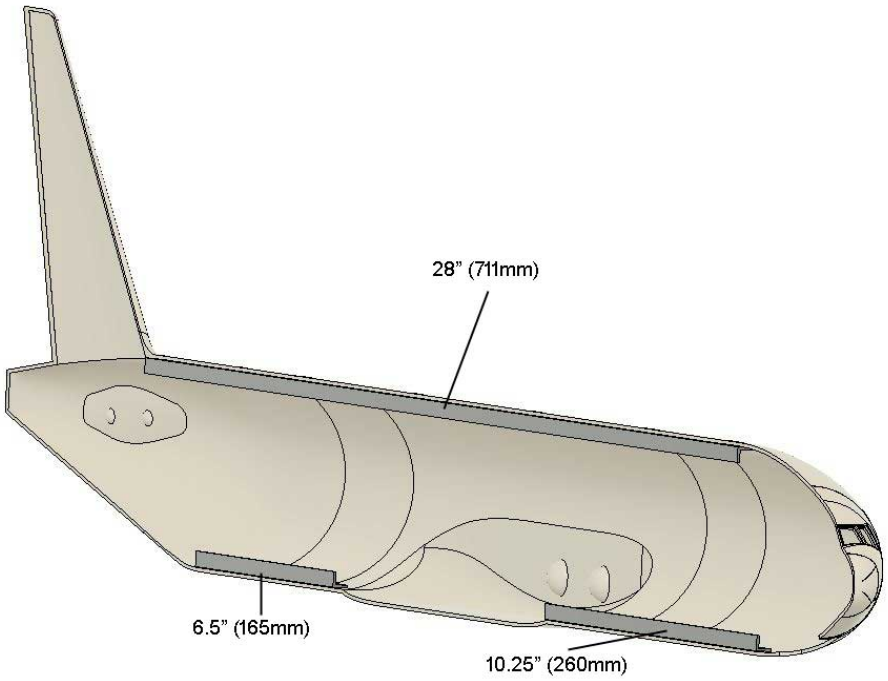
I.A.7. Install 90° angle styrene reinforcement strips

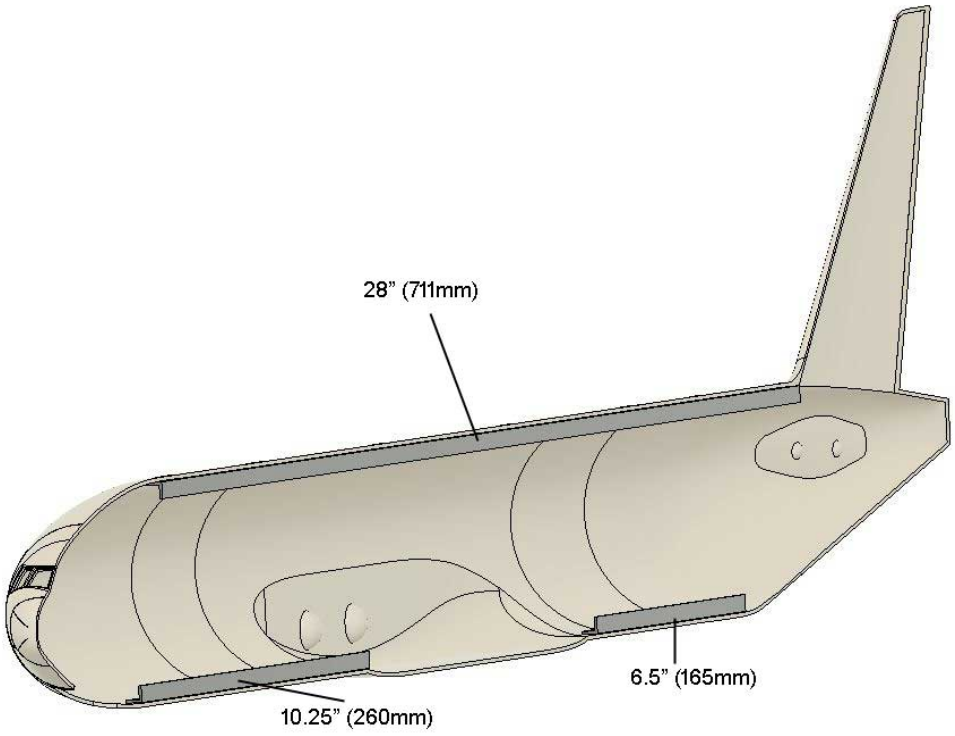
¼" styrene angle strips are provided to add rigidity to the fuselage and to increase the area of the fuselage joint for glue-up. Install as shown below. Install on BOTH fuselage halves.

777-200



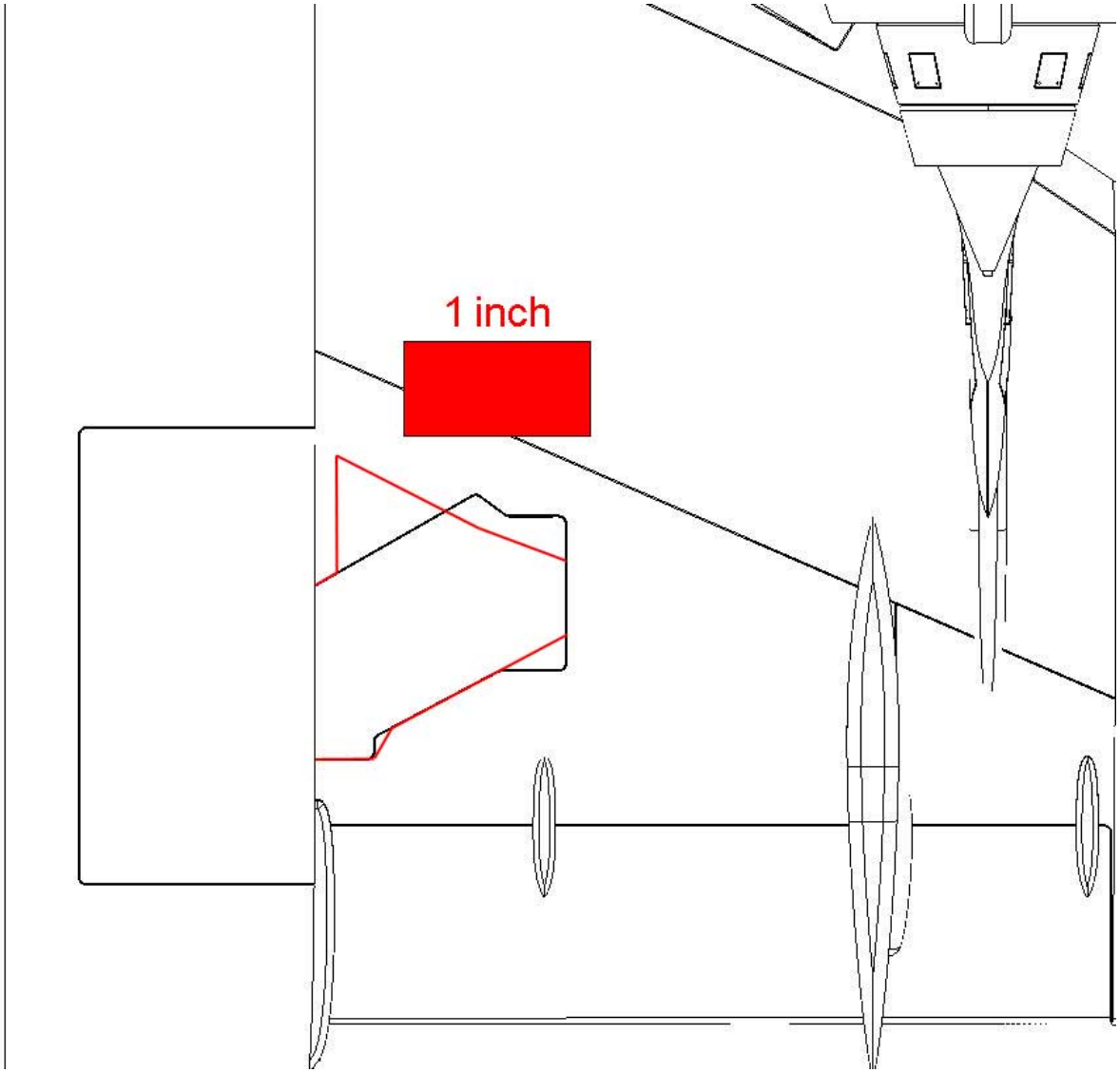
777-300

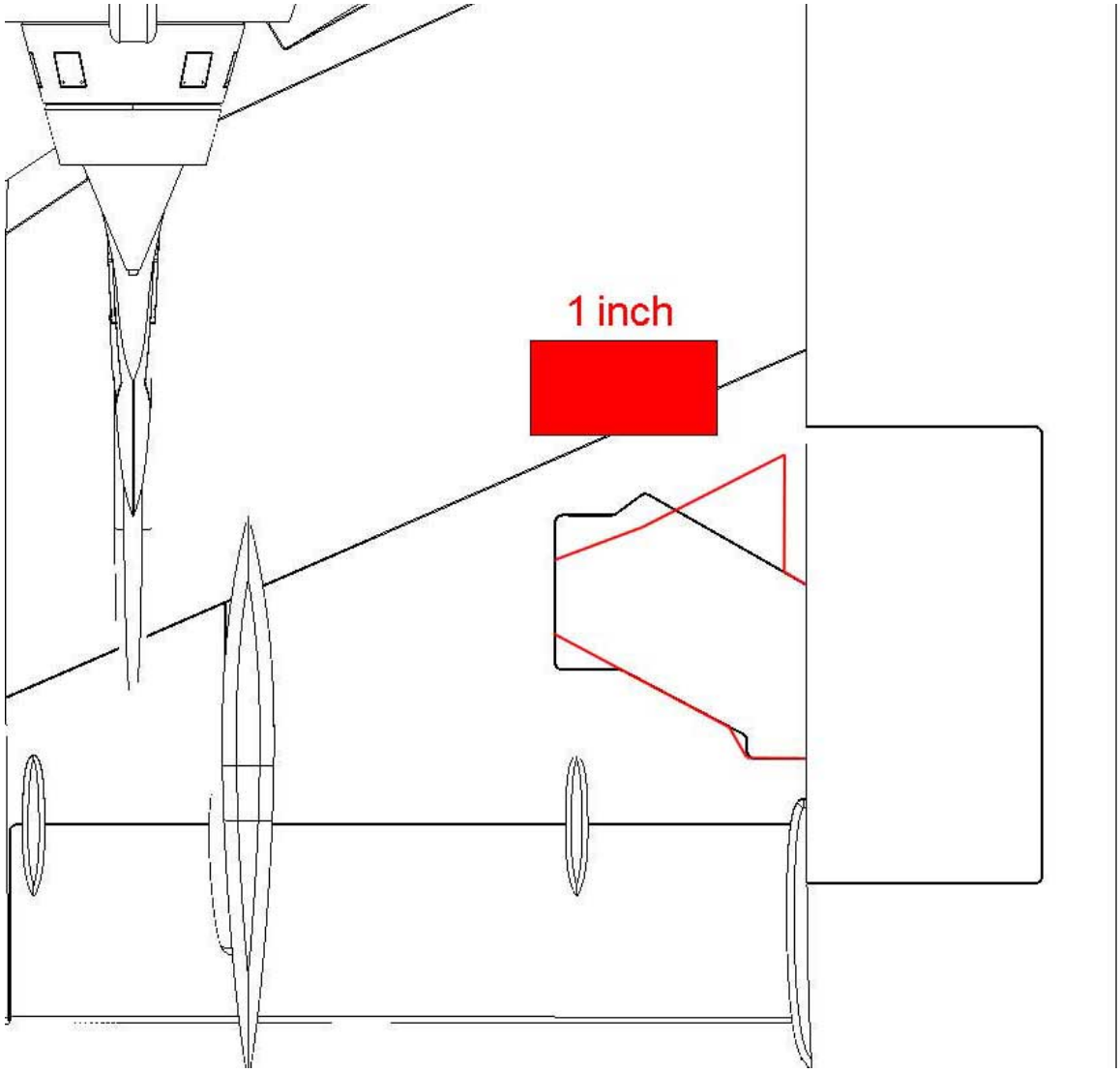




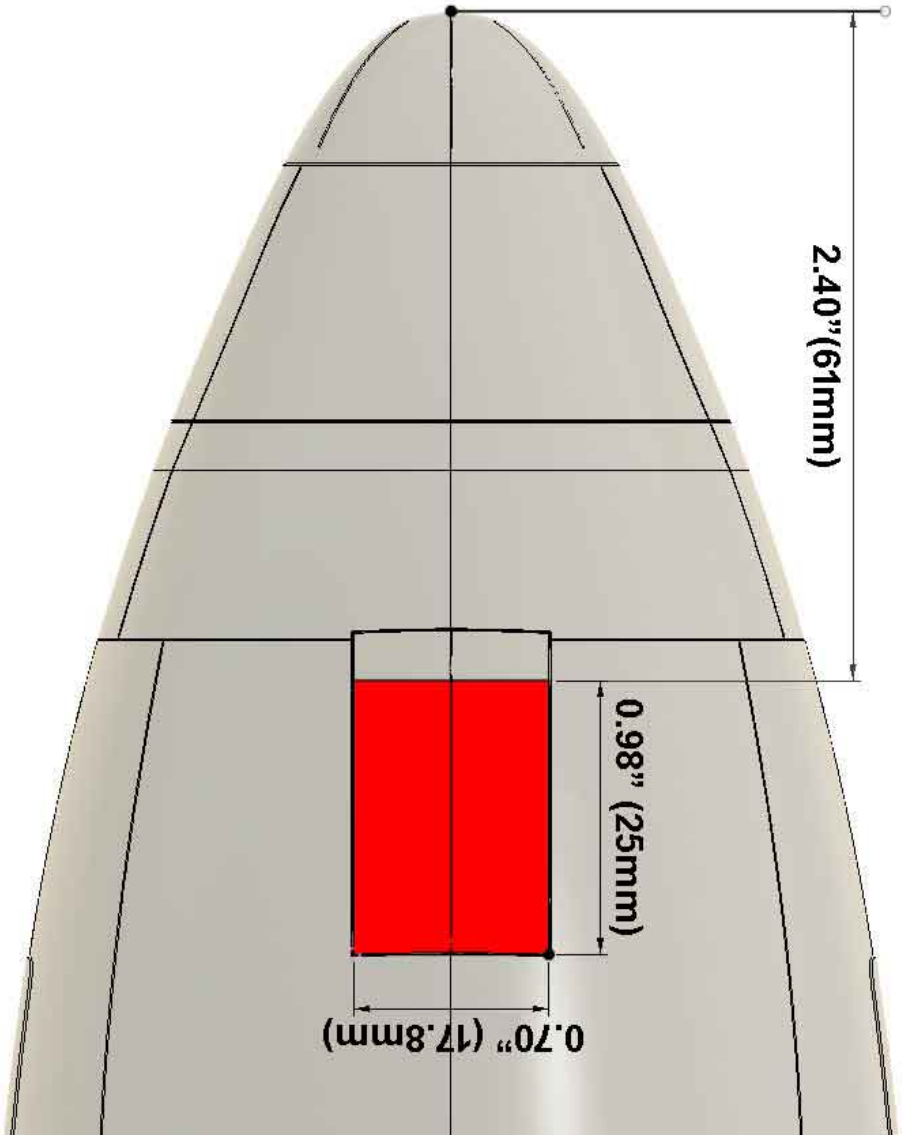
I.A.8. OPTION: Landing Gear Cutouts:

CORRECTION--The main landing gear door panel lines as molded on the wings are incorrect. Correct cutting lines are shown in red on the diagram below and can be used as a cutting template. The red rectangle is 1 inch (25.4mm) long and can be used to scale the drawing if necessary.



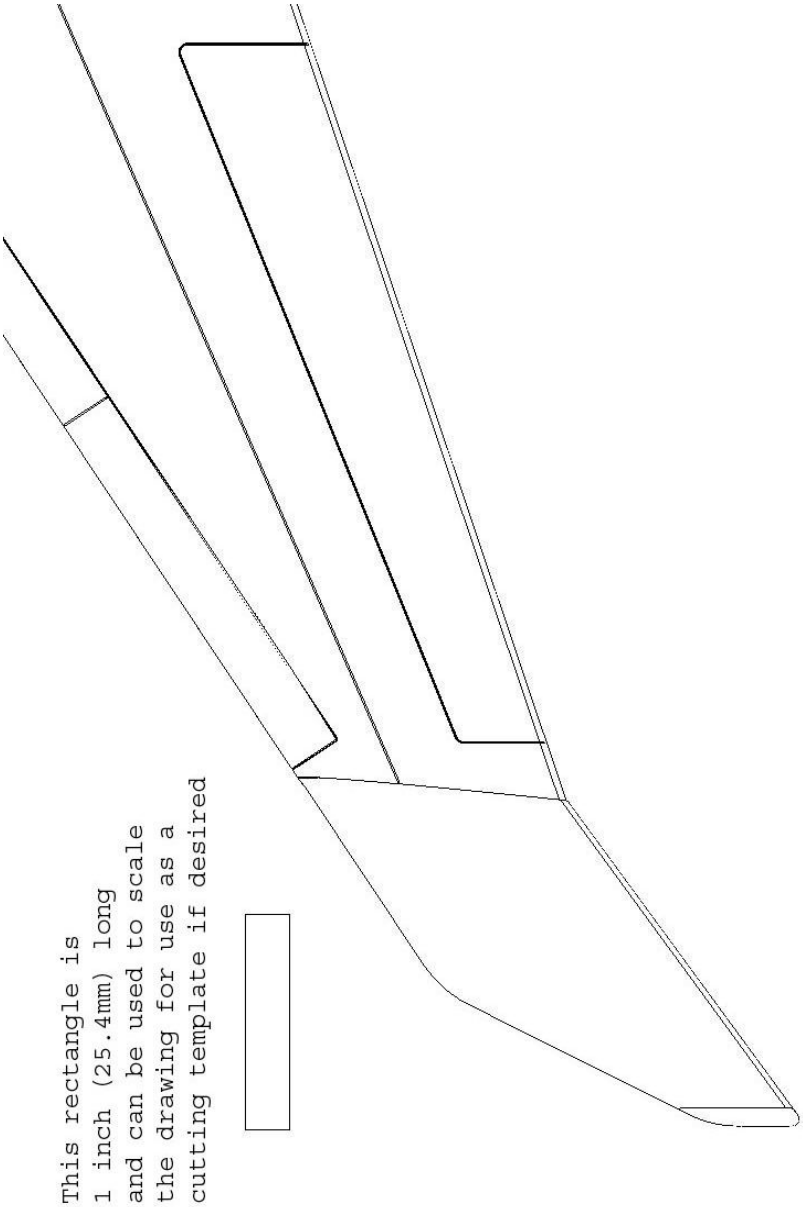

1 inch

Measurements for Nose Gear Door Cutout



I.A.9. OPTION: Remove -ER/-LR raked wingtips:

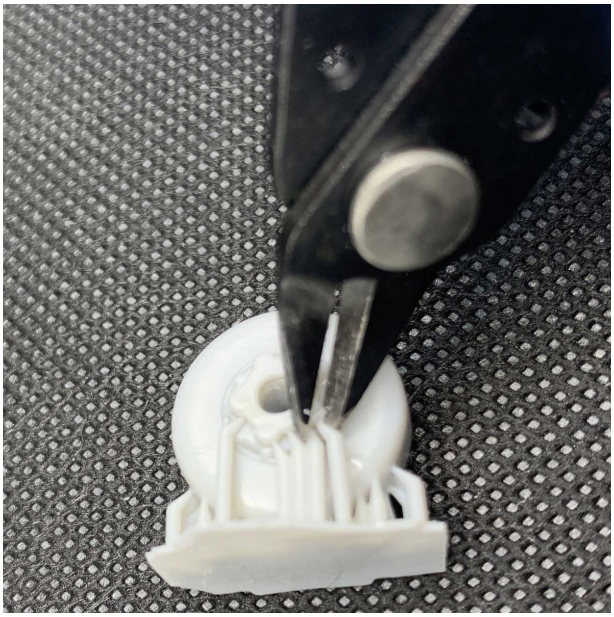
All 777 wings are molded with the -ER/LR raked wingtips. If you want to model your kit with standard wingtips, remove the raked wingtips and replace with the included resin tips. The diagram below can be used as a cutting template to remove the raked wingtips. After removal, install the supplied resin wingtips.



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:

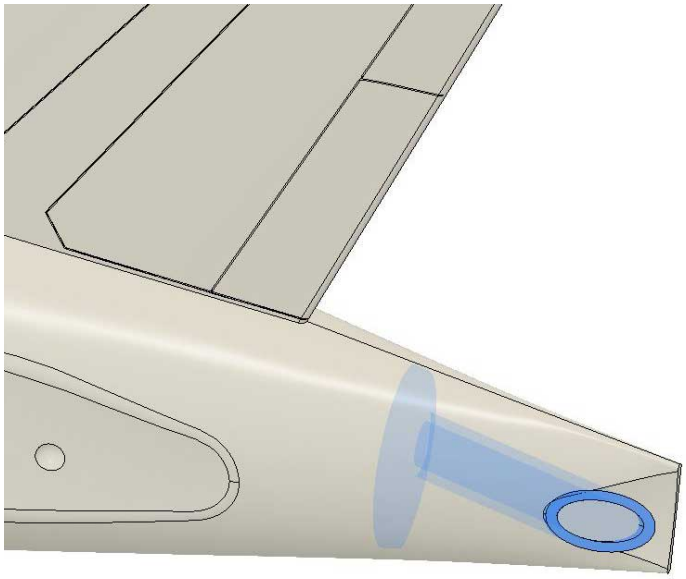
Wheel wells should be installed prior to assembling fuselage halves and wings.

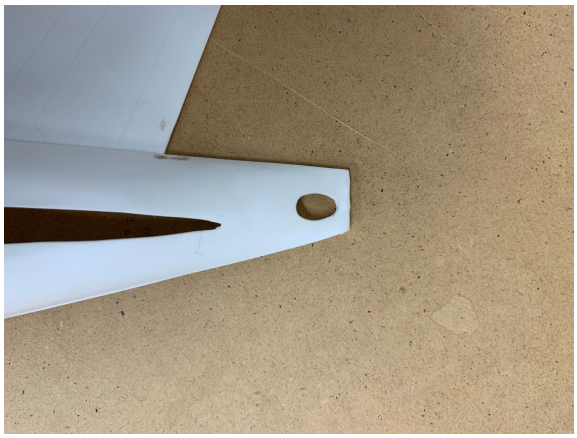
Pro Tip:

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.

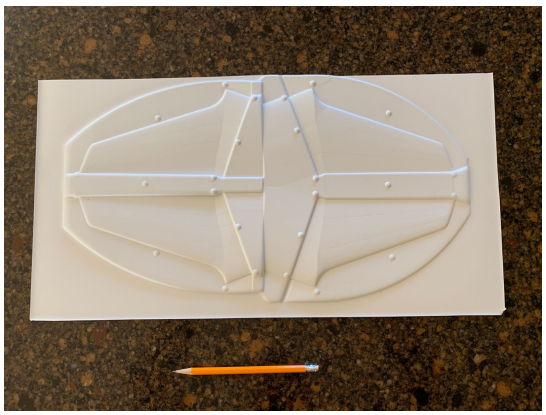
II.B.2. Install APU exhaust

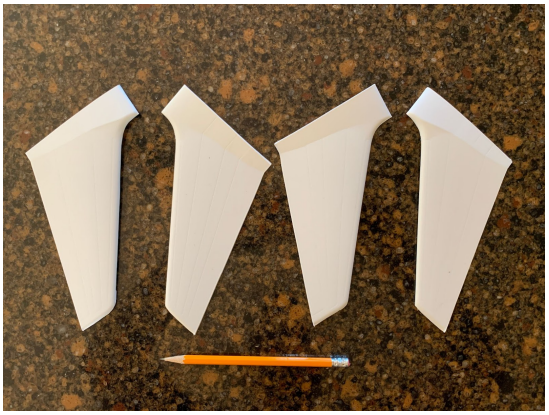
The APU exhaust should be installed prior to cementing the fuselage halves together.





II.B.3. Assemble horizontal tail

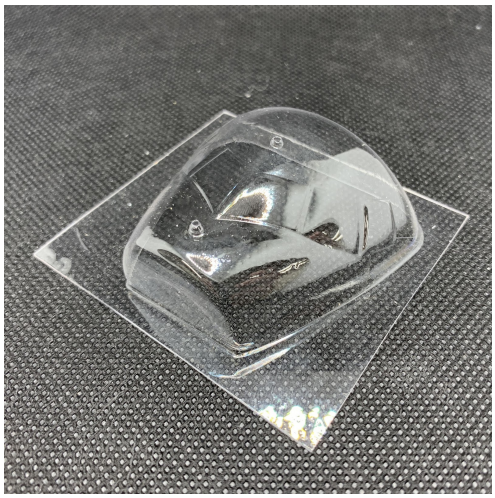




II.B.4. Assemble wing top and bottom

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

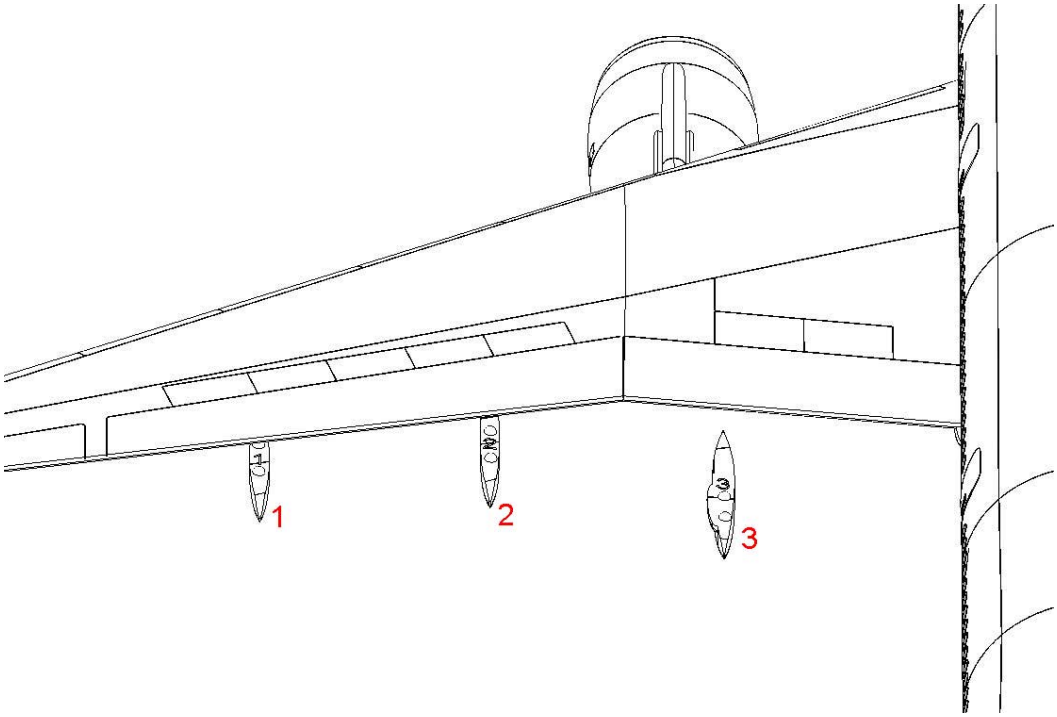
You may choose to perform the next step (joining the wings) prior to joining the fuselage halves. The sequence is entirely your preference.

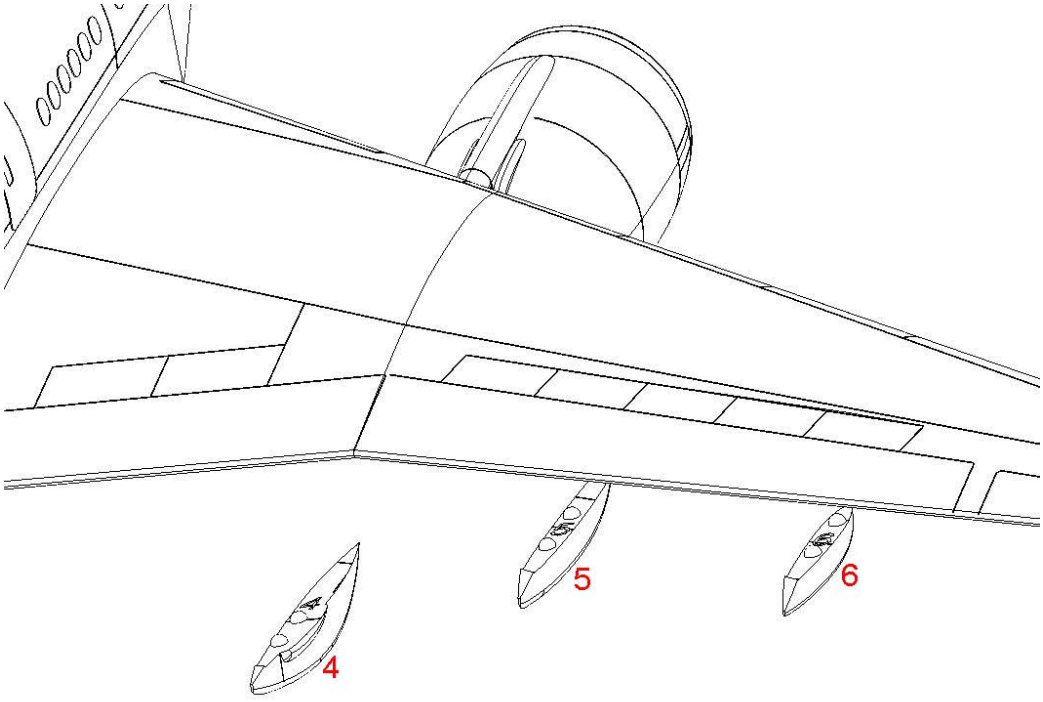
II.B.7. Join the wings

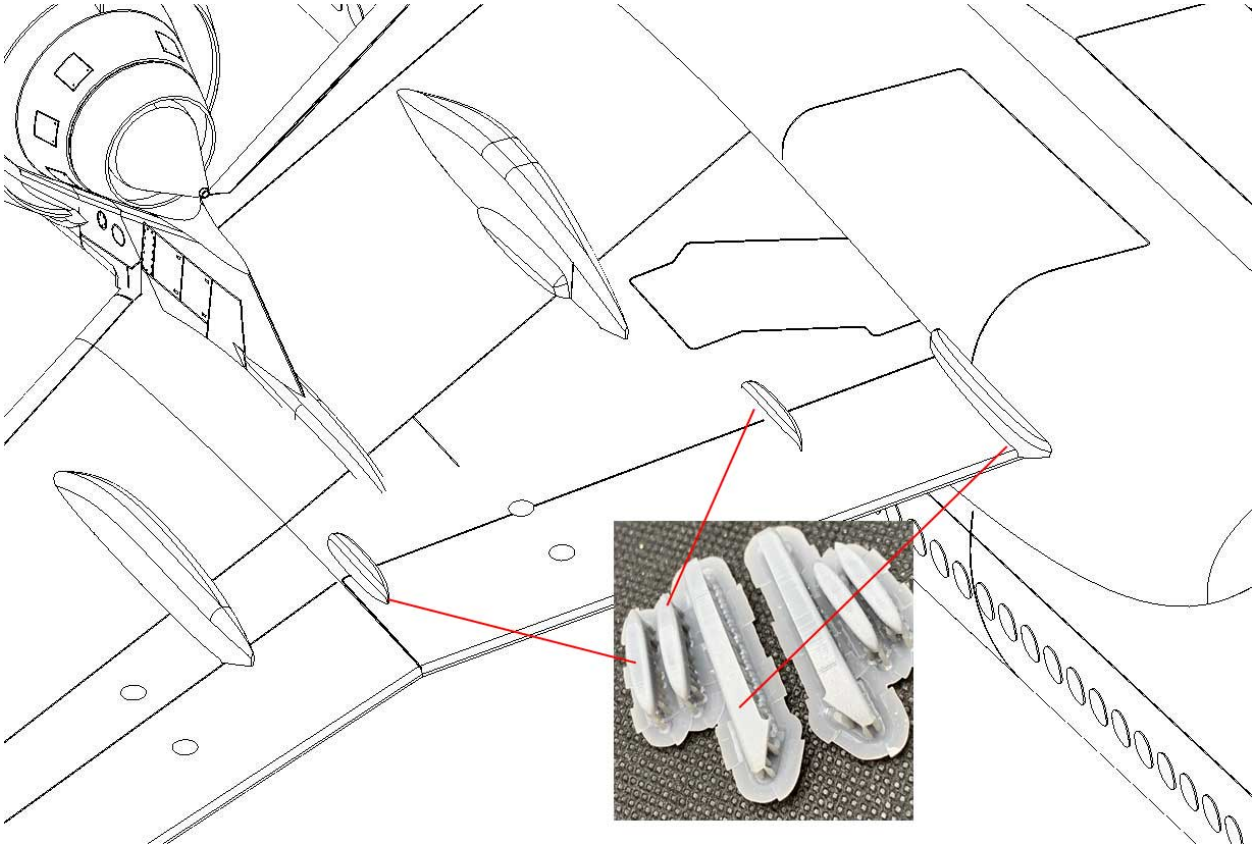
Using scrap plastic, glue up a wing spar and install. The wing spar for the 777 should be 3.30” (84mm) wide.

Fully assembled wings can then be passed into the fully assembled fuselage and cemented in place by flowing liquid modeling cement into the joint. Alternatively, you may choose to bond each wing to its respective fuselage half before joining the assemblies together. This is entirely your choice.

II.B.8. Install flap track fairings



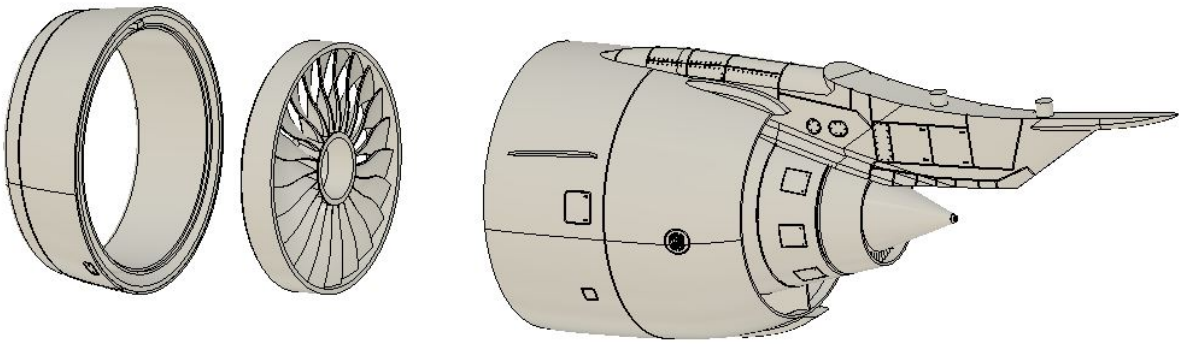




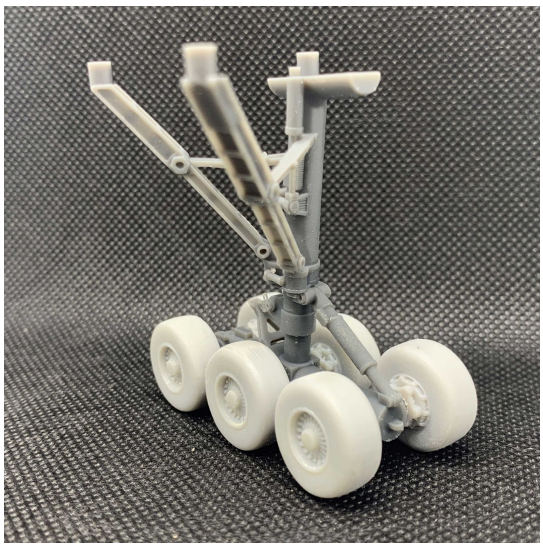
II.B.9. Install wing root fairings

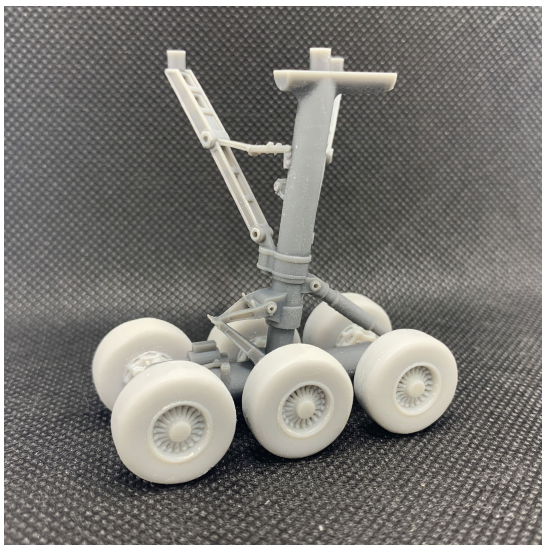
II.B.10. Install engines

Assemble each engine and attach to wings using cyanoacrylate glue.



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

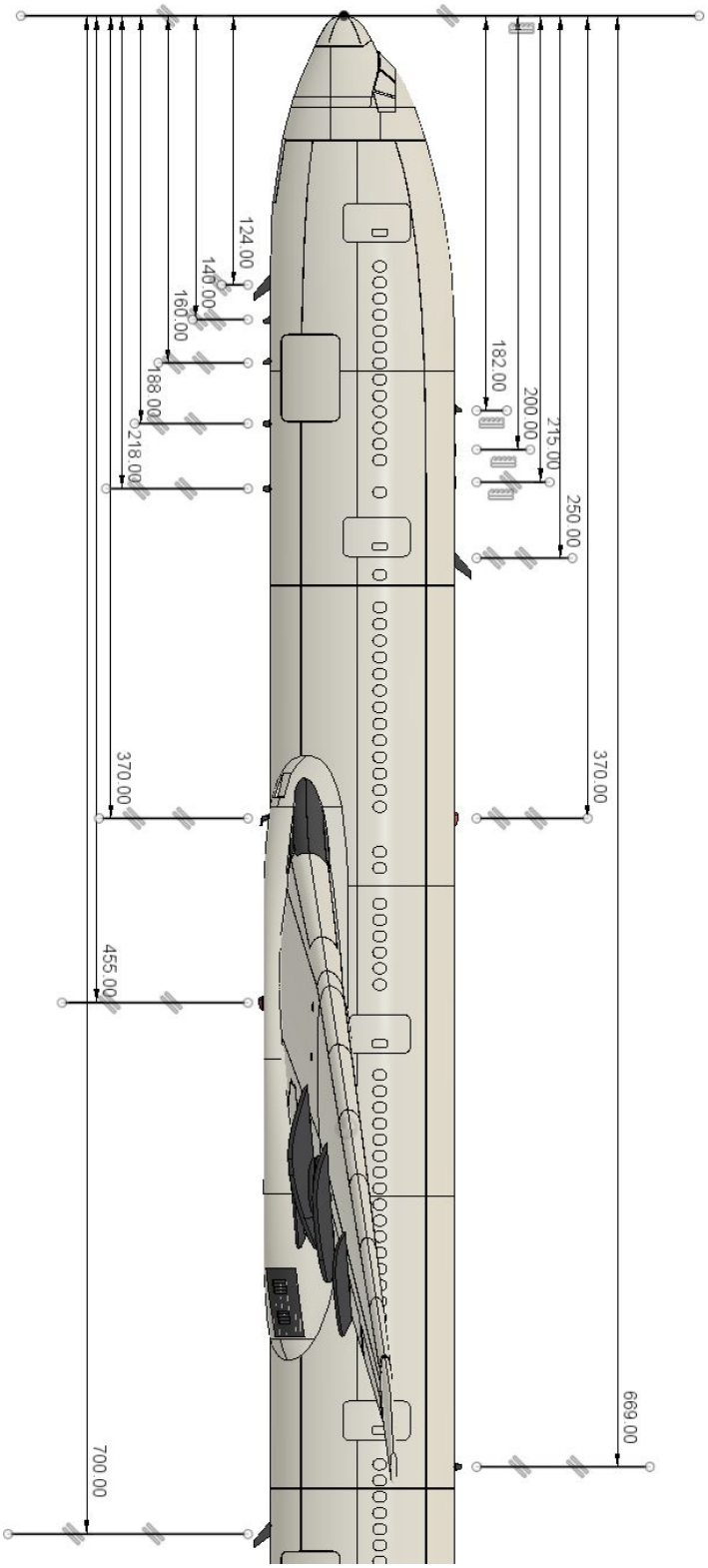




II.B.12. Attach antennas

Antenna types and location can vary depending upon how an individual aircraft is equipped. Each Titan Model Kit comes with a variety of the most common antennas and red beacon lights. On the next page is a general guide to placement. **Check photos and references for your particular build subject as the locations may be different from below.**

777-300 Antenna Placement



III. References

Boeing 777 - Wikipedia

AIRLINERCAFE.COM - Boeing 777-200 Walkarounds