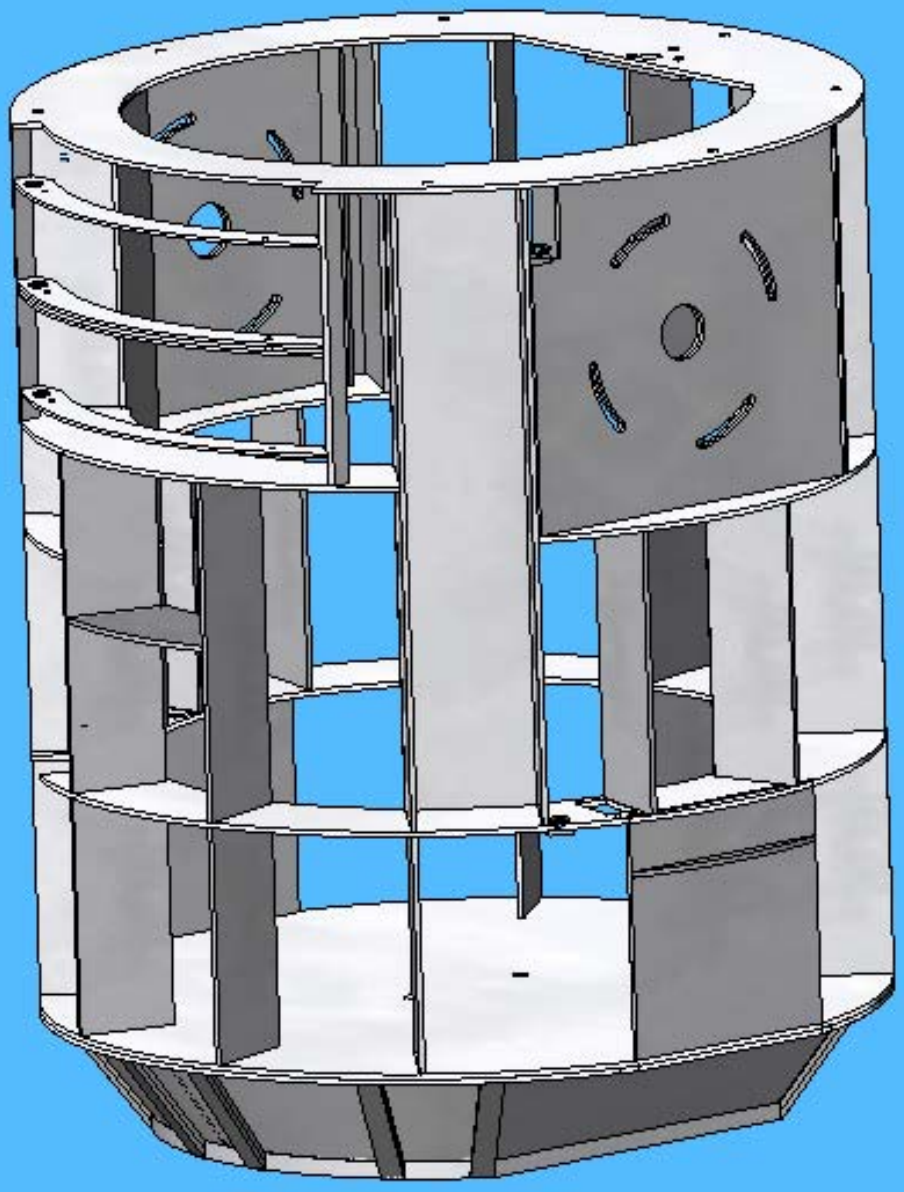
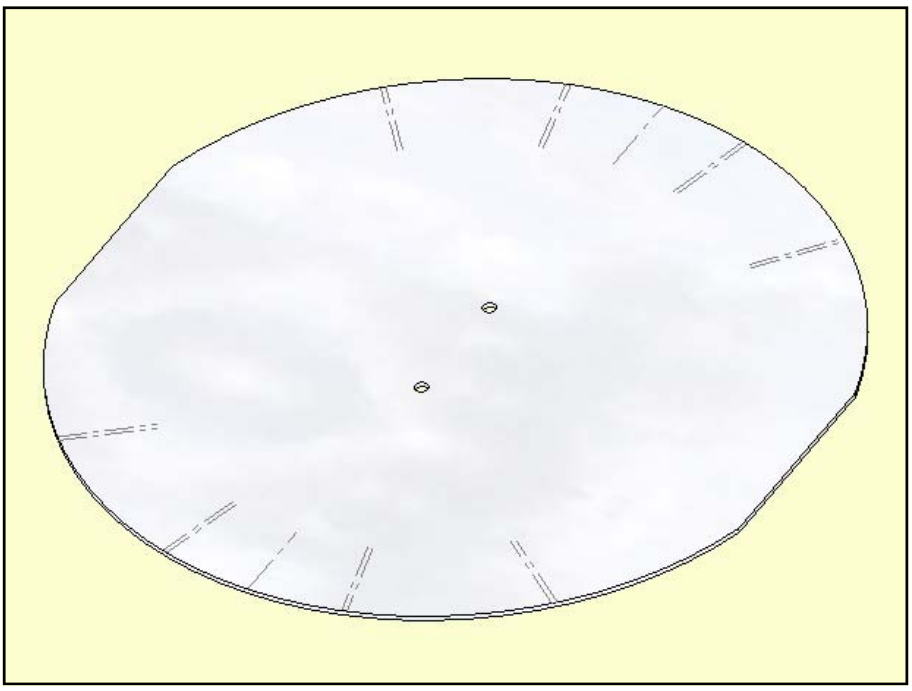
Body Frame



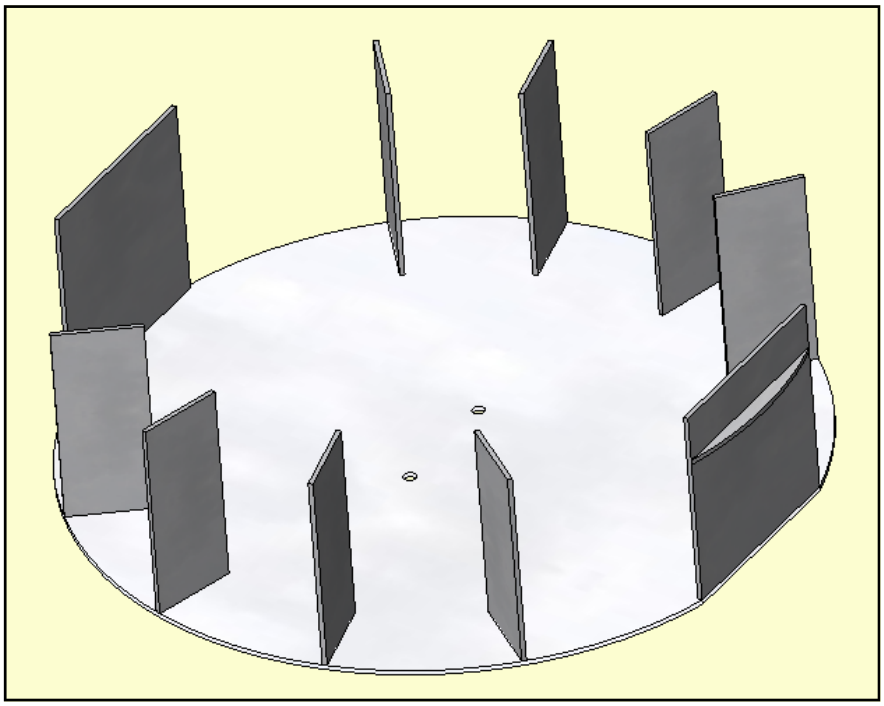
Revision 2 . legs can be rotated to allow for display in 2 leg mode or RC control in 3 leg mode.



Start with the BASE PLATE. Use the plate with the alignments as shown. Make sure the work surface is flat.

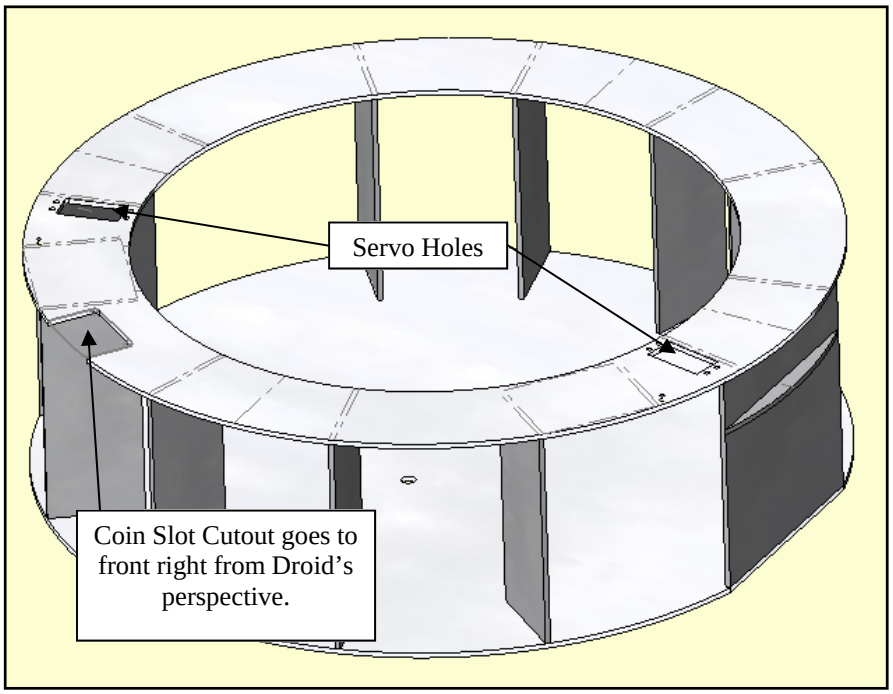
When you cut off the edges, save them for later. The 2 holes in the centerline can be drilled to 3mm for now but will be 8mm eventually.

Take the edge pieces you cut from the BASE PLATE and glue them to the alignment on the ANKLE INSET PLATES.



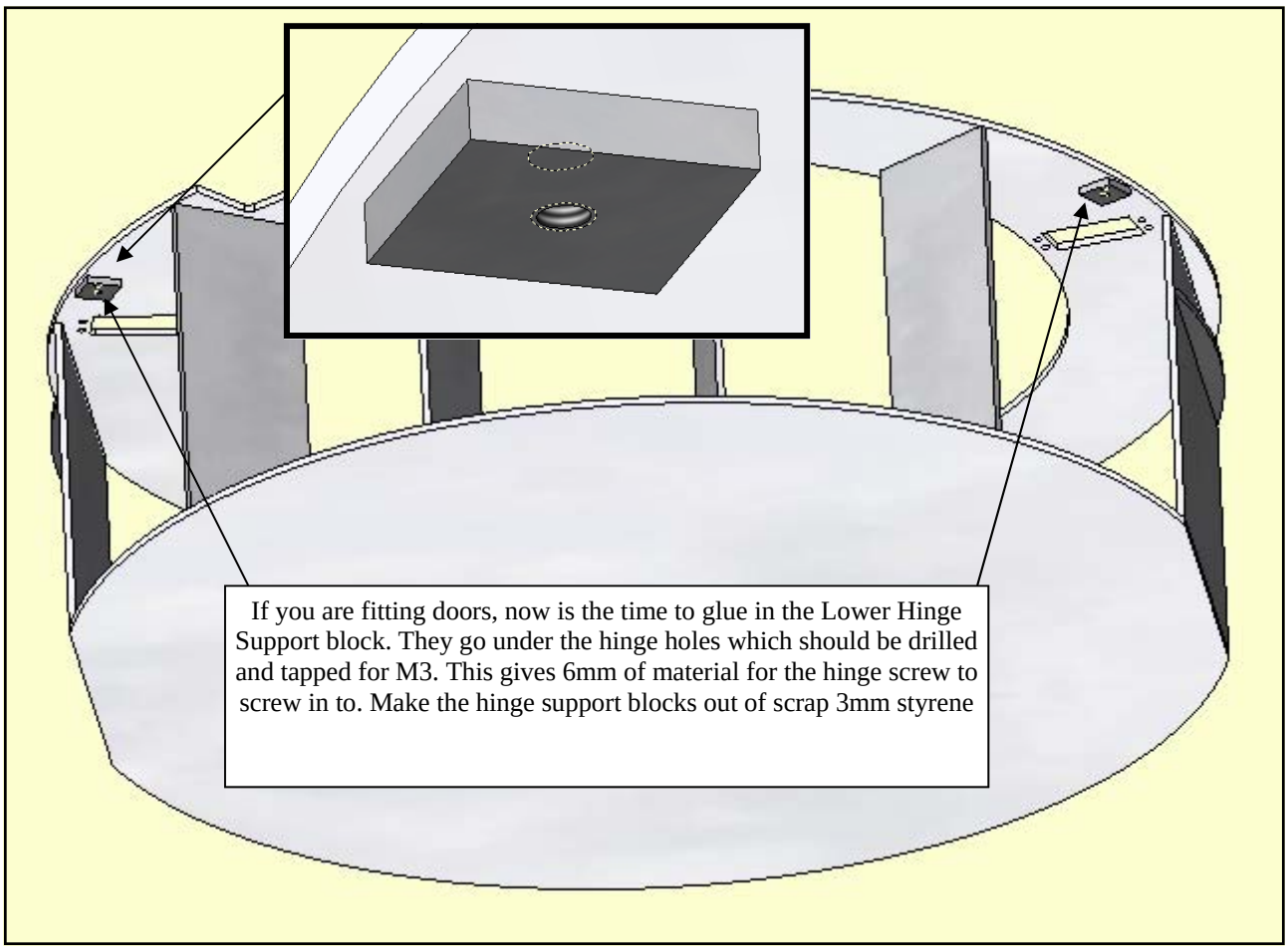
Glue the 8 LOWEST UPRIGHTS to their alignments. Always make sure the uprights are flush against the plate edges

Then glue on the ANKLE INSETS to the cut edges. All pieces go on top of the BASE PLATE

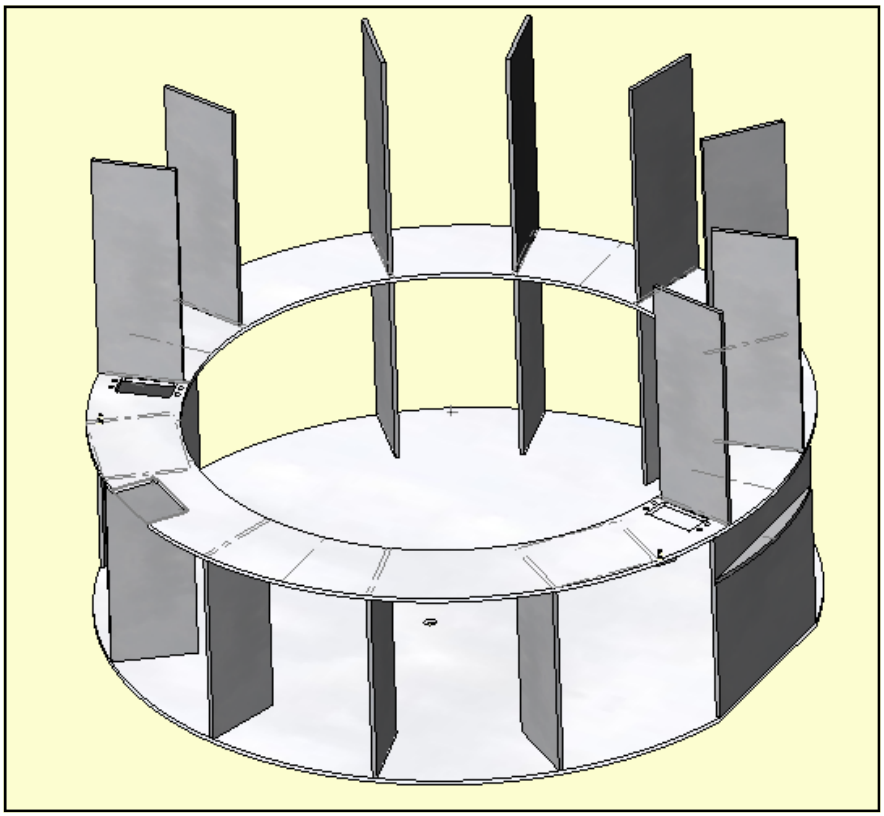


Now glue on PLATE 2. The alignments should be on top, use them to align the lower section.

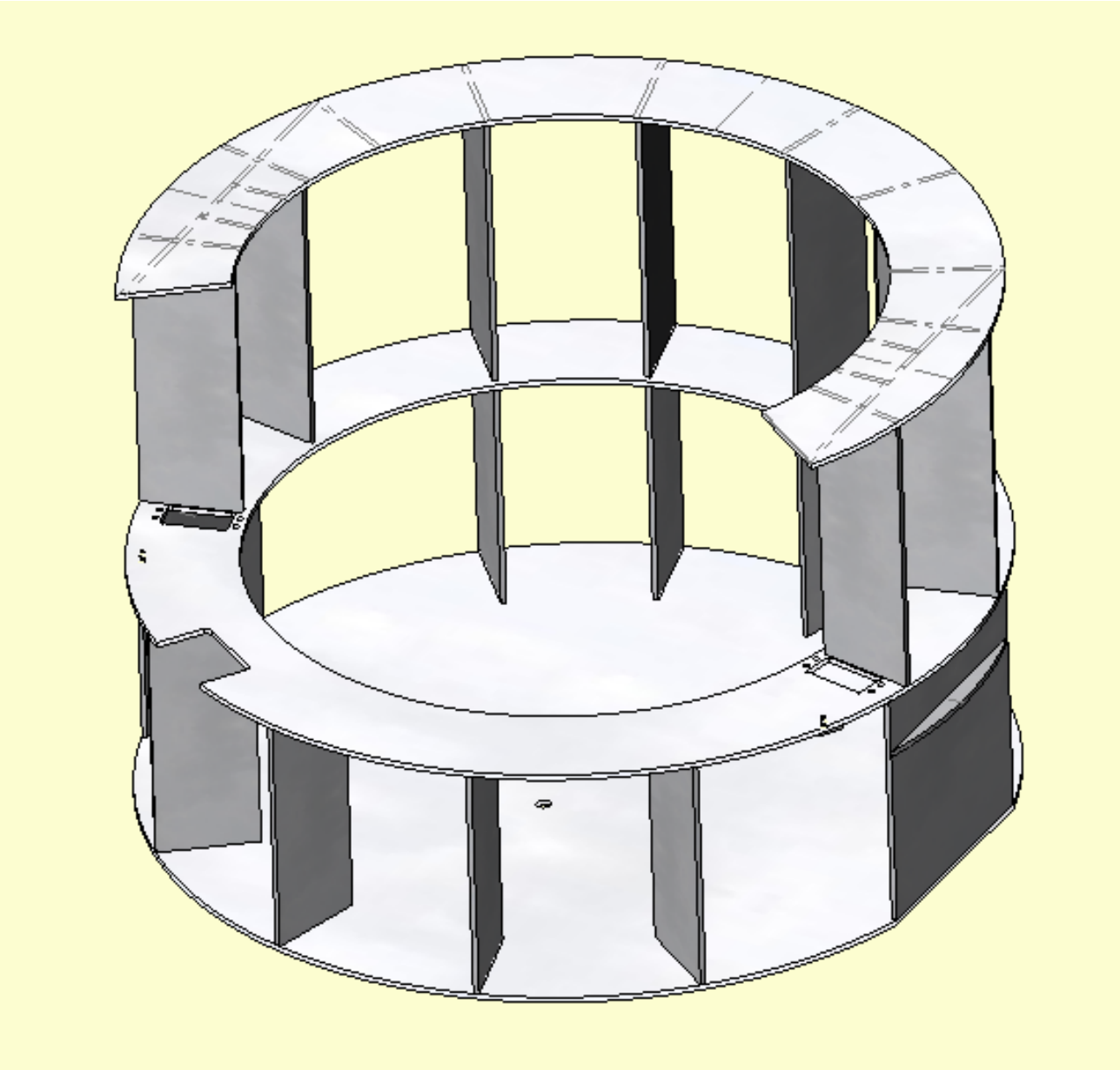
If you are not having opening doors, you don't need to cut out the servo holes.



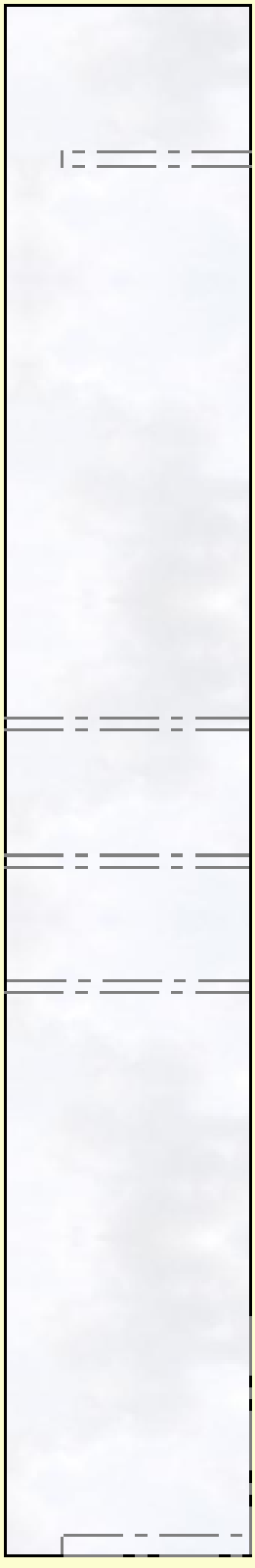
If you are fitting doors, now is the time to glue in the Lower Hinge Support block. They go under the hinge holes which should be drilled and tapped for M3. This gives 6mm of material for the hinge screw to screw in to. Make the hinge support blocks out of scrap 3mm styrene



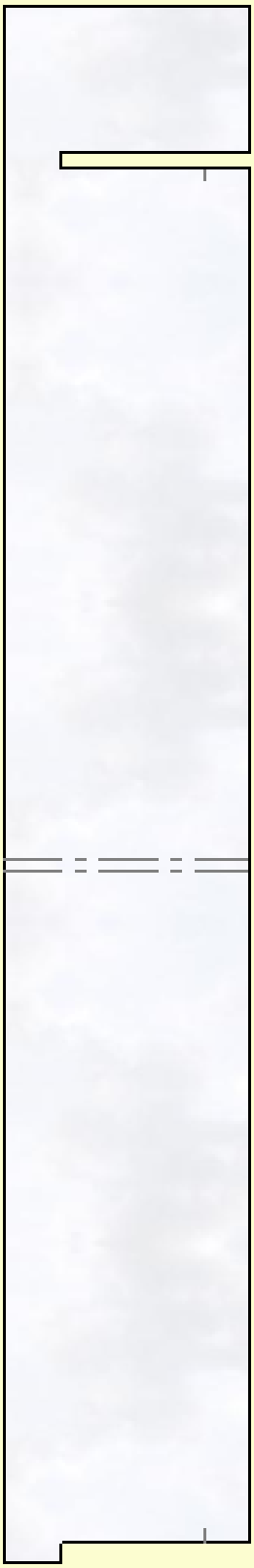
Now glue on the STRIP UPRIGHT pieces. They go on the alignments between the servo cutouts as shown.



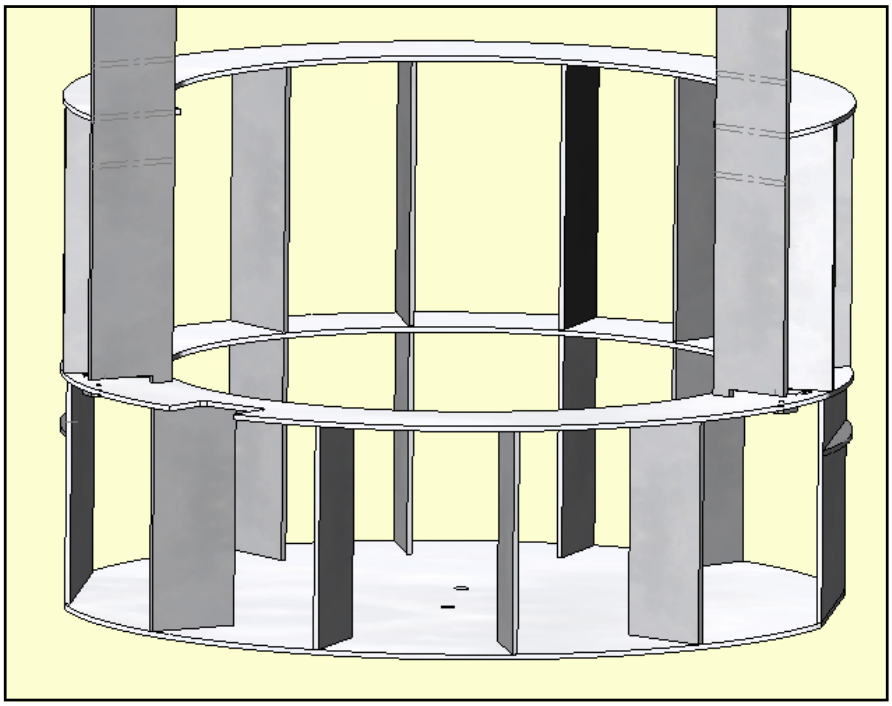
Now glue on PLATE 3 PARTIAL. Pay attention to the alignments otherwise you will have a slight bulge in the skin at this spot later on.



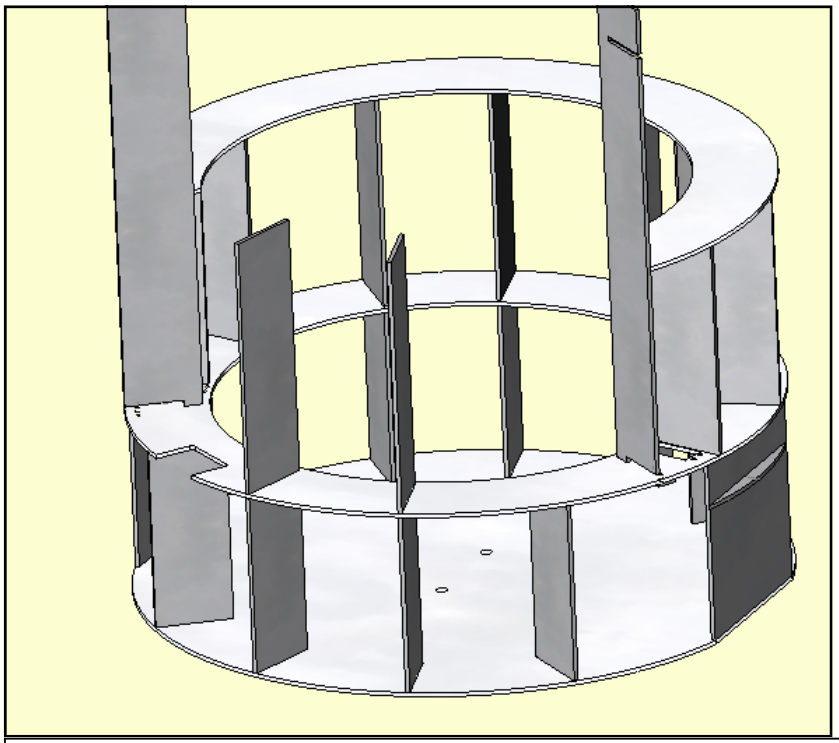
If you are not having opening Arm Doors, do not cutout the hinge slots.

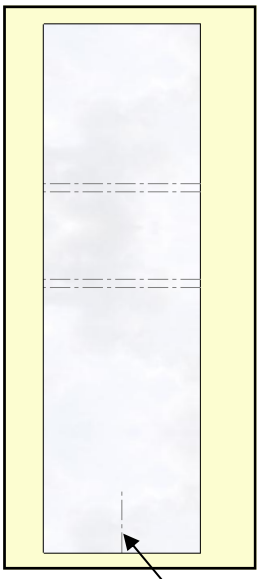


If you intend to have opening doors, then you will need to cut out the hinge slots, top and bottom.

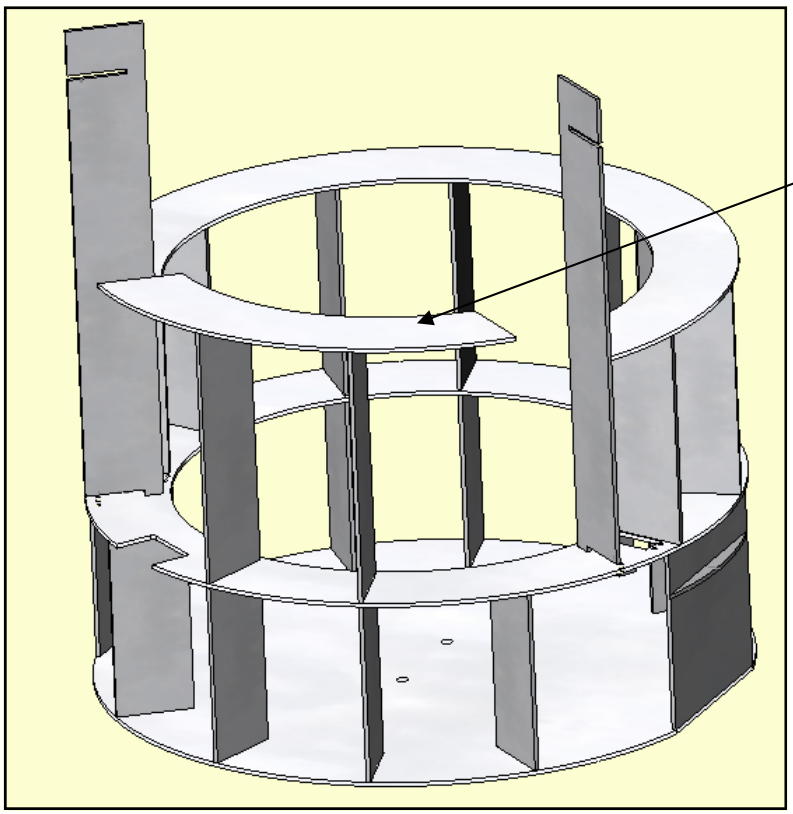


Glue the 2 ARM DOOR UPRIGHTS that coincide with the partial ring. Align the ring with the middle set of alignments.



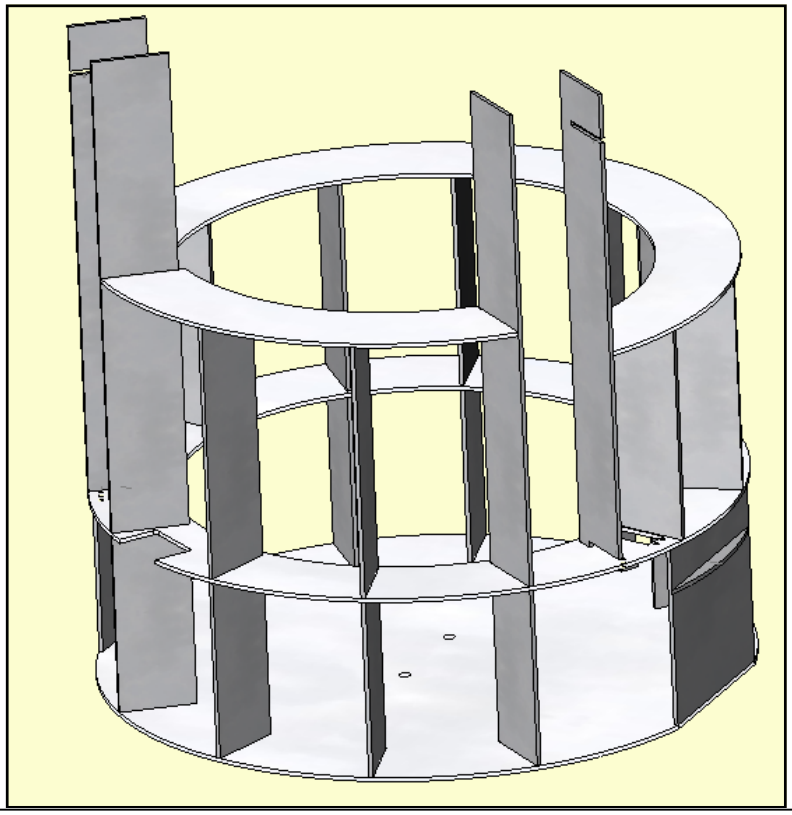


Glue on the FRONT UPRIGHTS. The lower alignment is for the front Vent support piece. We glue this piece in after the skins are glued on.



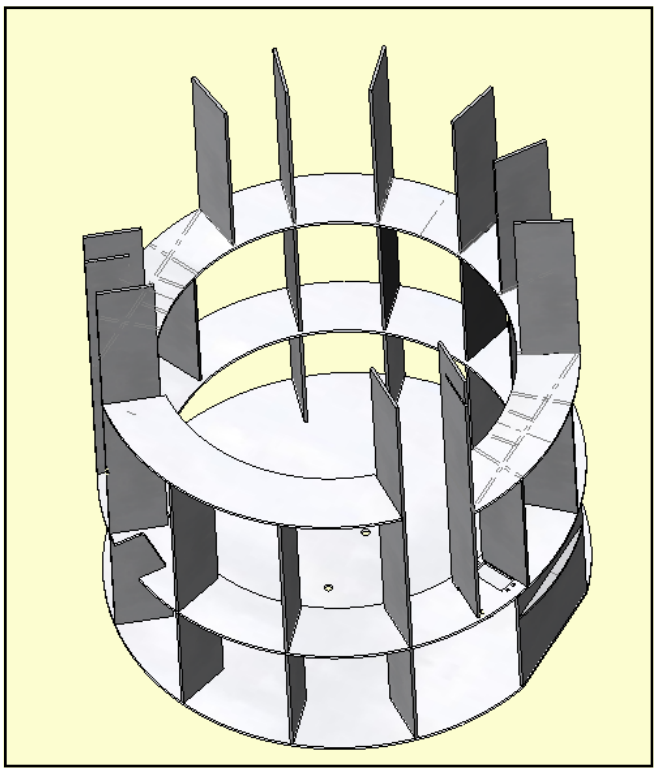
Glue the PLATE 3 FRONT PARTIAL onto the FRONT UPRIGHTS. The alignments should be on top.

Get it square with the FRONT UPRIGHTS or the frame will develop a twist.



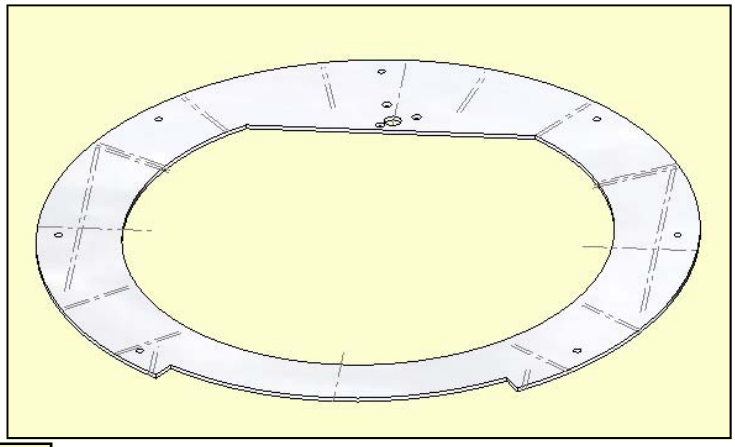
Now you can glue in the remaining ARM DOOR UPRIGHTS and glue them to PLATE 3 FRONT PARTIAL.

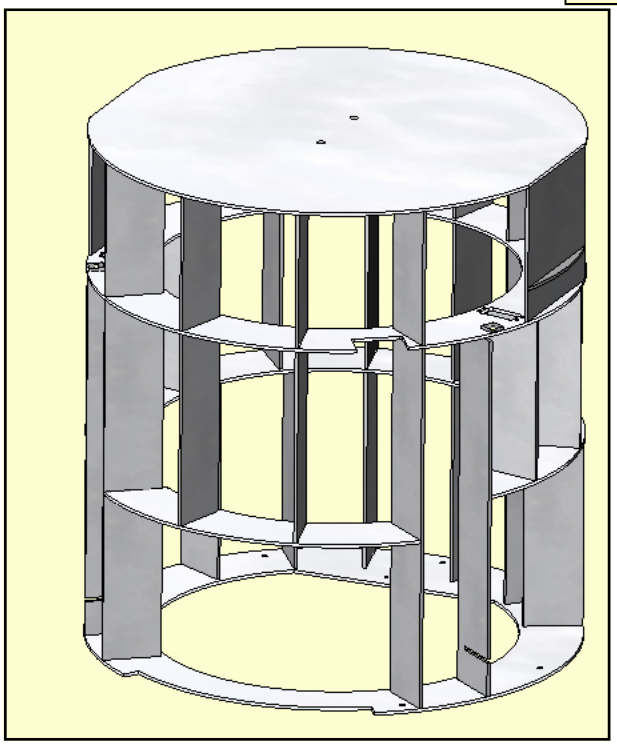
Use the topmost alignment marks on the DOOR UPRIGHTS.



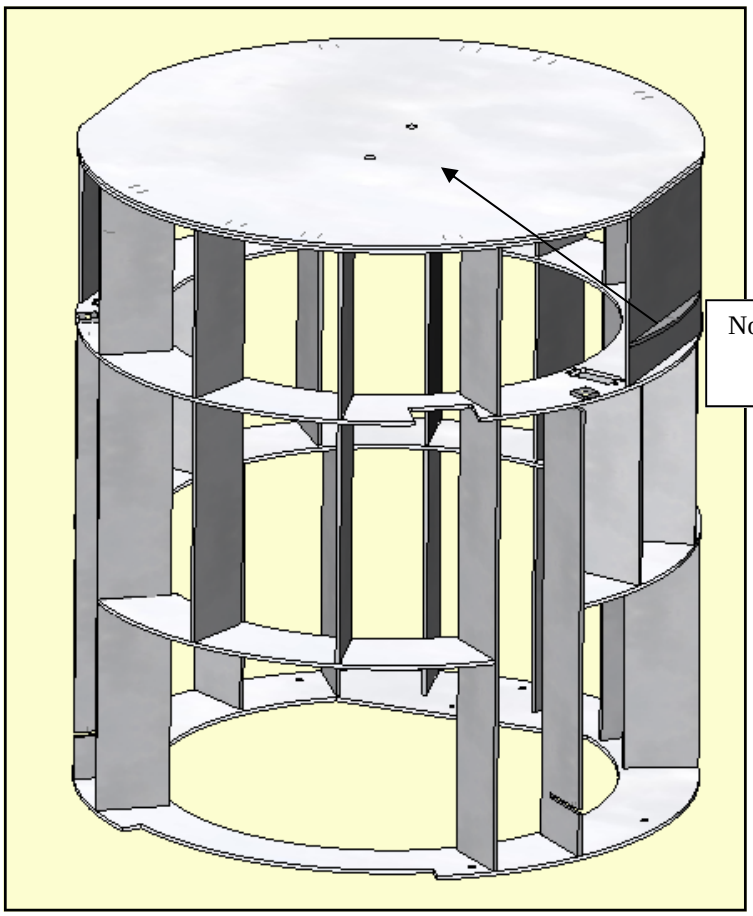
Glue on the TOP REAR UPRIGHTS on their alignments.

Lay TOP RING on table with alignments facing up.



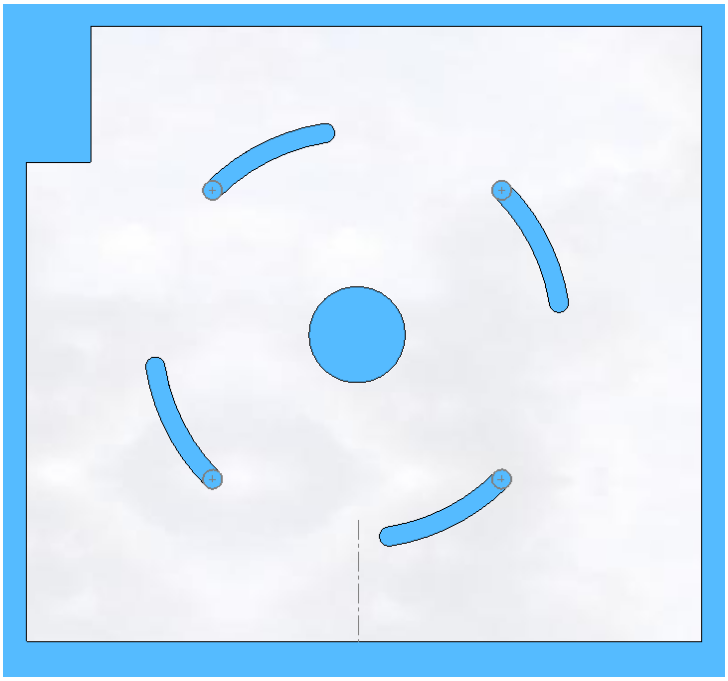


Then turn frame upside down and glue onto Top PLATE. This makes aligning the uprights much easier.



Now glue on the 2nd BASE PLATE with the rib alignments facing up

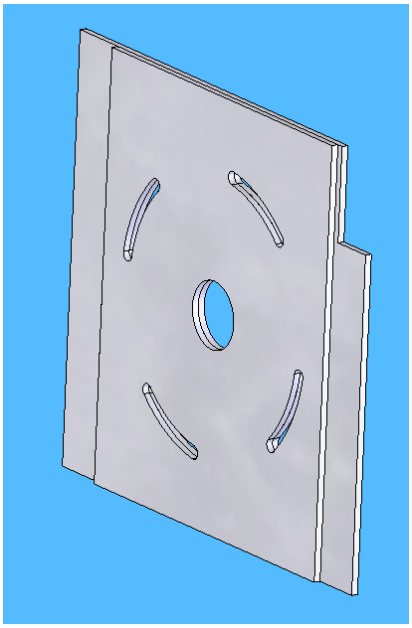
If you intend to make your droid poseable in 2 or 3 leg mode, you will need to slot out the shoulder plates and the shoulder support plates. You will need to buy a 6mm router bit for your routing table. Set the radius on the table to 63.64mm, 63.5mm should be close enough. You could use a 1/4 inch router bit (6.35mm) to give a little clearance.

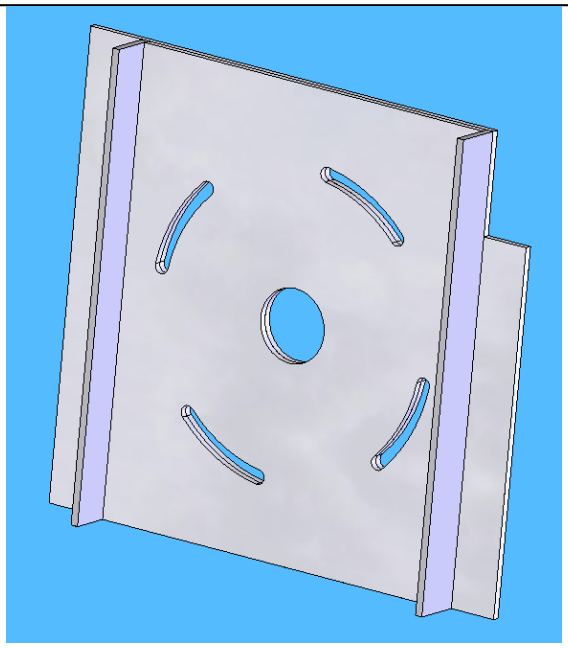


The grey circles show where the holes were for the original fixed 3-leg droid. You need to drill out holes at each end of the slot, then route out the slot itself.

Remember, when the shoulder is locked in 3-leg mode, the screws will be placed where the grey circles are, and for 2-leg mode, the screws will end up at the other end of the slot. The hinge notch shows you which way around the plate should be installed in the body, the notch should face forward.

Make up each shoulder plate assembly by gluing a support plate to the back of each shoulder plate. Make sure they are mirror images of each other. Shown below left is the left plate and support plate glued together, the right shoulder assembly would have the support plate on the opposite side

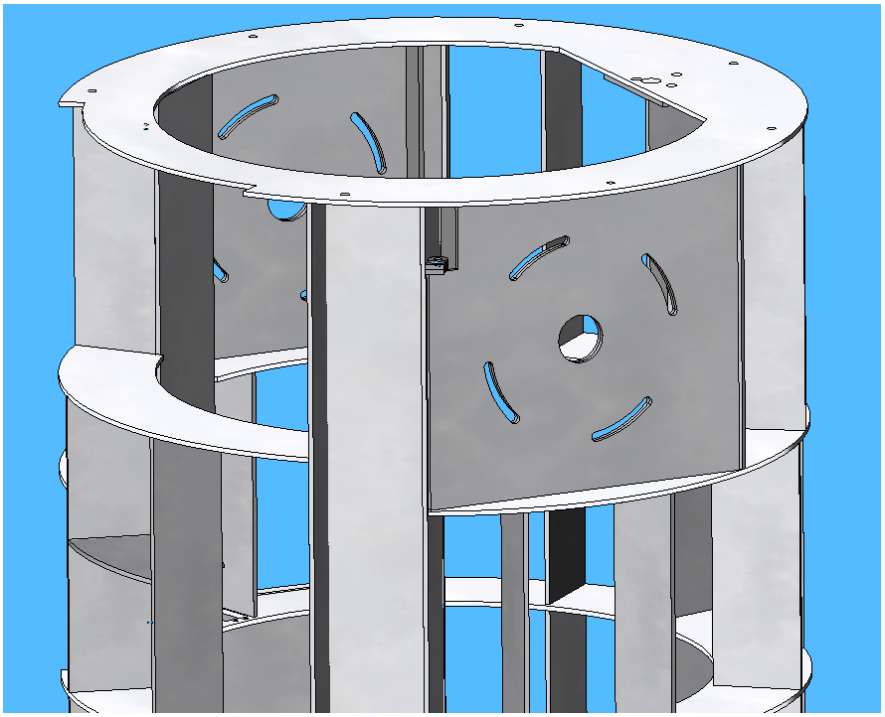


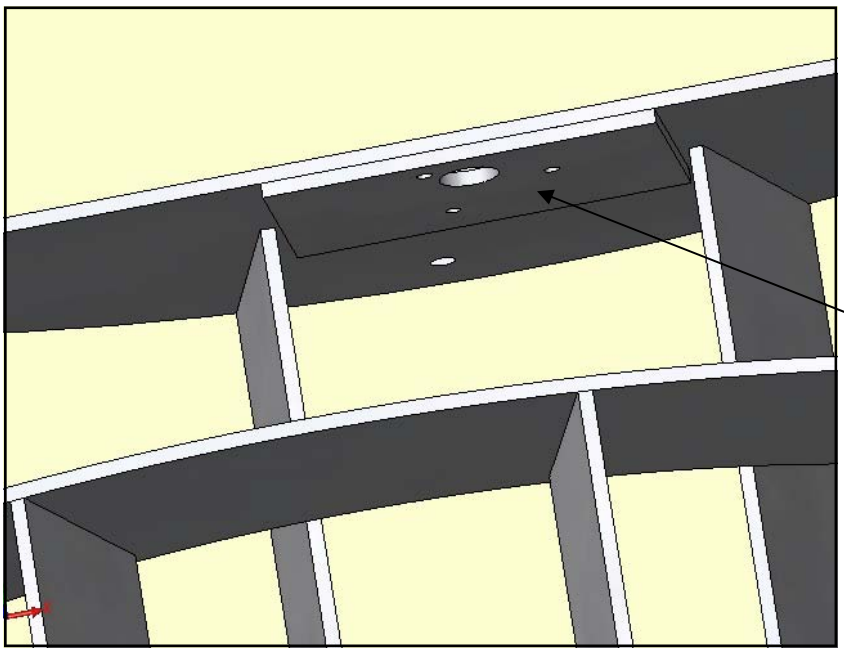


Cut 4 lengths of s3mm styrene each about 20mm wide to form the support flanges along each edge as shown.

You can then trim off any overhang before gluing them into the body frame.

Below you can see the shoulder plate assemblies glued into the frame. Take note of the slot orientation, get this wrong and your droid will go from 3-leg mode to drunken 3-leg mode.

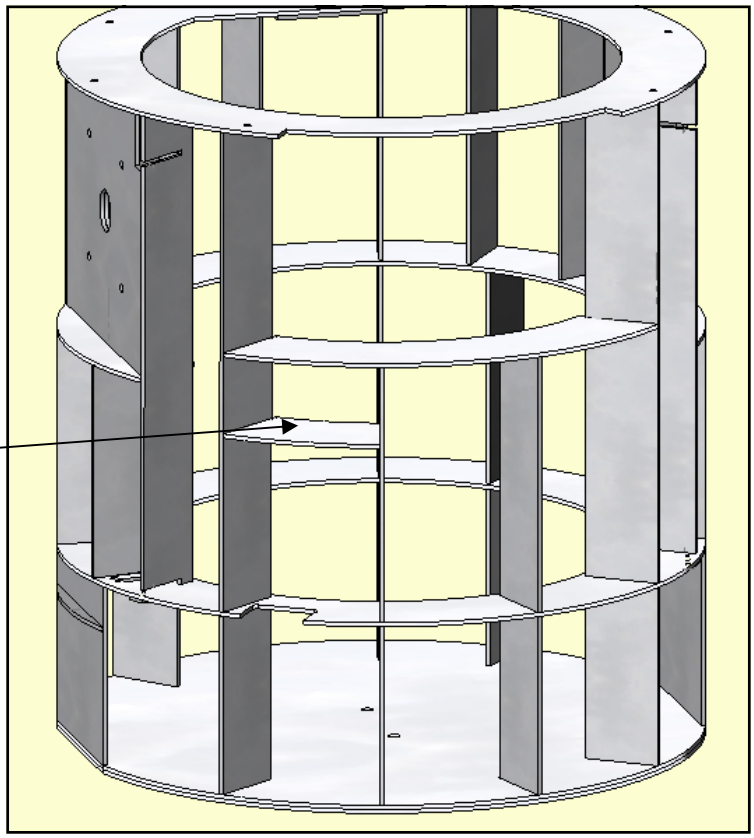


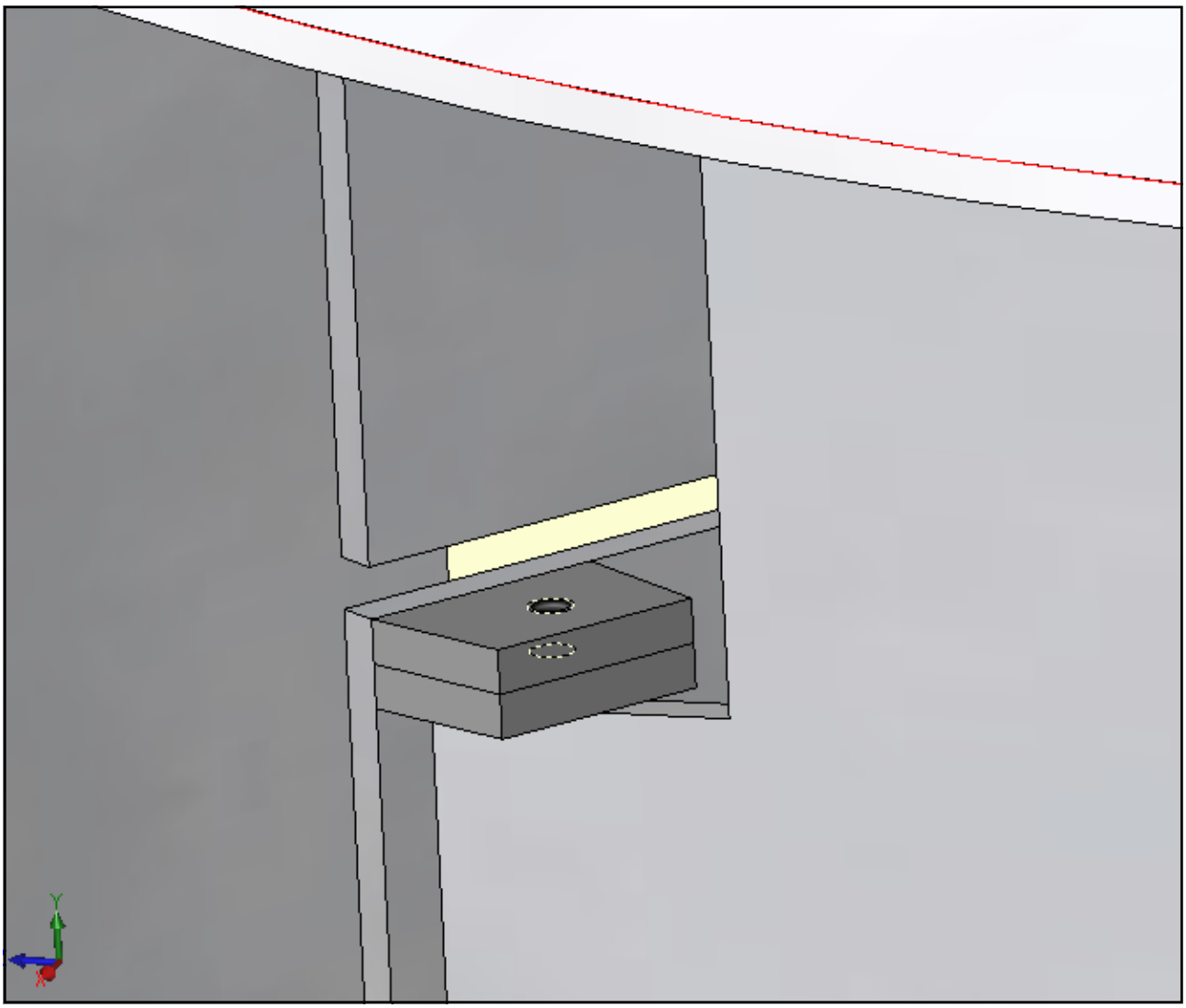


Glue in the DOME MOTOR SUPPORT PLATE.

Again drill all holes to 3mm and use M3 screws to align and hold the plate while it is setting.

If you intend to have an opening CHARGE PORT door, then glue in the POWER BOX BOTTOM

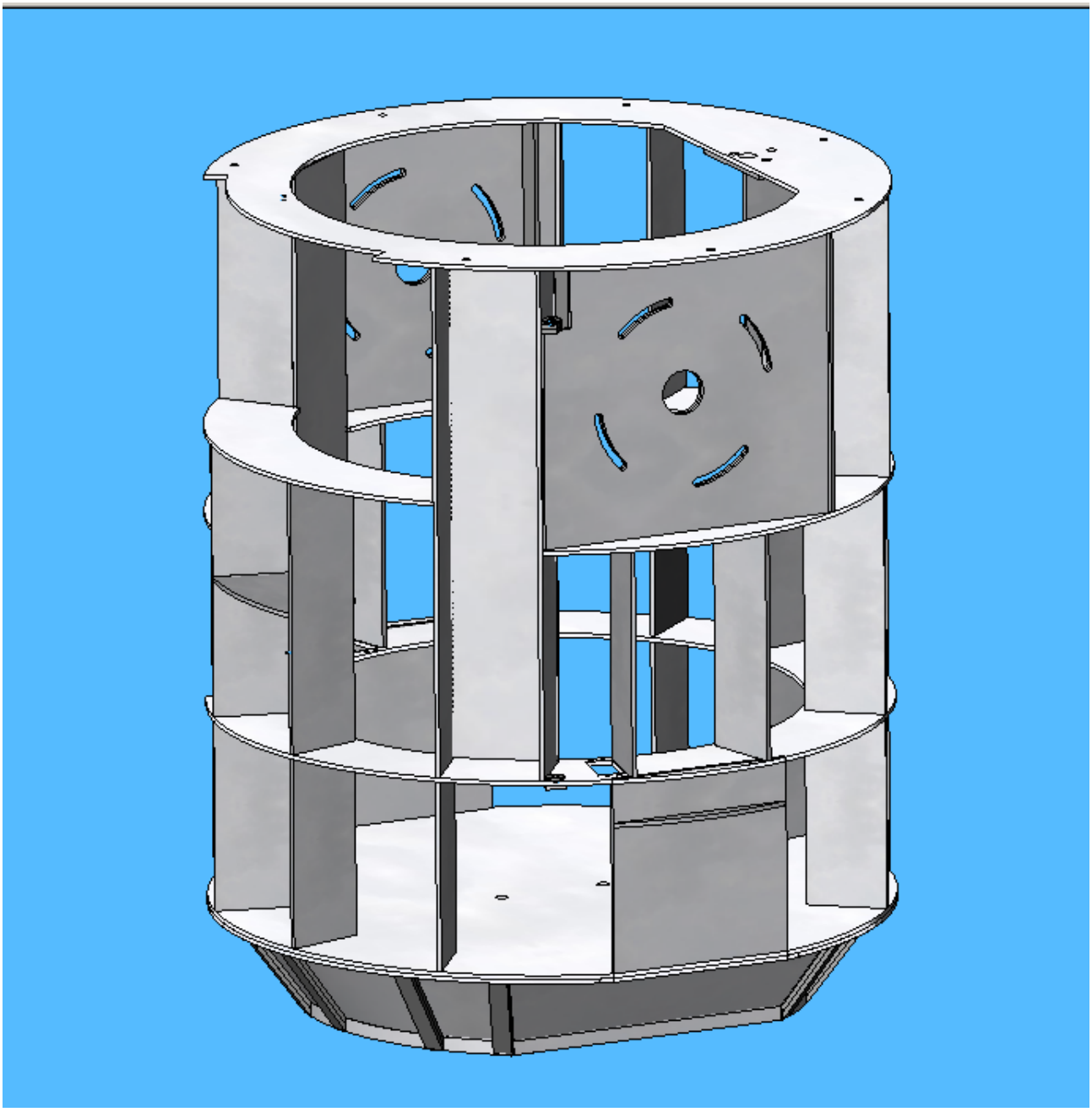




If you intend opening Arm Doors, you will now need to glue in the ARM DOOR HINGE MOUNTS.

First, glue 2 HINGE MOUNTS together for each door, then drill and tap the hole for M3.

Then glue each pair into the frame. They sit on the cutout in the shoulder plate with the long edge up against the Arm DOOR UPRIGHT.



Congratulations. You are now the proud owner of a body frame. Next step are the skins.