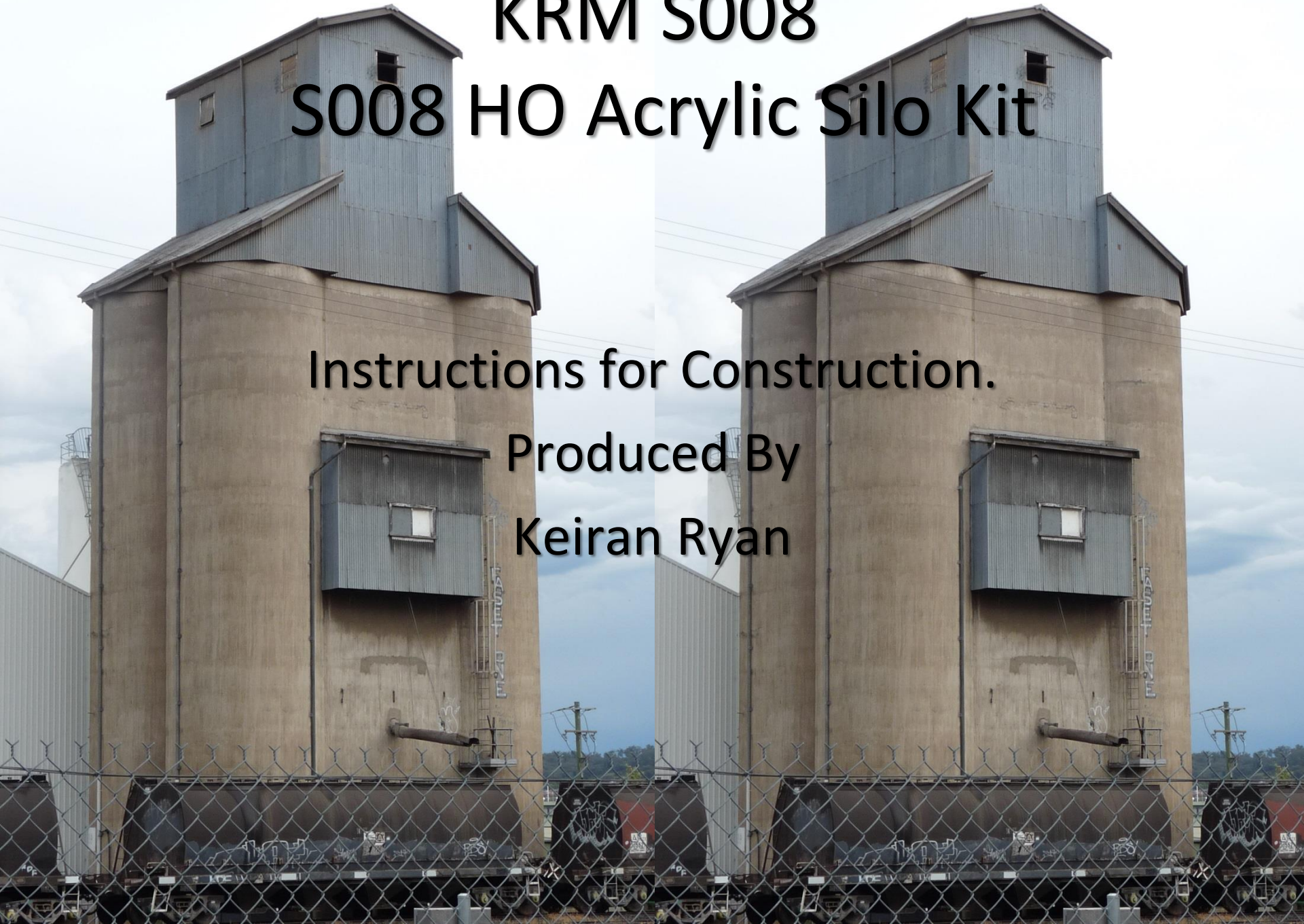


KRM S008

S008 HO Acrylic Silo Kit

Instructions for Construction.

Produced By
Keiran Ryan



Preface

Over the last few years there have been many options to allow modellers to obtain a cost effective NSW S008 Silo in either kit form, or as a completely scratch built structure. This kit is the latest generation of the original S008 silo kit. Those previous kits required the modeller to scribe and snap 1 mm styrene, and then glue these pieces of styrene together, with the result being the basis of a NSW S008 Silo. This kit is an acrylic laser cut kit and consists of laser cut sections of 1.5mm clear acrylic that are tabbed and glued in place to form the basic structure which the modeller can then build upon.

This kit is a vast improvement on the original idea and offers greater value for money, by providing a 1.5mm acrylic kit that is tabbed together, then glued in place. There is no cutting or snapping required, and the modeller obtains a much more completed structure that is more consistent, squarer, and easier to work with. Thank you for your support in purchasing this kit, and I hope to be able to provide more kits of this type, not just for silos, but for other structures associated with model railways. (Any ideas would be appreciated).

These instructions, are on a USB Memory stick. The information on this Memory stick is Copyright protected, as are the photos. The modeller can certainly use the information for his or her own purpose, but they are forbidden to use the material to on-sell or trade or sell without the permission of the author of the memory stick. There are links in this document that will redirect you to the instructions in various formats, depending on your preference. There are also other plans and photos that can be accessed on the memory stick, which make this memory stick a one-stop shop, and great reference source. The basic instructions are also available on the [Keiran Ryan Models](#) web site if required.

Updated Kit

Important information

This kit has been modified using the continual improvement policy that Keiran Ryan Models operates under, and improvements have been made to this kit to benefit the modeller. This kit now has a range of 3D parts that gives better detail and assists in the construction of the silo.

Rather than laminating many small pieces of 1.5 mm acrylic, than having to fill and clean up, the 3D parts can be sanded lightly and located directly in place, saving many hours of work.

Happy Modelling Regards Keiran

Introduction to this Kit

Disclaimer

This silo kit is NOT a complete kit.

It is an easy starter kit for modellers who prefer to have a model silo for their layout, with the detail work being assisted by using the original article in the Australian Model Railway Magazine Issue 170 in October 1991.

The material used in the construction of this kit is 1.5mm clear acrylic and can be very brittle. You will need to be very careful with the material in the process of construction, and to also be careful with thin sections of the material, as they can easily be broken. If you do break a piece, it will glue back together using Dichloromethane, or supa glue.

If you find that the tabs and slots are a little tight, just file them slightly to fit. As the material is a cast material, and variations in thickness can occur. If you find that the variations are much too great, contact me so that we can resolve the problem.

MEK will NOT bond this material.

Health Warning

The following is a warning for using **Dichloromethane**:

Principal hazards

- *** Dichloromethane is harmful if you swallow or inhale it.
- *** It may act as a narcotic, so inhaling it will make you feel unwell.
- *** Like many small hydrocarbons that contain halogen atoms, dichloromethane is a suspected carcinogen. It is unlikely to be strongly carcinogenic, but it is important to reduce your exposure to the lowest level possible.

Safe handling

Wear safety glasses. Work in a well-ventilated area. Avoid repeated or long-lasting exposure.

Emergency

Eye contact: Immediately flush the eye with water. If irritation persists, call for medical help.

Skin contact: Wash off with soap and water.

If swallowed: Call for medical help.

Disposal

Store for later disposal as chlorinated waste solvent.

Protective equipment

Safety glasses.

KRM S008

HO S008 Acrylic Silo Kit

The parts in this kit make up into sub-assemblies as per the bags that they were packed in.

Parts have been checked when packed, but please check all parts in the bags with the check list provided, and if any parts are missing let me know and I will have them replaced.

- 8 Gig USB Stick.
- 4 Rubber Bands and 4 x 50 mm Conduit.
- The Silo Base.
- The Base Filler Pieces.
- The Sub-Frame.
- The Cupola.
- The Small Bin Roof.
- The Annex.
- Rear Road Support.
- Rear Road.
- 1.2 mm Twist Drill.
- 1 x 300 mm length of 1.2 mm Brass Wire.
- 1 x 100 mm length of 16 mm Conduit.
- 50 mm length of Special Shapes H4 H Pattern Brass.
- 3D Parts include ---- Drainage System, Out loading Platform, Spoil Bin, Wagon Shed Footings, Weighbridge Scale, Bin Roof Supports.
- **Please Note that on each of the instruction slides, the parts required are displayed in purple on the top left or right to assist you in progress of this kit.**

Instructions

➤ **Please ensure that you read the instructions 3 times before you make a start on this kit** -----
(I know----I hate reading them also, but it helps with getting the kit right).

➤ Keiran Ryan Models does have a breakages policy, which states, that if you break a part in this kit, it will be replaced once, but only once, so be very careful.

➤ This is a simple step by step process.

➤ The parts in **PURPLE** are the new parts to be fitted.

➤ The parts in **GREY** are the parts already fitted.

➤ Identify parts before committing them to the location, remove the paper/plastic backing before fitting.

➤ **DON'T force the parts, as they are brittle and WILL BREAK if forced.**

➤ The acrylic glue that has been suggested, is used by placing the parts together and then running the glue between the parts, using capillary action to bond the parts together, and holding them for 10-20 seconds.

➤ If you find that the tabs are tight into the slots, just file the slots and the tabs until they fit.

➤ **DON'T** glue parts until all parts of the sub-assembly are in place, and ensure that they are the correct part, and in the correct orientation. To unglue a part, just wet with glue and wriggle until parts come apart.

➤ There are parts that will need to be clad in corrugated iron (e.g. Campbell's aluminum) and other parts that will need to be painted. The acrylic takes acrylic paint very easily, do use an undercoat.

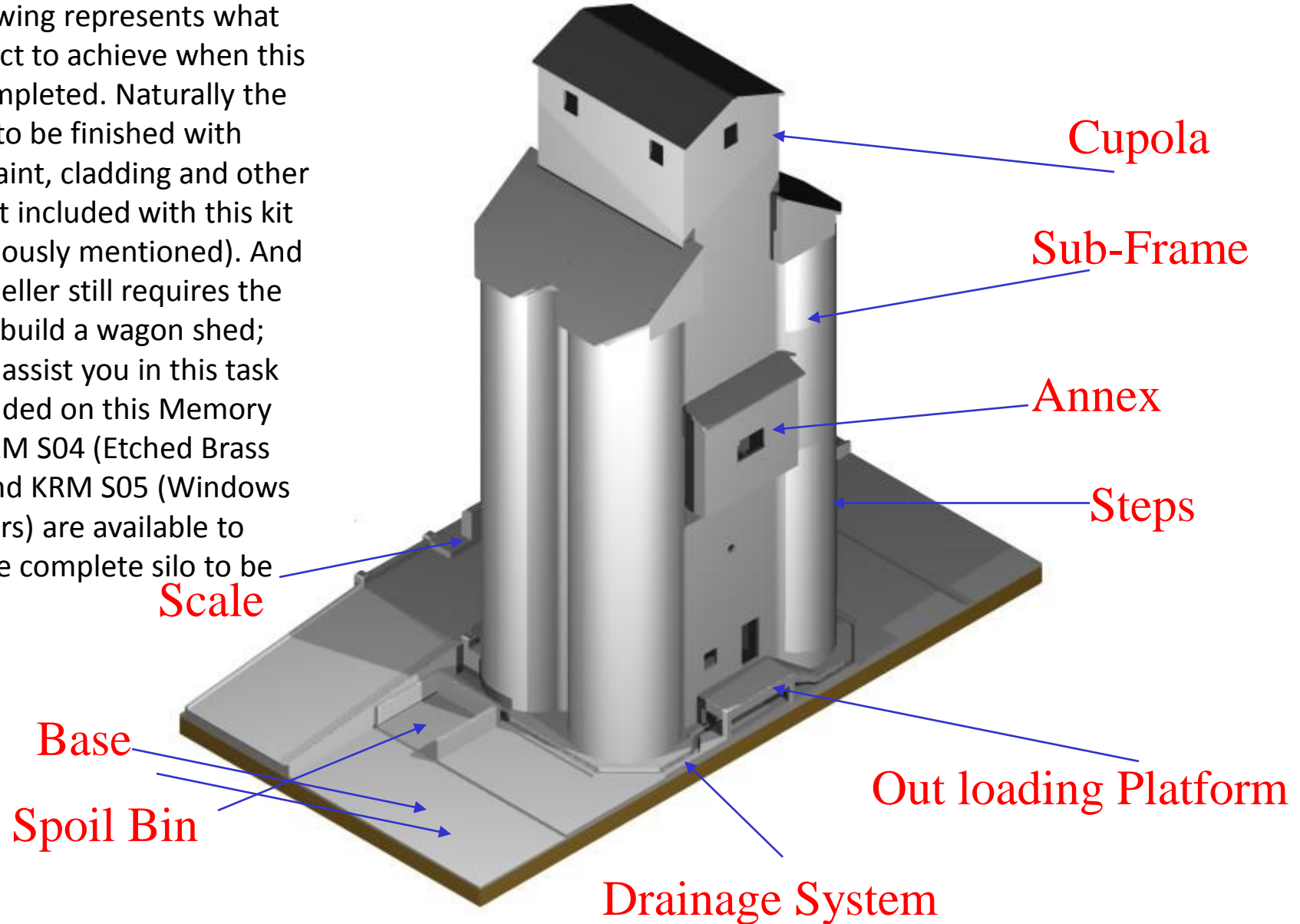
➤ Have fun, as this kit is very easy to build. And I would appreciate your feedback!!!!

Extra Work Needed to Complete the Silo

- Fascia (HO Scale 10" x 1" Evergreen Styrene Strip)
- Gutters (1.5mm Evergreen Styrene C channel) .
- Downpipes (1mm Brass Wire – Part - KRM Misc 008).
- Astragals (Supplied in KRM S04 Etch Parts Kit).
- Wagon Shed (Frame in Brass - special shapes – H4 or styrene H beams and flat brass – Drawing plans supplied)
- Weighbridge, Ladder , Ladder Safety Guard, Rear Road Partitions, Silo Rear Door, Pulley and Winch (In KRM S04 Etched Parts Kit) (0.4mm wire required for ladder – KRM Misc 007)
- Doors and Windows (Supplied in KRM S05 Casting Kit)
- Corrugated Iron (I prefer Campbell's Corrugated Aluminum – 12 foot packets)
- Brass tube for Out loading Chute and pipe from Cupola to large bin (Plan drawings on Mem Stick)
- Paint, fillers, sand paper, and all the usual tools including various number/metric drills.
- I also use 0.5mm Rivets (KRM Misc 024) for locating the Astragals – downpipes to the silo. However brass wire will do the job.

The Outcome

This drawing represents what we expect to achieve when this kit is completed. Naturally the silo has to be finished with fillers, paint, cladding and other parts not included with this kit (as previously mentioned). And the modeller still requires the parts to build a wagon shed; plans to assist you in this task are included on this Memory Stick. KRM S04 (Etched Brass Parts) and KRM S05 (Windows and Doors) are available to allow the complete silo to be realized.



Are

You

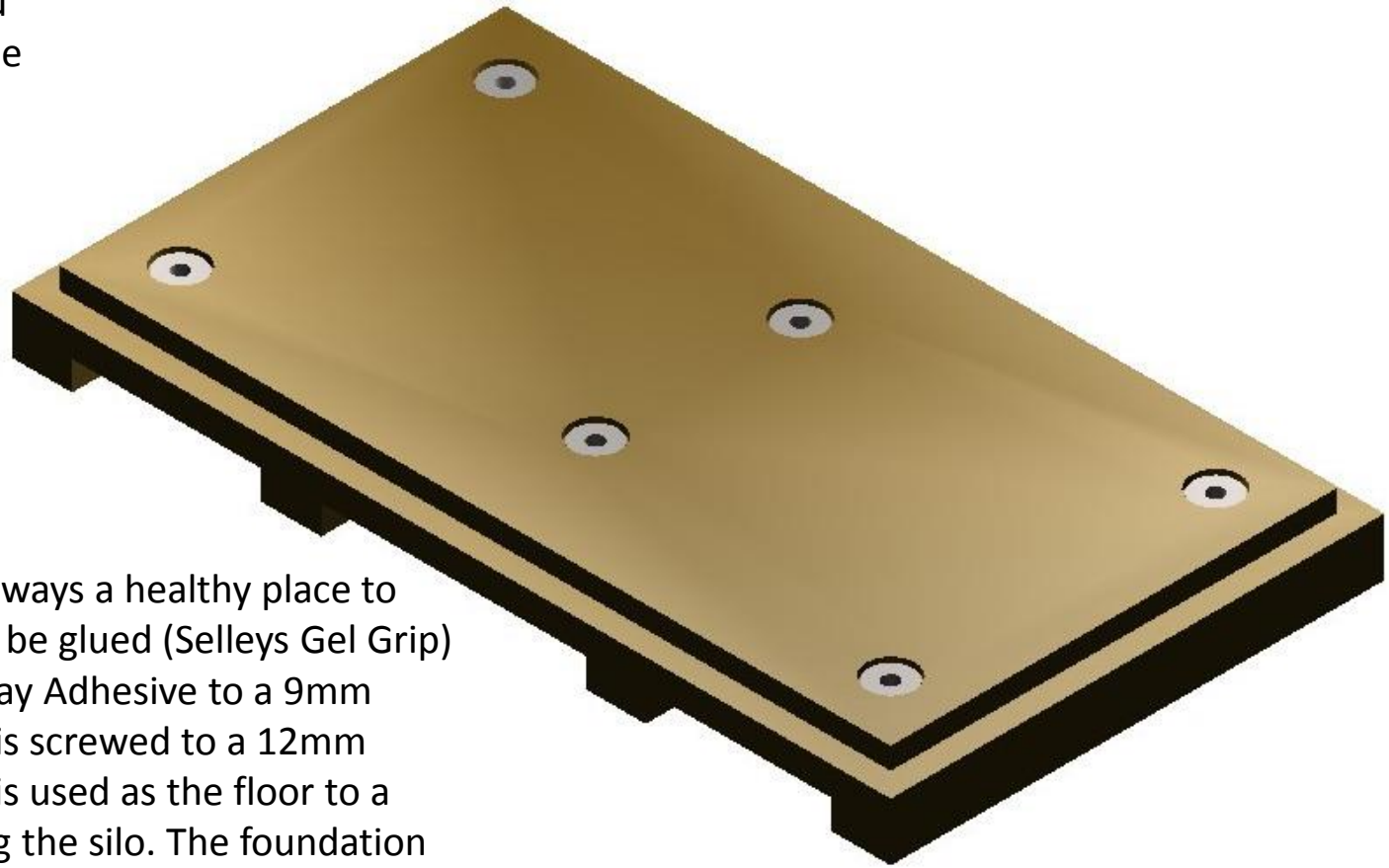
Ready

To

Model??????

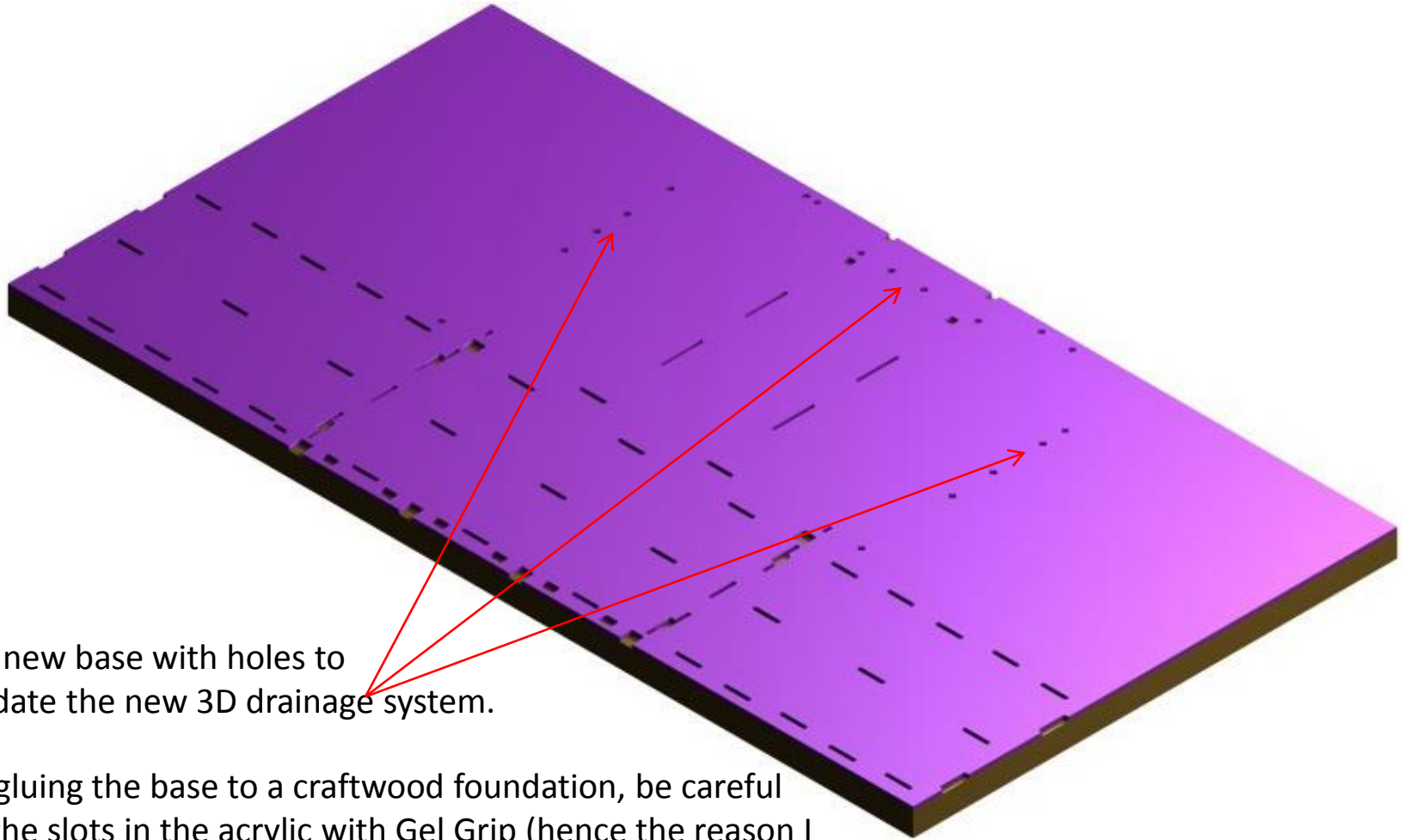
A Good Foundation

If you are supplying your own base, simply use the acrylic base as a template, it is that simple.



A good foundation is always a healthy place to start. The silo base can be glued (Selleys Gel Grip) (Selleys Kwik Grip - Spray Adhesive) to a 9mm craftwood base which is screwed to a 12mm craftwood base which is used as the floor to a storage box for carrying the silo. The foundation of the silo is screwed to the base with 6 x $\frac{1}{4}$ " "T" Nuts and screws made from $\frac{1}{4}$ " booker rod with wing nuts. The 9mm bases with $\frac{1}{4}$ " "T" Nuts fitted, are available from K R M for \$30.00 + postage, or simply make your own to the template of the Silo Base.

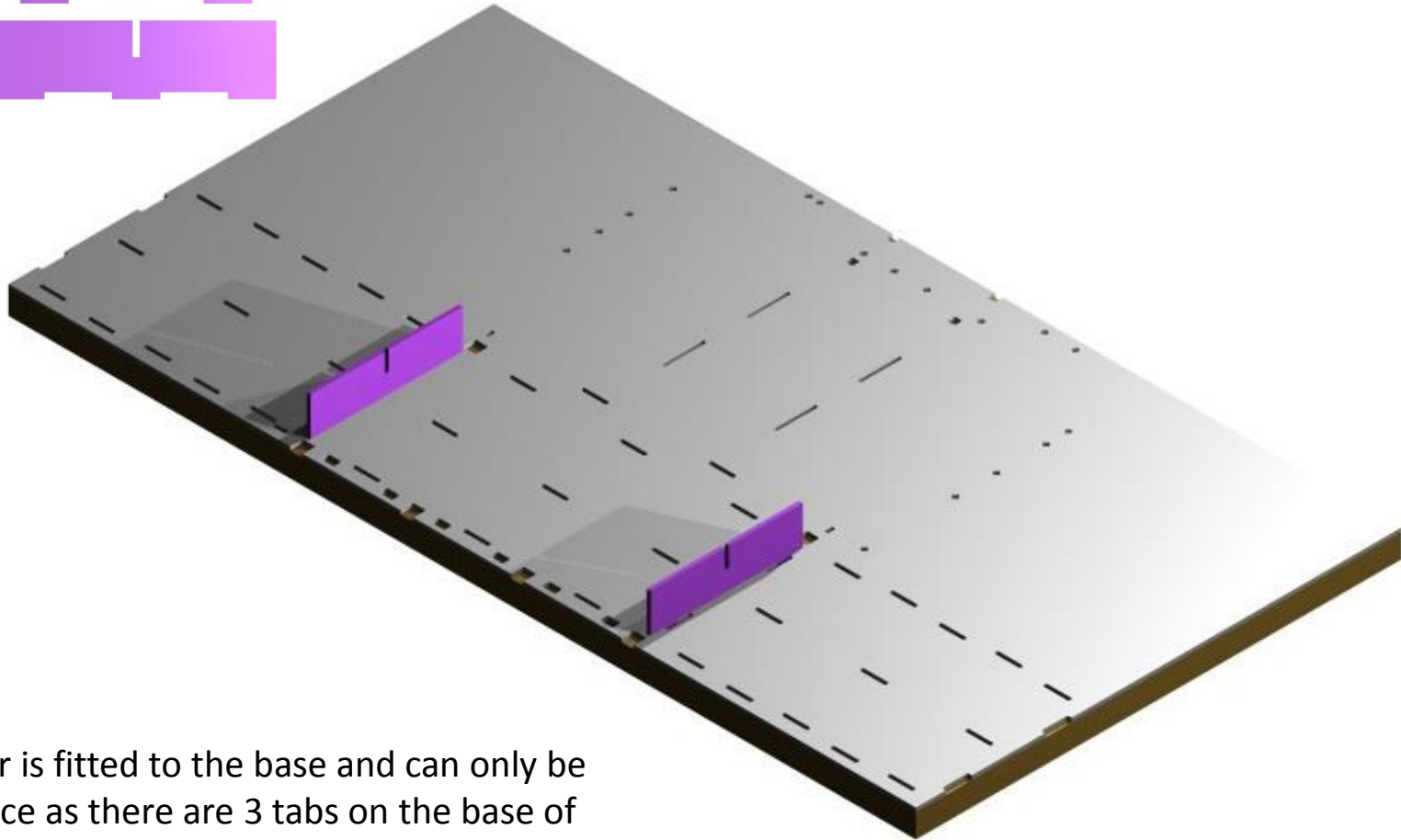
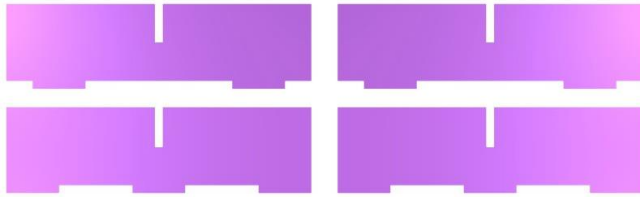
The Silo Base - Step 1



This is the new base with holes to accommodate the new 3D drainage system.

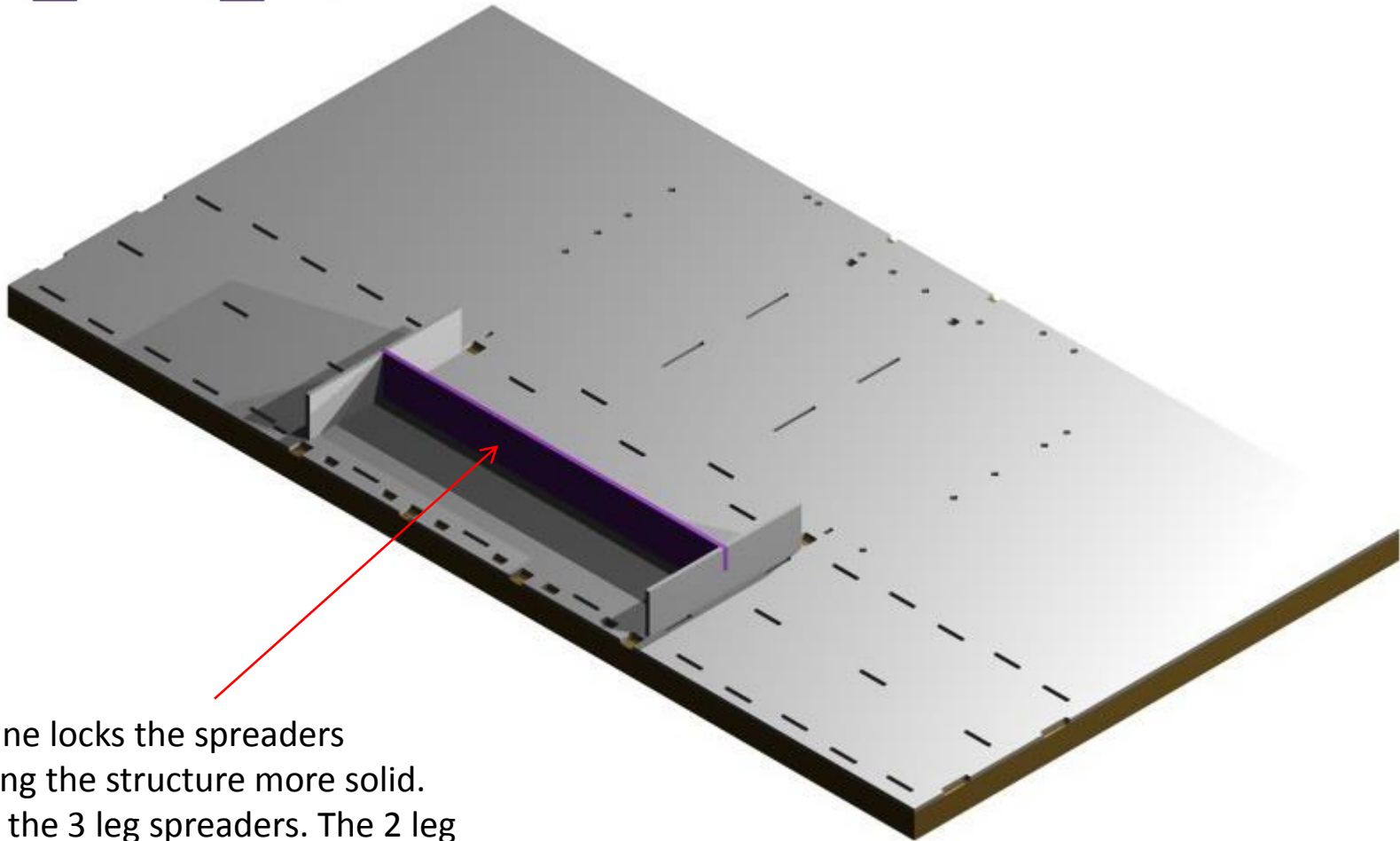
If you are gluing the base to a craftwood foundation, be careful not to fill the slots in the acrylic with Gel Grip (hence the reason I now use Selley's Kwik Grip Spray Adhesive).

The Silo Base - Step 2



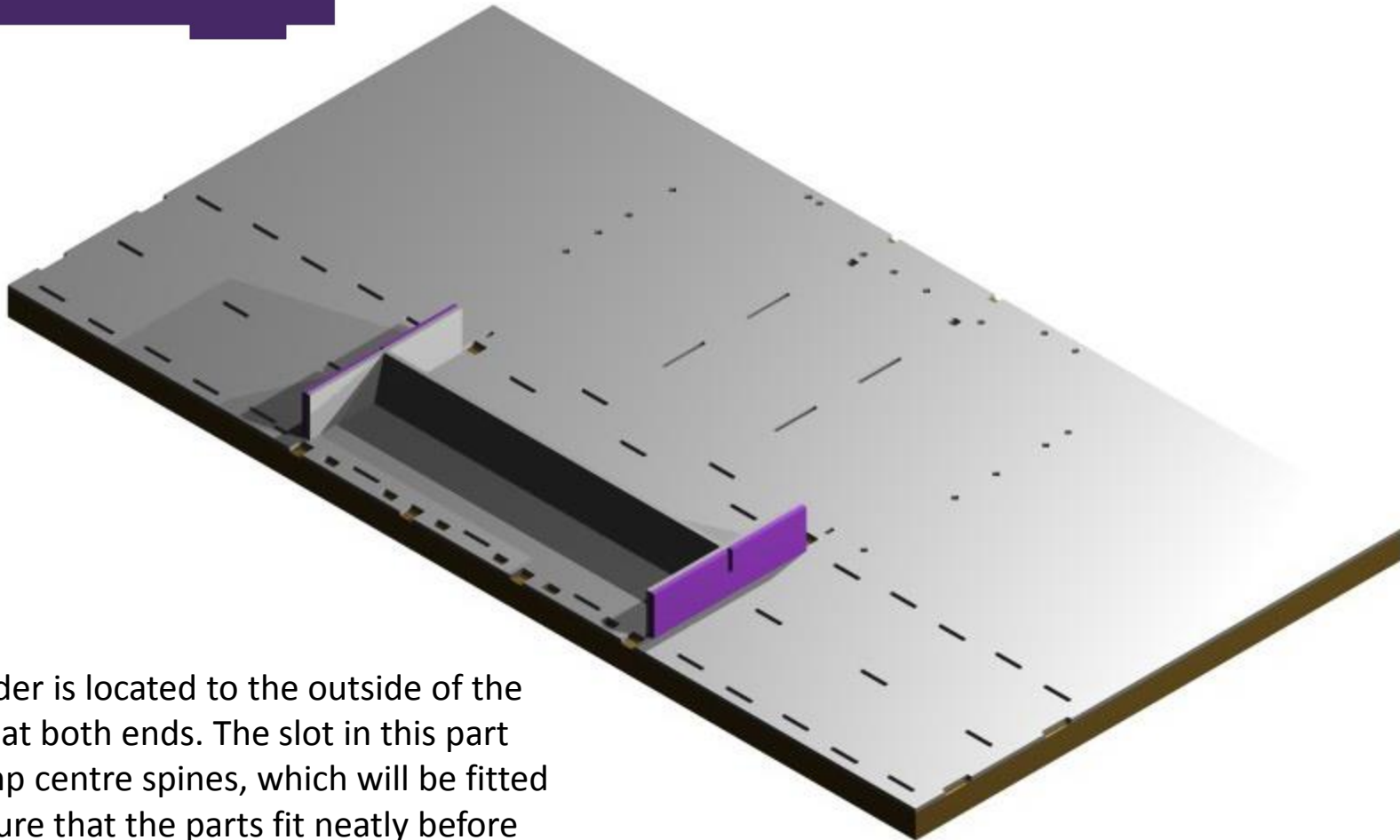
The 3 leg spreader is fitted to the base and can only be located in one place as there are 3 tabs on the base of the piece. It does have a 2 legged friend that will fit later in the build process. The slot in the top accepts the centre spine fitted next.

The Silo Base - Step 3



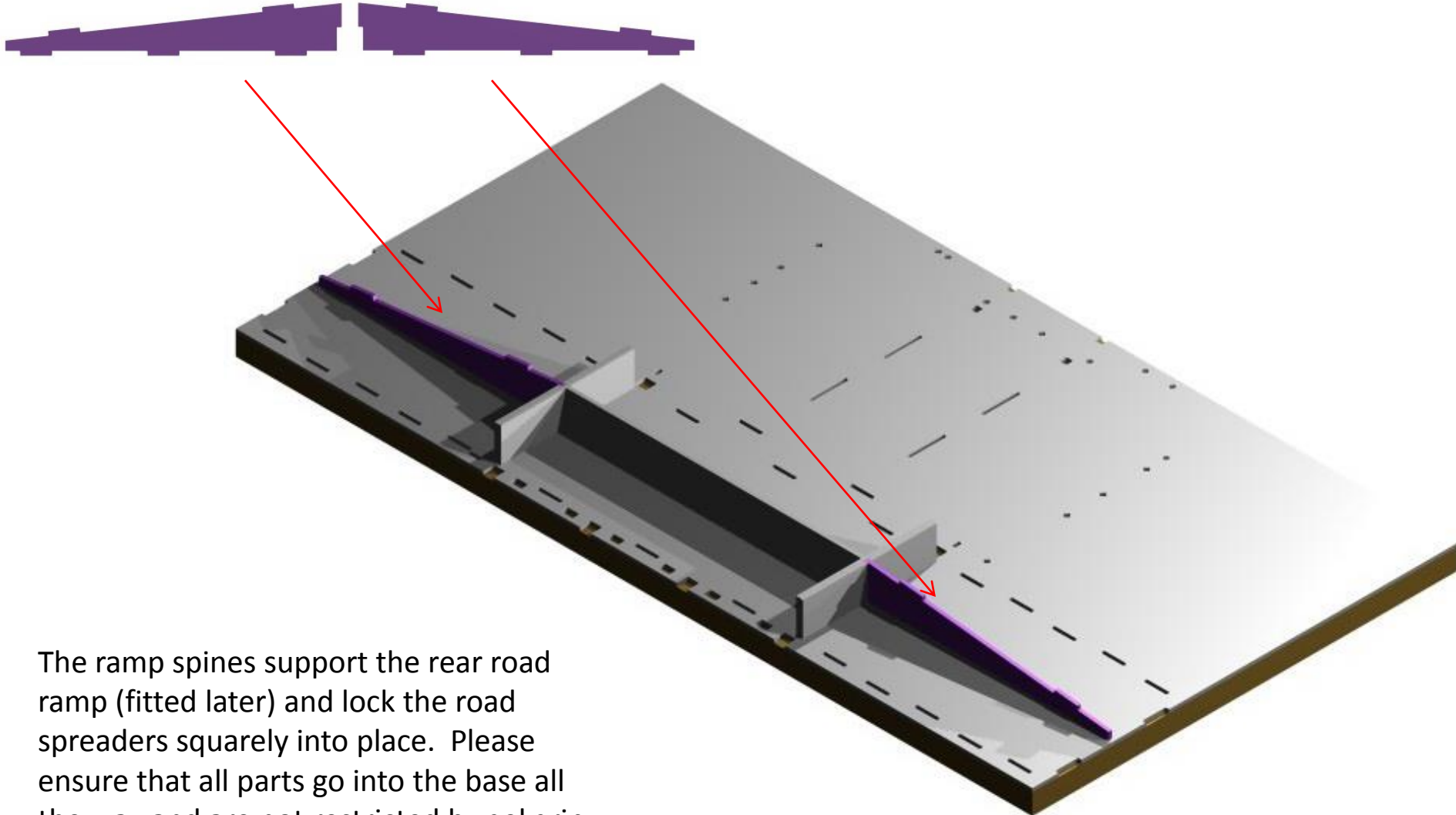
The centre spline locks the spreaders together, making the structure more solid. It only fits into the 3 leg spreaders. The 2 leg spreaders are fitted next

The Silo Base - Step 4



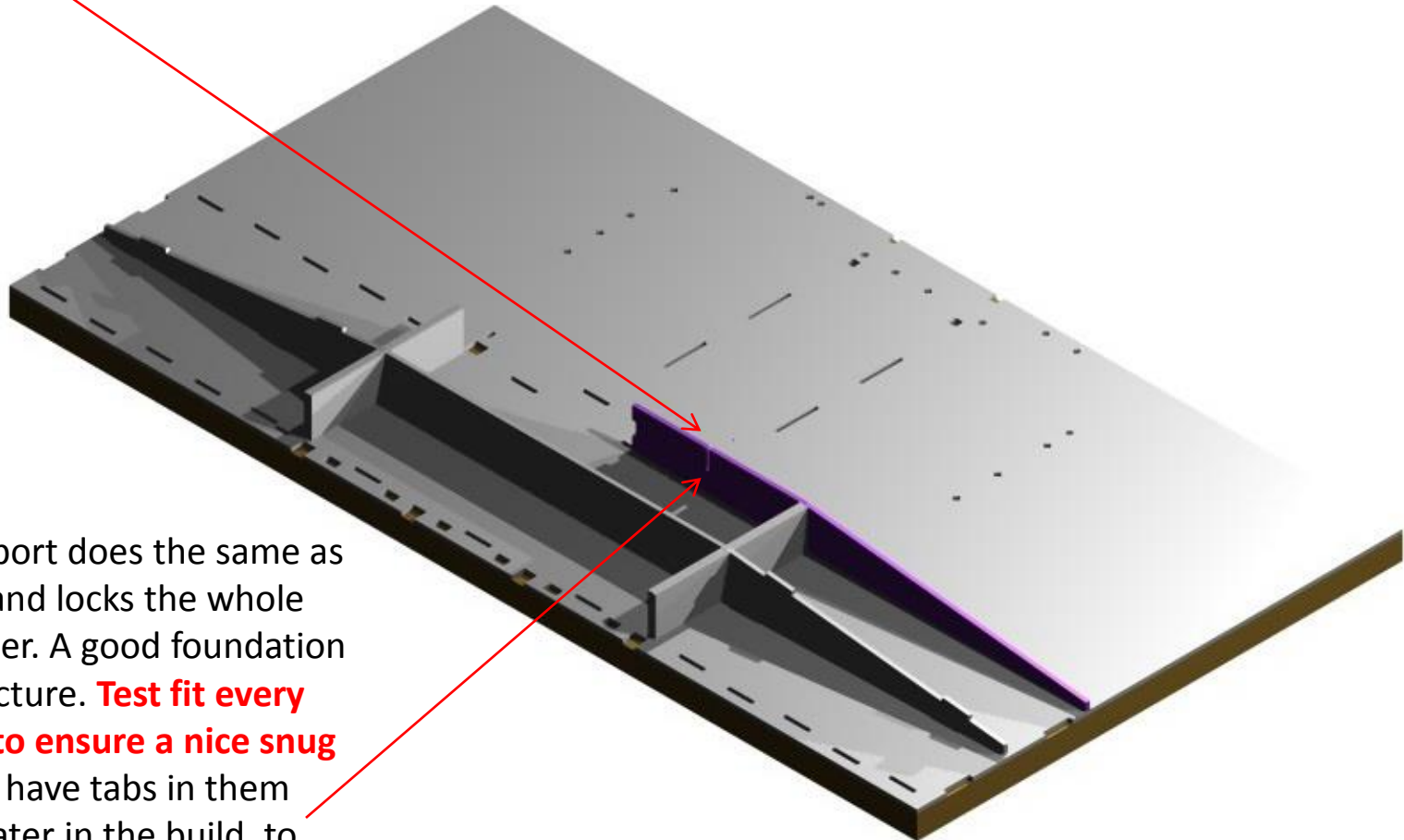
The 2 leg spreader is located to the outside of the 3 leg spreaders at both ends. The slot in this part accepts the ramp centre spines, which will be fitted next. Again ensure that the parts fit neatly before any gluing of the base.

The Silo Base - Step 5



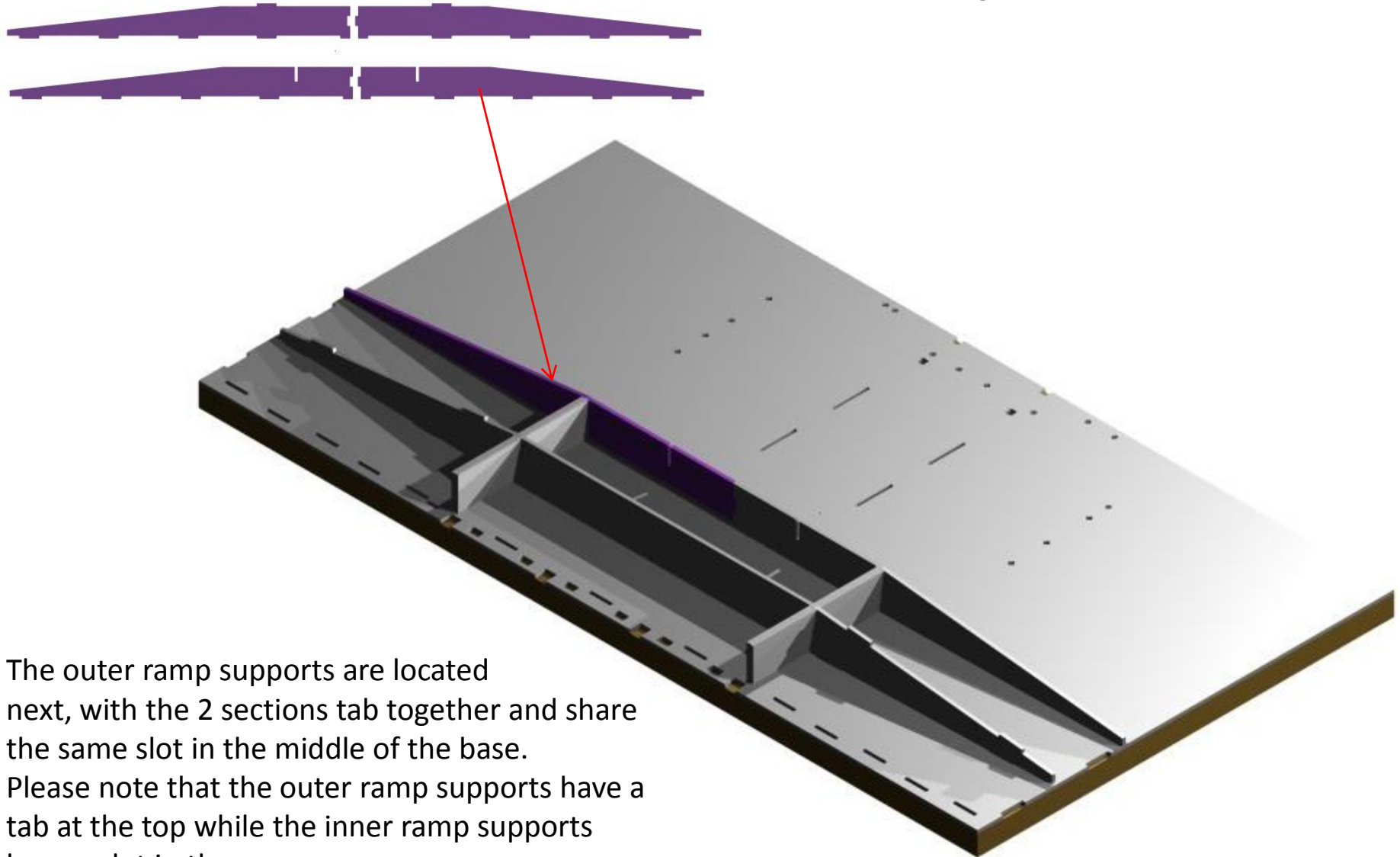
The ramp spines support the rear road ramp (fitted later) and lock the road spreaders squarely into place. Please ensure that all parts go into the base all the way and are not restricted by gel grip or any other impediment.

The Silo Base - Step 6



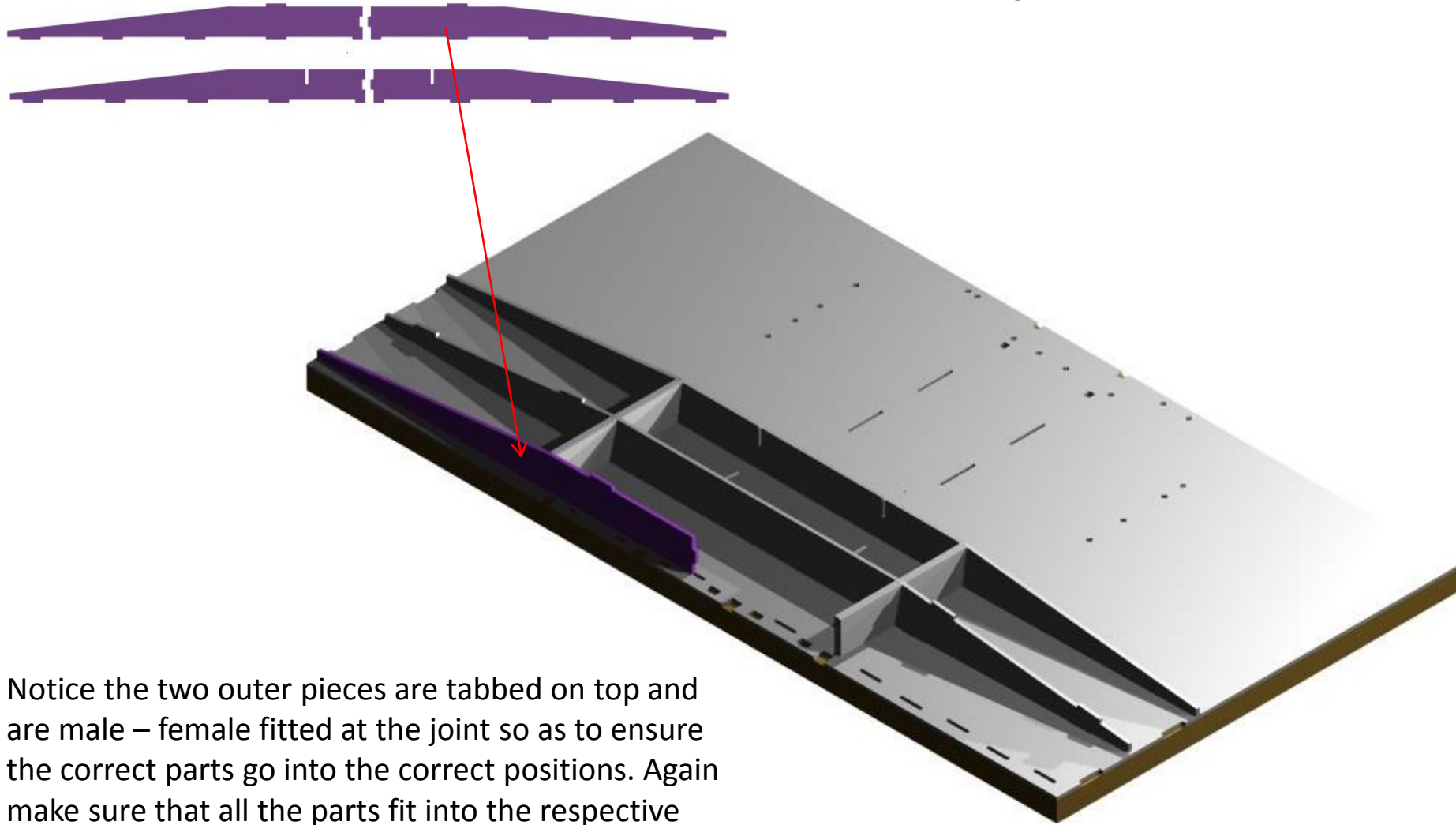
The short ramp support does the same as the longer support and locks the whole arrangement together. A good foundation leads to a good structure. **Test fit every part before gluing, to ensure a nice snug fit.** The inner pieces have tabs in them which will be used later in the build, to strengthen the road support

The Silo Base - Step 7



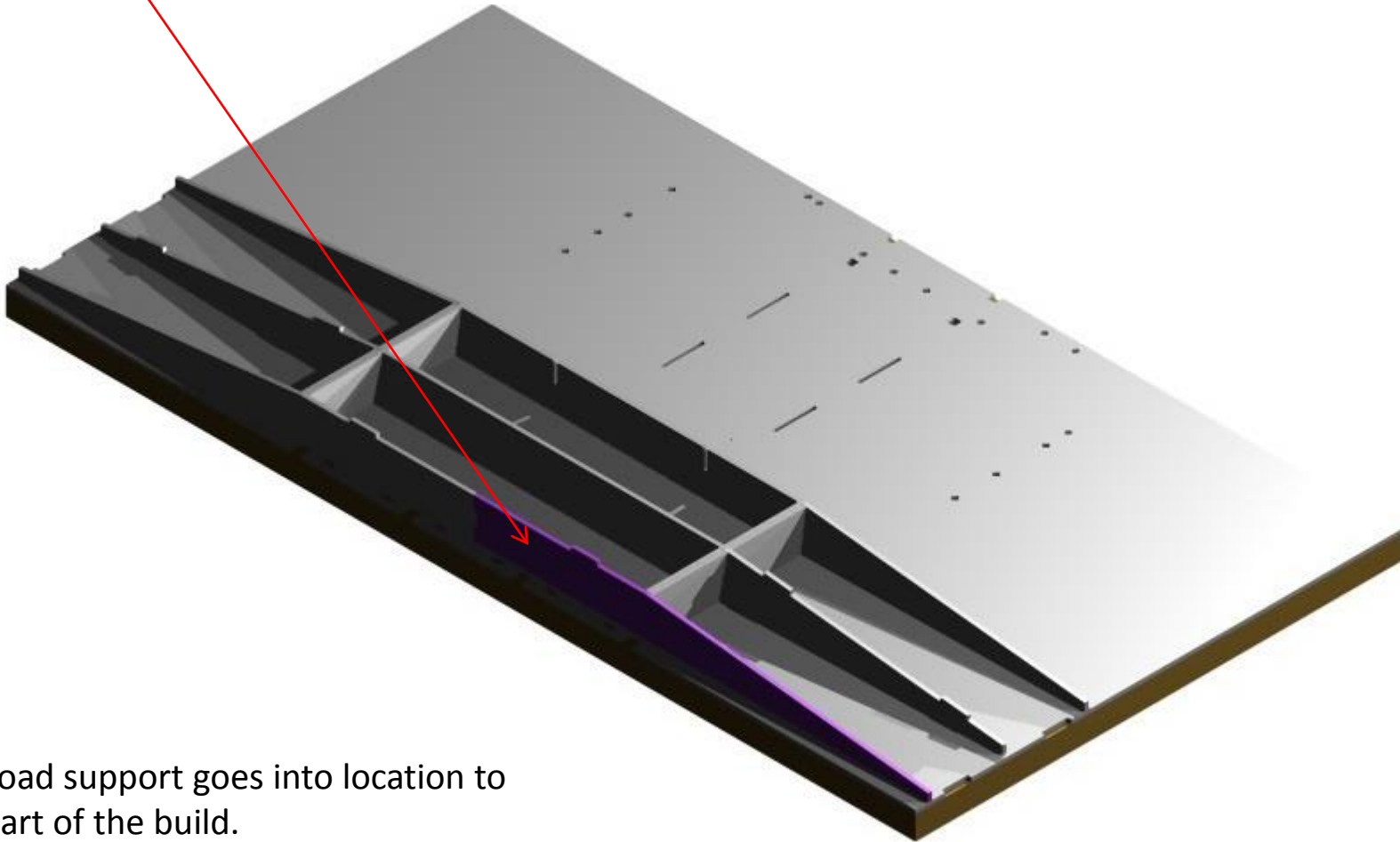
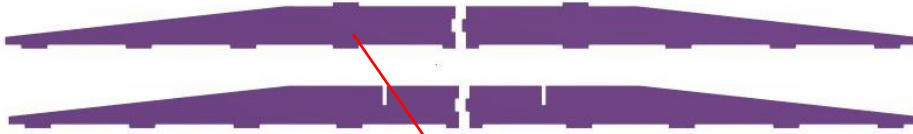
The outer ramp supports are located next, with the 2 sections tab together and share the same slot in the middle of the base. Please note that the outer ramp supports have a tab at the top while the inner ramp supports have a slot in them.

The Silo Base - Step 8



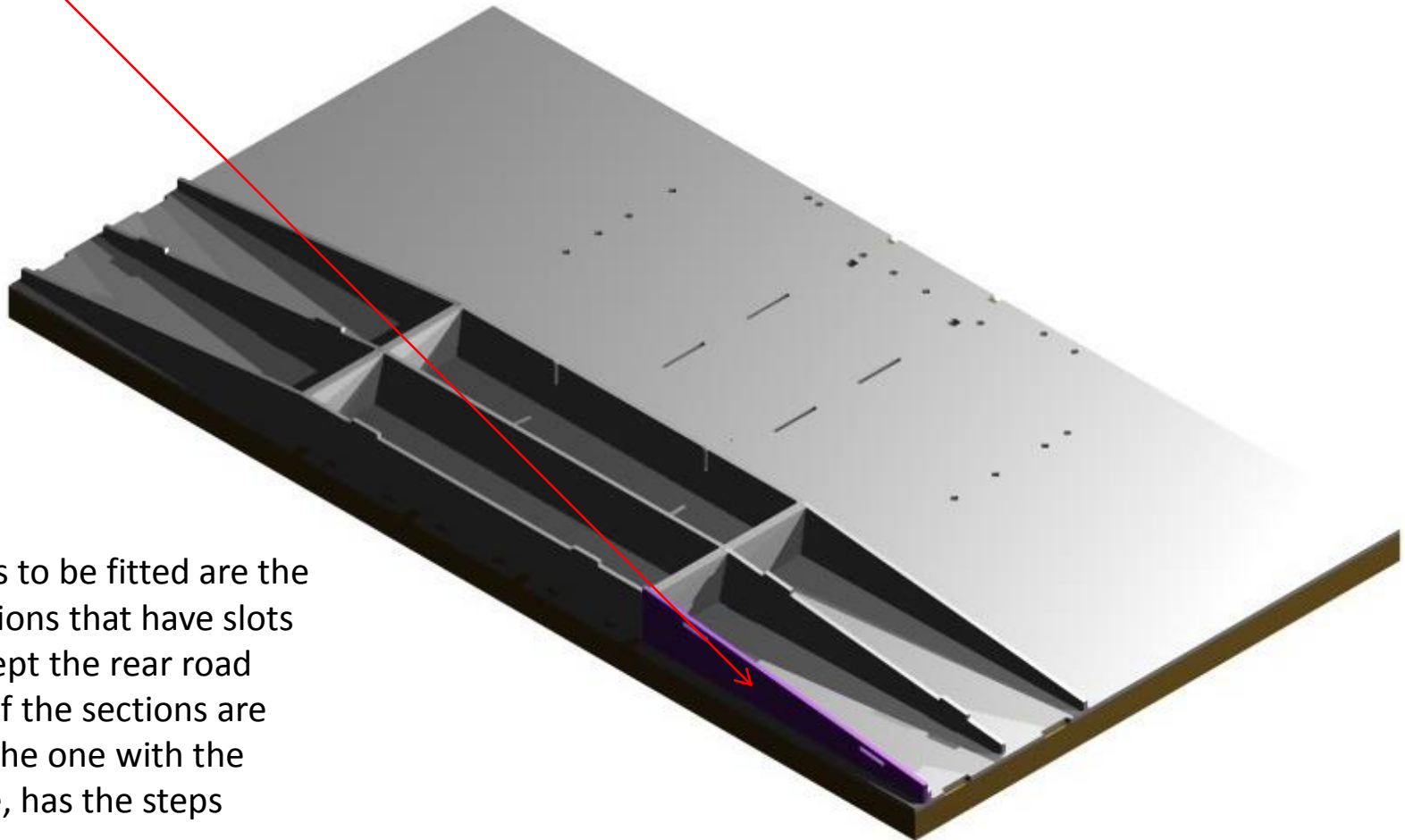
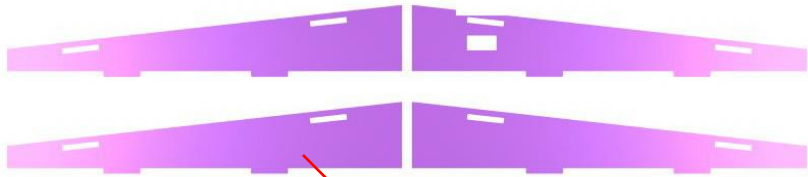
Notice the two outer pieces are tabbed on top and are male – female fitted at the joint so as to ensure the correct parts go into the correct positions. Again make sure that all the parts fit into the respective slots before gluing. **If parts are too tight, just file them back until they fit neatly.**

The Silo Base - Step 9



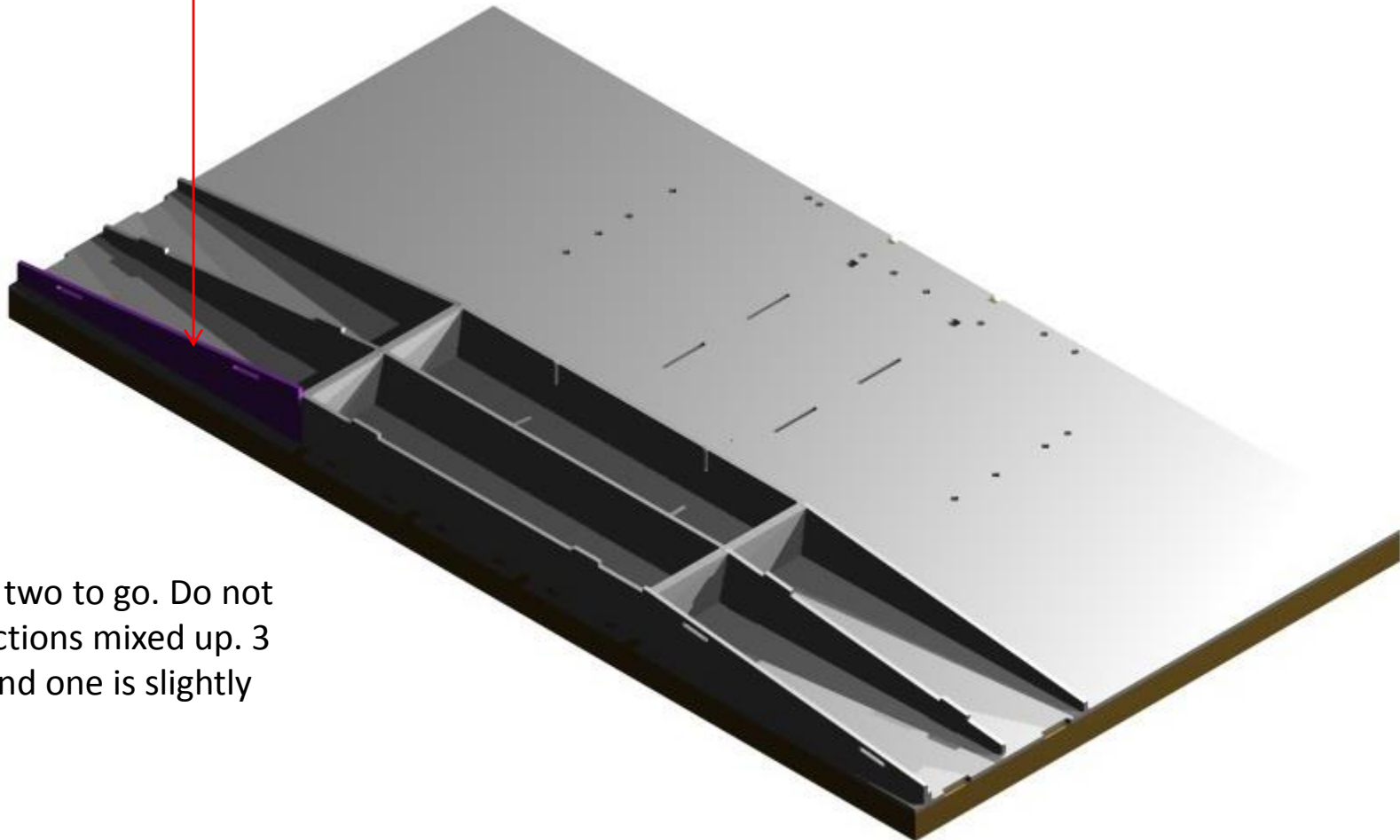
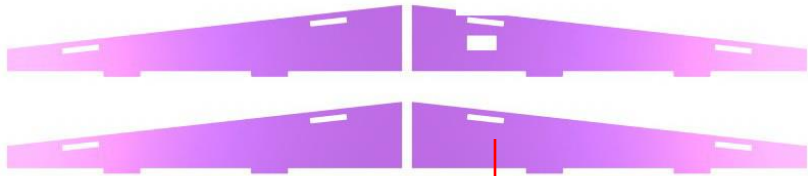
The last outer road support goes into location to complete this part of the build.

The Silo Base - Step 10



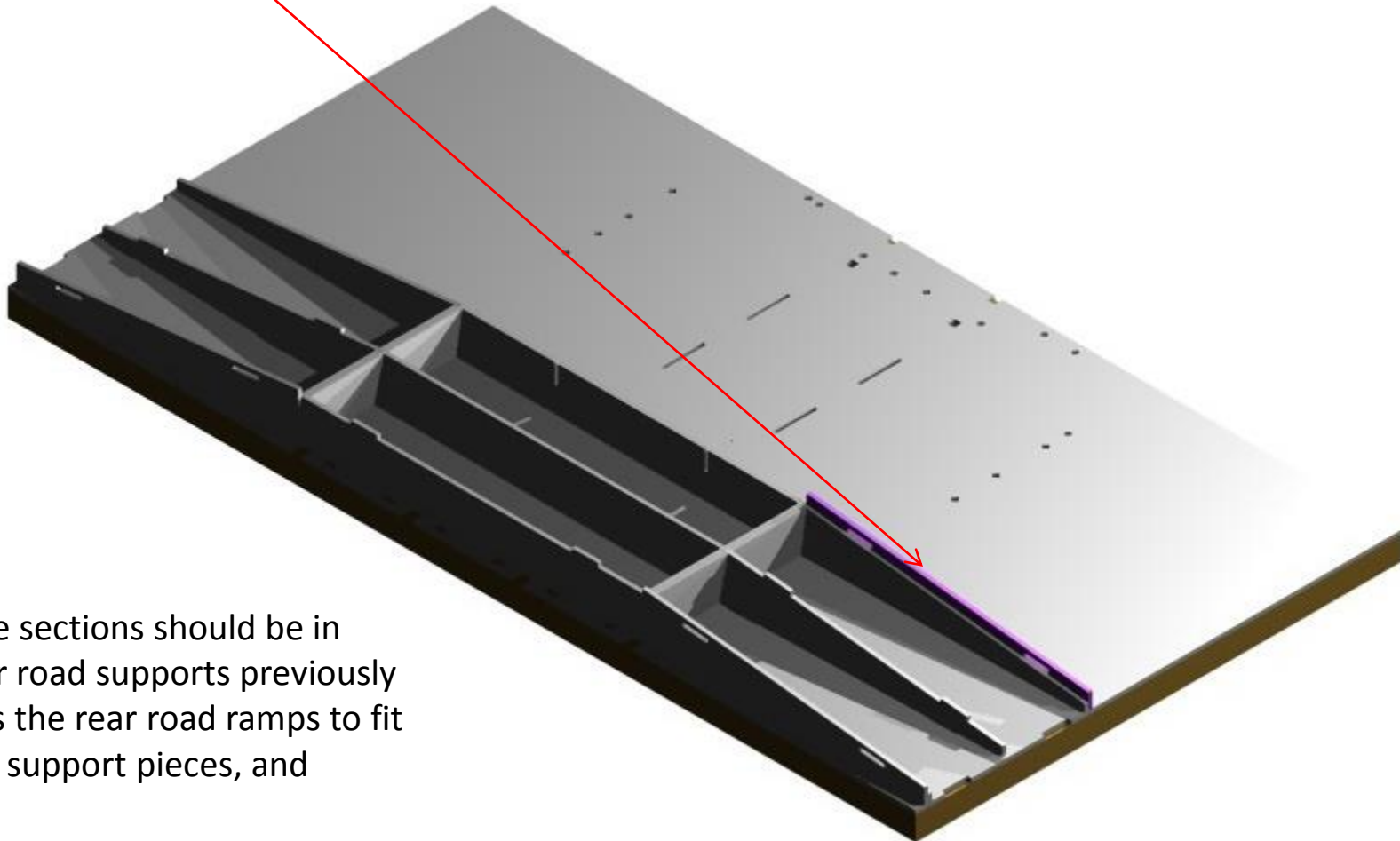
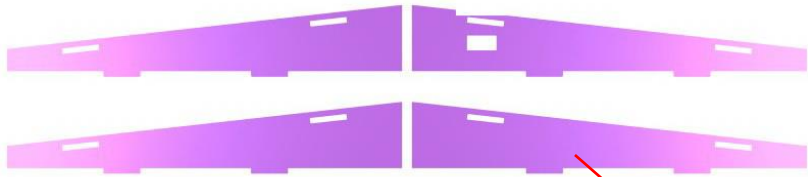
The next pieces to be fitted are the outer wall sections that have slots in them to accept the rear road ramps. Three of the sections are the same and the one with the small rectangle, has the steps attached to it.

The Silo Base - Step 11



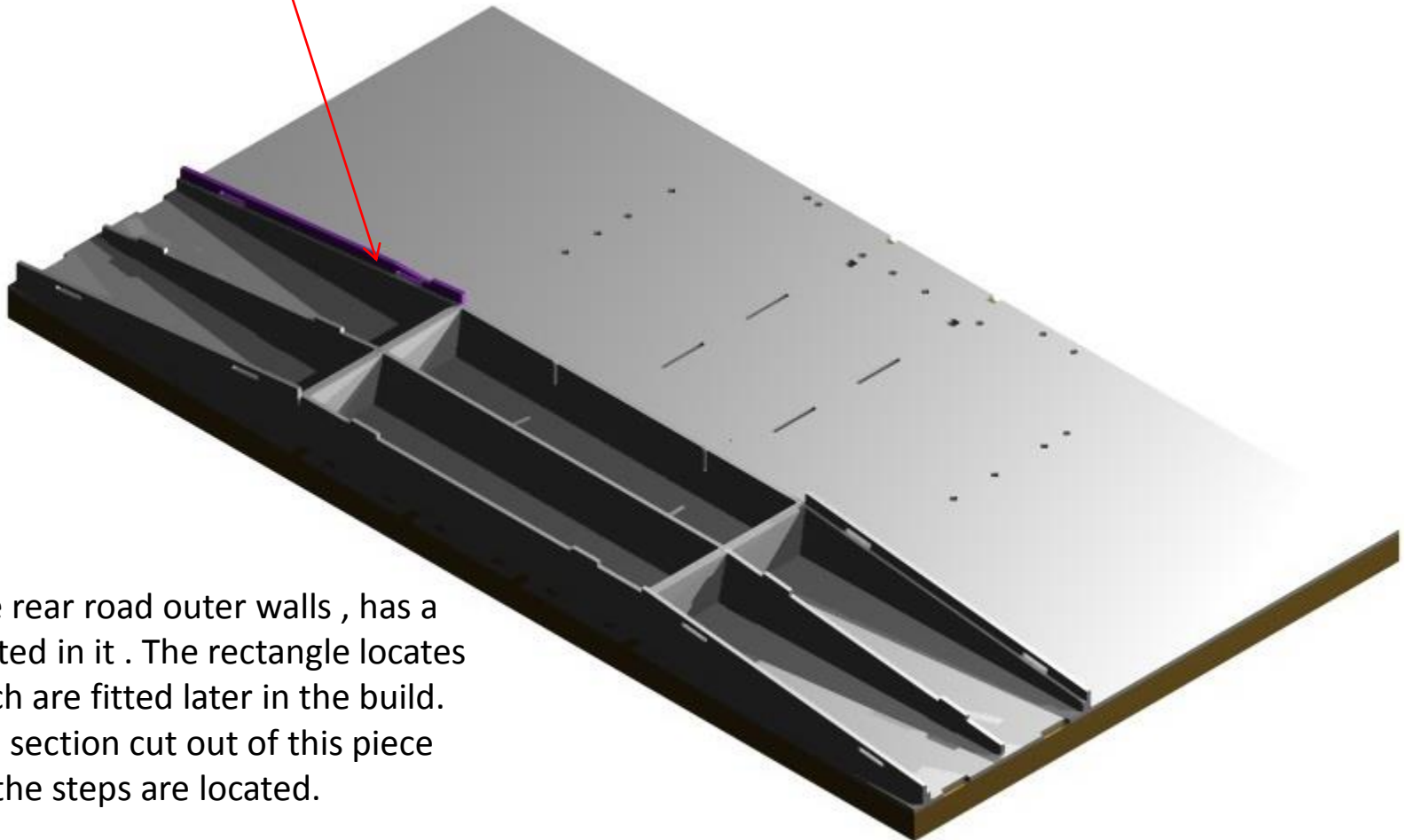
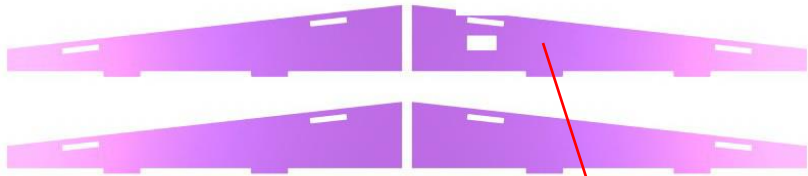
Two down and two to go. Do not get the wall sections mixed up. 3 are the same and one is slightly different.

The Silo Base - Step 12



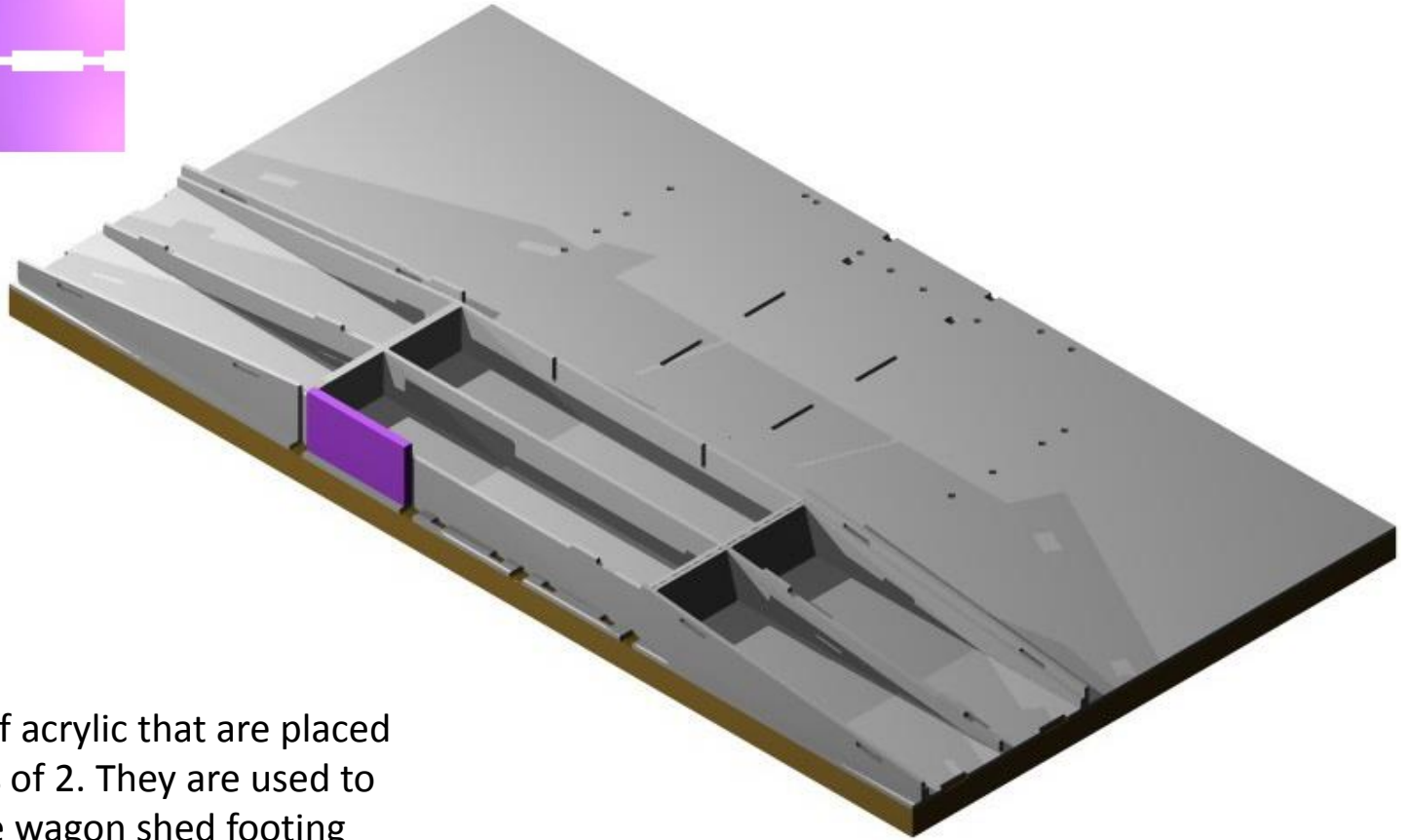
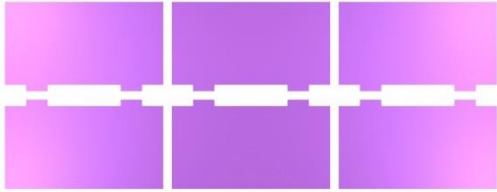
The slots in these sections should be in line with the rear road supports previously fitted, this allows the rear road ramps to fit directly onto the support pieces, and centre spline

The Silo Base - Step 13



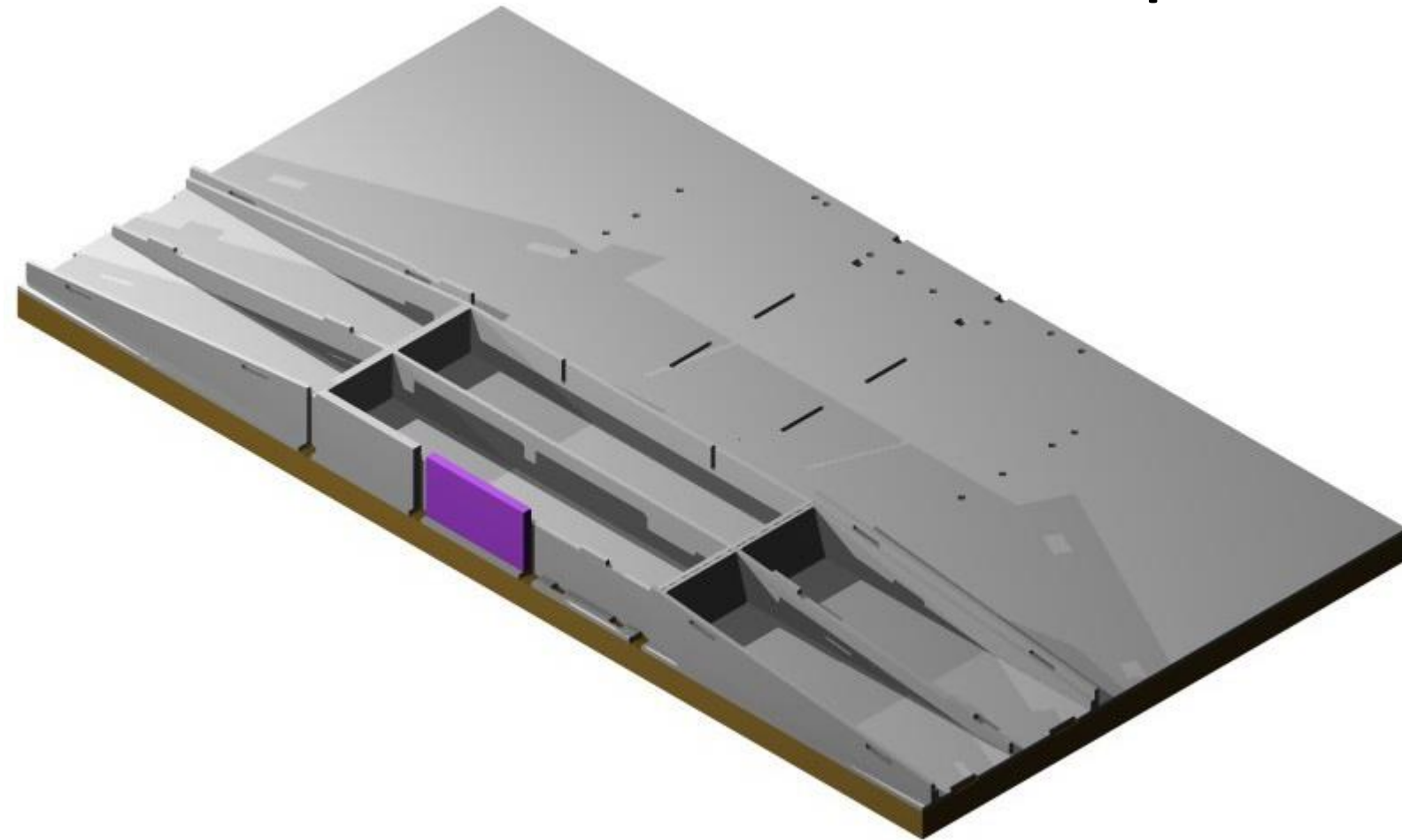
The last of the rear road outer walls , has a rectangle located in it . The rectangle locates the steps which are fitted later in the build. There is also a section cut out of this piece above where the steps are located.

The Silo Base - Step 14



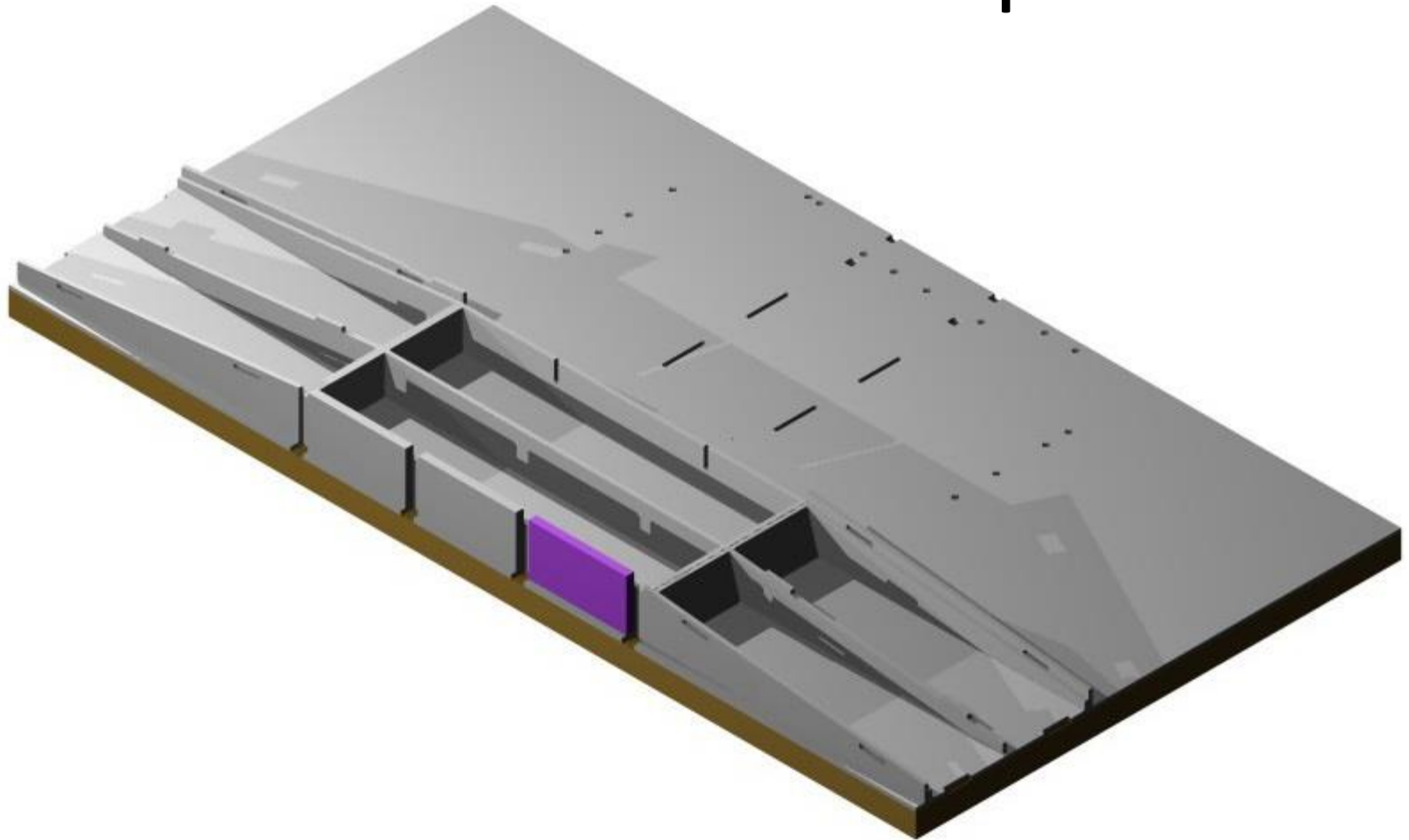
There are 6 pieces of acrylic that are placed together in 3 groups of 2. They are used to make the rear of the wagon shed footing thicker, and to centrally locate the Wagon Shed Footings.

The Silo Base - Step 15



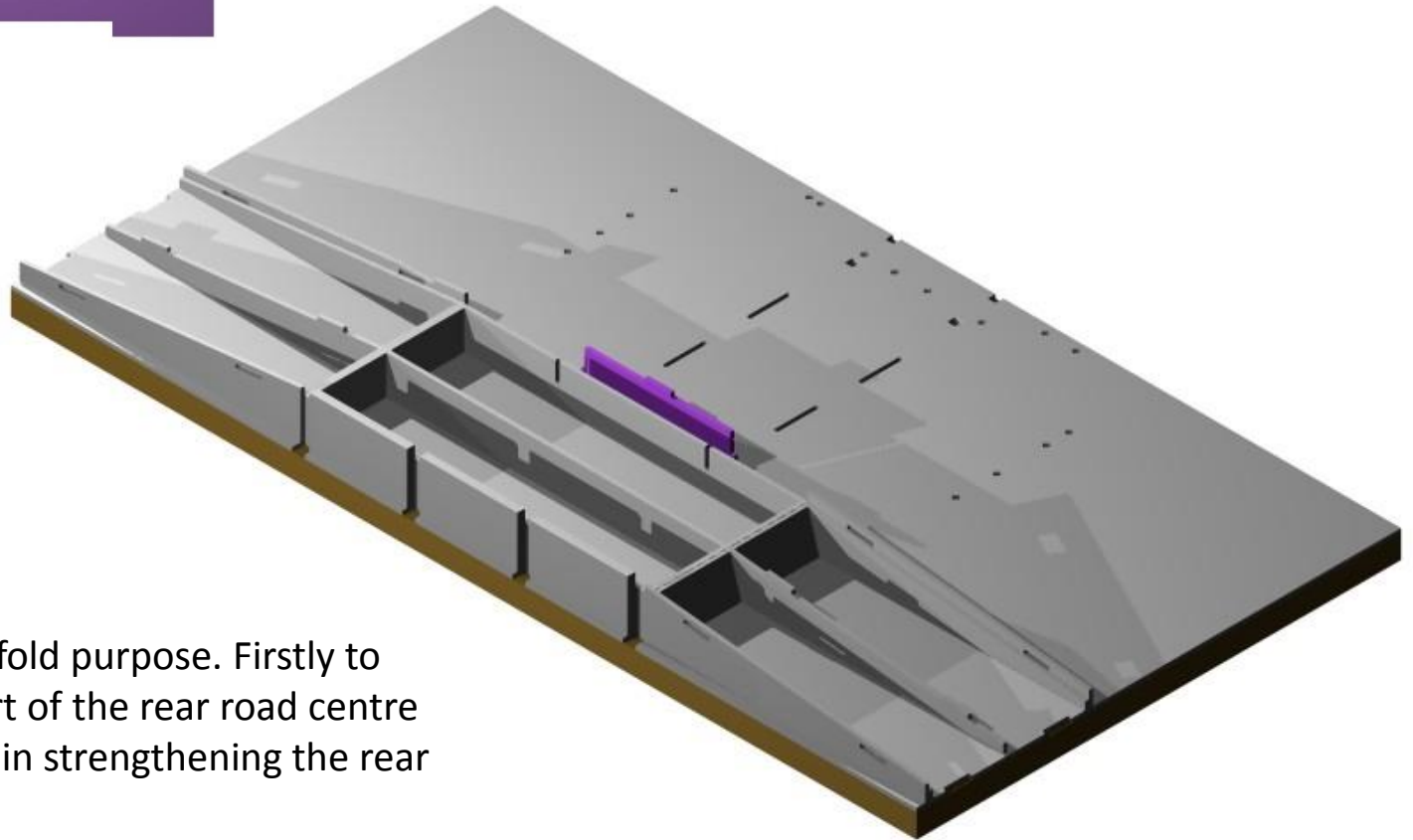
2nd group of 2 in place

The Silo Base - Step 16



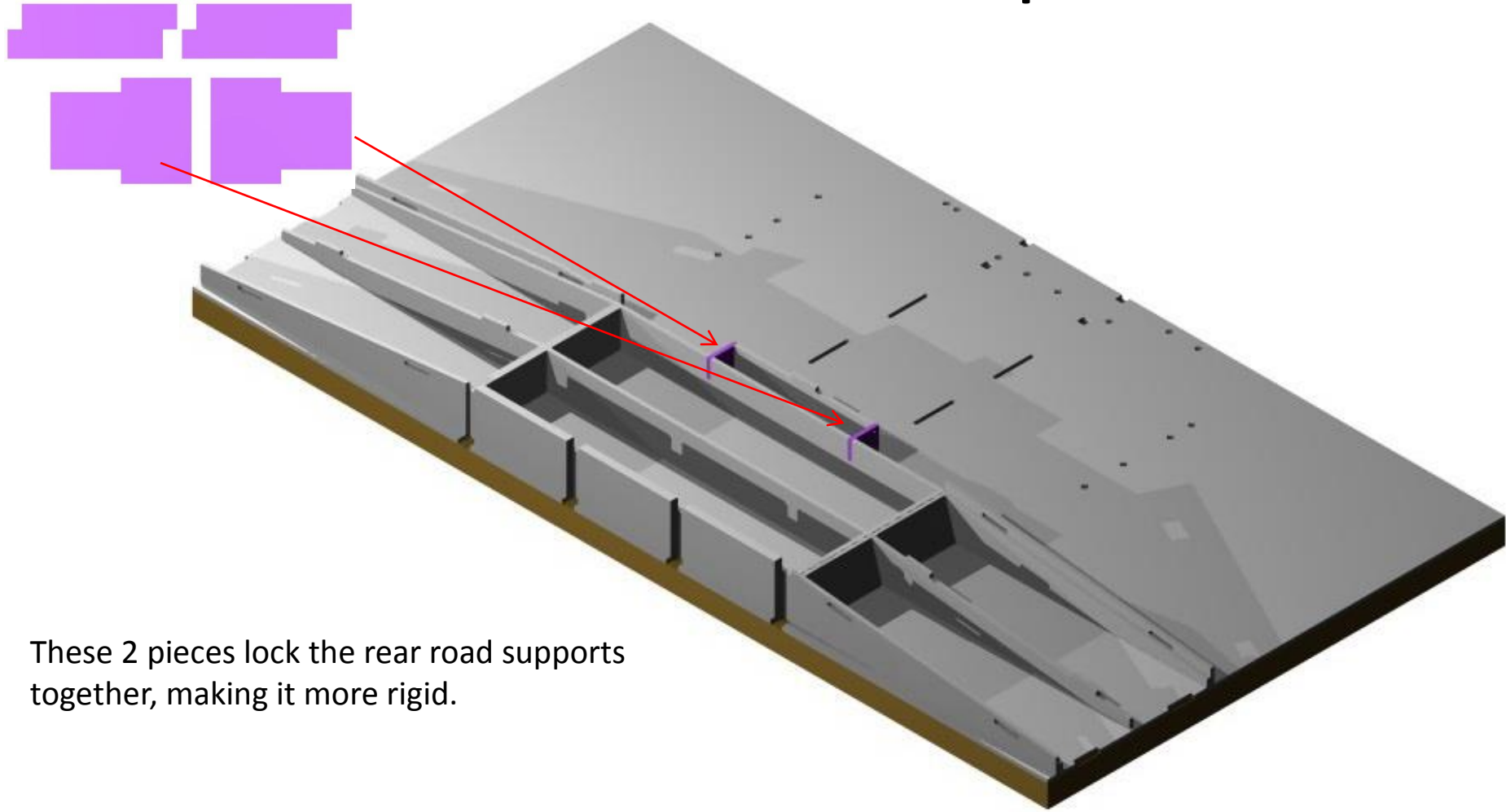
The final group of 2 pieces , tabbed in the silo base.

The Silo Base - Step 17



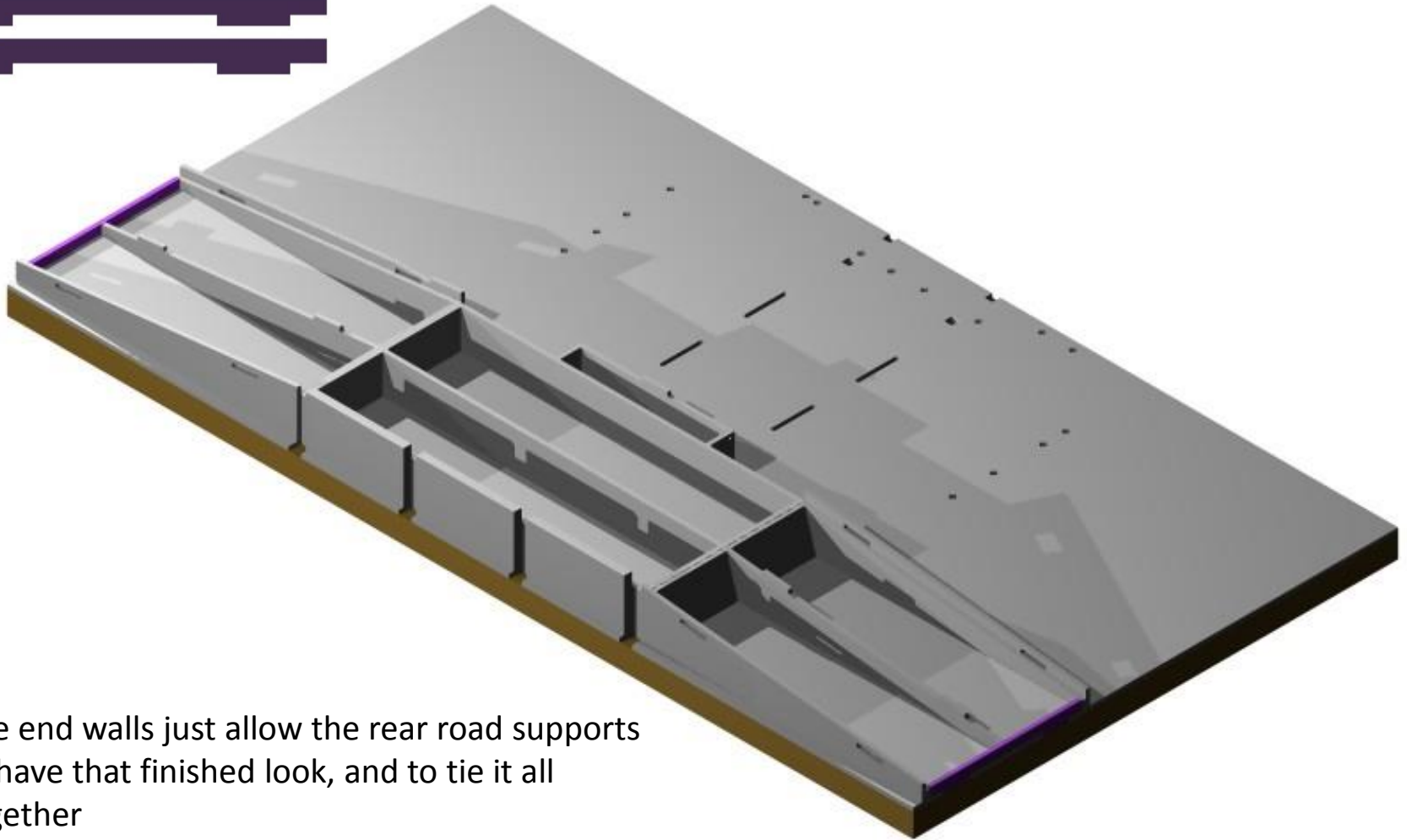
This piece serves a 2 fold purpose. Firstly to support the inner part of the rear road centre section, and to assist in strengthening the rear road support .

The Silo Base - Step 18



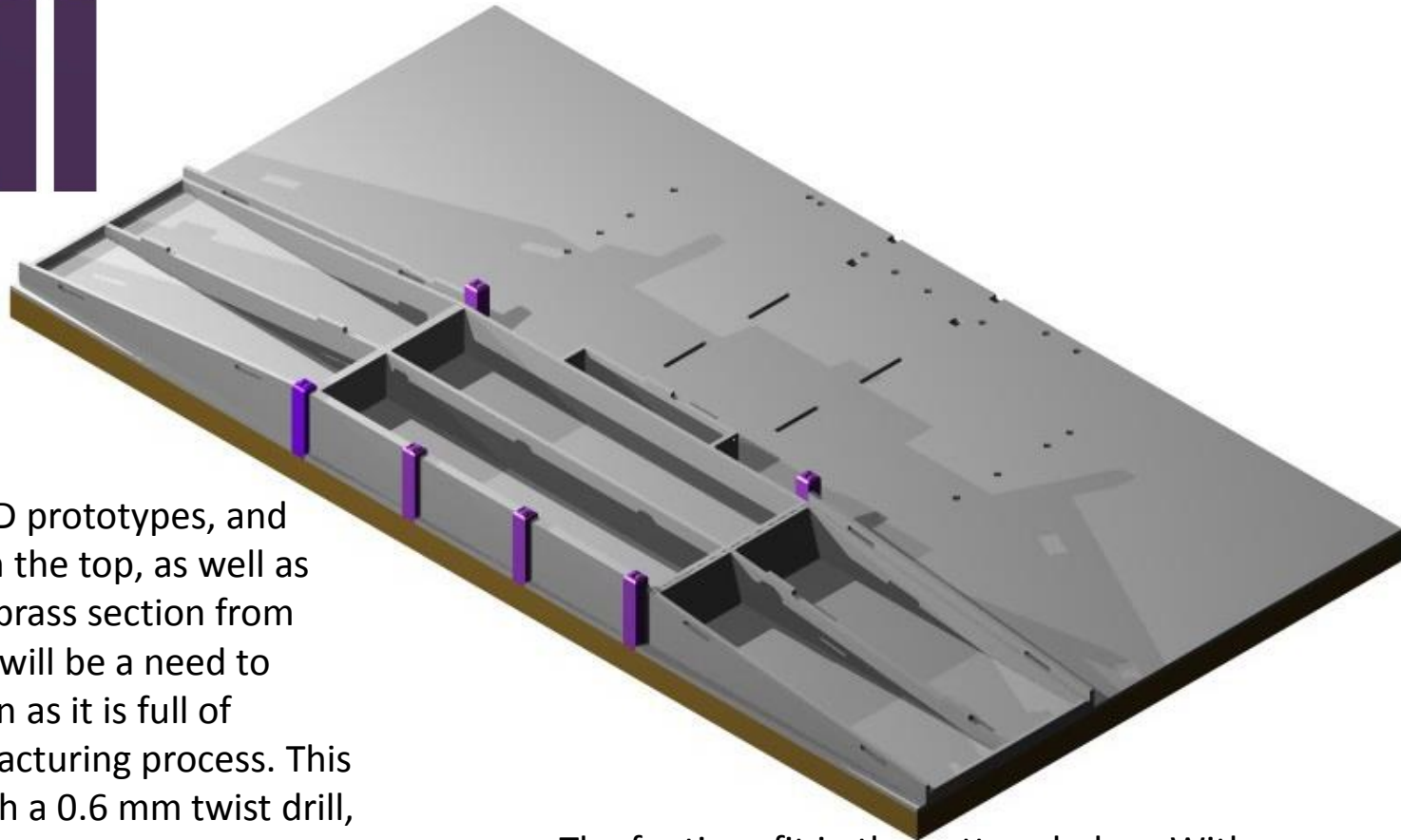
These 2 pieces lock the rear road supports together, making it more rigid.

The Silo Base - Step 19



The end walls just allow the rear road supports to have that finished look, and to tie it all together

The Silo Base - Step 20

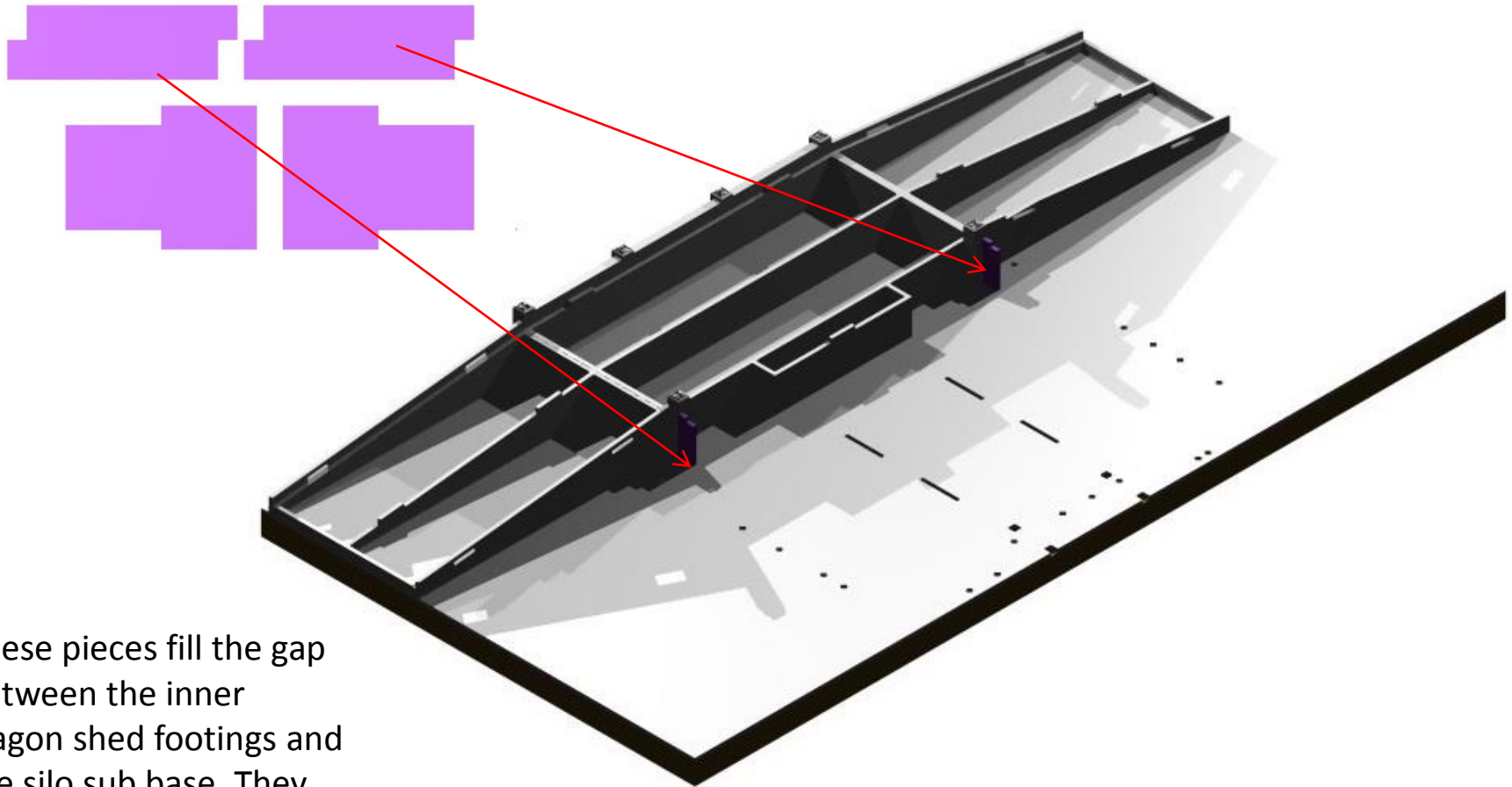


The six footings, are 3D prototypes, and have the bolt detail on the top, as well as the pattern of the H4 brass section from Special Shapes. There will be a need to clean out the H pattern as it is full of powder for the manufacturing process. This can be easily done with a 0.6 mm twist drill, which is able to drill out the powder and using compressed air, blow the excess powder from the footings. Clean out the footing until a section of the H Pattern (Supplied in The Kit) fits easily.

The footings fit in the pattern below. With the 2 footings marked as X- 90 degrees to the others

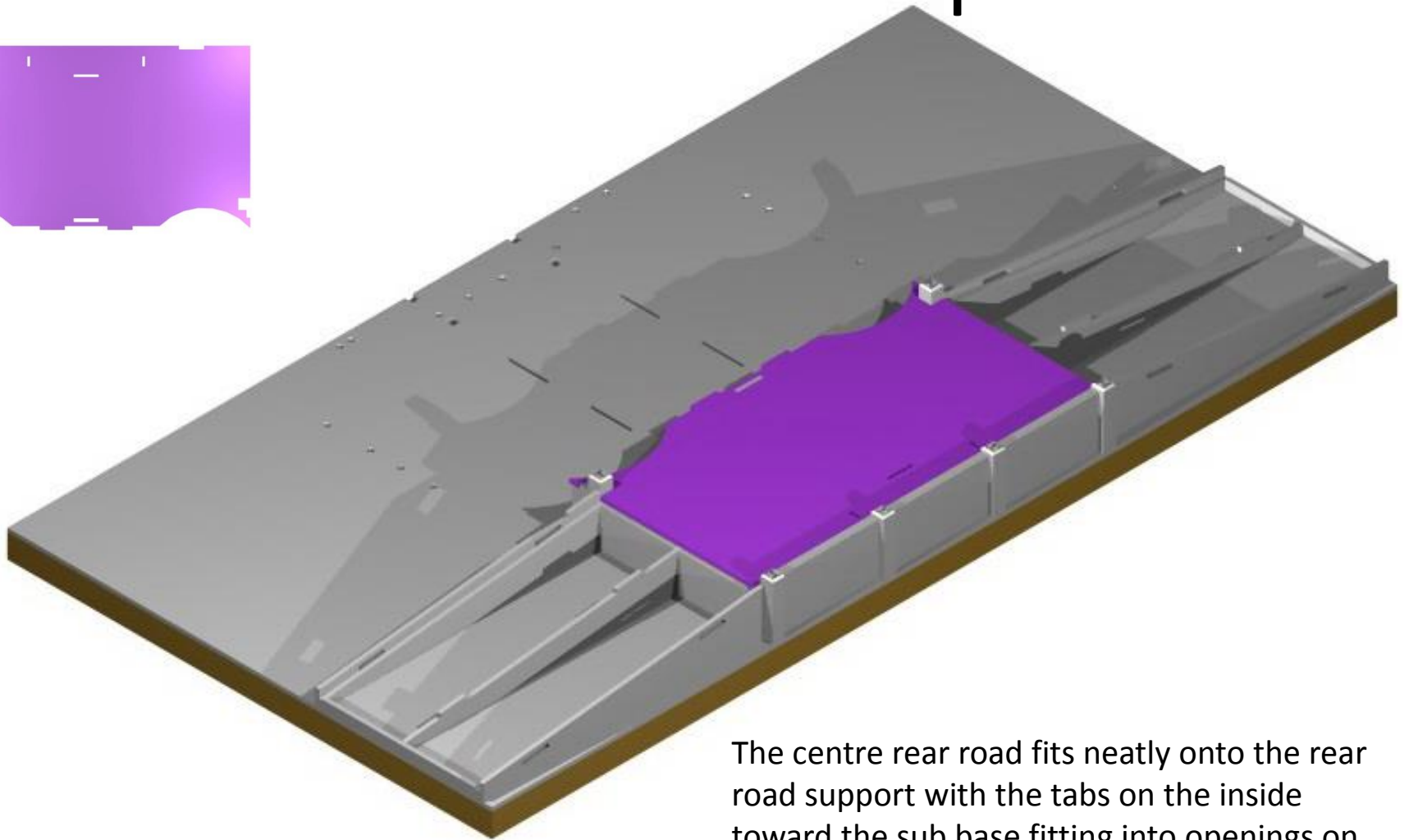
H			H
H	X	X	H

The Silo Base - Step 21



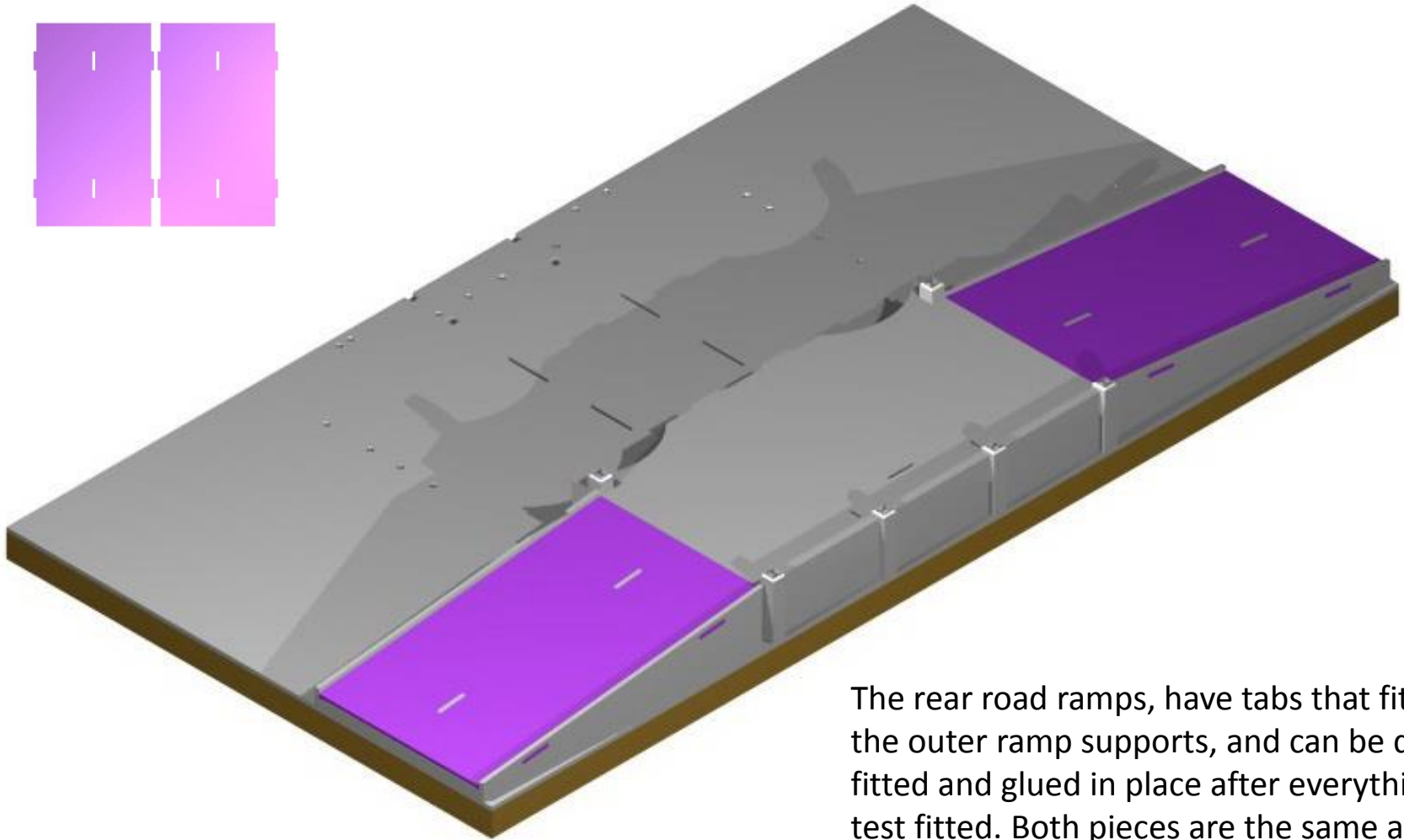
These pieces fill the gap between the inner wagon shed footings and the silo sub base. They will need to be trimmed on the inside, to fit the silo sub base correctly.

The Silo Base - Step 22



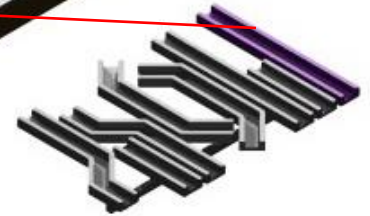
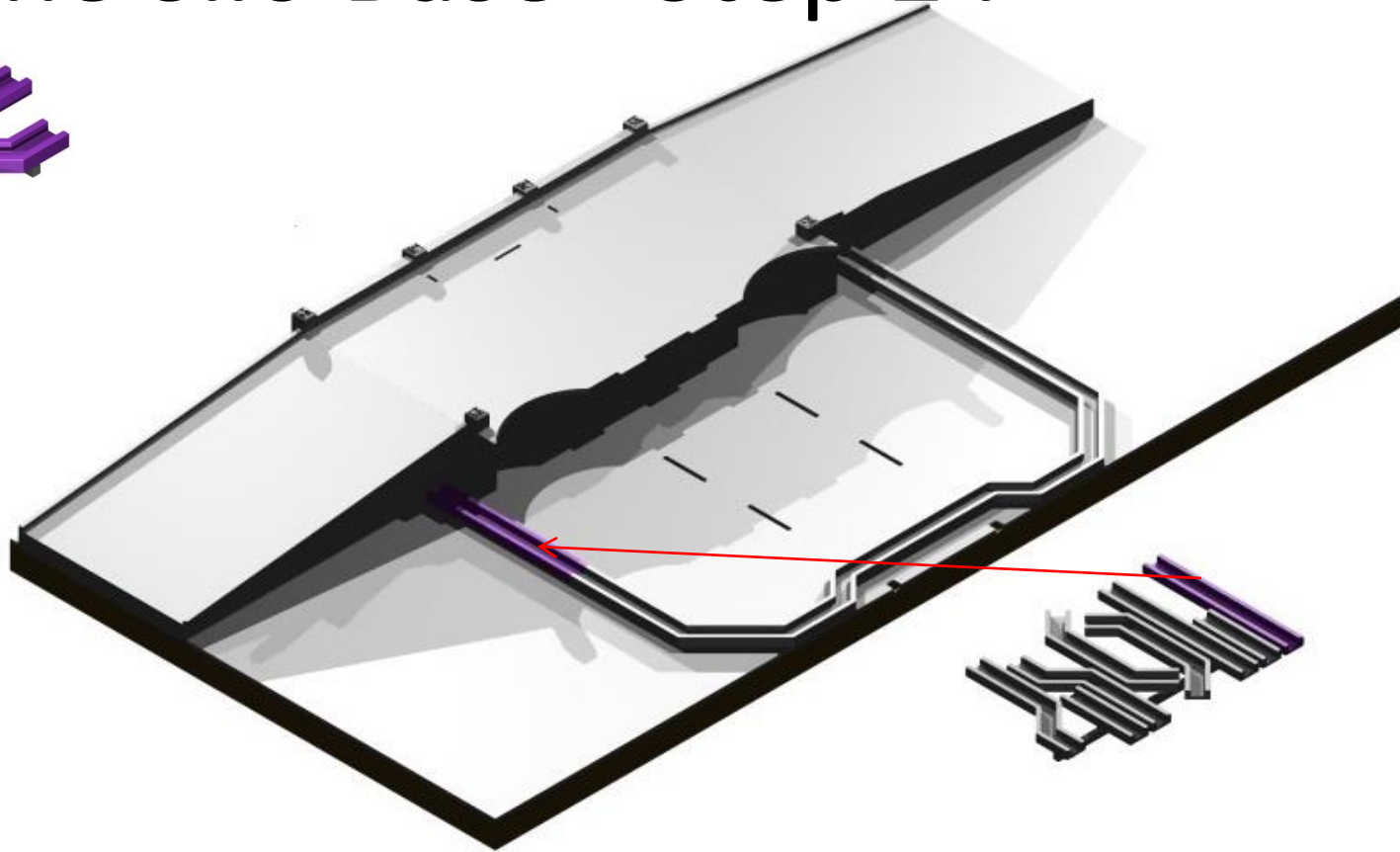
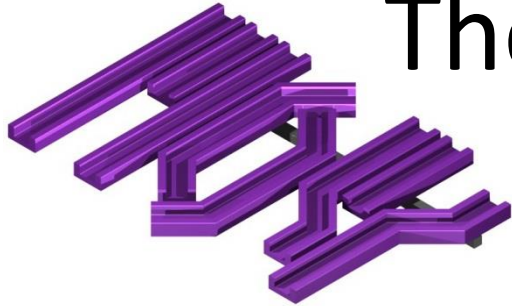
The centre rear road fits neatly onto the rear road support with the tabs on the inside toward the sub base fitting into openings on the rear of the silo sub base. Test fit this piece using the sub base as a guide, and file the curved section to form a neat fit.

The Silo Base - Step 23



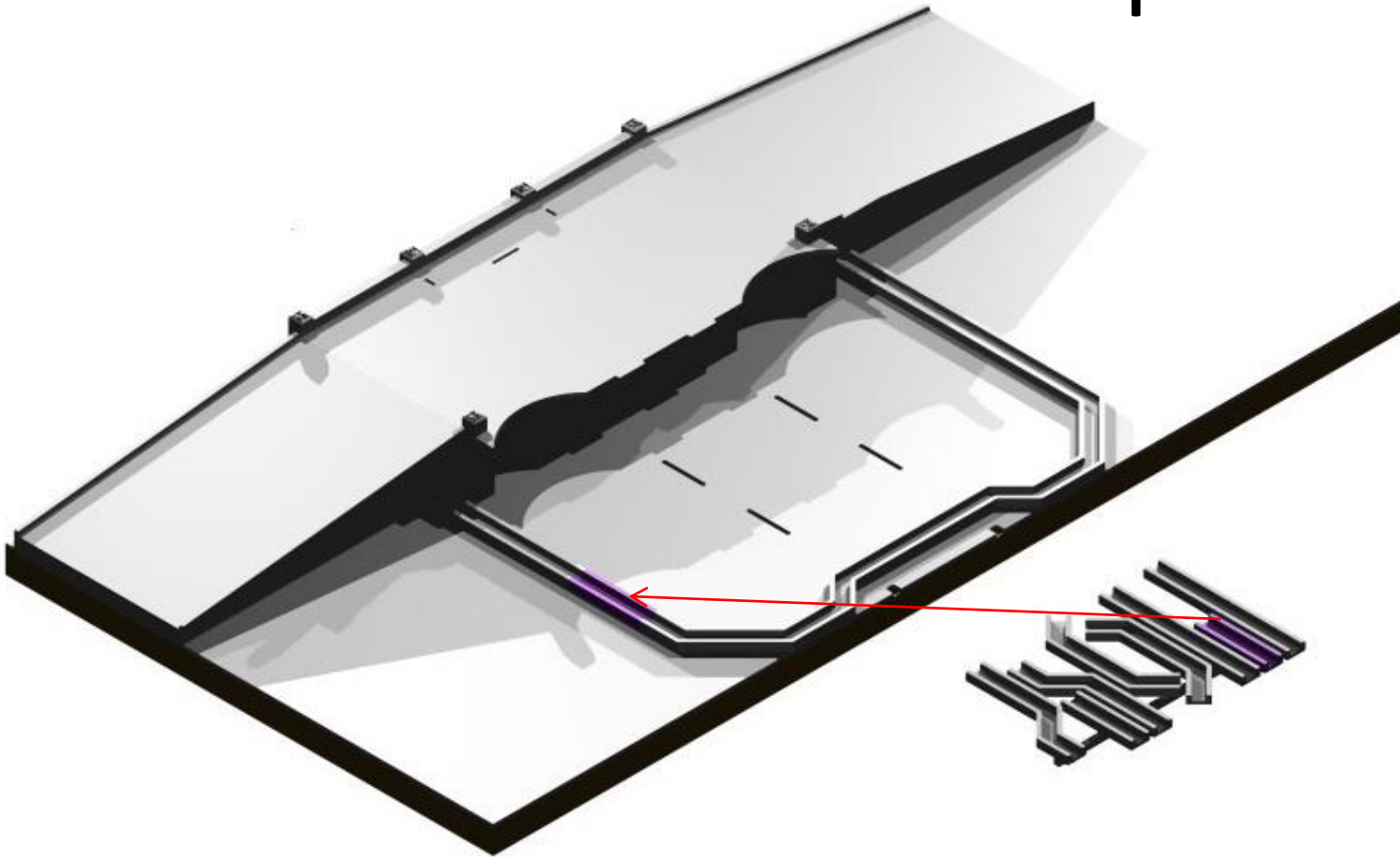
The rear road ramps, have tabs that fit into the outer ramp supports, and can be dry fitted and glued in place after everything is test fitted. Both pieces are the same and should fit either end.

The Silo Base - Step 24



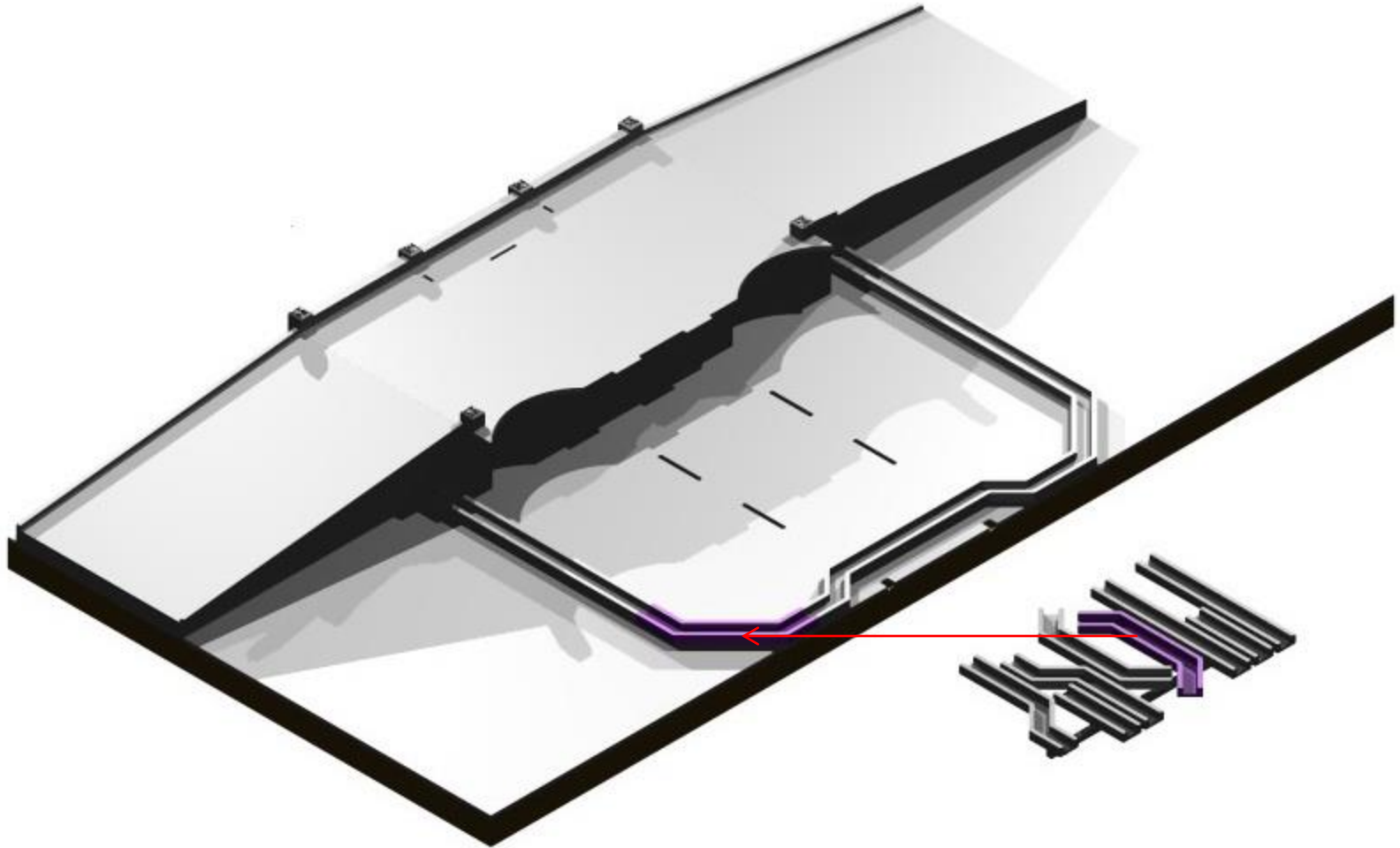
These parts are the 3D components that make up the drainage system and have small squares on the base of each piece, that fit into holes in the silo base. Test fit all parts to ensure that they fit correctly, then supa glue in place, fill and sand smooth. You may have to sand the ends slightly, if they are tight where they join together. Ensure that the drainage pieces all line up straight, if they don't, you may need to file or sand the small squares on their base. The pieces will only fit in their appropriate positions. Just use these images as guides. Dry fit first then glue and fill when happy with the result.

The Silo Base - Step 25



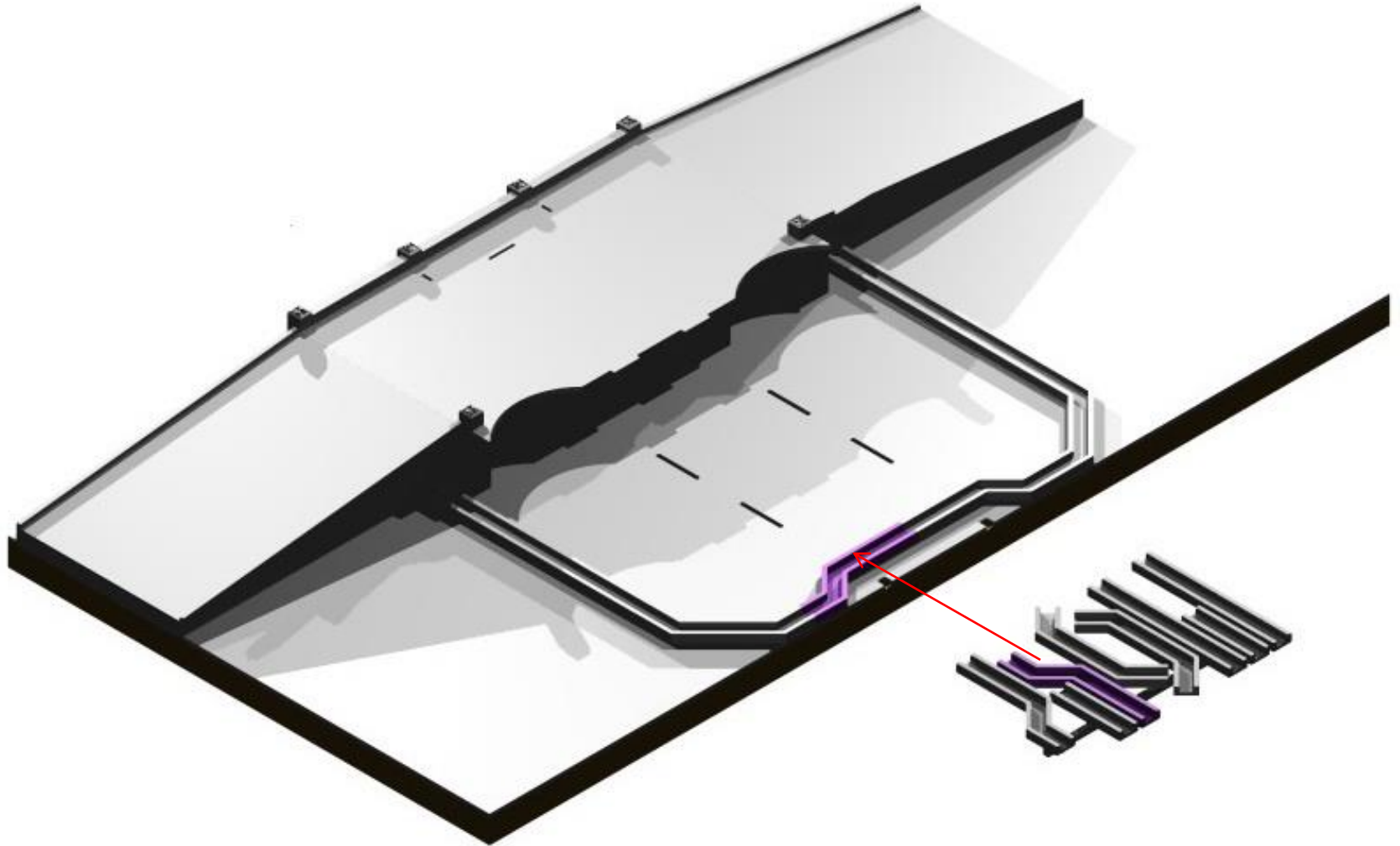
The purple piece in the group is the part that is indicated in its correct position.

The Silo Base - Step 26



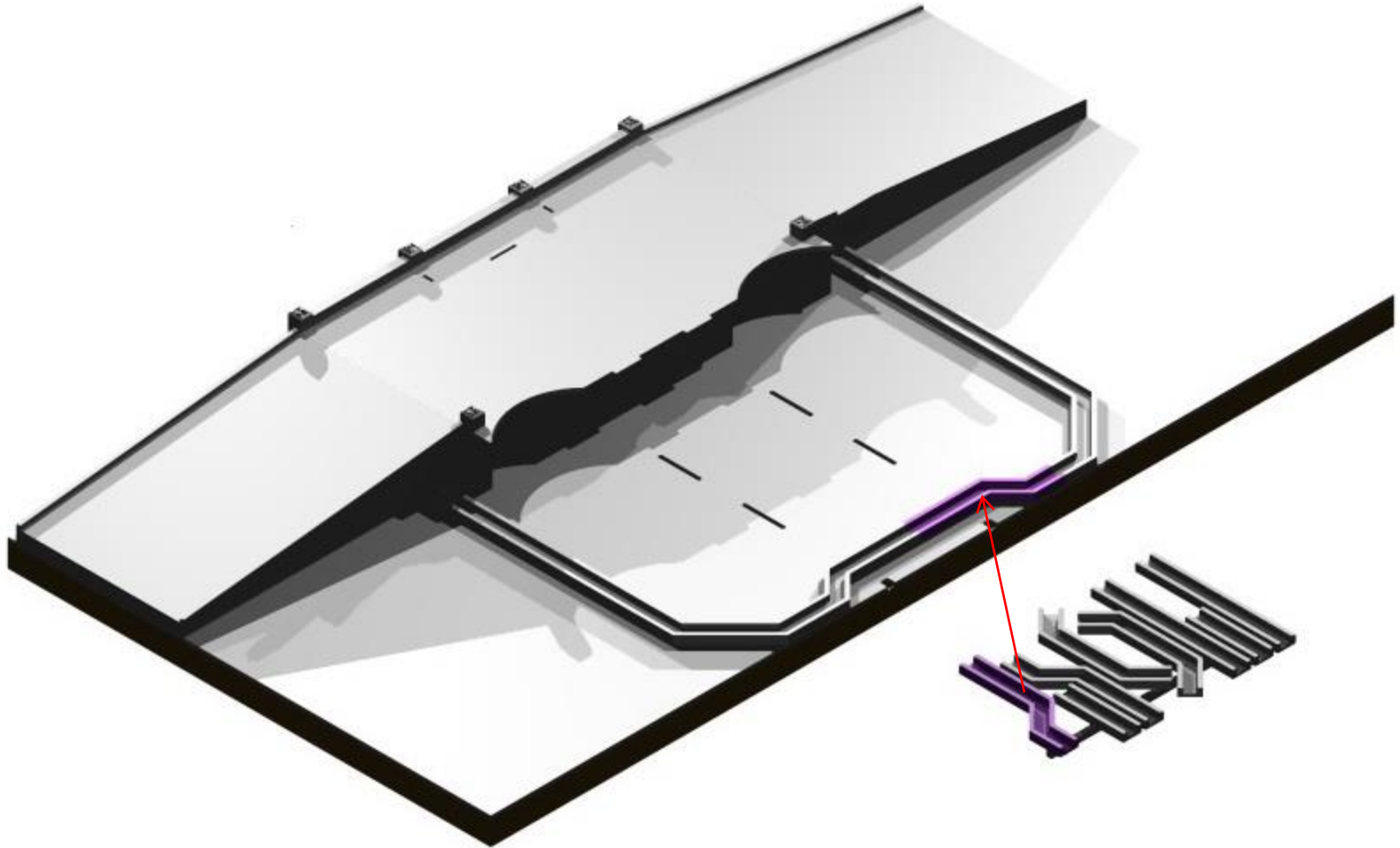
Just follow the arrows and all should work out fine.

The Silo Base - Step 27



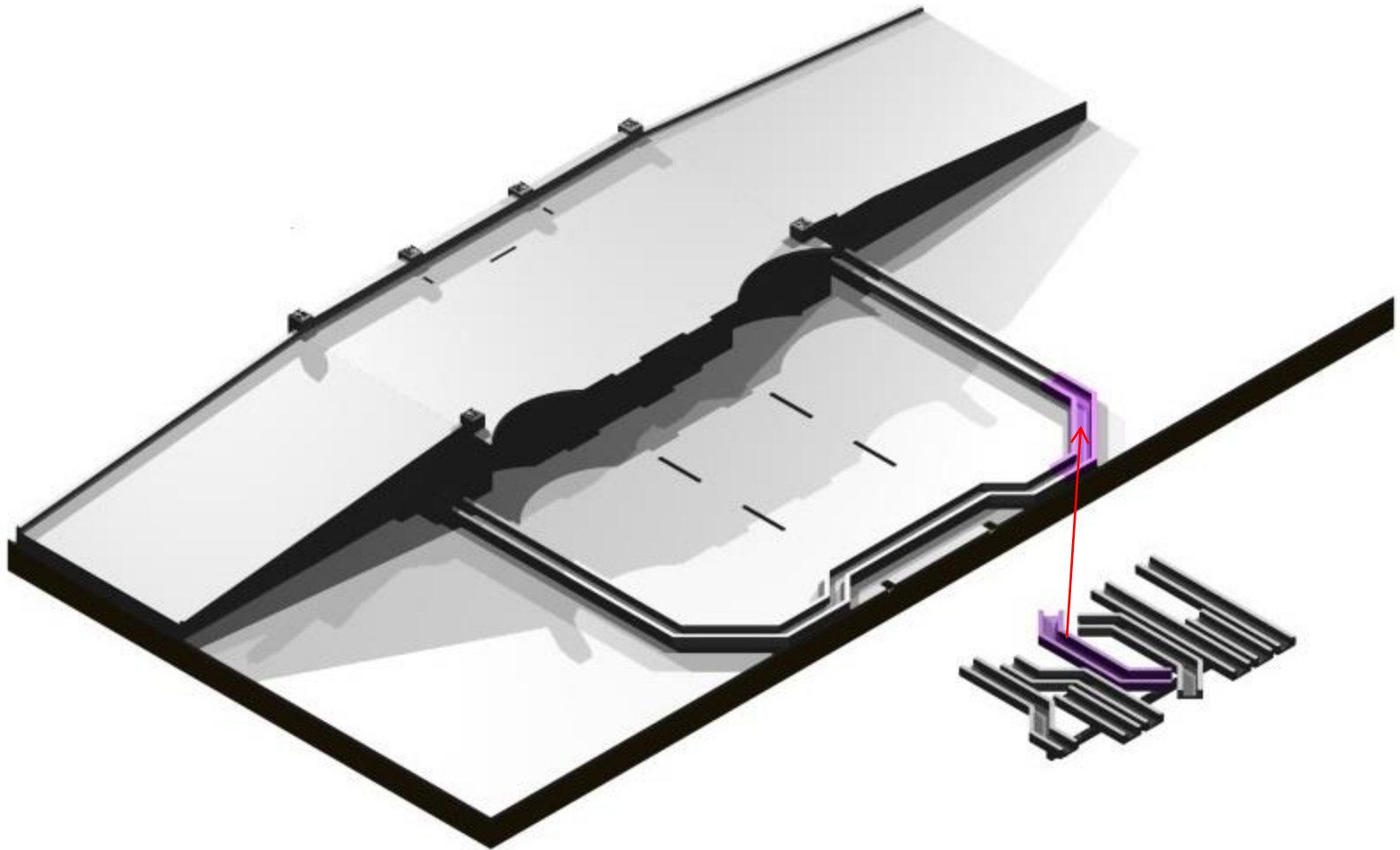
Nearly half way with the drains, don't forget to use a stop putty or thin filler to fill the joints between each part.

The Silo Base - Step 28



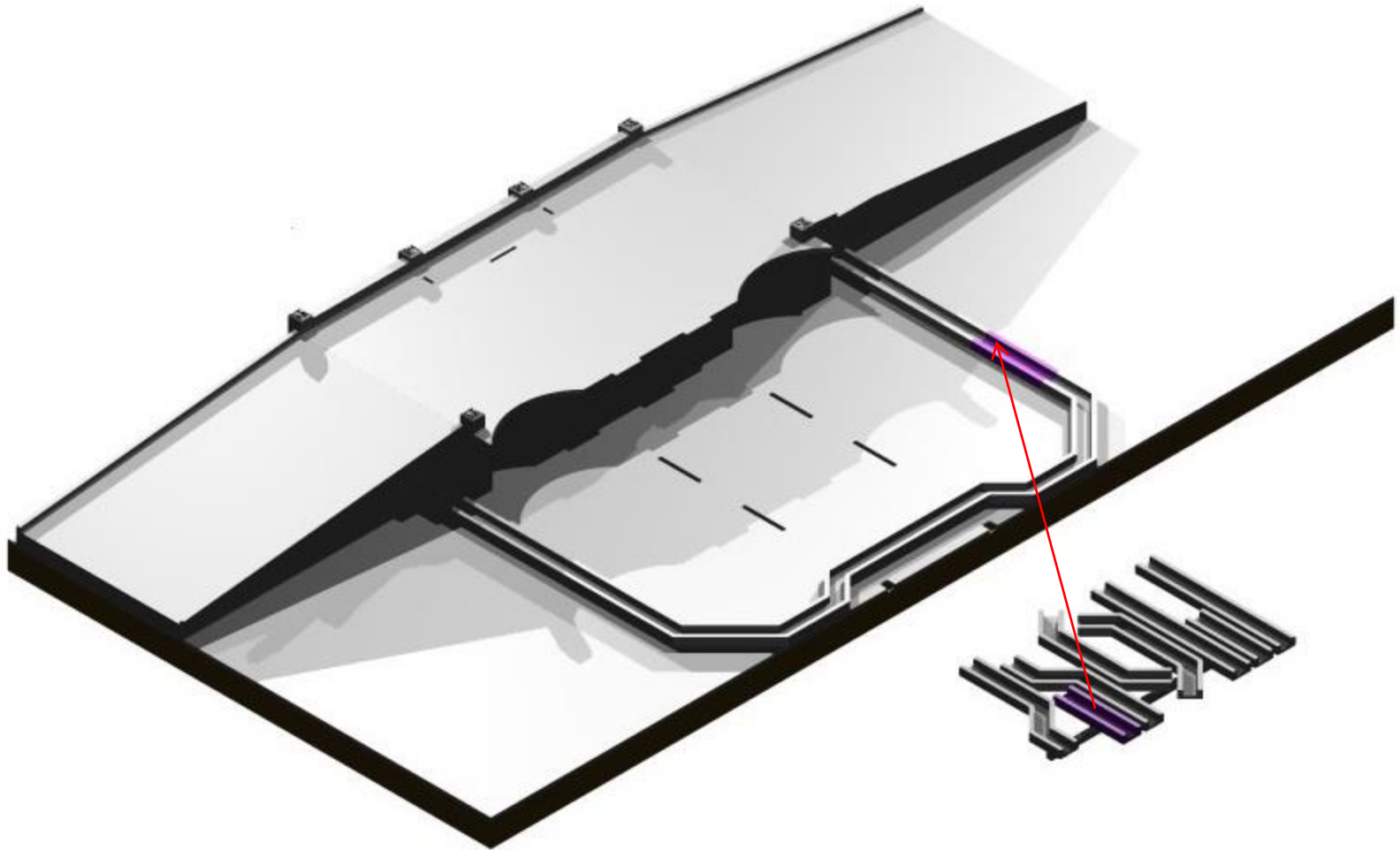
The 3rd section of acrylic, which leaves a gap where the spoil bin if fitted.

The Silo Base - Step 29



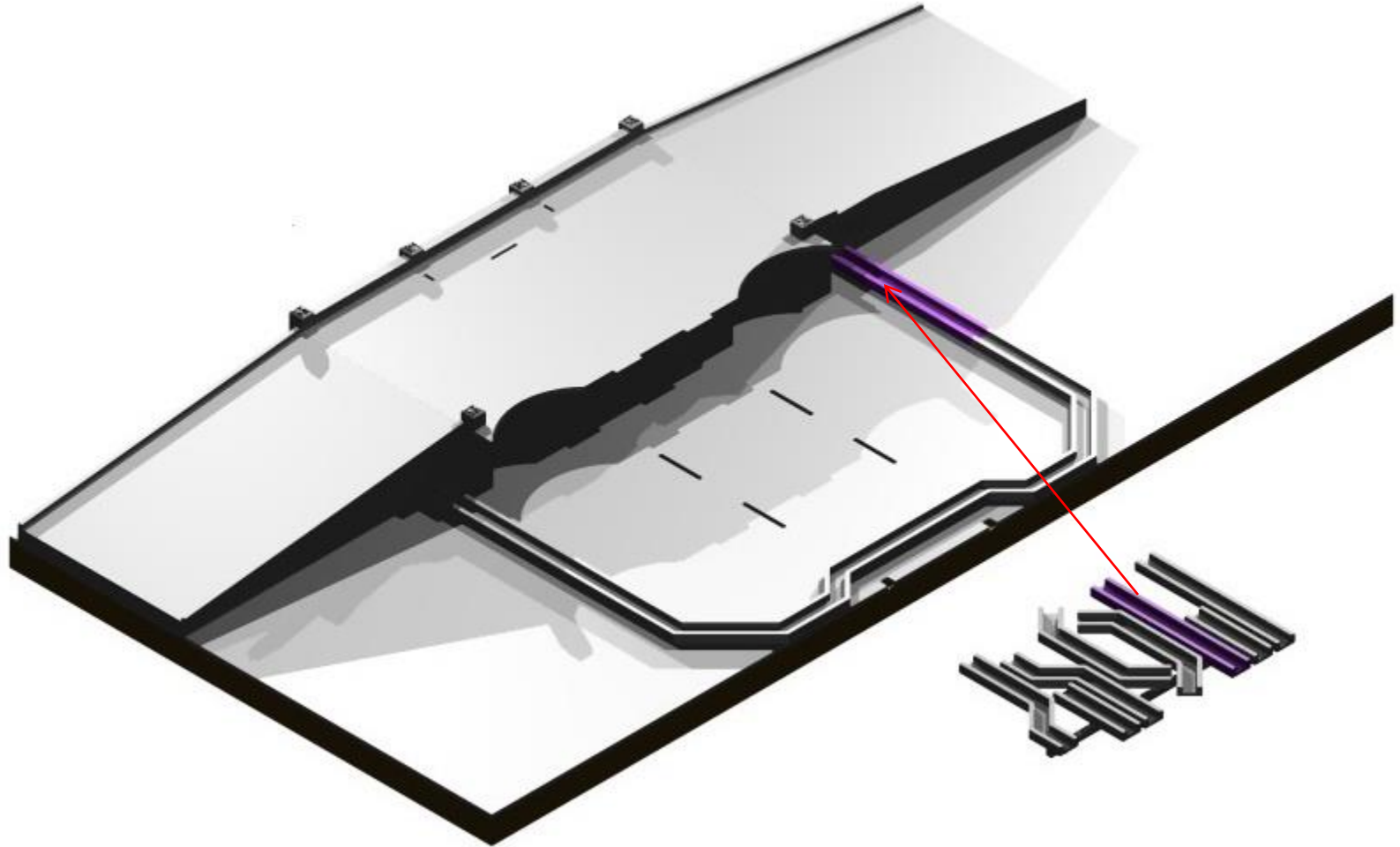
If the squares don't fit into the laser cut holes, check to ensure that you have the correct part, if it is the correct part, you can sand the square slightly to make a good fit.

The Silo Base - Step 30



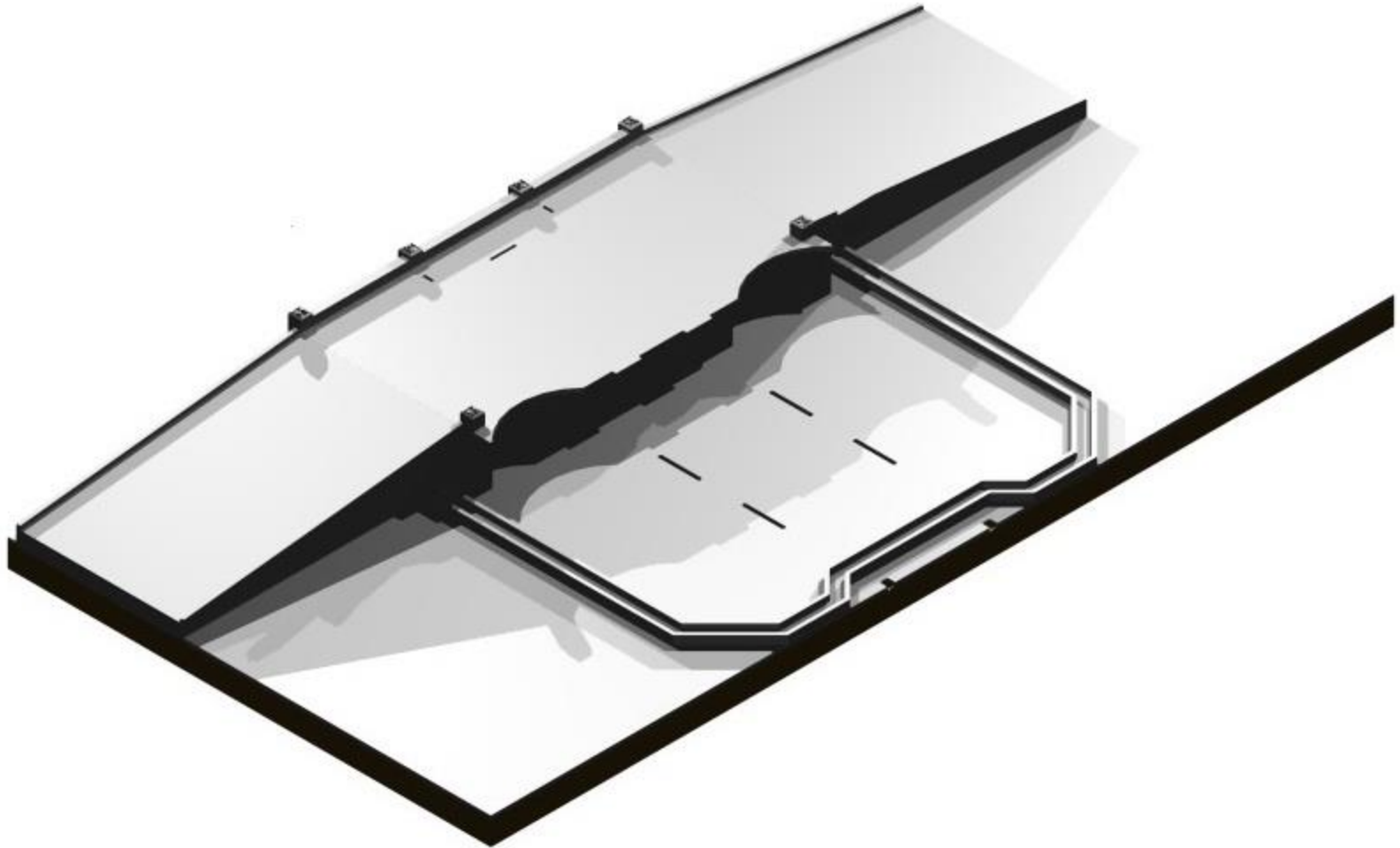
These parts are 3 mm high which will allow for gap filling (2 x all pieces) between the drains and the silo sub base.

The Silo Base - Step 31



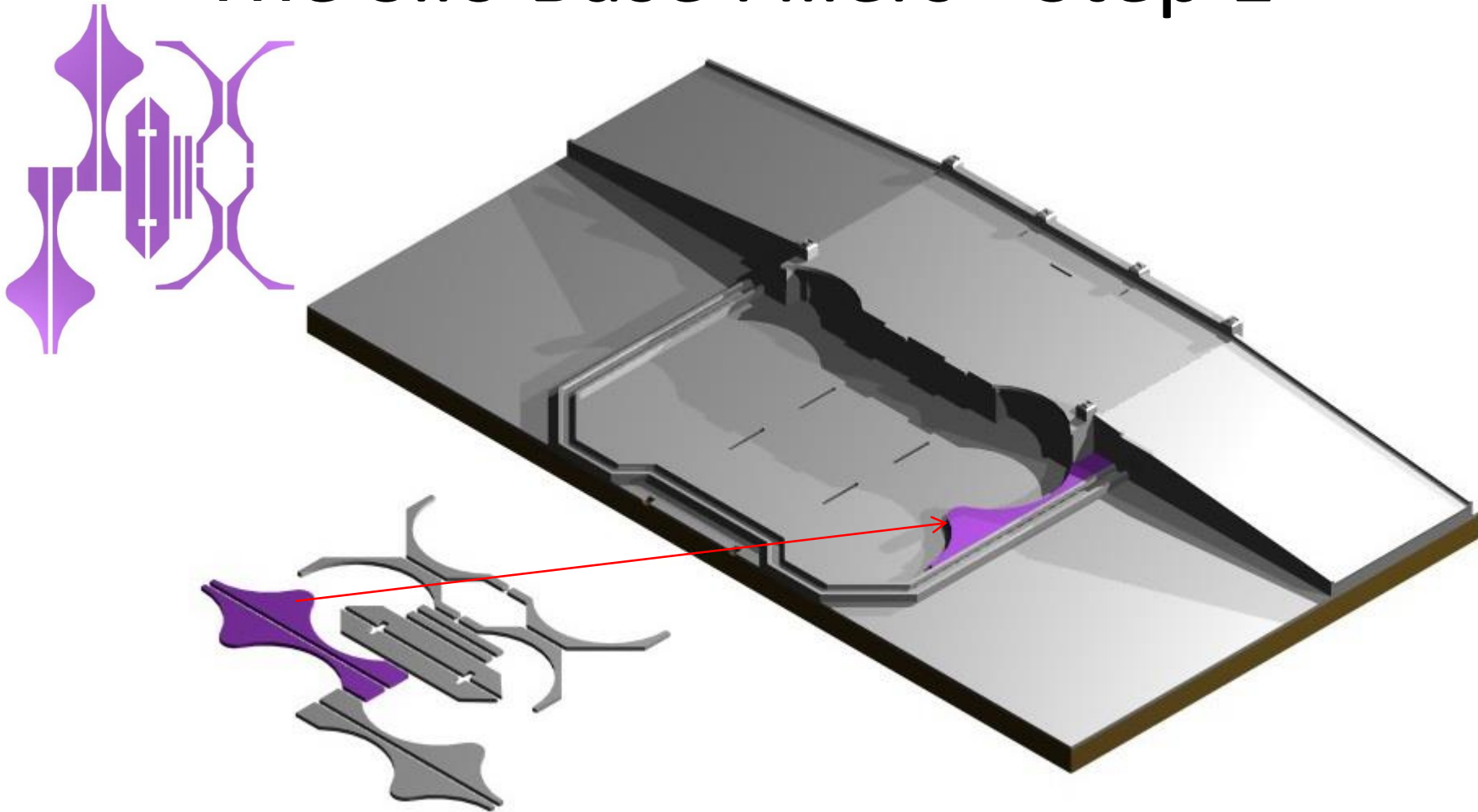
The last piece of the jig saw puzzle.

The Silo Base - Step 32



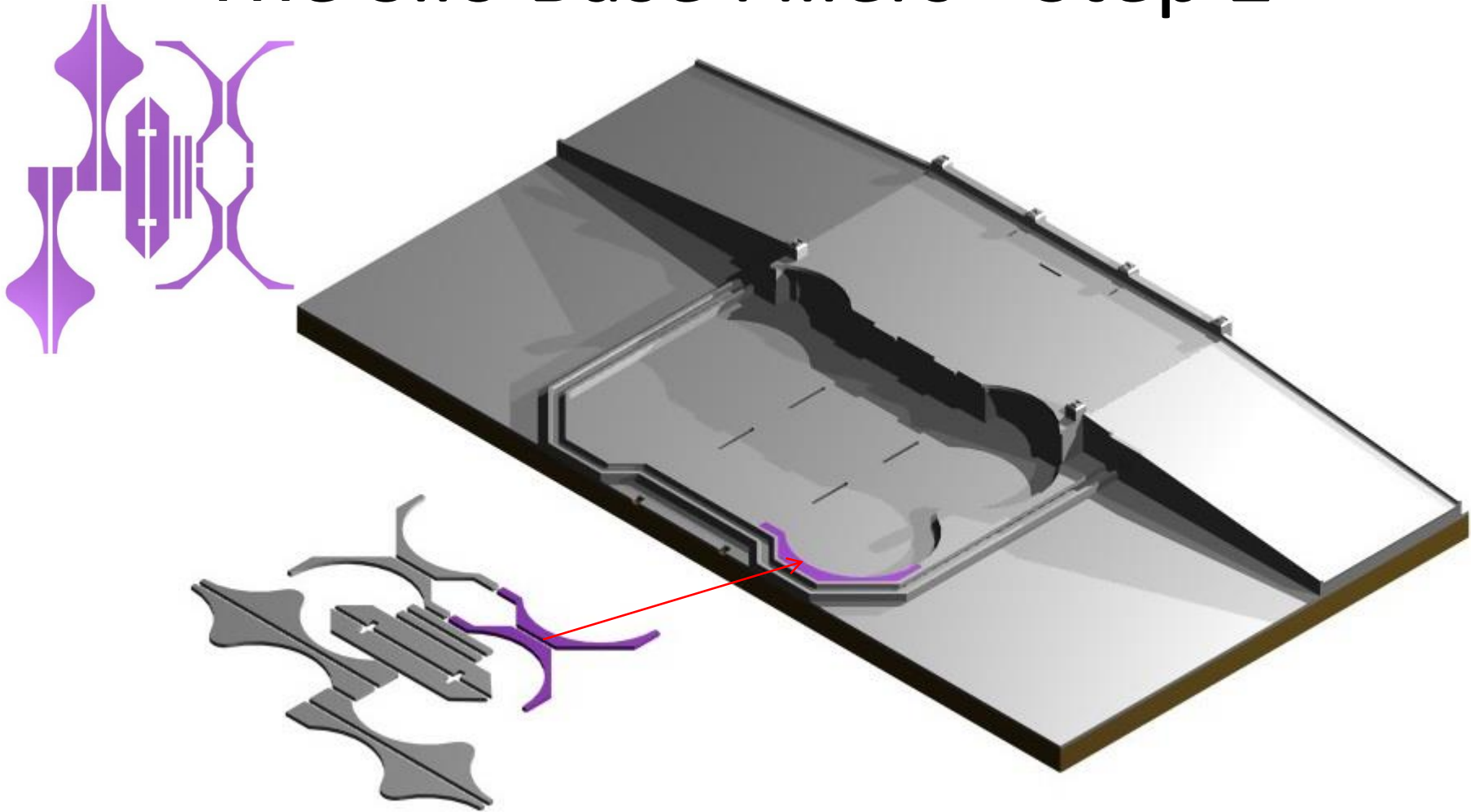
The completed drainage system, ready to be added to by using some gap filling acrylic pieces.

The Silo Base Fillers - Step 1



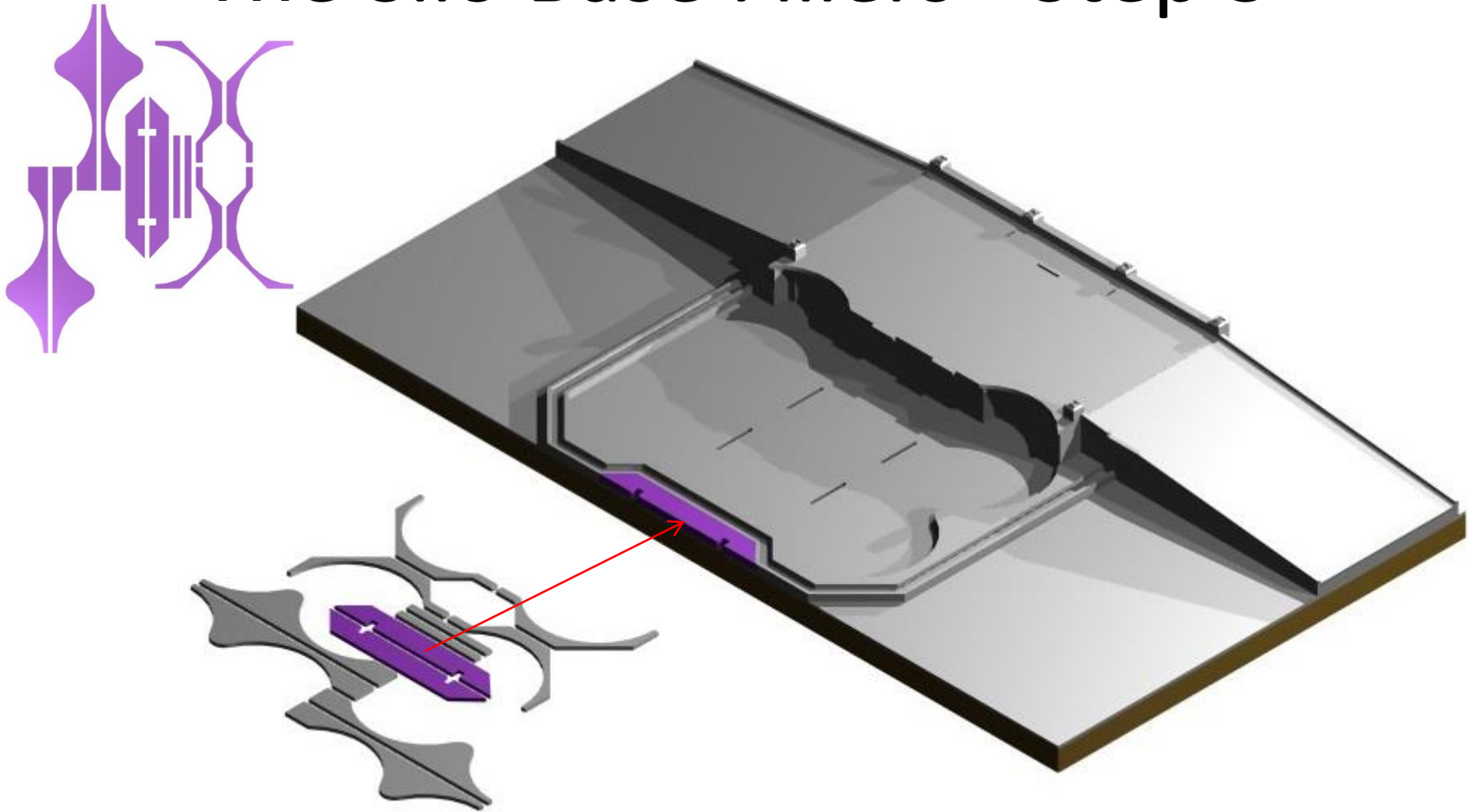
These parts are done in a similar manner to the previous drainage system, just locate the purple parts in the position shown and test fit dry before gluing into place. NOTE: test fit the silo sub base before gluing the pieces into place. Use 2 of each part to build up to the level of the drains.

The Silo Base Fillers - Step 2



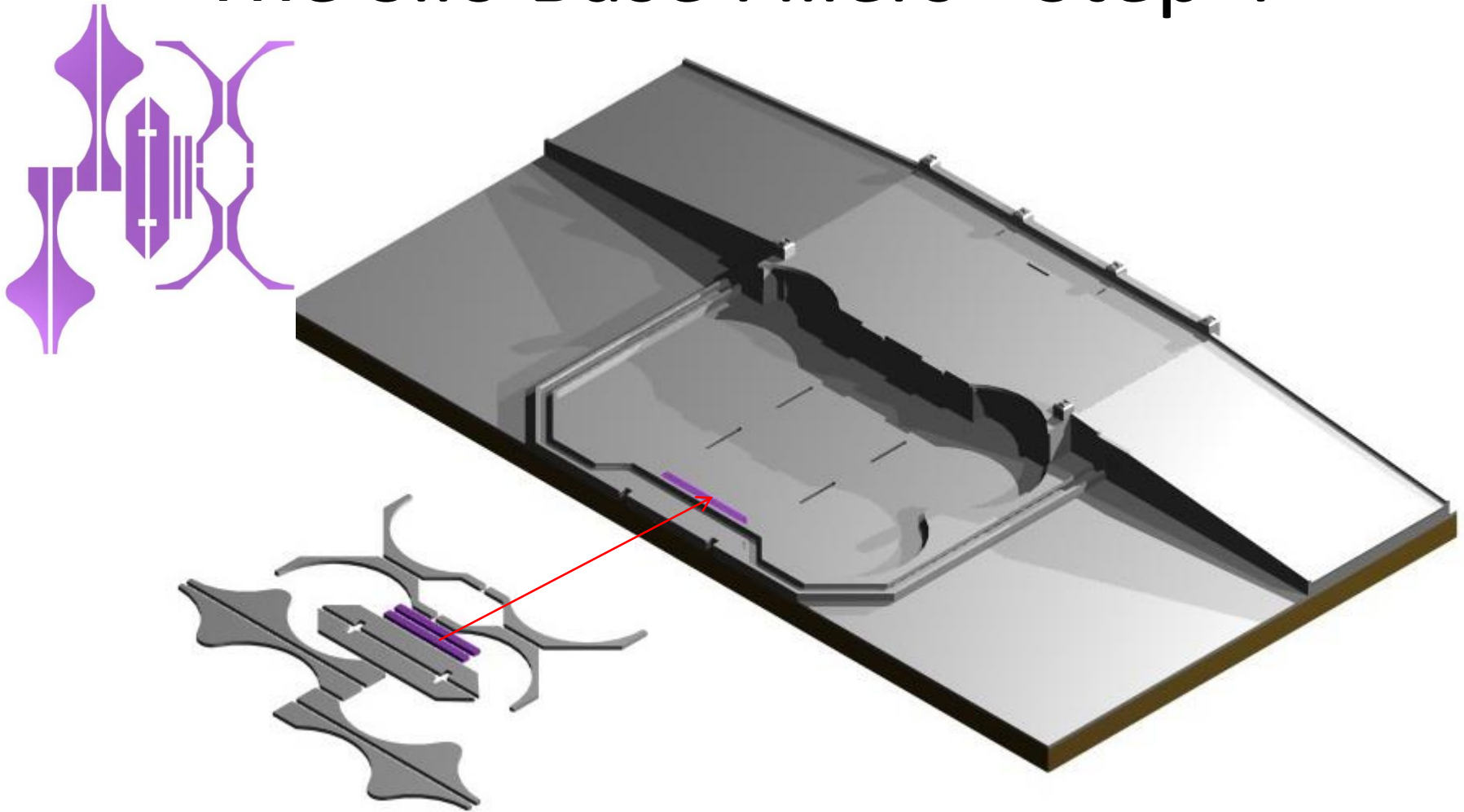
More of the same.

The Silo Base Fillers - Step 3



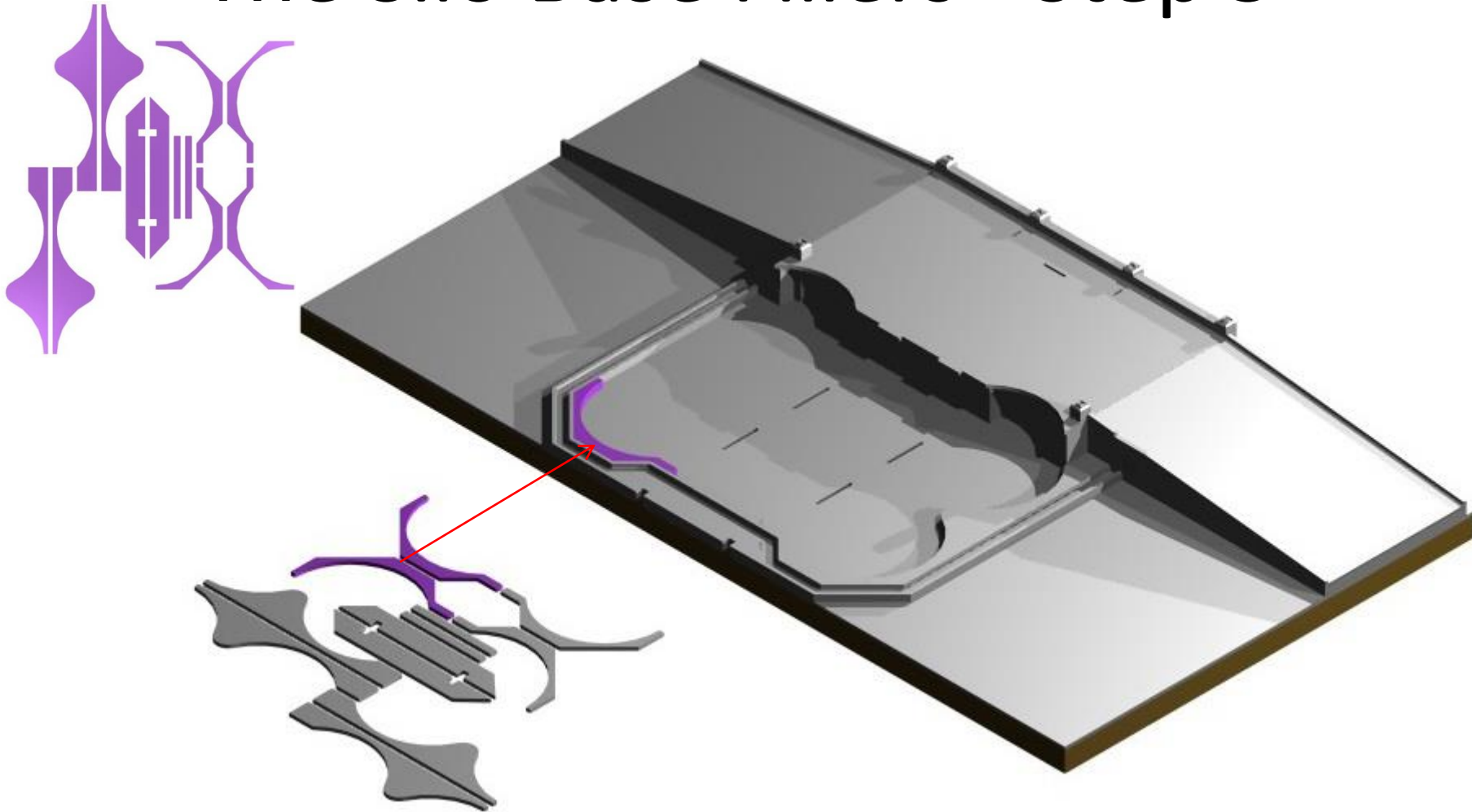
Now you are cooking with gas, I think you are getting the hang of this kit!!!!

The Silo Base Fillers - Step 4



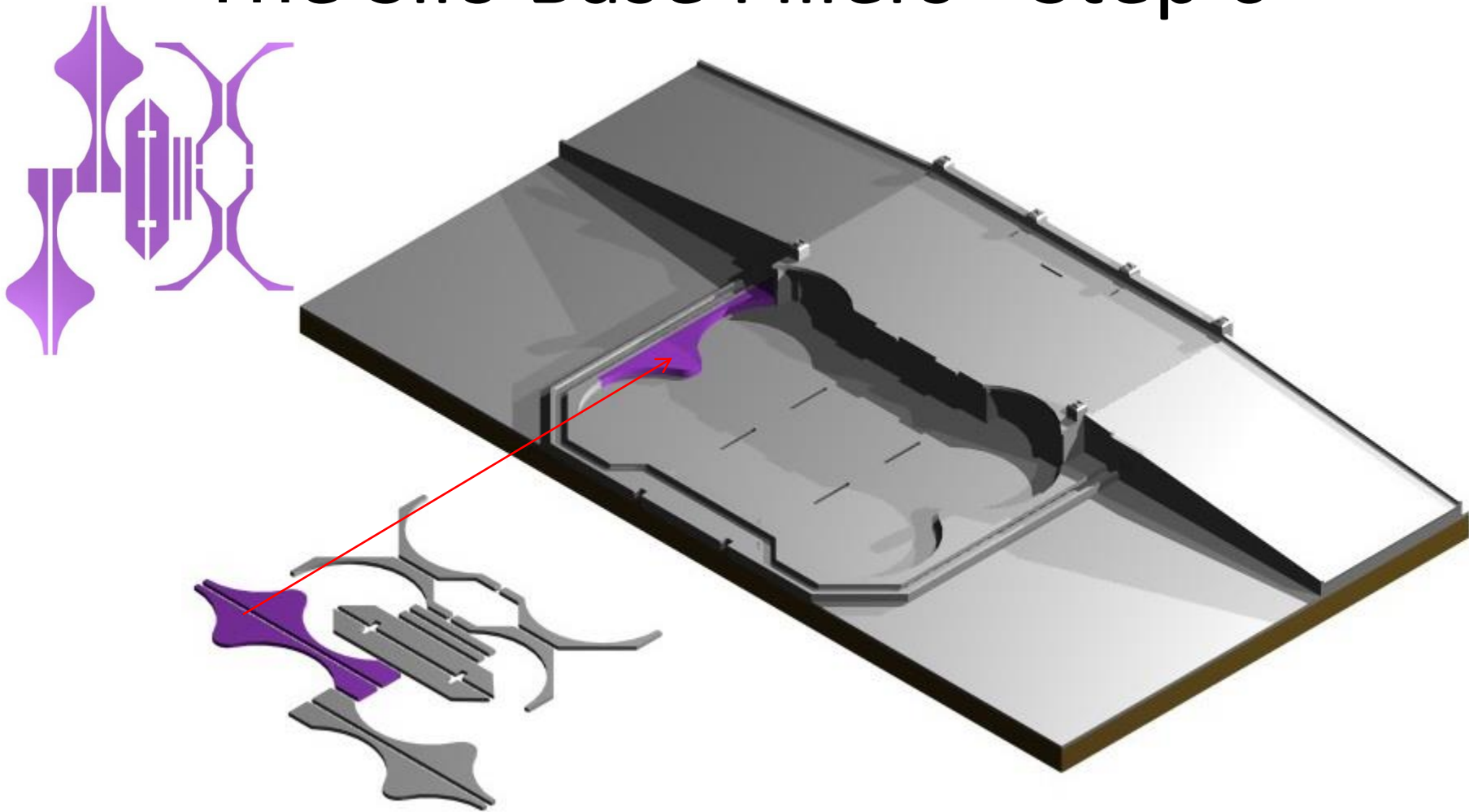
The smaller the pieces the more important it is to get it right.

The Silo Base Fillers - Step 5



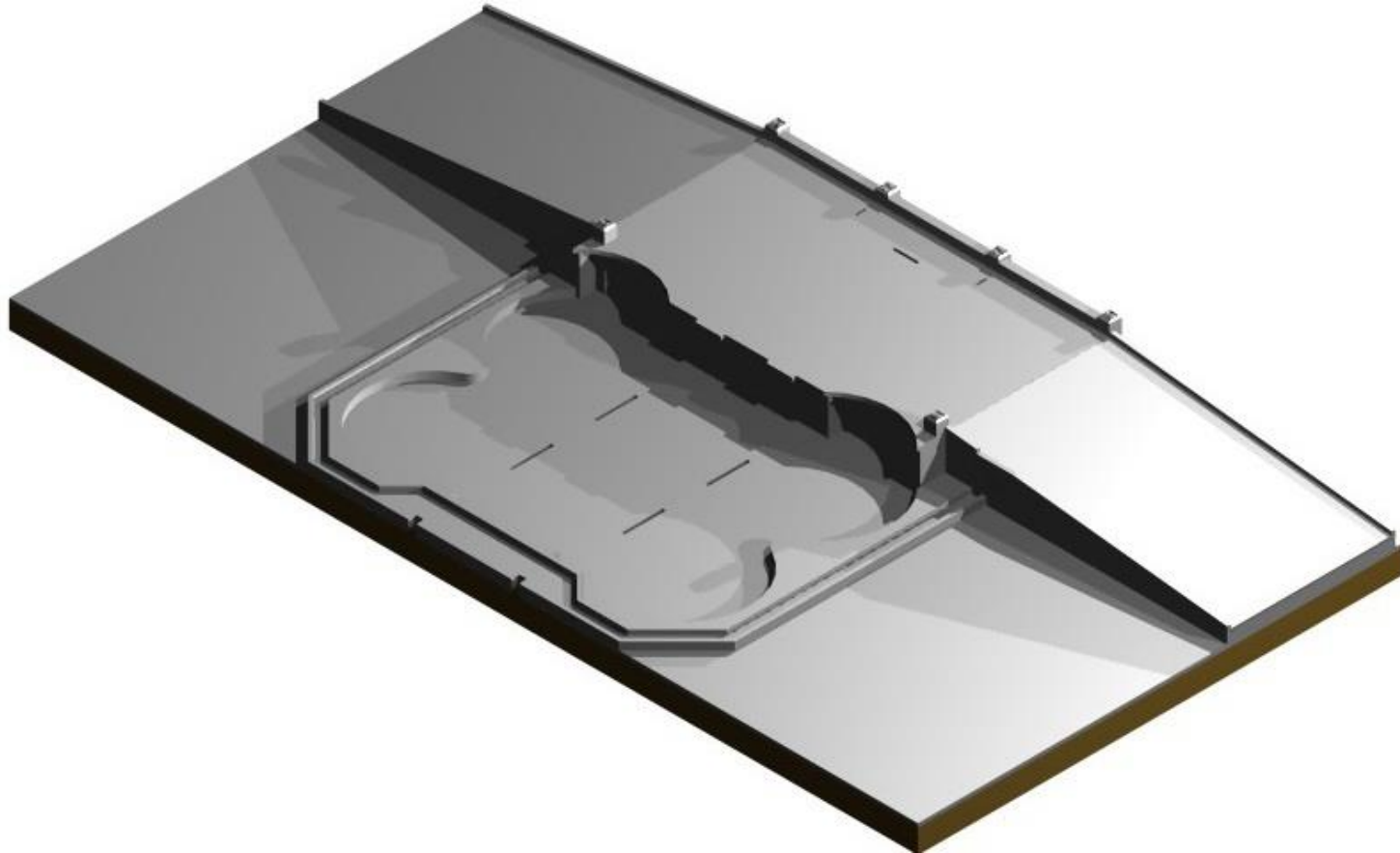
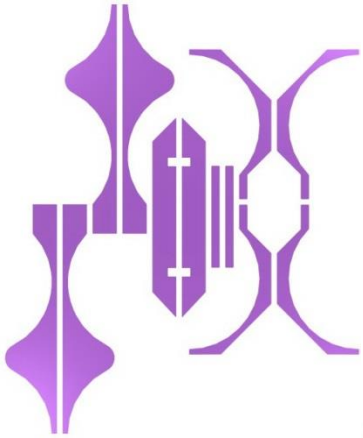
Don't forget to dry fit the sub base to see what filing and sanding is required.

The Silo Base Fillers - Step 6



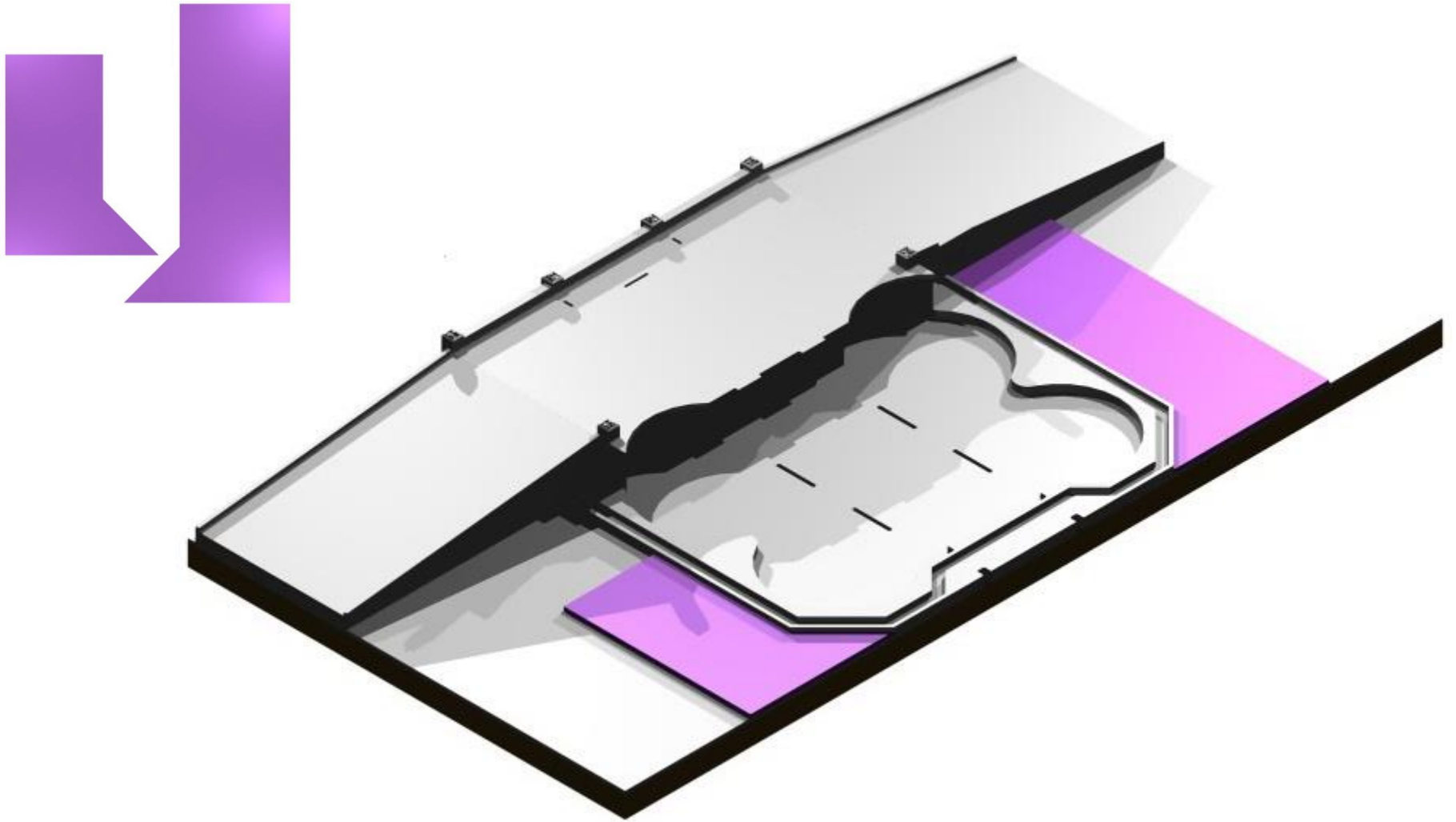
That should just about do it.

The Silo Base Fillers - Step 7



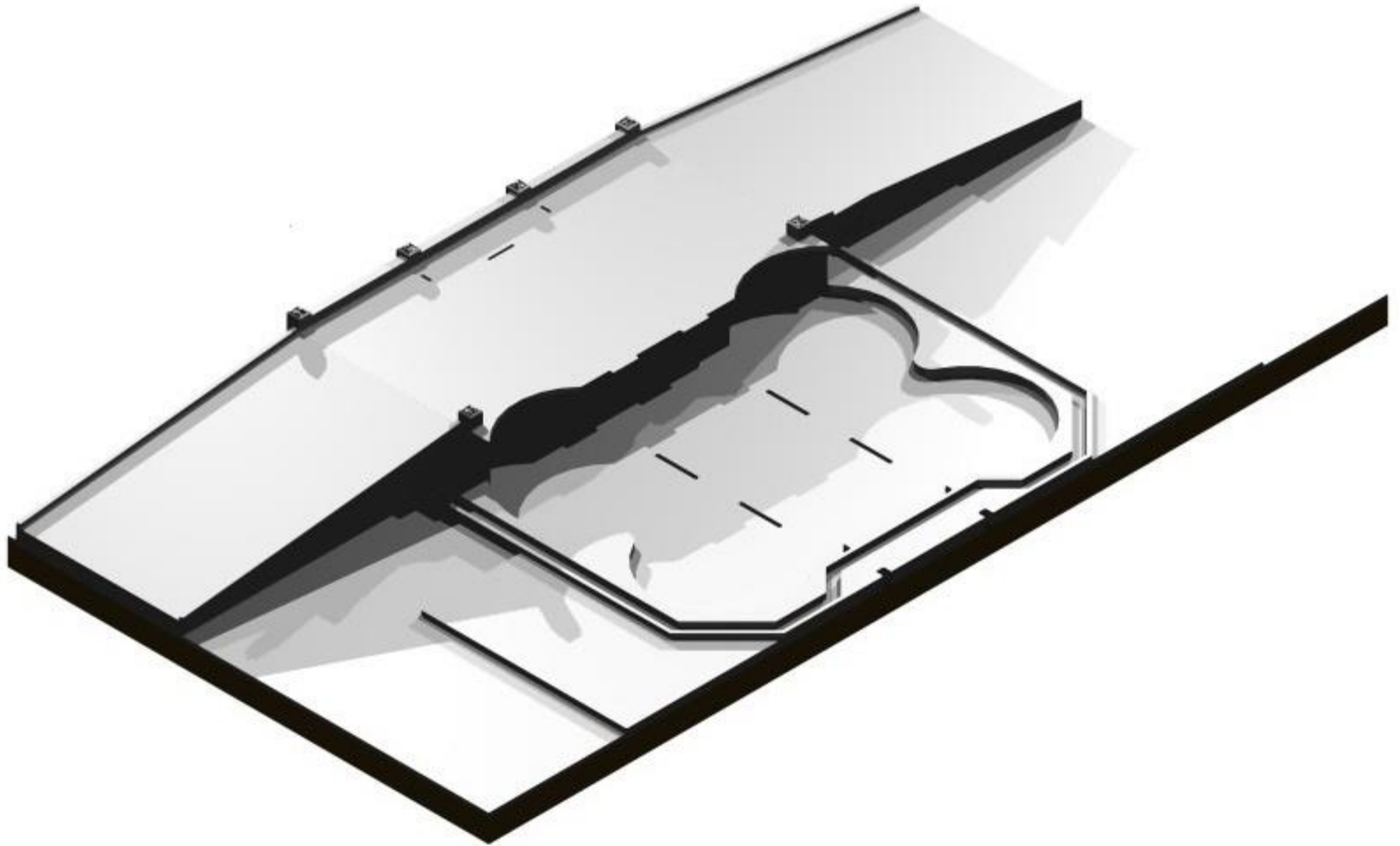
With the drainage and fillers in place (after dry test fitting with silo sub base)

The Silo Base Fillers - Step 8



These 2 pieces are external fillers and are only 1.5 mm thick (single piece of each).

The Silo Base Fillers - Step 9

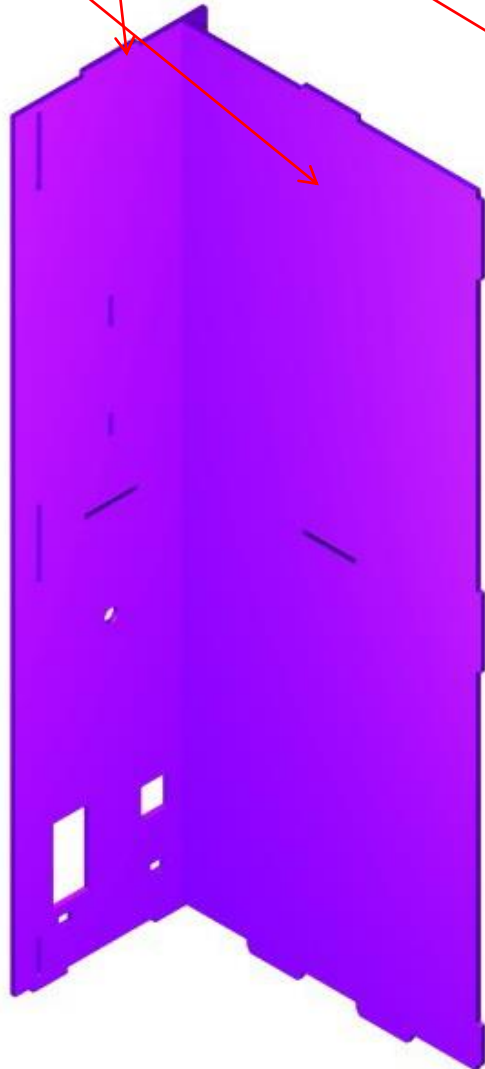
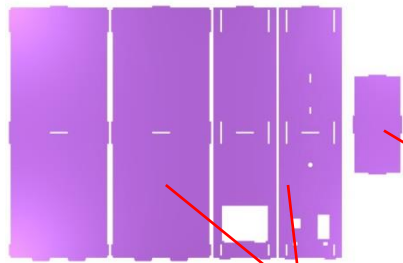


The silo base ready to fit the other major components.

So Far, So Good!!!!!!

- Now if you have got this far without any problems, the hard bit is done - only kidding there are plenty of hard bits to go (joking).
- The Sub Frame will now be constructed, and can be used to test fit the filler pieces as per the previous instructions.
- There has been a change from the original S008 silo kit, which makes the silo sub frame and roof much easier to construct.
- The top plate now has slots cut out of it at the short end to accommodate the short roof supports. This make it a simple matter of straight forward construction of the sub-frame.
- Another hint I would advise is to drill the top and base of the silo bins through the acrylic, using a 1.2 mm drill (sup[lied) and insert 4 x 1.2 mm sections of wire (supplied) into the bins (both top and bottom) through the acrylic to assist in giving the bins a more permanent location. You can then flood the joints with glue and allow to dry.
- Onward for more fun and adventure, and if you are not having fun, stop and get back to the kit a little later, as you are more than likely going to make a mistake with the kit.

Silo Sub Frame - Step 1

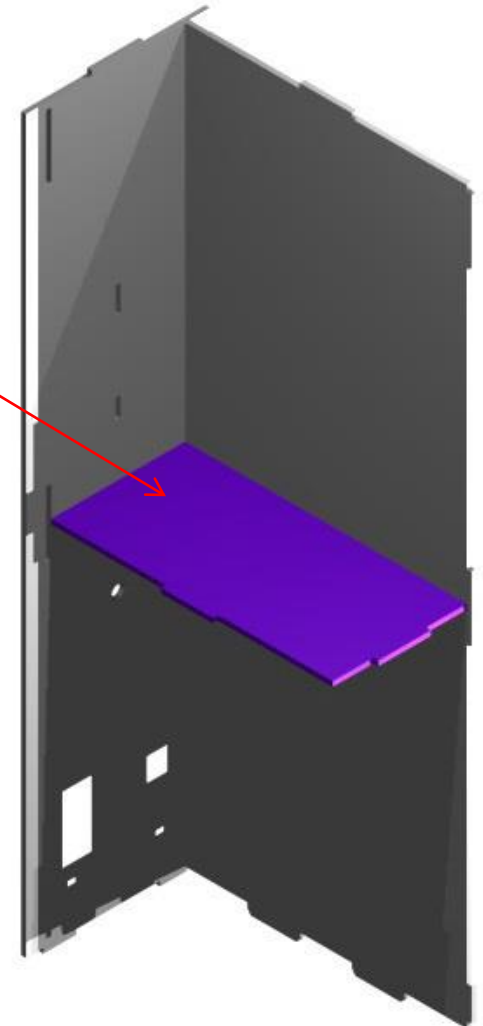


Please test fit all of the panels before gluing together. When you are happy with the fit, you can then proceed.

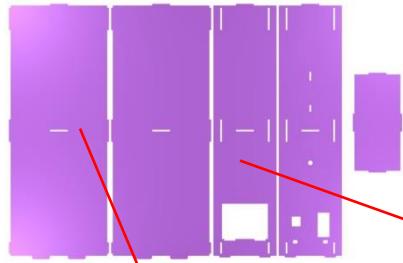
The front panel and one side panel are fitted and glued. The centre brace is then glued in place.

Note that the side panels can only be fitted one way as the bottom tabs are smaller. However the front panel can be reversed, so be careful.

Ensure that all parts sit absolutely flush, and run glue between parts allowing capillary action to work the glue into the joints, when the sub frame is complete. Supa glue can be used to make the final joints if preferred.



Silo Sub Frame - Step 2



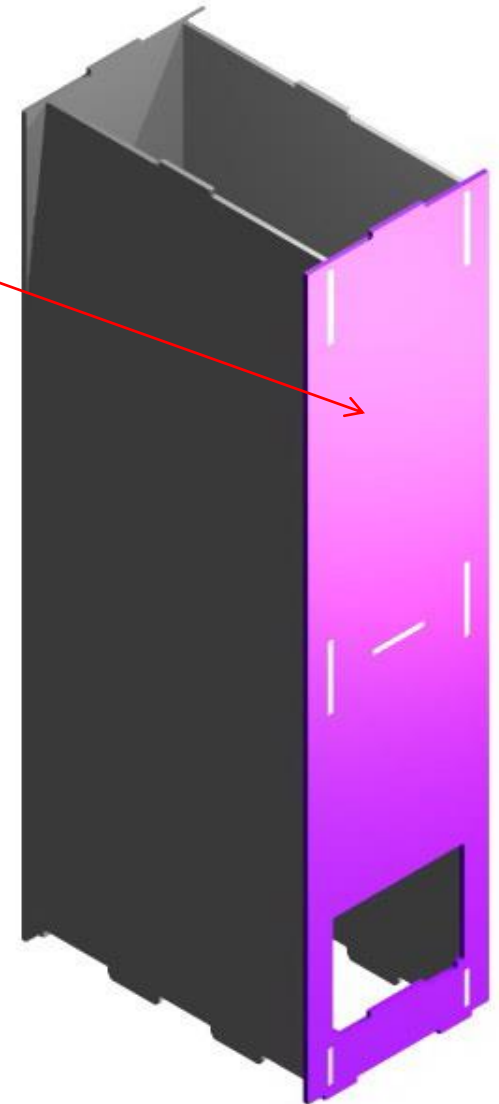
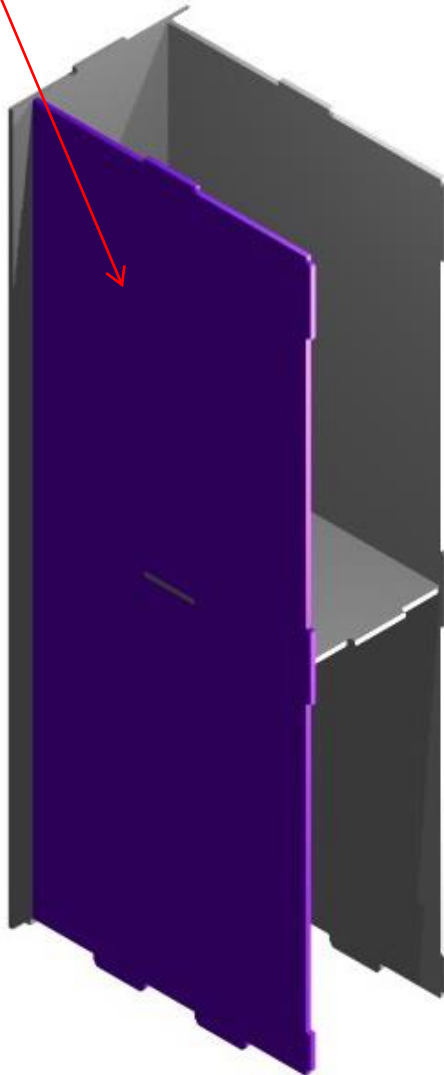
The other side panel is located and then the back panel.

When you have all of the parts in place, use elastic bands to hold the sub frame together, and run glue between the joints.

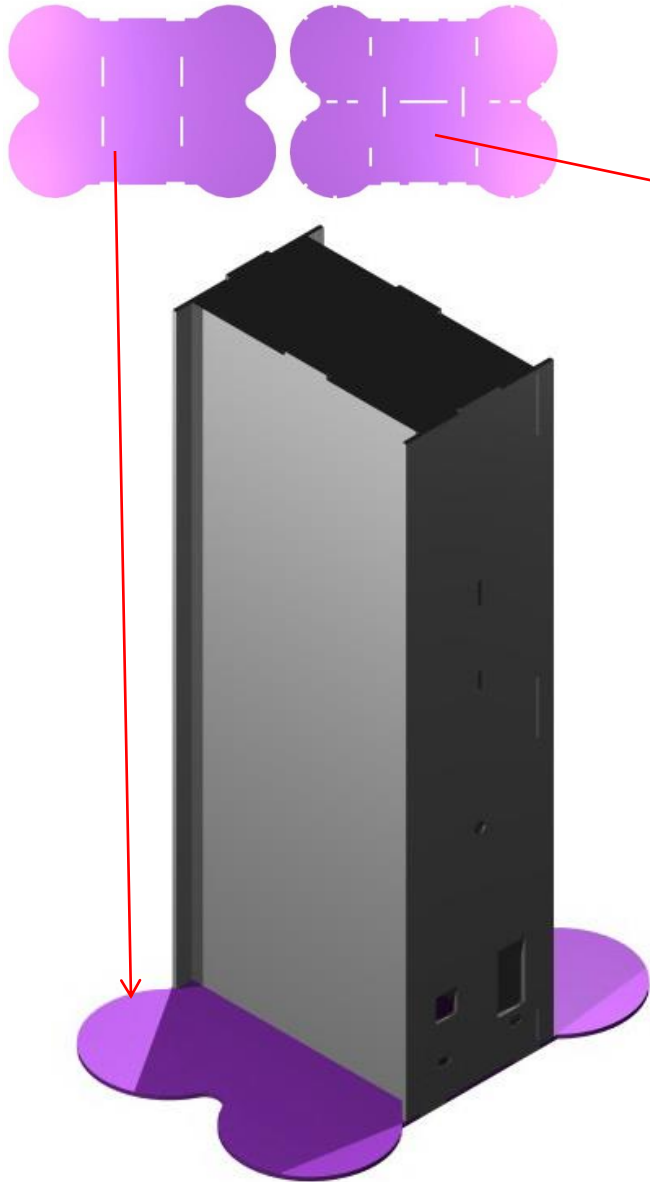
Do not allow glue to touch the elastic bands.

Set aside to dry before proceeding.

NOTE that this completed frame has to be joined to the top and bottom plate of the substructure in the correct orientation, more about this next.



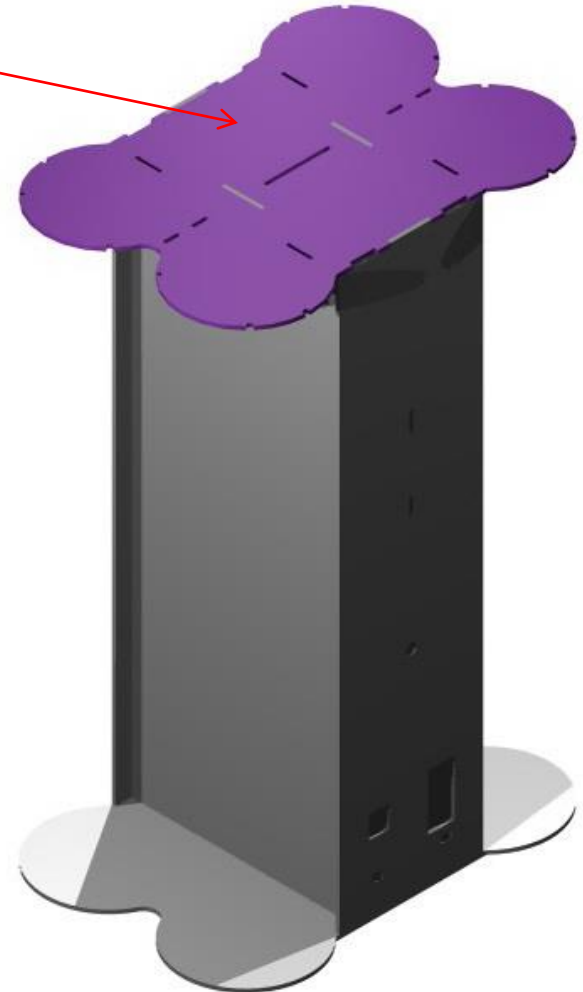
Silo Sub Frame - Step 3



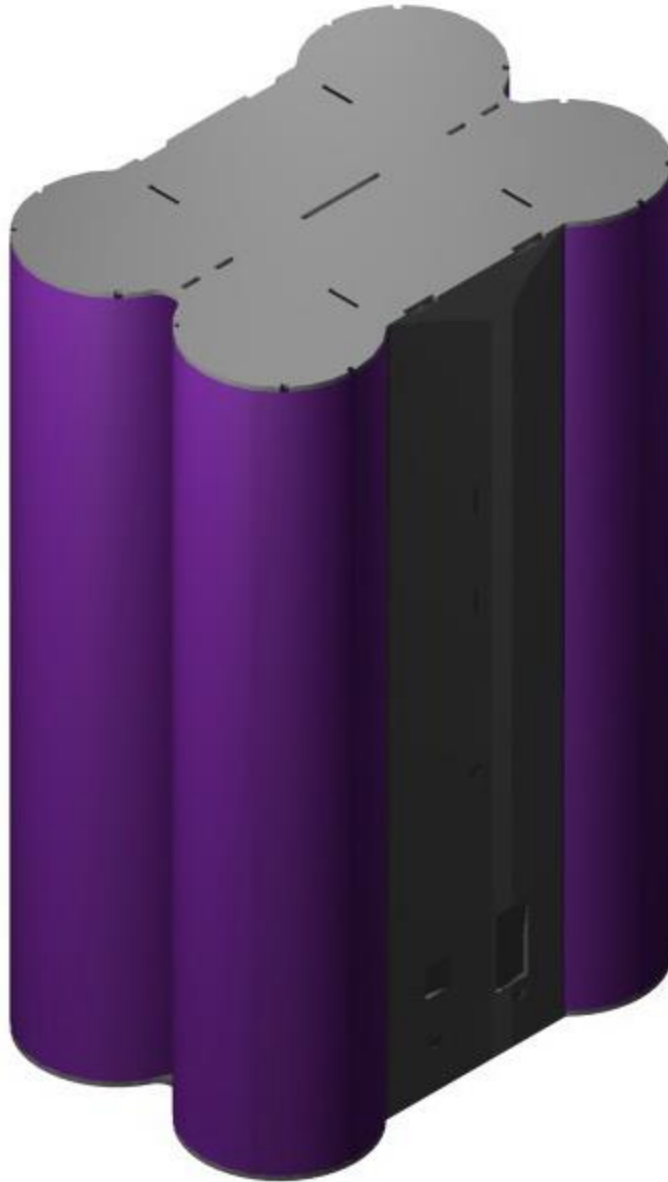
Test fit the top and bottom plates before fitting and clean up any slots and tabs that are tight.

The bottom tabs will protrude through the base of the silo to allow location of the sub-frame into the previously made base.

The top piece has more slots in it, and also has very small slots for the 3D roof supports to fit into.



Silo Sub Frame - Step 4



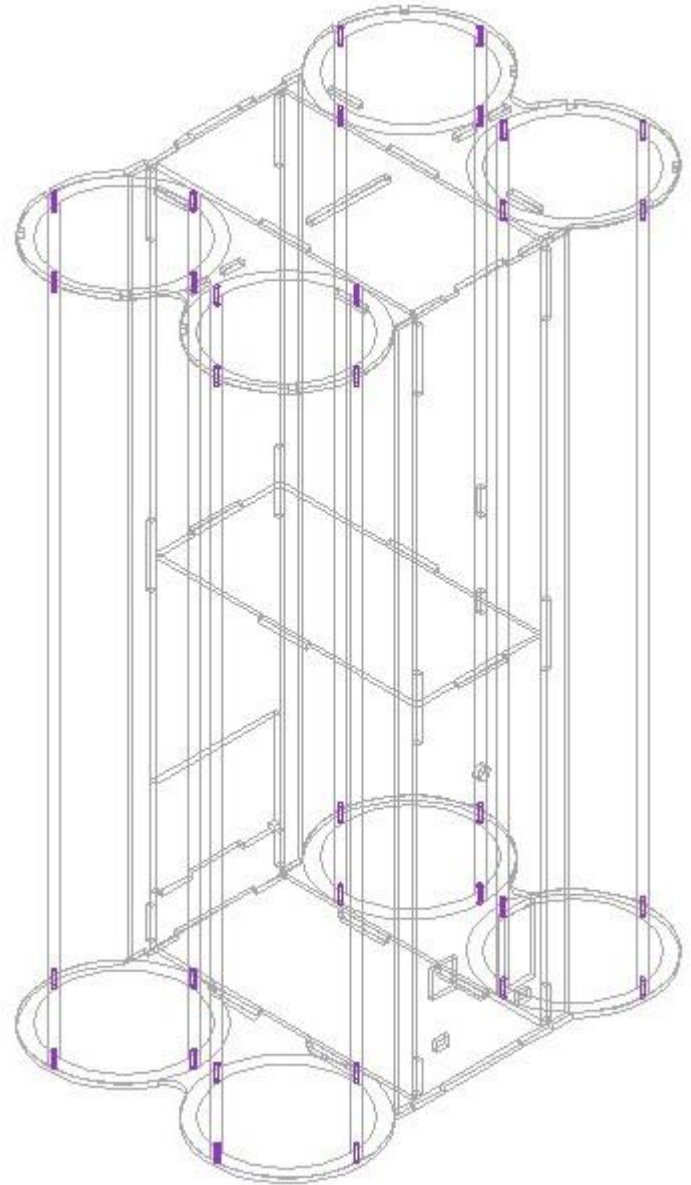
Test fit the top and bottom plates before fitting and clean up any slots and tabs that are tight.

The bottom tabs will protrude through the base of the silo to allow location of the sub-frame into the previously made base.

You can now fit the bins (conduit). They should fit flush with the edge of the top and base acrylic pieces.

Silo Sub Frame - Step 5

The bins need to be a nice neat fit, if they are a wee bit tight, they can be sanded down carefully and evenly to suit the sub-frame, and likewise if they are a slightly loose they can be filled to suit the sub-frame. To allow the bins to be a more permanent accurate fitting you can drill and fit wire pins into the top and bottoms of the bins through the top and base acrylics into the walls of the bins. These pins are made from the 1.2 mm wire supplied in the kit and the holes are drilled using the twists drill also supplied in the kit. Drill the holes into the middle of the conduit walls and between 5 to 8 mm deep. Before drilling ensure that the conduit lines up with the edges of the acrylic without any overhang. Just drill and fit one at a time, and dip the wire in supa glue when installing them into the drilled hole. Work on the bottom of one conduit then the top of the same conduit, then move onto the next one. When all bins are in place, you can run glue between the acrylic and the bins and flood the area to make a good solid join with the glue. When finished gluing the pins in place, file them down flush and then give the top and base of the substructure a good sanding, removing any high spots and brass wire.



Silo Sub Frame - Step 5

This is the time that you need to fill the gaps in the silo sub frame. Using a auto body putty with hardener. The gaps between the bins on the side need to be filled and sanded smooth as do the gaps between the front and rear walls and the bin edges, you can also use some filler on the tab holes on the front and rear of the sub base walls.

Sand the joints to be filled with wet and dry paper to get a slightly rough surface for the putty to adhere to.

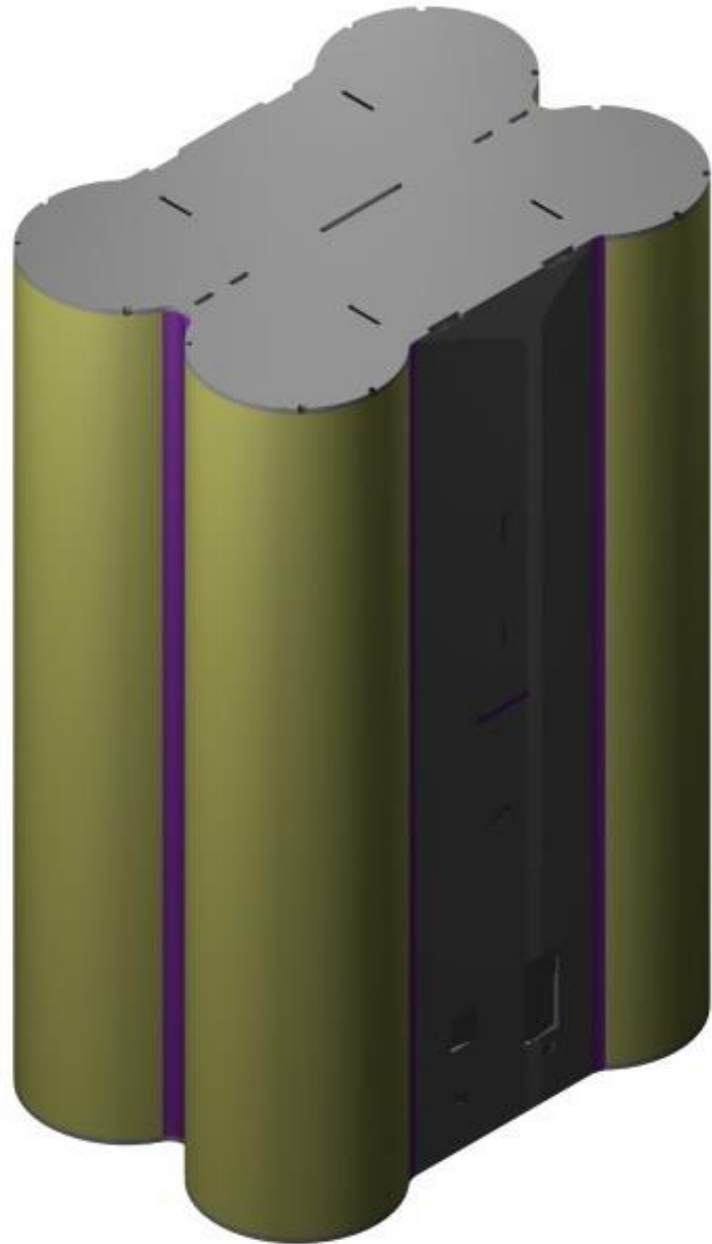
To get the correct contour of the filler, a piece of 16 mm conduit can be used to drag the filler and smooth the surface, prior to sanding. Remove any excess filler using a scraper or hobby knife, before it hardens completely. And clean up any implements used for this process before the putty dries on the tools.

One sanded and smooth, you can undercoat the sub frame and start marking and cutting the holes for the doors and vents around the base of the silo. Ensure that the doors and vents fit squarely into the bin walls.



Silo Sub Frame - Step 6

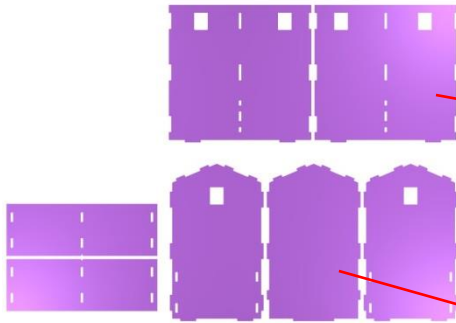
The finished sub frame waiting for the doors and vents to be cut in and located.



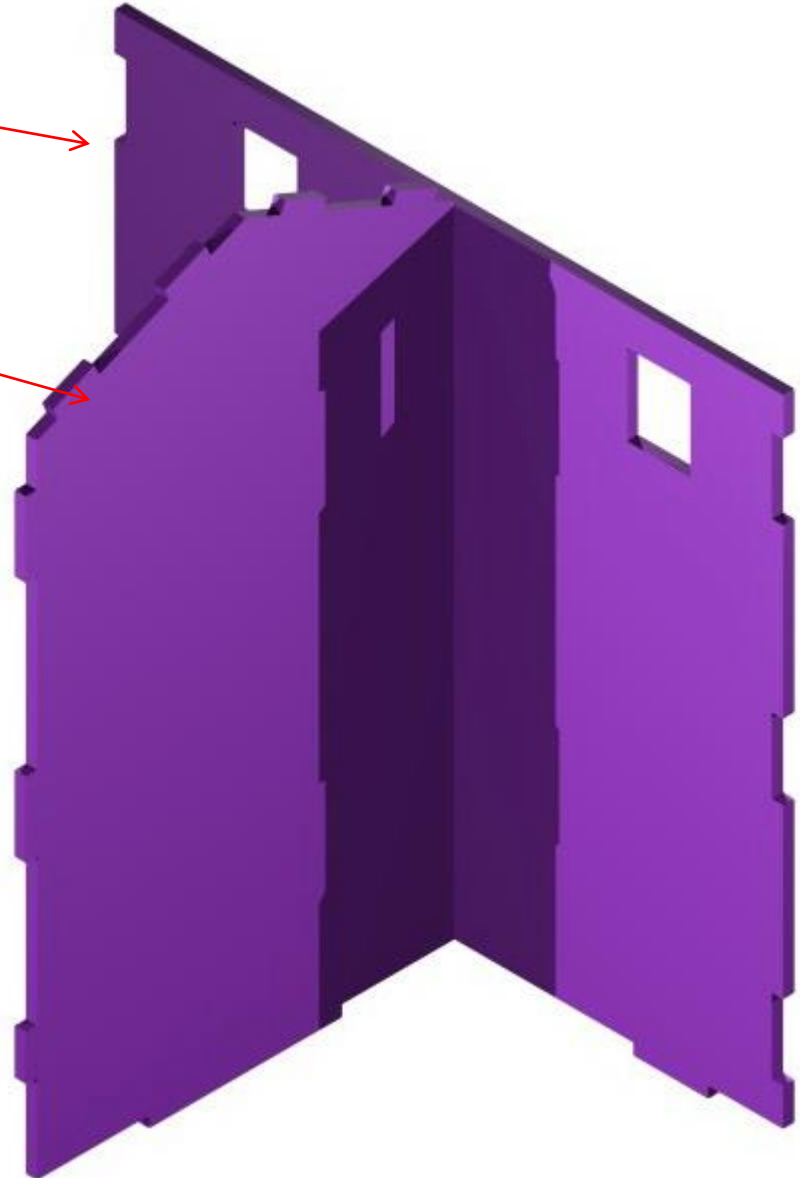
Onward, and upward

- The next step is the construction of the Cupola and Bin Roof.
- A fairly straightforward process, as we can continue the construction method by just adding parts to the parts we have already built
- Let's proceed to the Cupola and Bin Roof
- Firstly the Cupola.

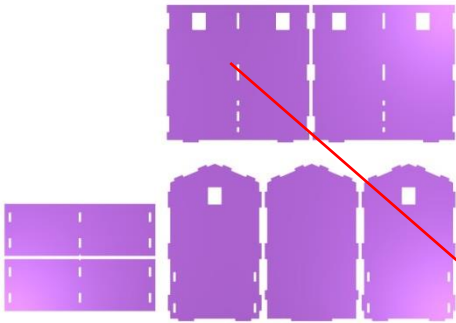
Silo Cupola - Step 1



The cupola can be put together dry and using elastic bands, held in place until the glue dries. The windows on the side panels will need to be lined up with each other as they are offset to the centre line. The window closest to the edge goes to the rail line.

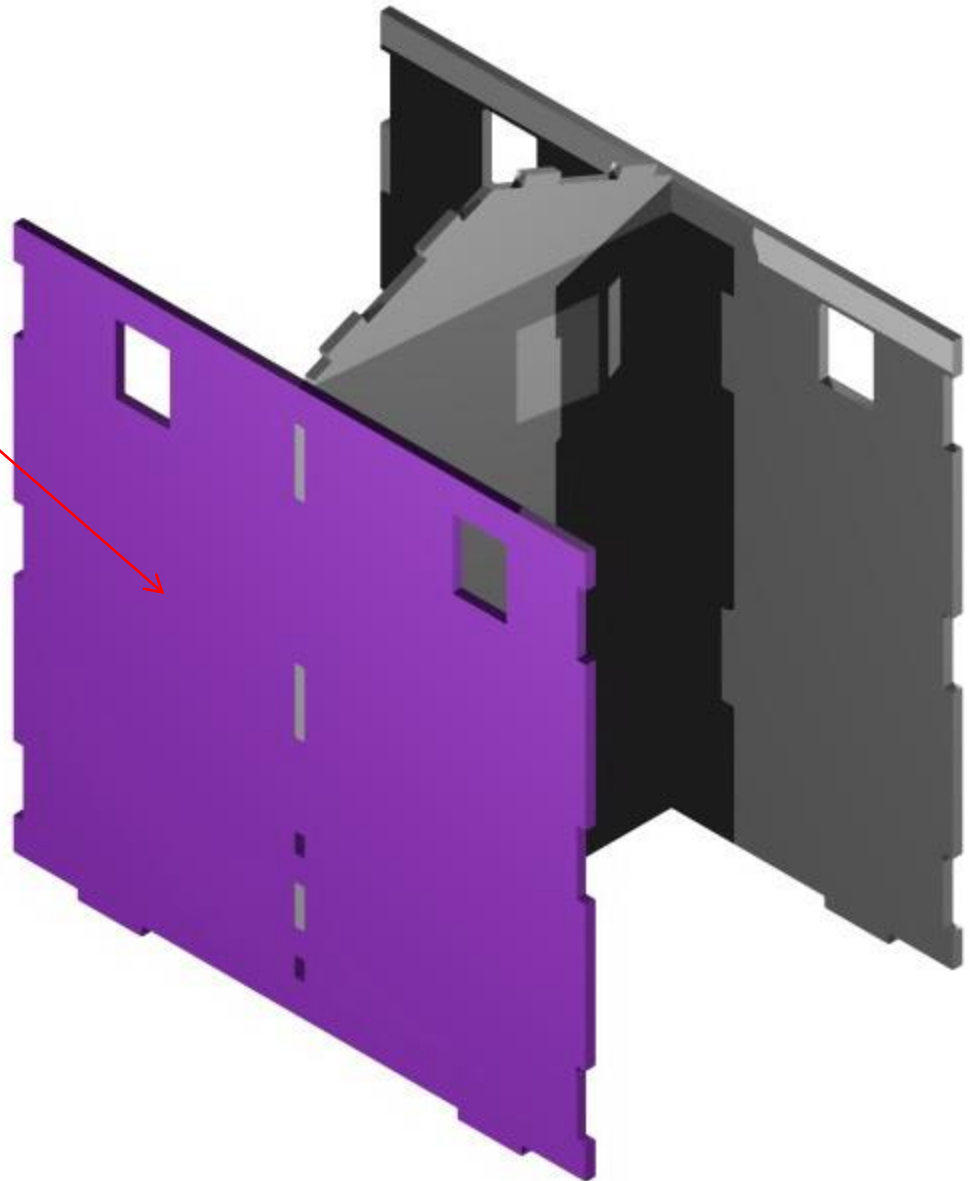


Silo Cupola - Step 2

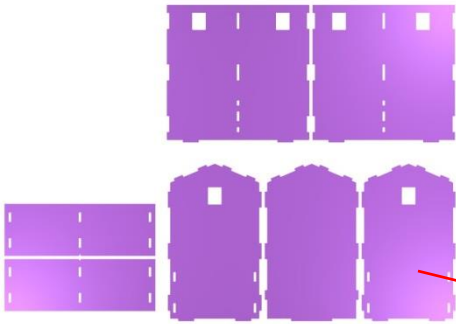


At this stage the structure is a little wobbly. But it will strengthen up in the next couple of steps.

Don't forget to match the side panels.

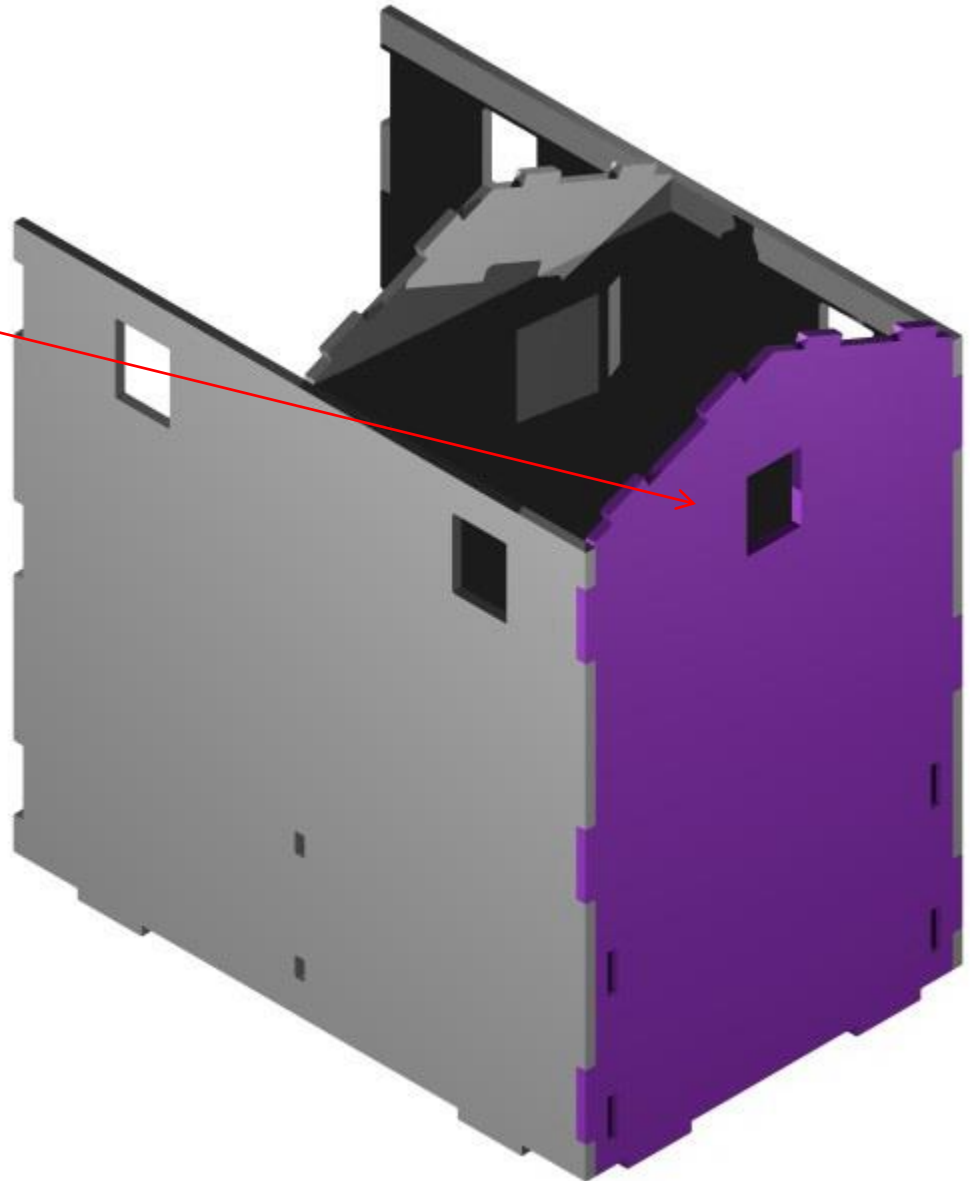


Silo Cupola - Step 3

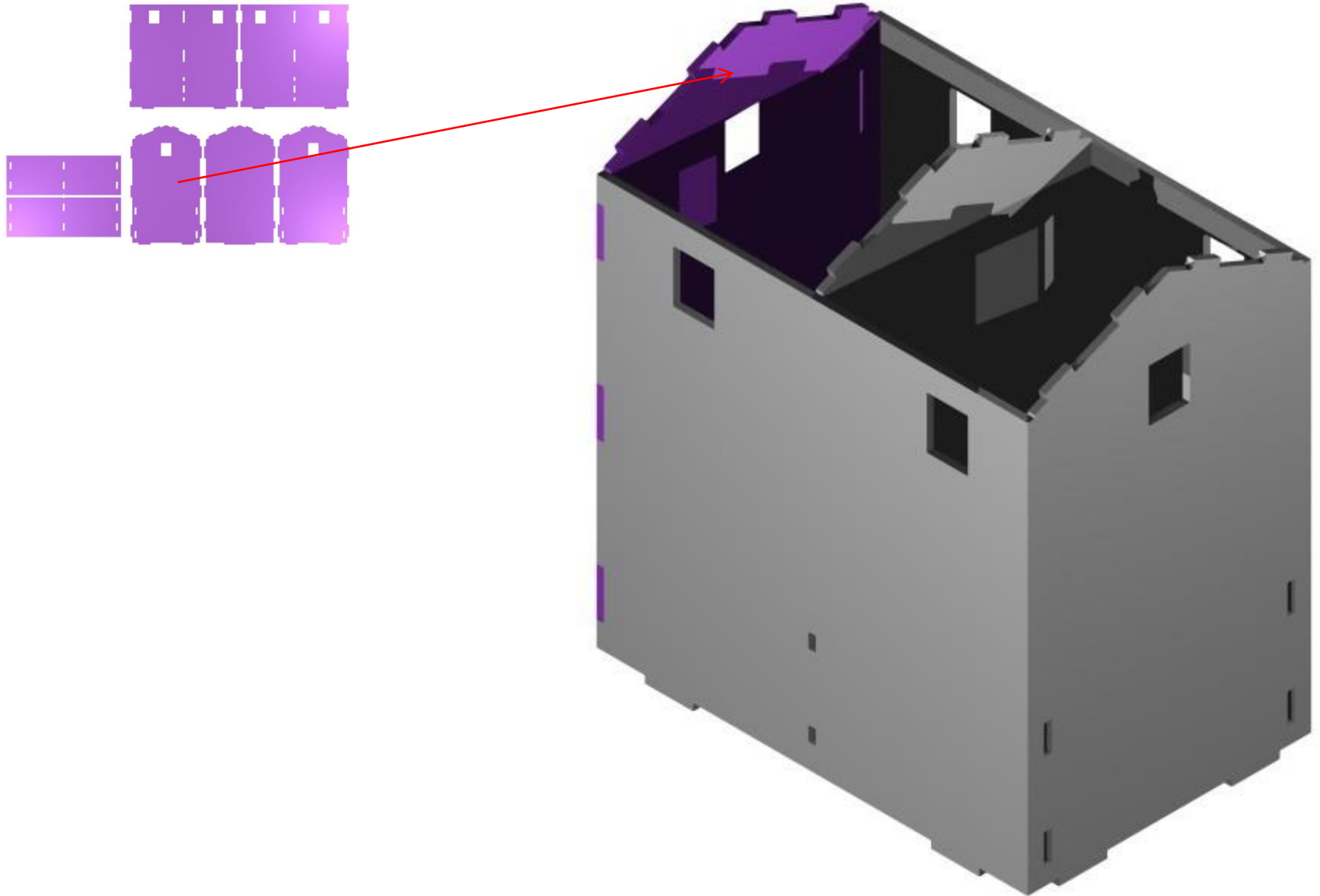


The cupola should be self squaring as the slots and tabs are a neat fit. It is important to have the ends of the cupola in the correct orientation, with the 2 larger slots to the right hand end (Small Roof End)

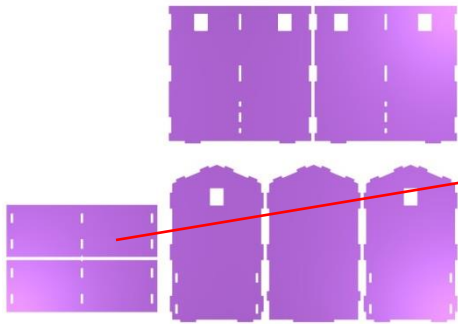
Use Rubber bands (supplied) to secure the structure until dry.



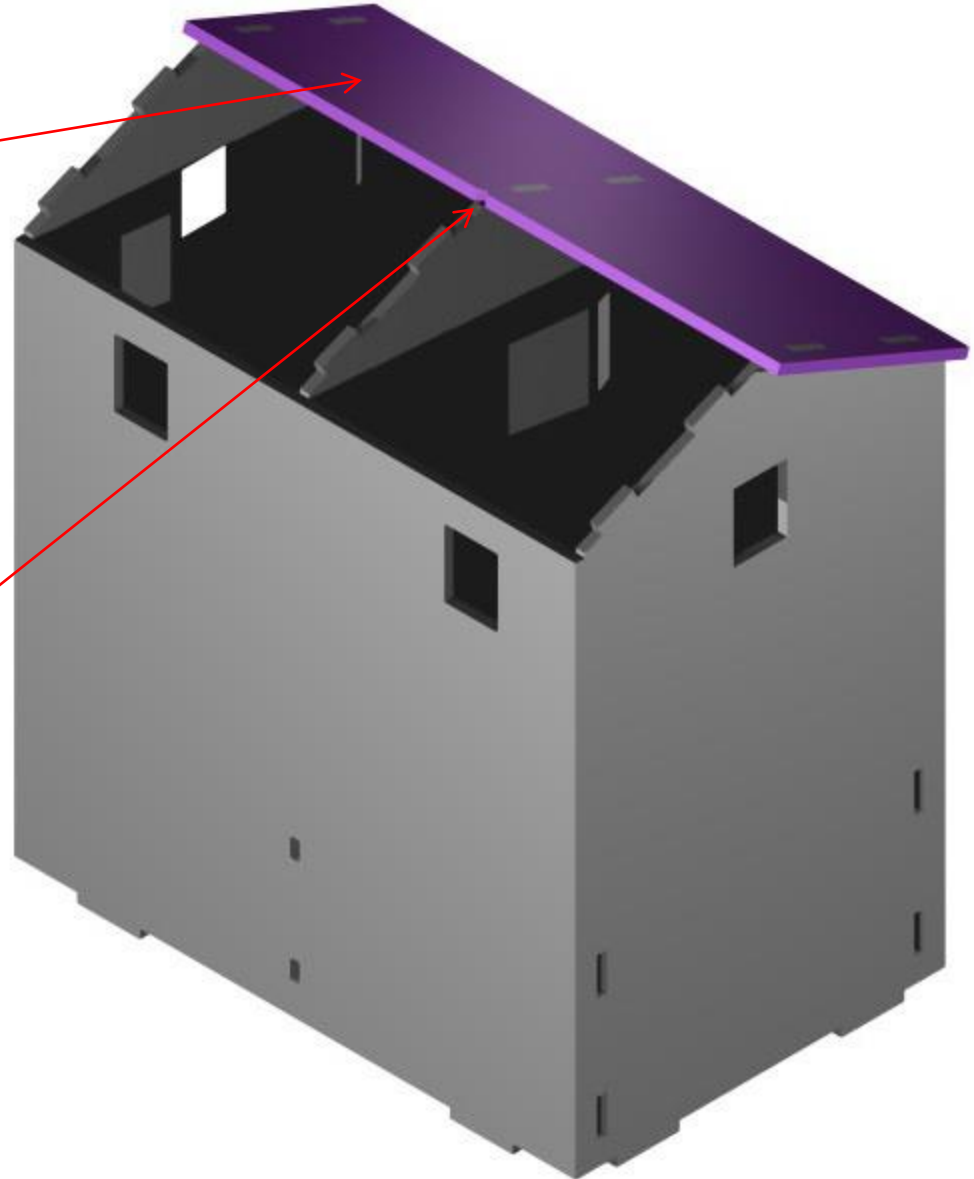
Silo Cupola - Step 4



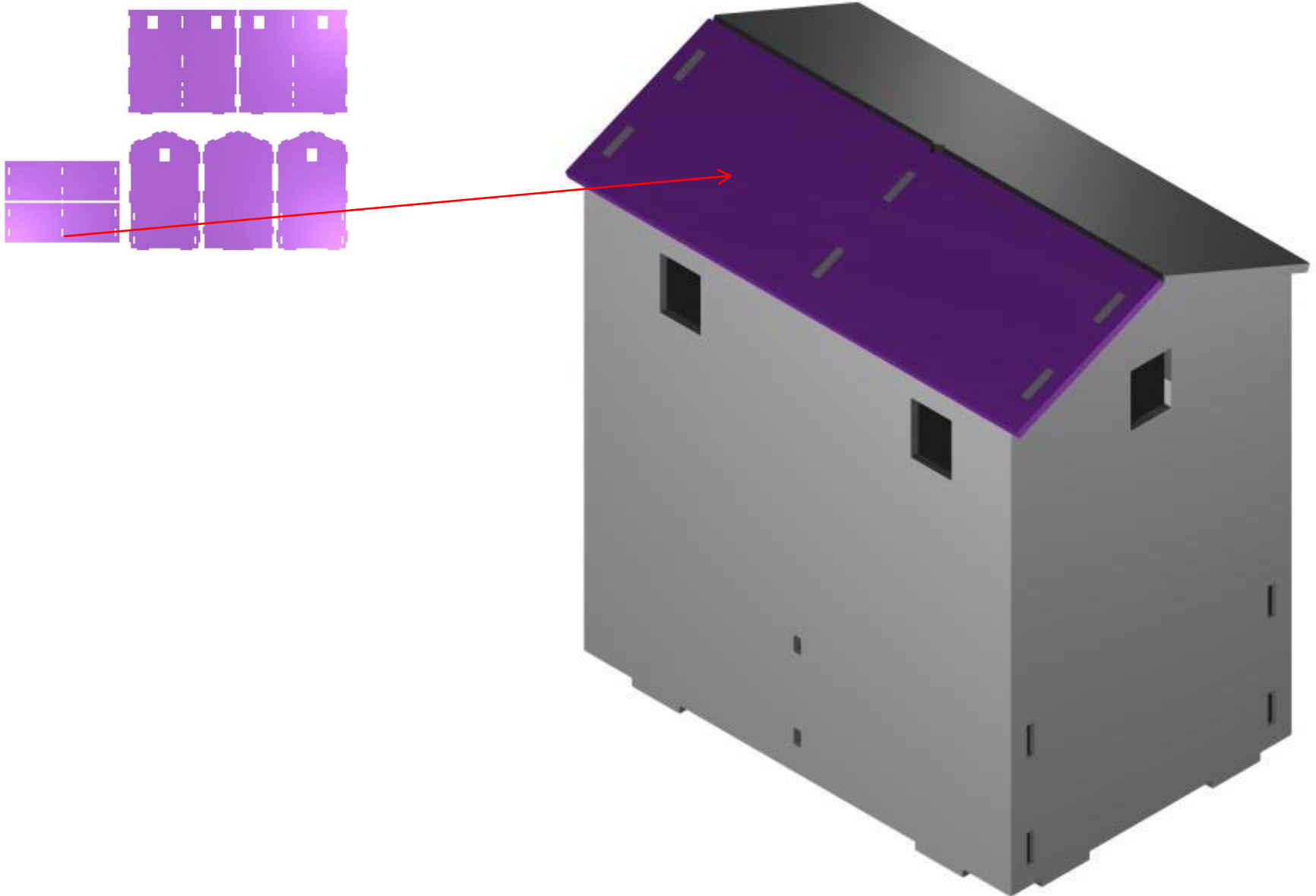
Silo Cupola - Step 5



The roof sections will square up the cupola, and make it a much more rigid structure. To ensure a neat fit the roof sections have small notches in the centre top of the roof



Silo Cupola - Step 6



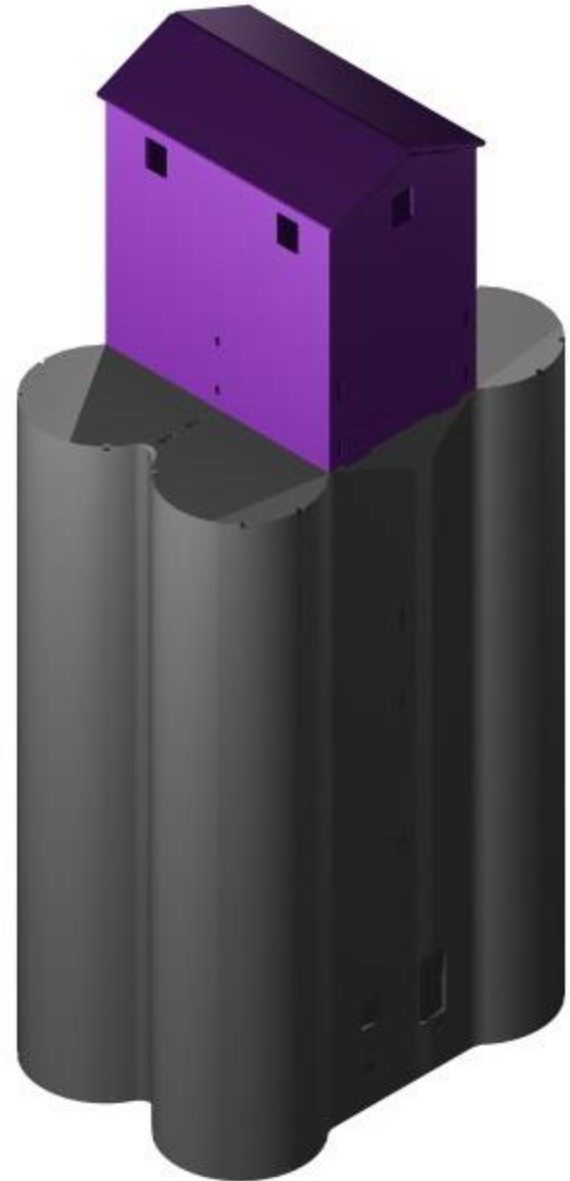
Silo Cupola - Step 7

The completed cupola, ready to be placed onto the top of the Sub-frame. Don't forget that the window closest to the edge goes to the rail side of the silo.



Silo Cupola – Install Step 1

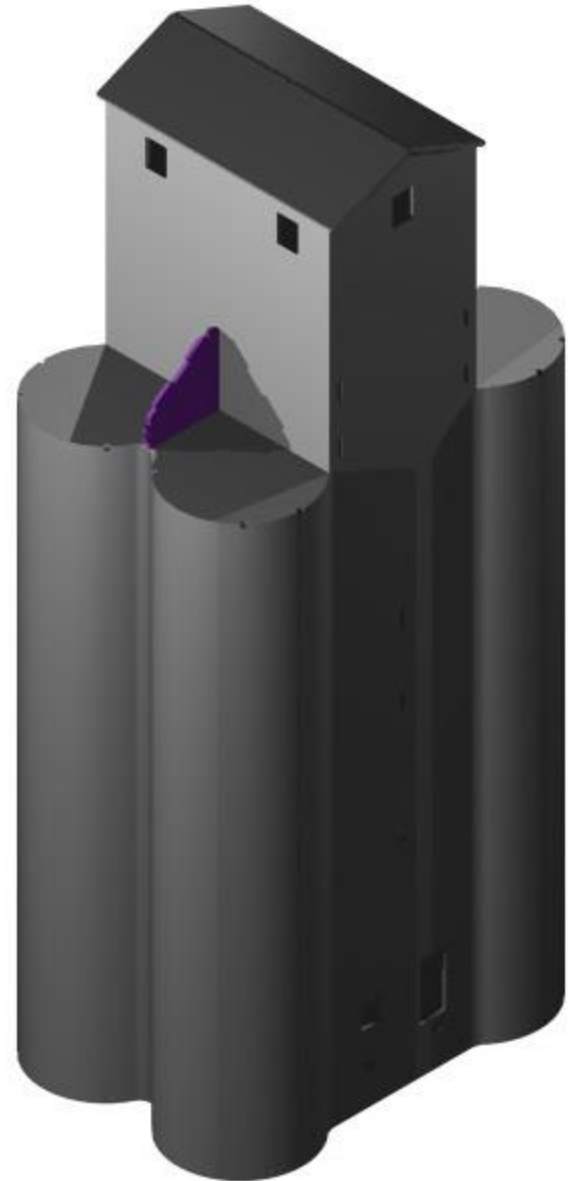
The cupola can be located either way so please take notice that the windows are on the correct side.



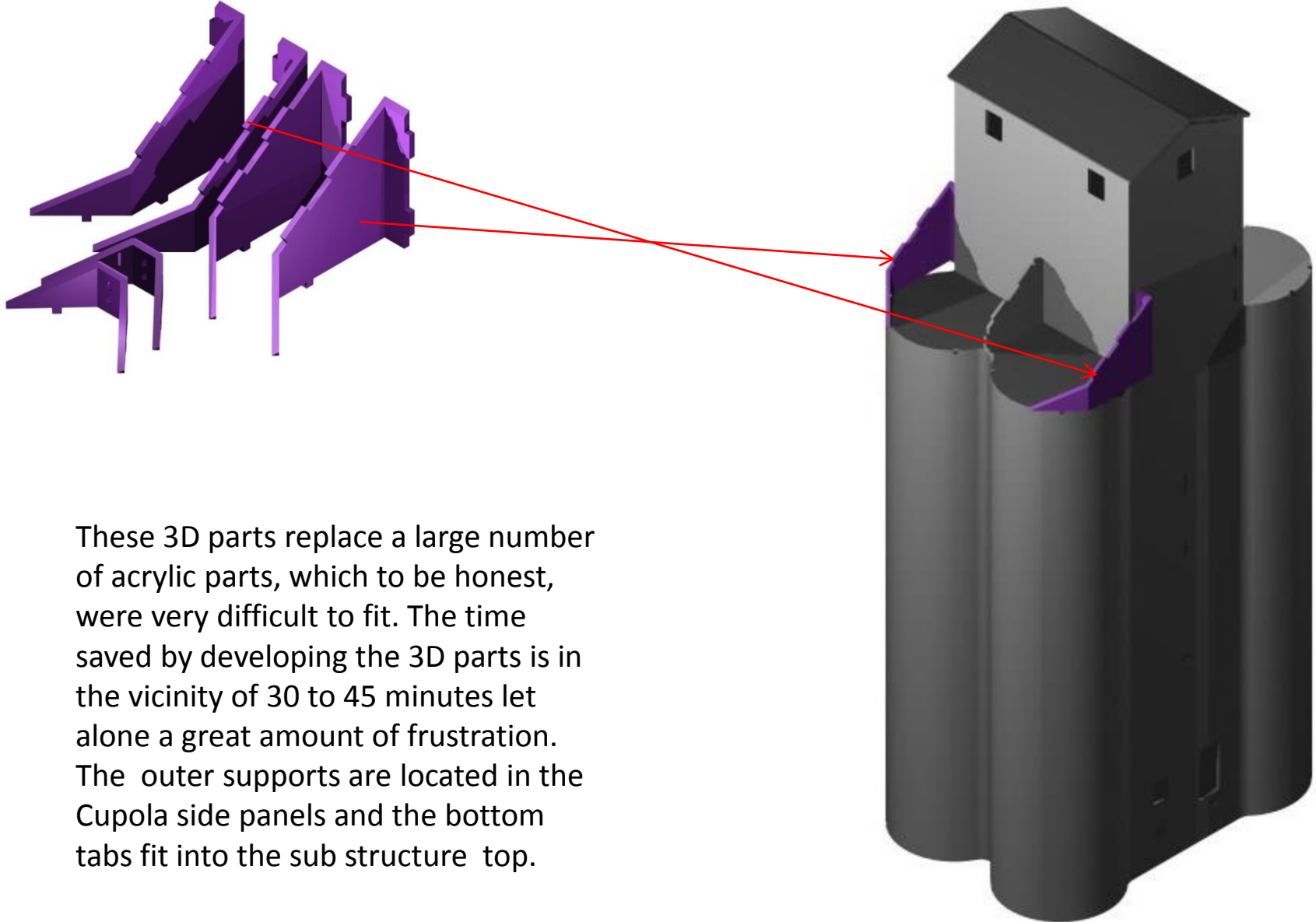
Silo Cupola – Install Step 2



This centre support fits in the middle of the roof to support the centre of the roof. The small extrusions on the front of the piece accommodate one of the 3D parts included in this kit, the centre support.

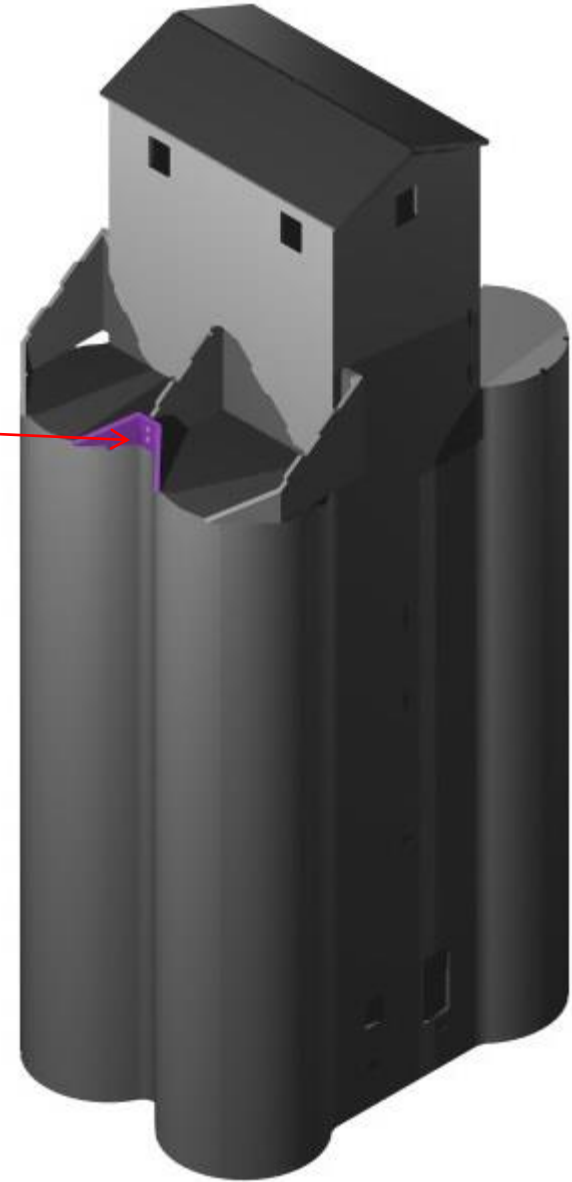
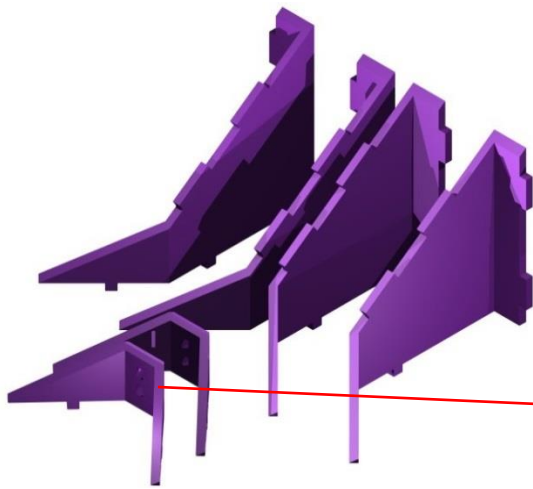


Silo Cupola – Install Step 3



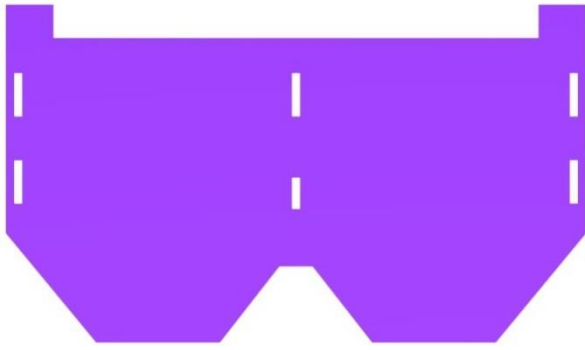
These 3D parts replace a large number of acrylic parts, which to be honest, were very difficult to fit. The time saved by developing the 3D parts is in the vicinity of 30 to 45 minutes let alone a great amount of frustration. The outer supports are located in the Cupola side panels and the bottom tabs fit into the sub structure top.

Silo Cupola – Install Step 4

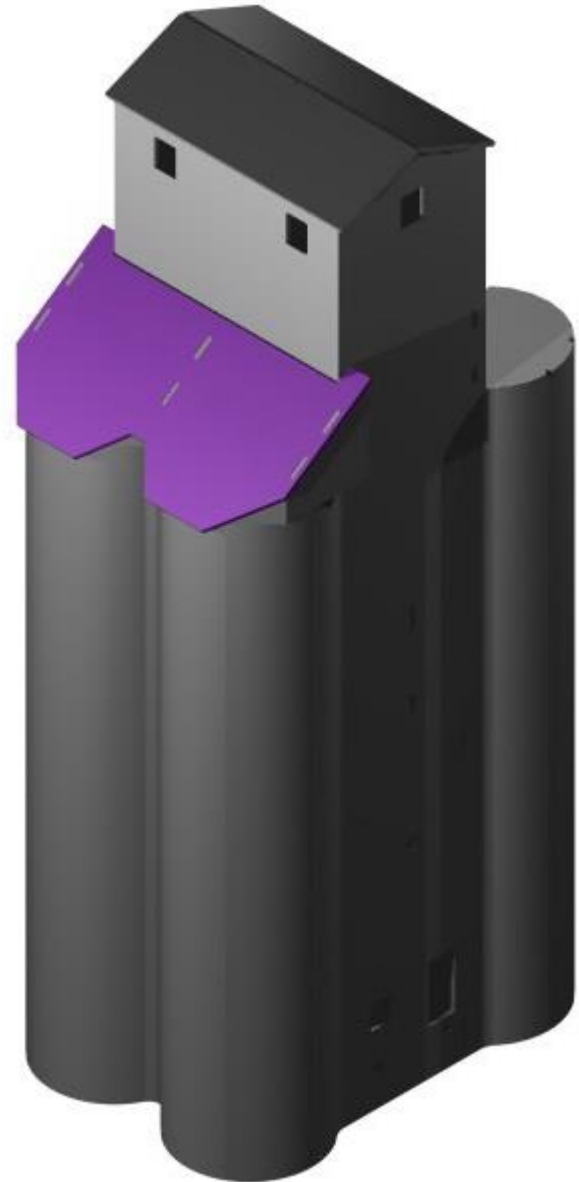


The inner support fits on the centre rib, while the bottom tabs fit into the top panel of the sub frame. When fitted into place, the panels should be flush with the edges of the bins.

Silo Cupola – Install Step 5

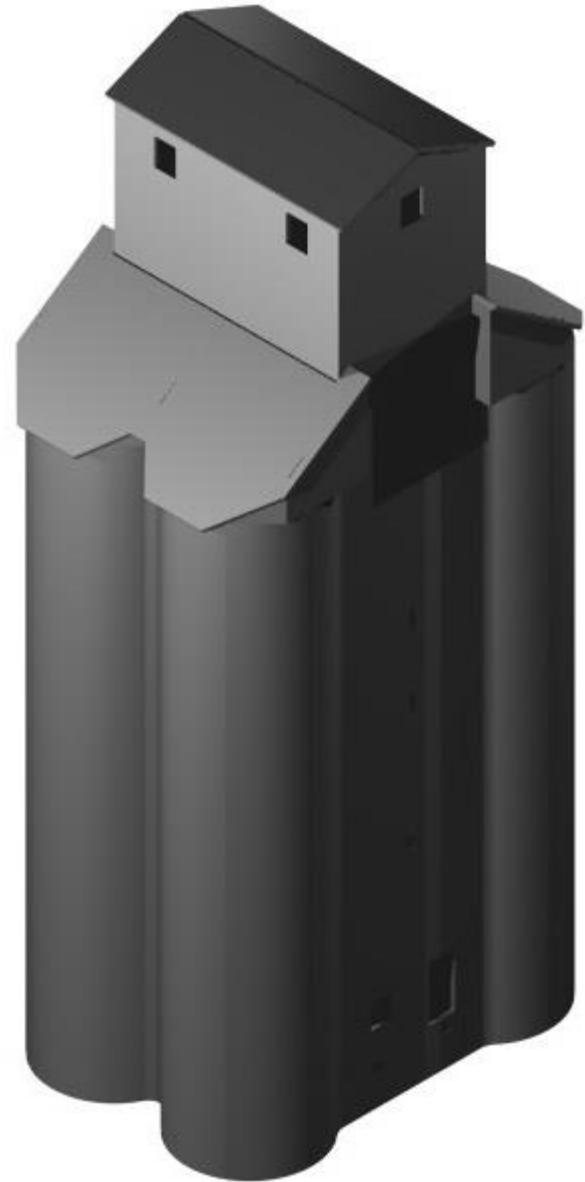


The roof section should be located onto the supports and fit neatly against the cupola wall.



Silo Cupola – Install Step 6

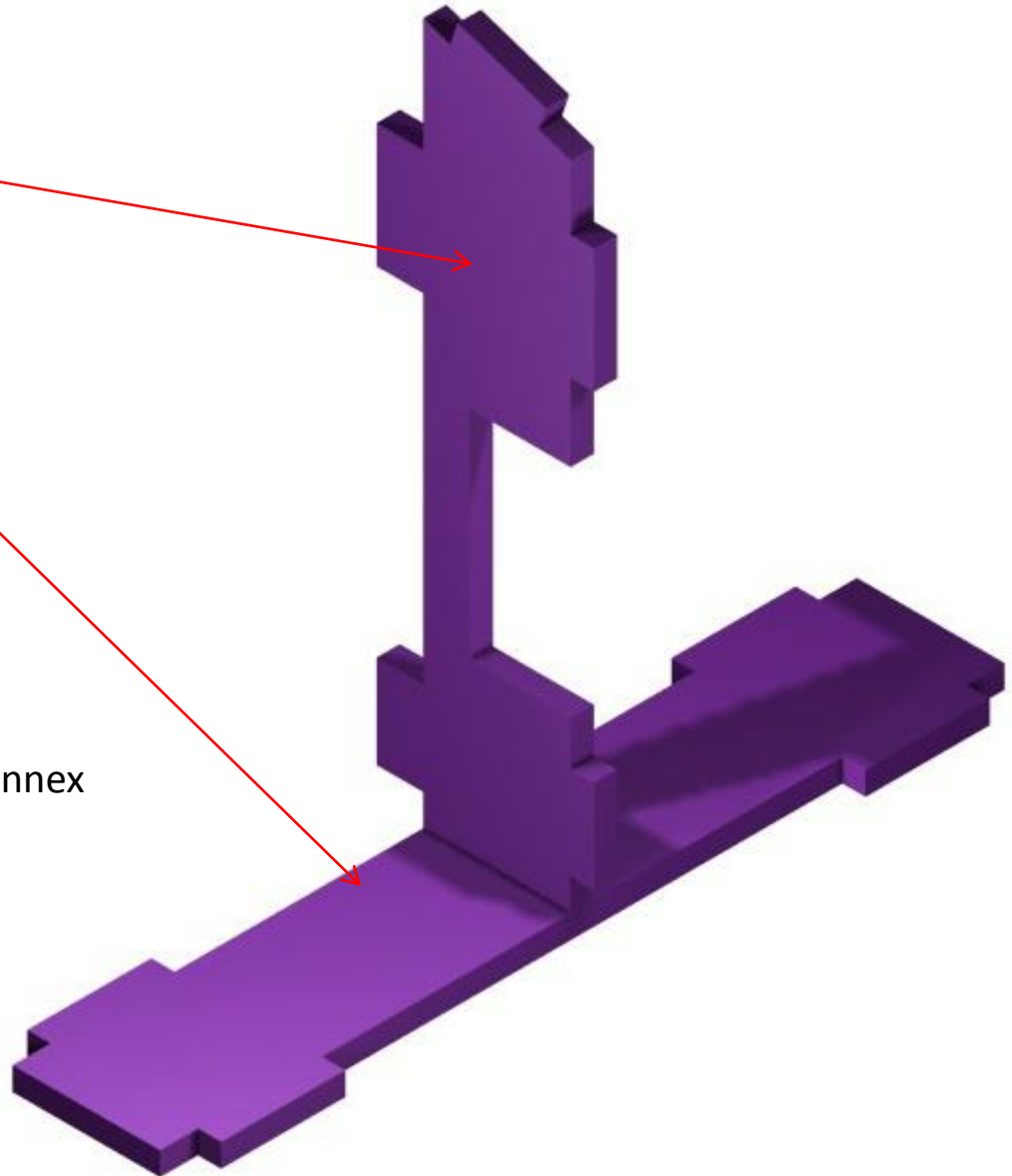
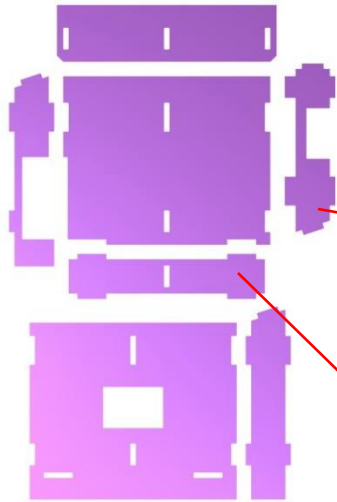
The same parts are fitted to both sides.
And once fitted, the cupola and bin
roofs are complete apart from fascia,
guttering and cladding.



Another Step Down – Nearly Done

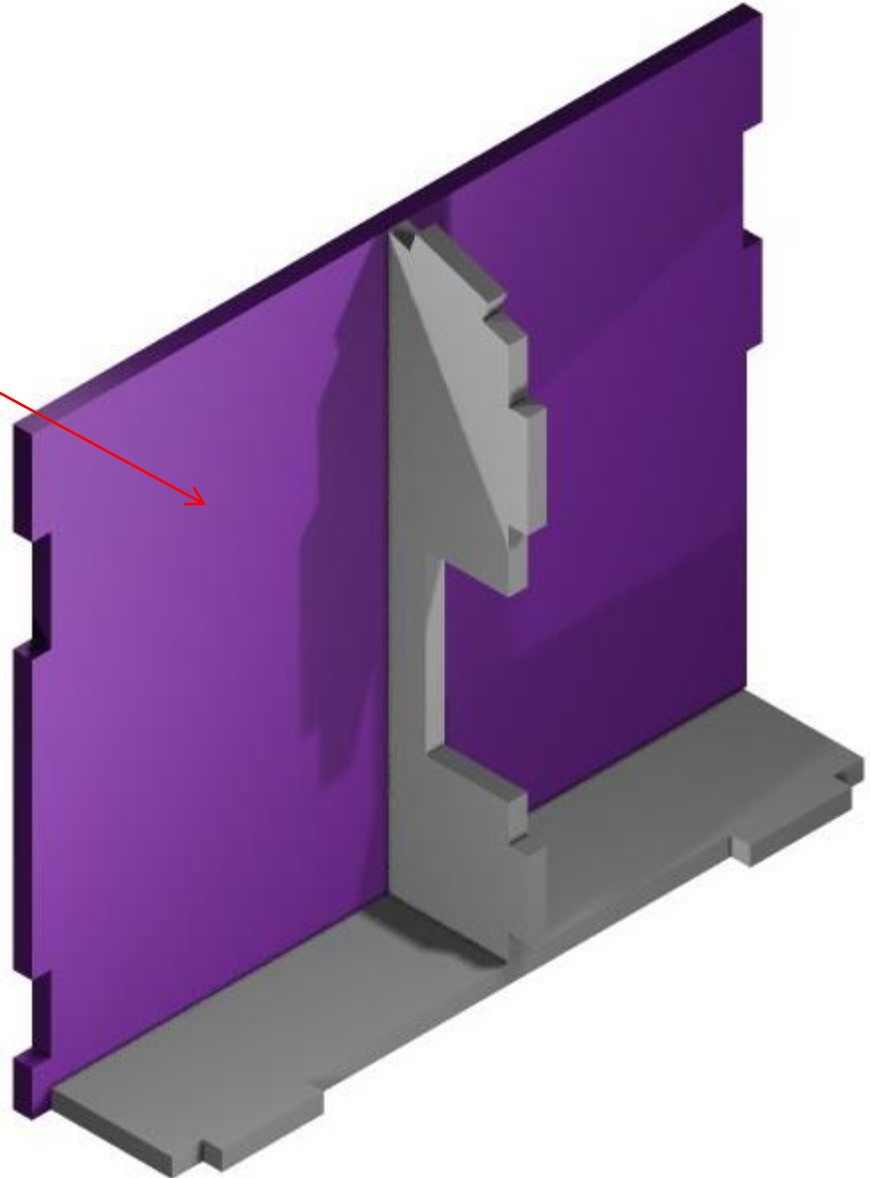
- The main 3 sub-assemblies are now built. Now we can concentrate on the smaller sub-assemblies.
- These smaller sub-assemblies are very easily fitted to the main assemblies at a later time.
- Firstly the Annex, then the Spoil Bin, the Out loading Platform.
- The Annex is located on the front of the silo and slots are provided where it will fit.
- So now, ----- onto the Annex.

Silo Annex - Step 1



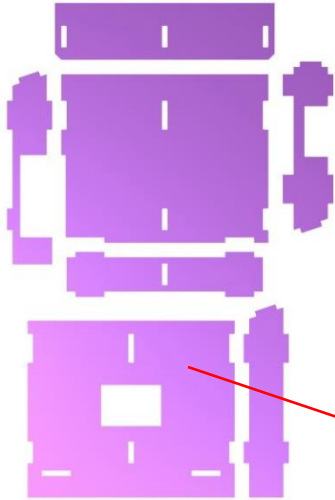
Start with the centre brace, and annex floor.

Silo Annex - Step 2

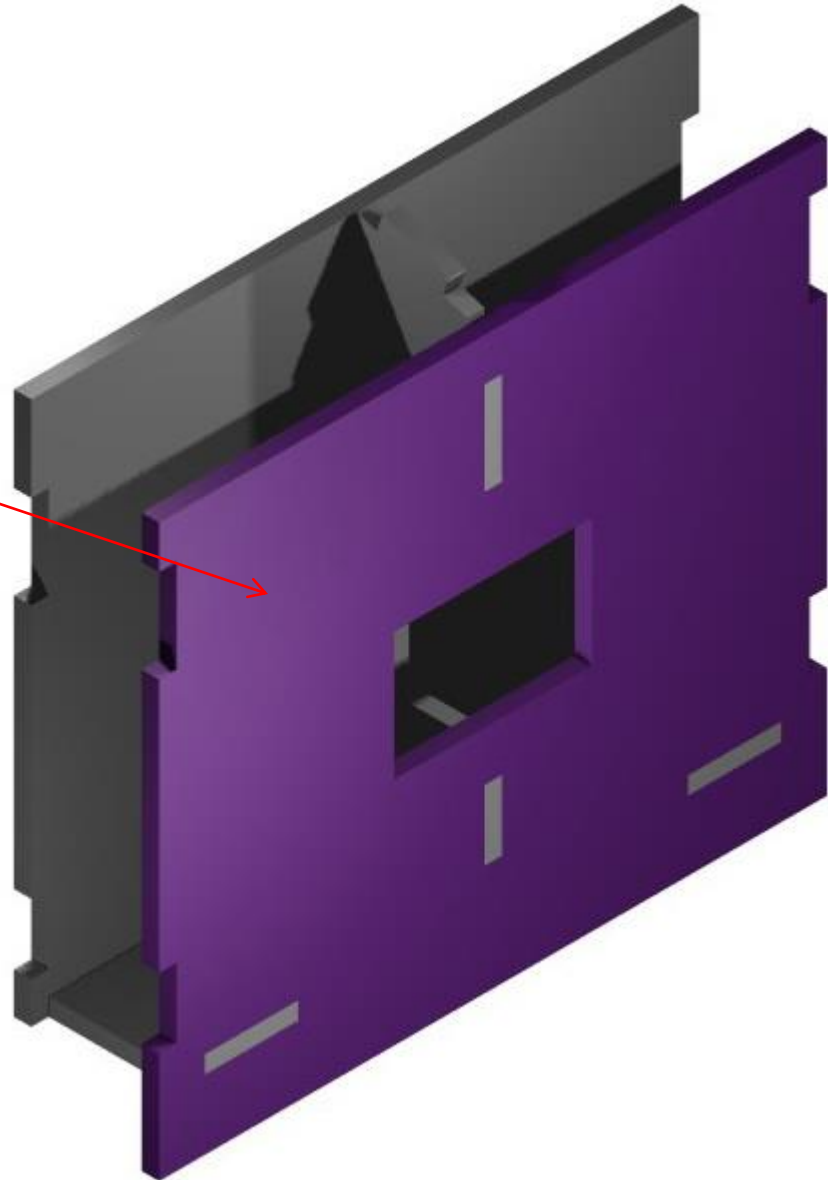


Locate the back panel to the assembly, ensure that the panel is oriented as per the image.

Silo Annex - Step 3



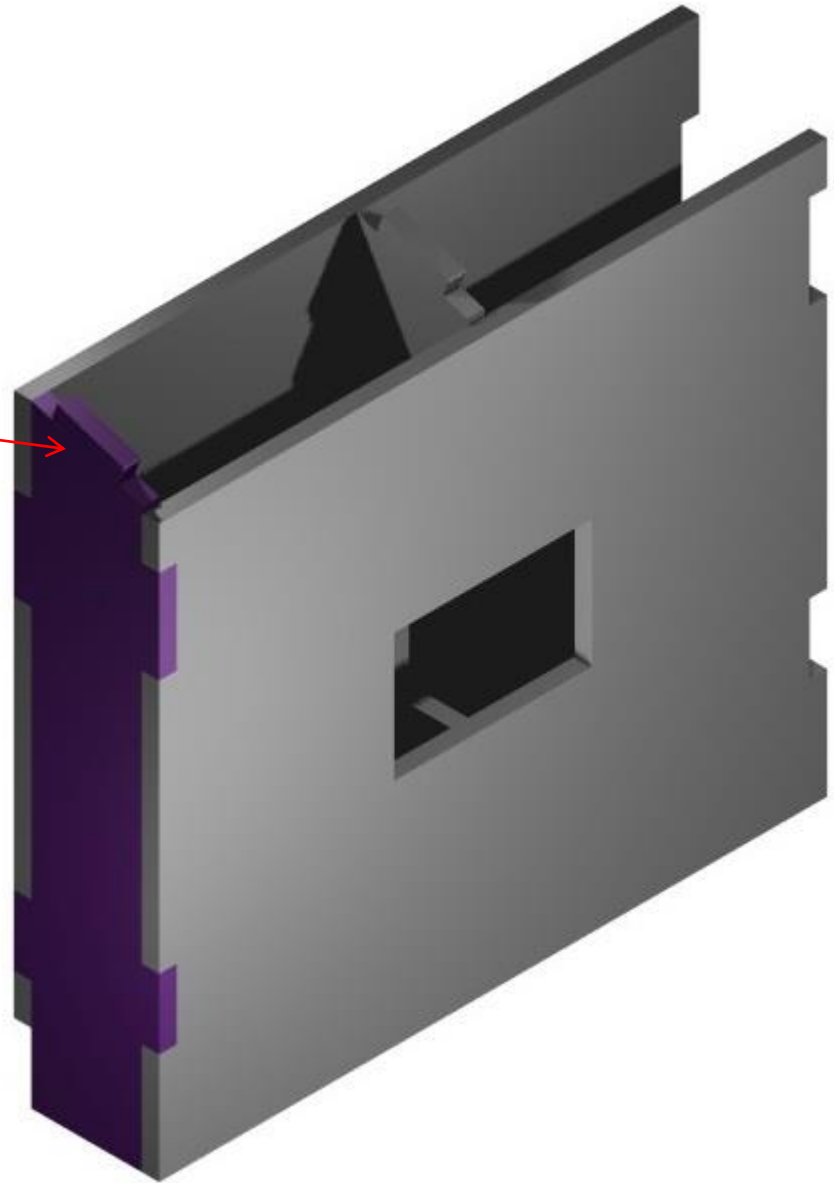
The front panel is located next. The part is symmetrical, so it will fit either way.



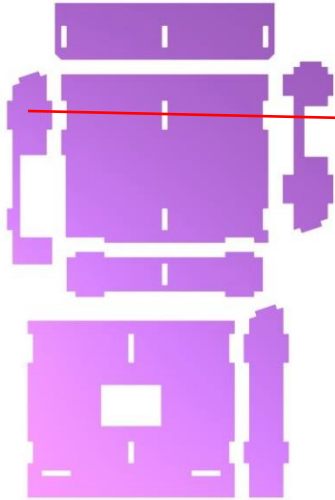
Silo Annex - Step 4



The left side panel will square up the annex. Locate the part so the top slopes to the front. While this might sound silly, locating it in the wrong way has happened (To Me).



Silo Annex - Step 5



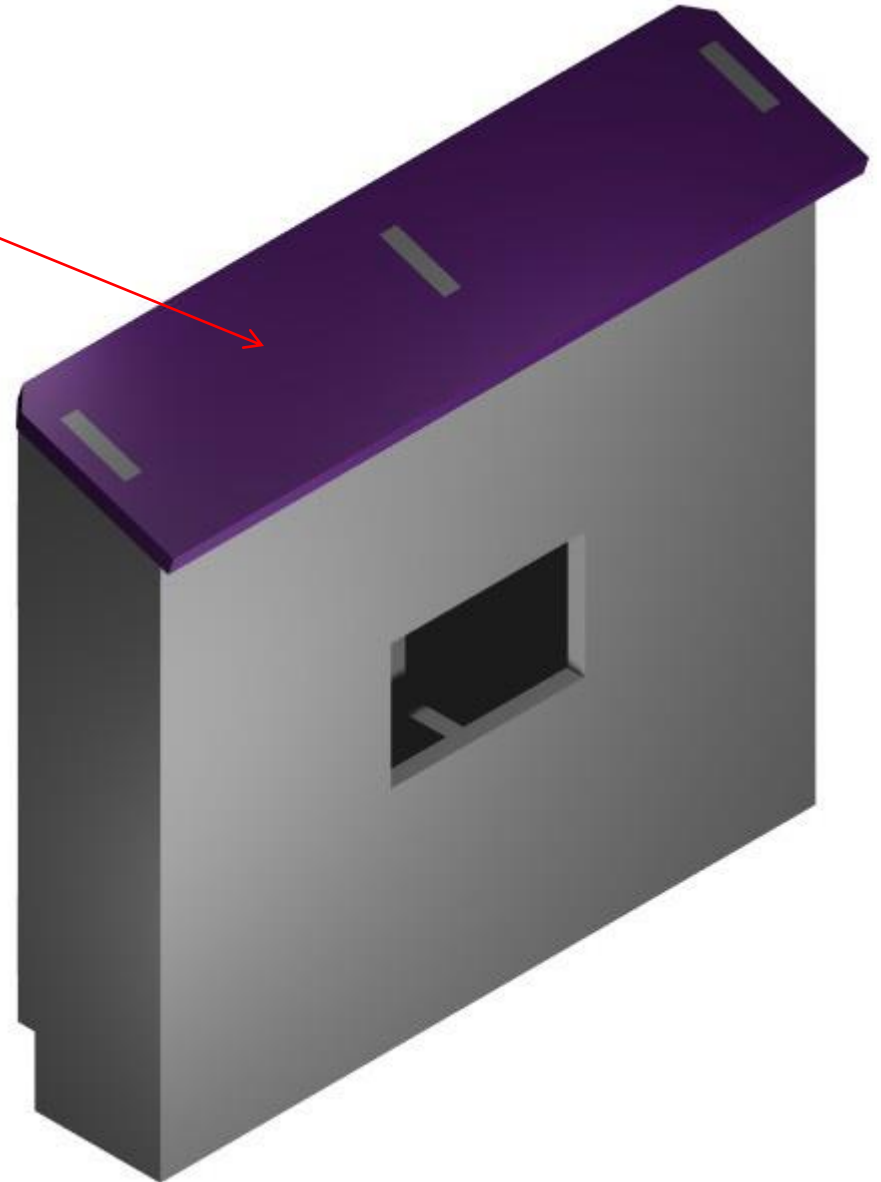
The right end panel of the annex is very fragile and care needs to be taken so as not to fracture or brake the panel. The hole in the panel allows for the locating of the door.



Silo Annex - Step 6

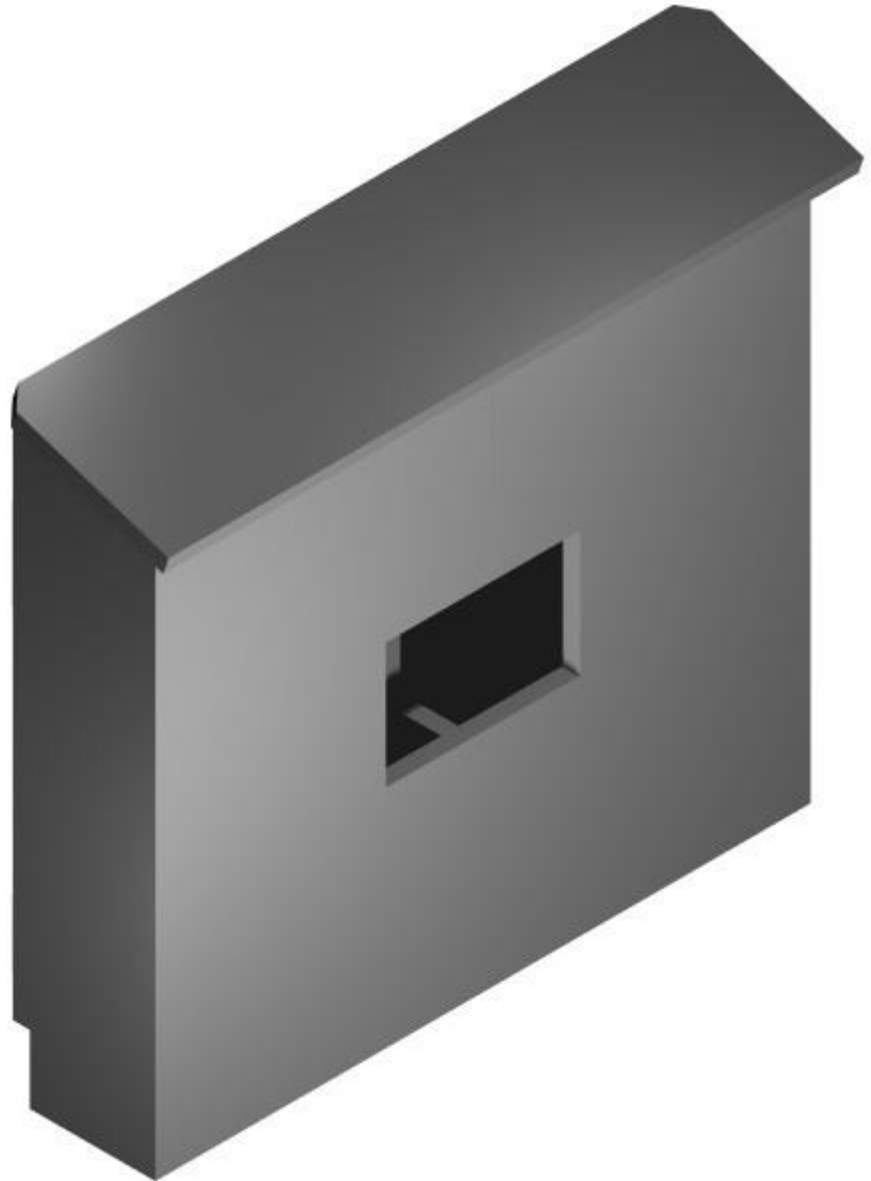


The roof squares up the annex, and is the final panel to be glued in place. Please note that the tabs protrude through the back of the annex, so that the annex can be fitted to the front of the silo sub structure.

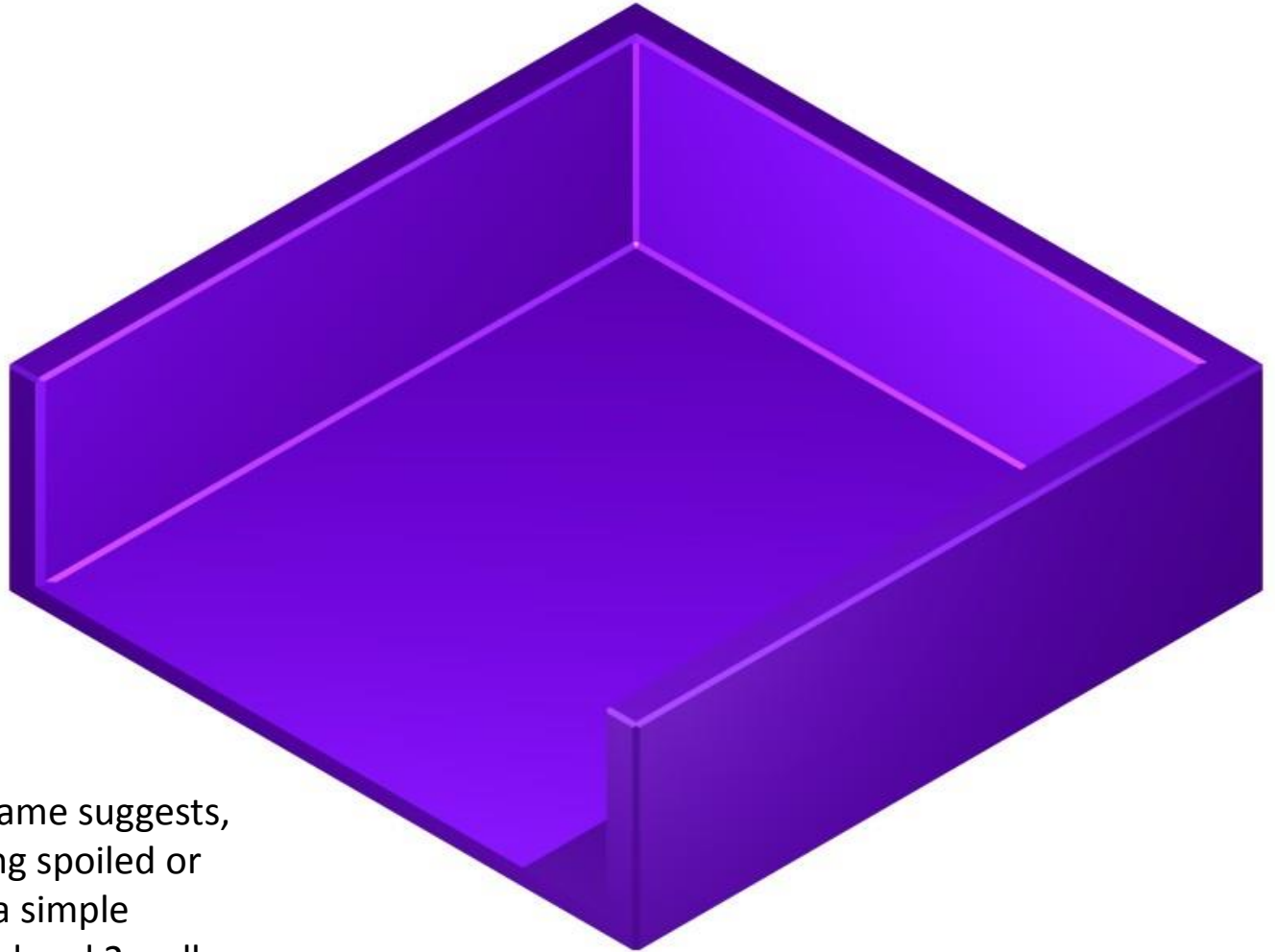


Silo Annex - Step 7

The annex, ready for fascia, gutter and cladding. RSJs can also be located under the floor of the cladding, as per the original silo articles. Photos on the Memory Stick give a better indication of the annex support.



Silo Spoil Bin - Step 1



The spoil bin is as the name suggests, a concrete bin for storing spoiled or wet grain. The bin was a simple structure, of a floor, end and 2 walls. The new spoil bin is a 3D prototype and can be sanded slightly and located in place after painting.

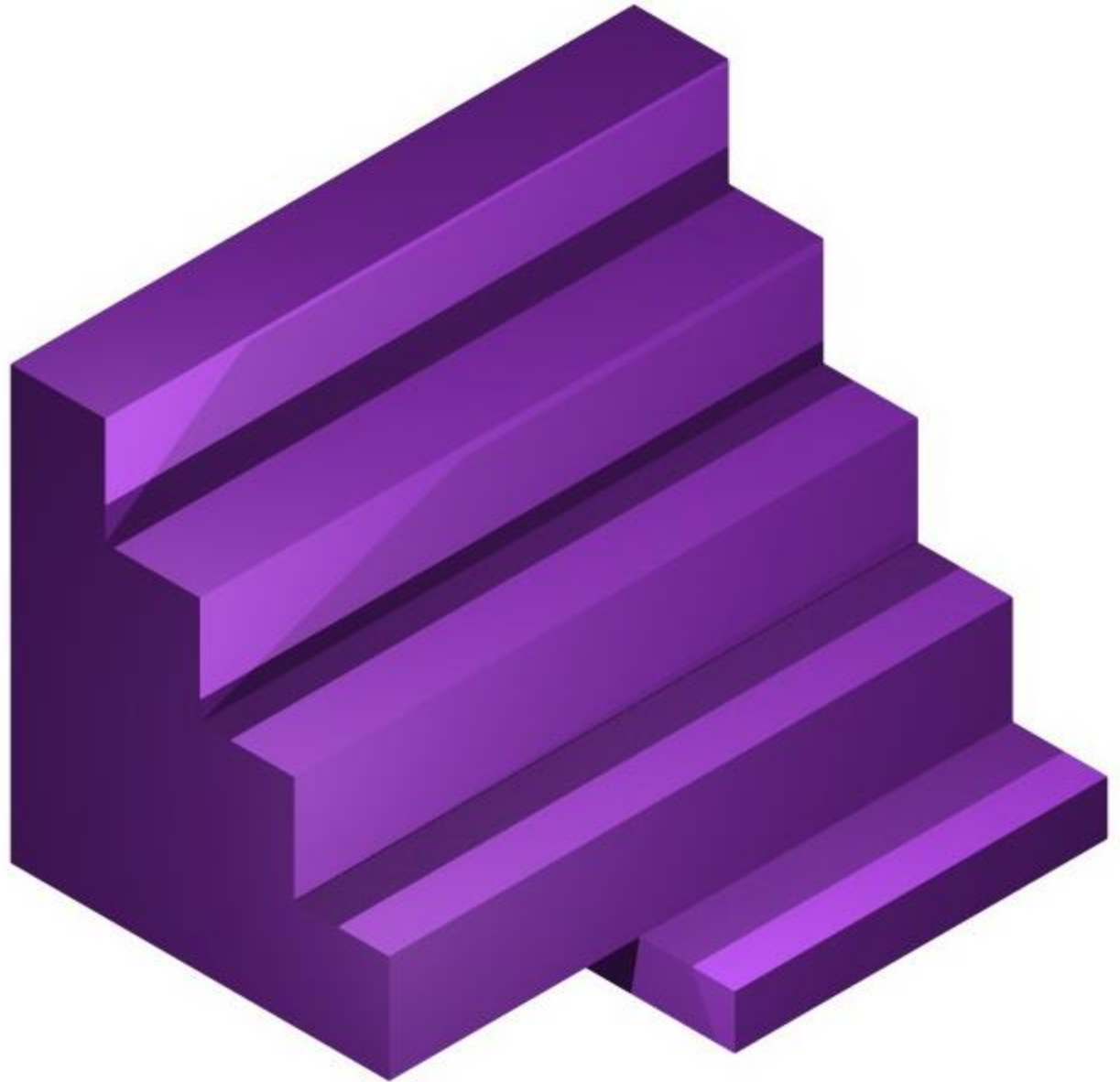
Out loading Platform - Step 1



The out loading platform had 3 platform pieces and 8 leg sections. And the front steps were a separate laminated acrylic pieces, but this has been changed to a 3D prototype that is located into the front panel and the base, after sanding and painting.

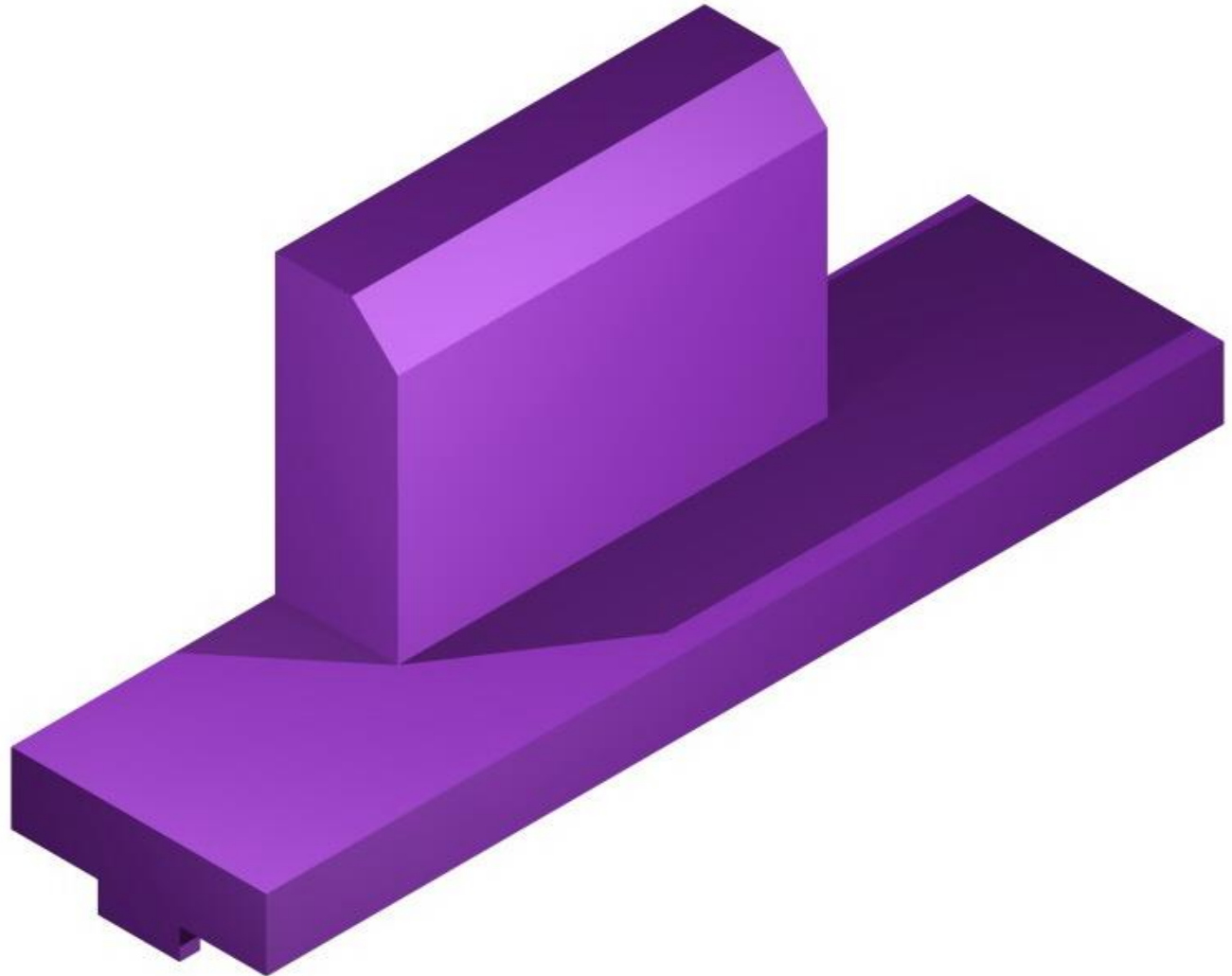
Rear Steps- Step 1

The rear steps fit in place on the right side of the silo and tab into the wall of the rear road.

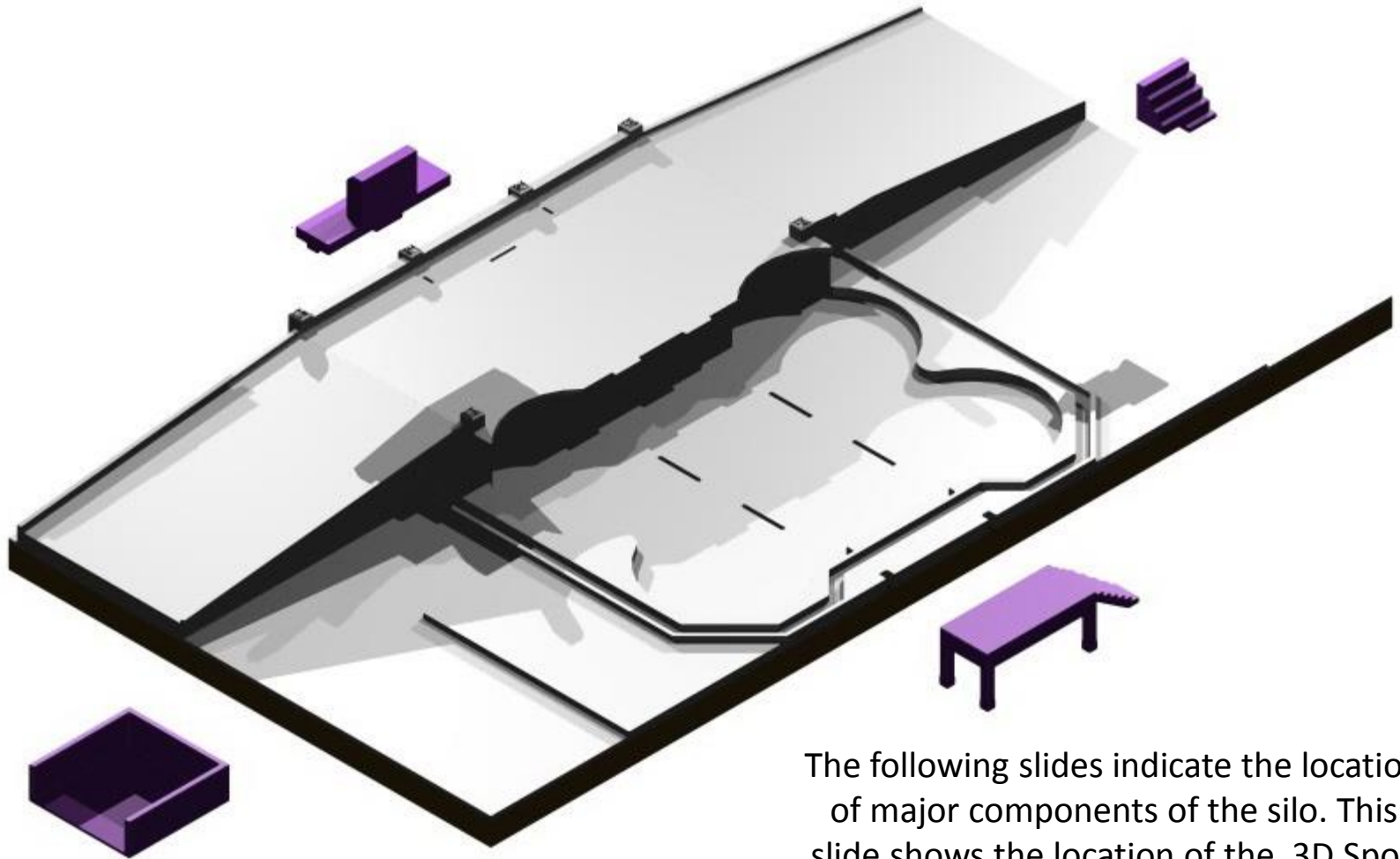


Wagon Shed Scale -Step 1

The wagon shed scale is a 3D parts that has replaced 6 pieces of 1.5 mm acrylic. It fits in place on the centre of the wagon shed rear road.

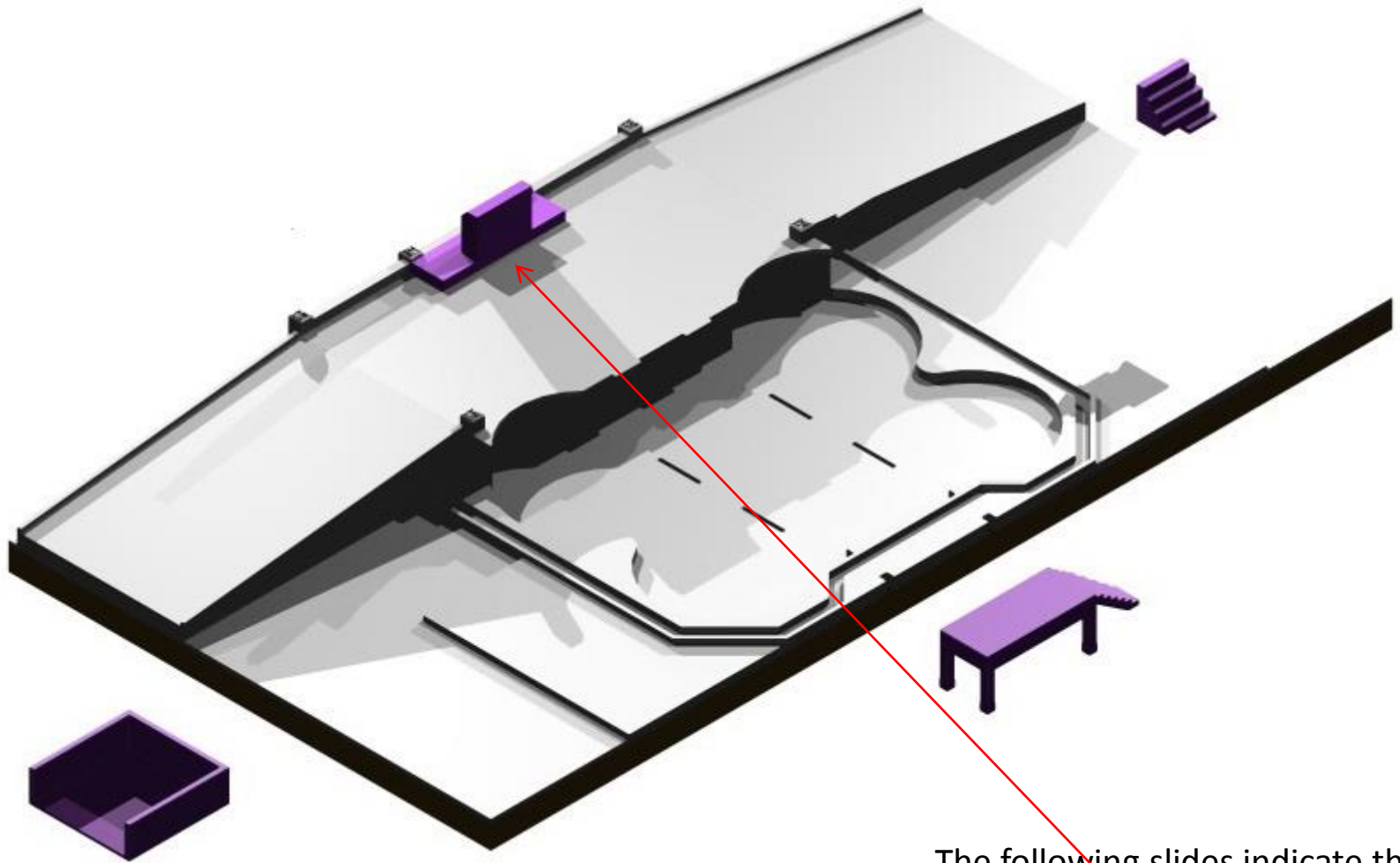


Fitting the Sub Assemblies Step 1



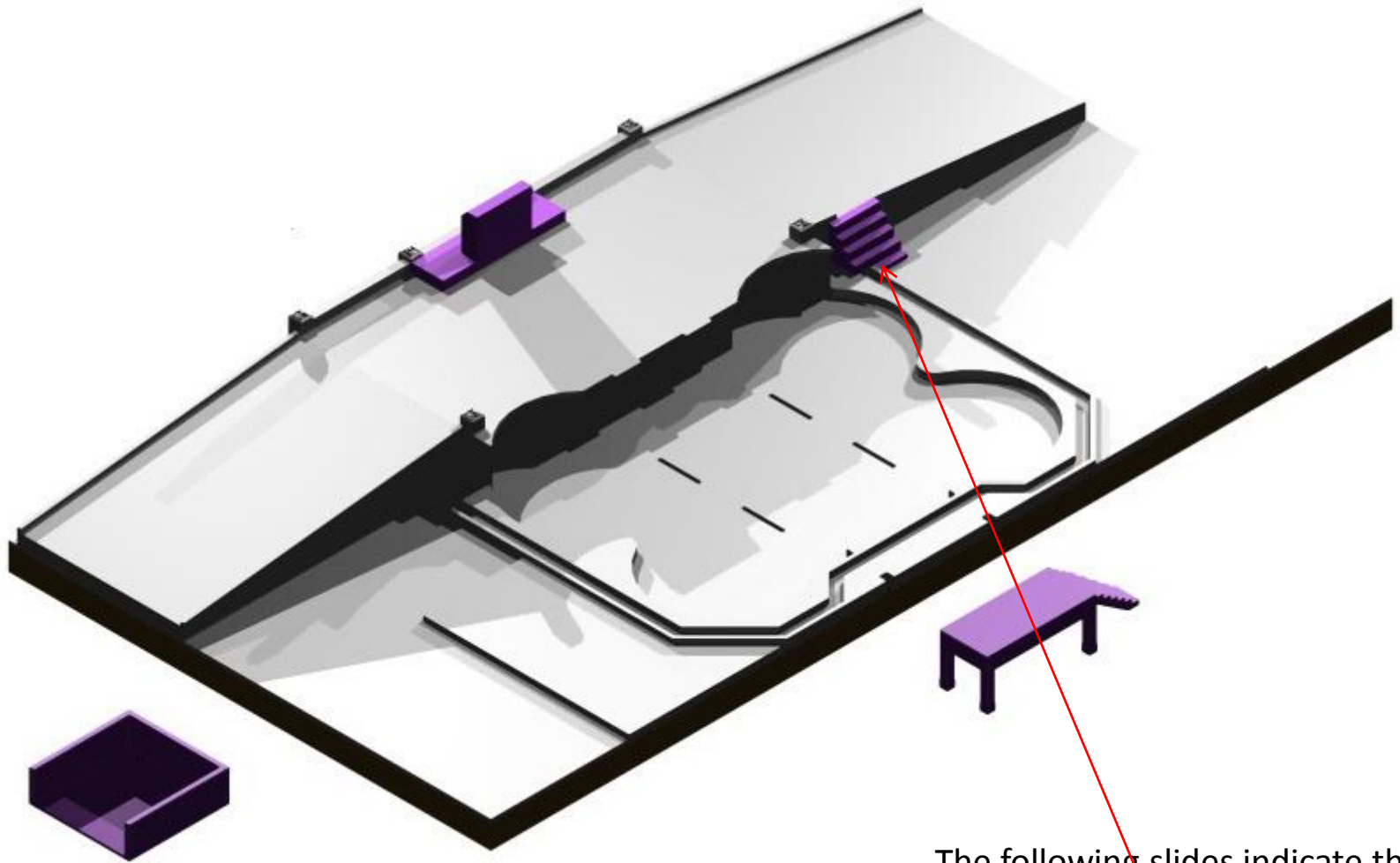
The following slides indicate the location of major components of the silo. This slide shows the location of the 3D Spoil Bin, the 3D Rear Steps, the 3D Out loading Platform and the 3D Wagon Shed Scale

Fitting the Sub Assemblies Step 2



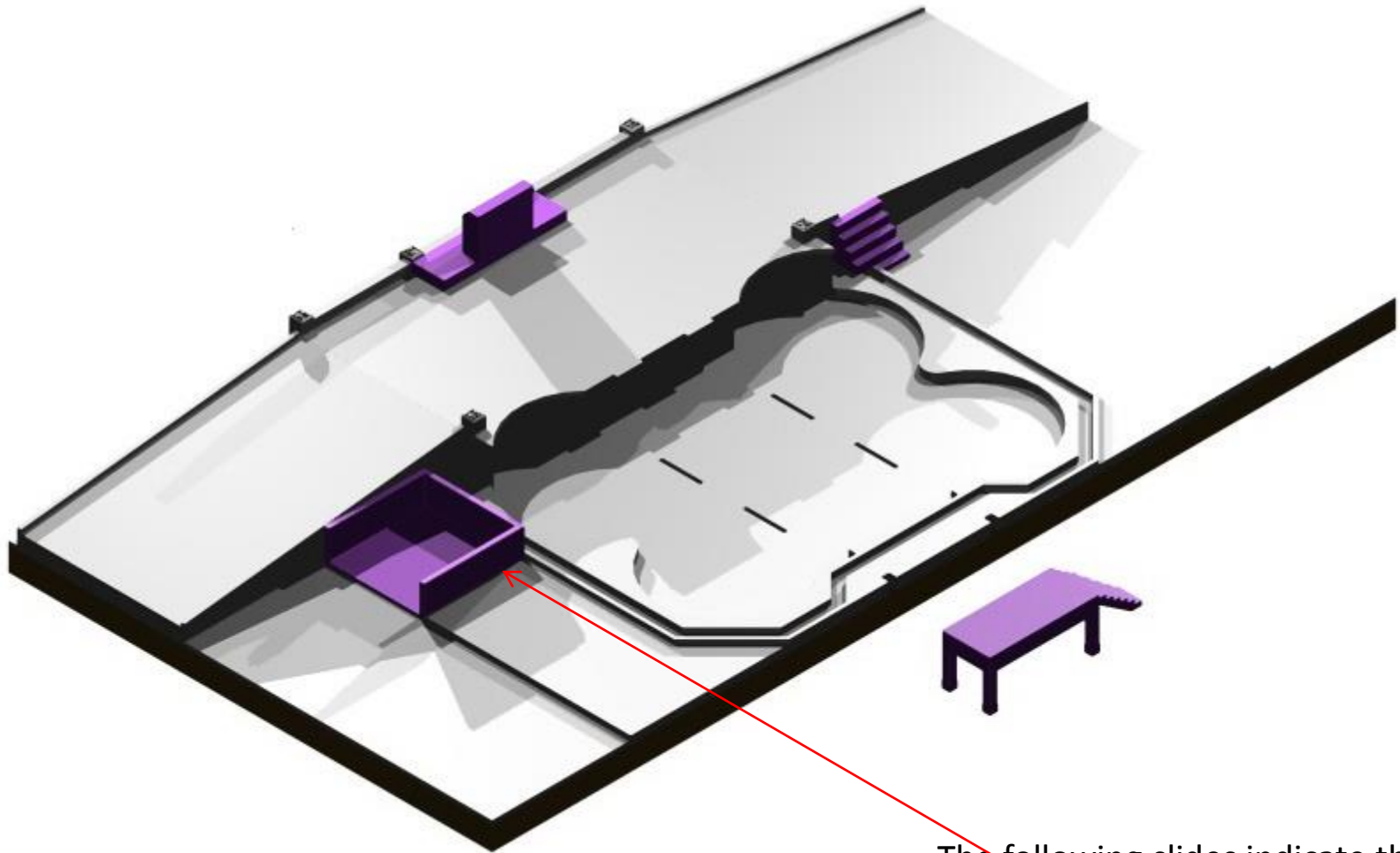
The following slides indicate the location of major components of the silo. This slide shows the location of the 3D Wagon Shed Scale.

Fitting the Sub Assemblies Step 3



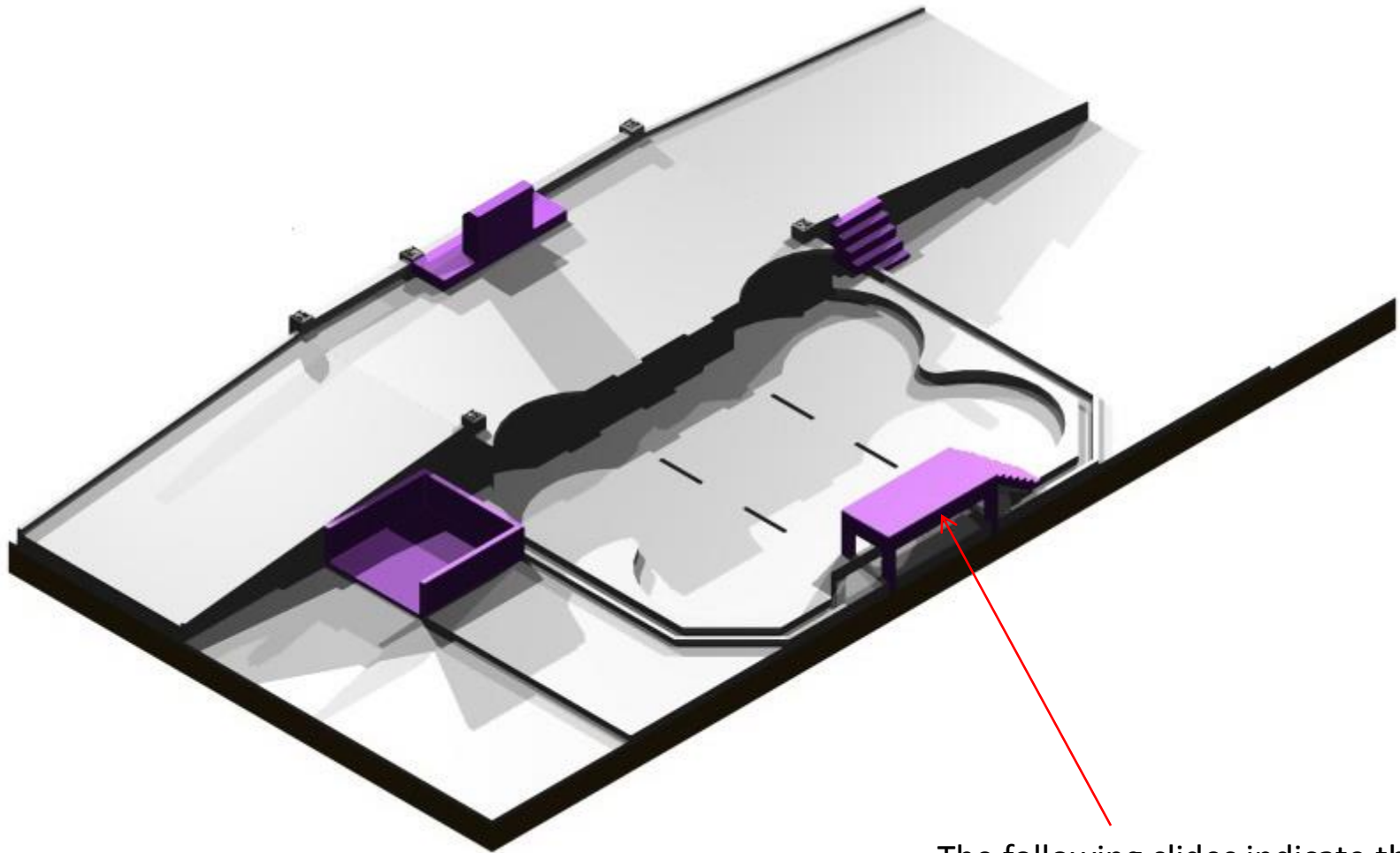
The following slides indicate the location of major components of the silo. This slide shows the location of the 3D Rear Steps.

Fitting the Sub Assemblies Step 4



The following slides indicate the location of major components of the silo. This slide shows the location of the 3D Spoil Bin.

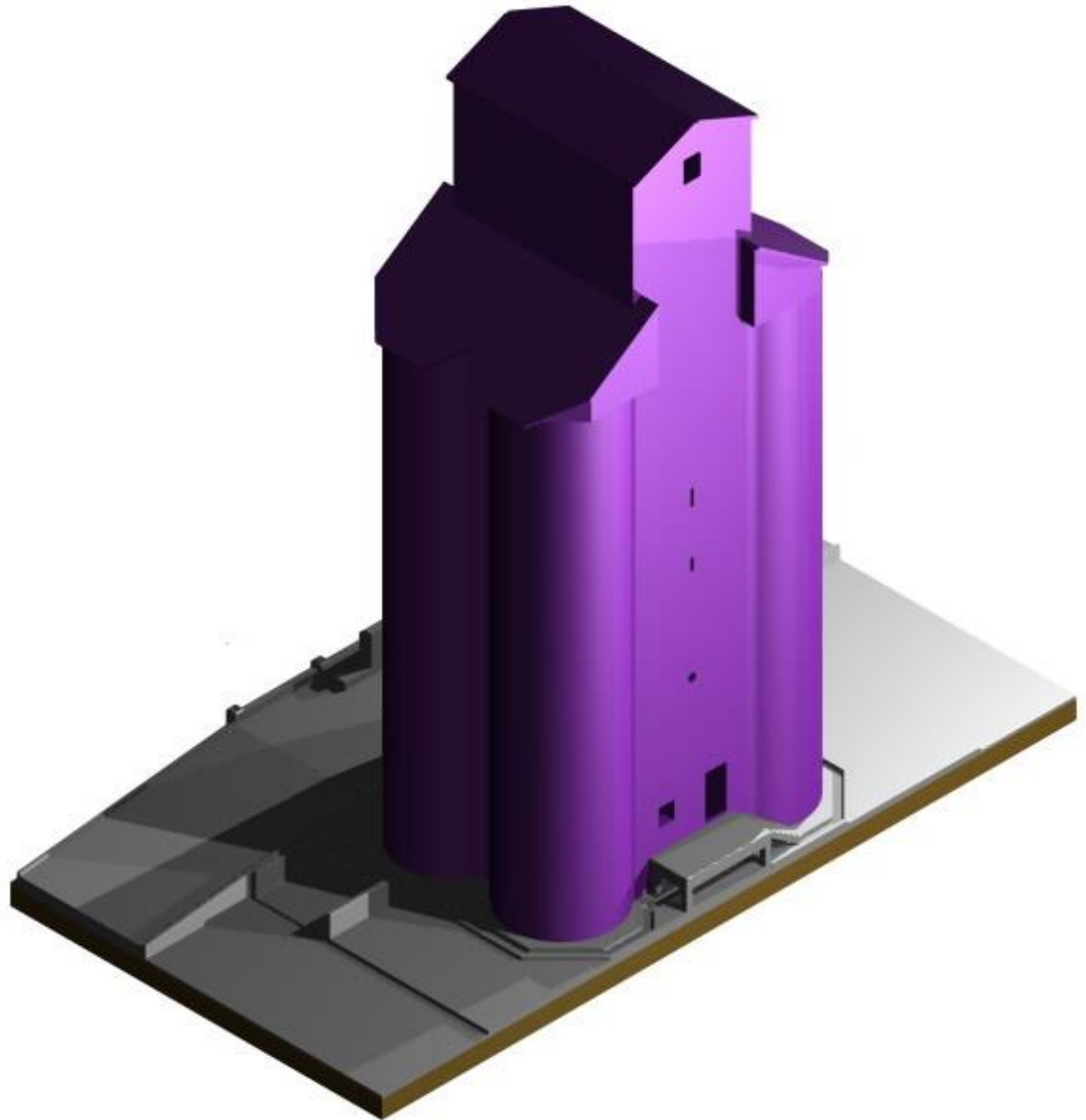
Fitting the Sub Assemblies Step 5



The following slides indicate the location of major components of the silo. This slide shows the location of the 3D Out Loading Platform.

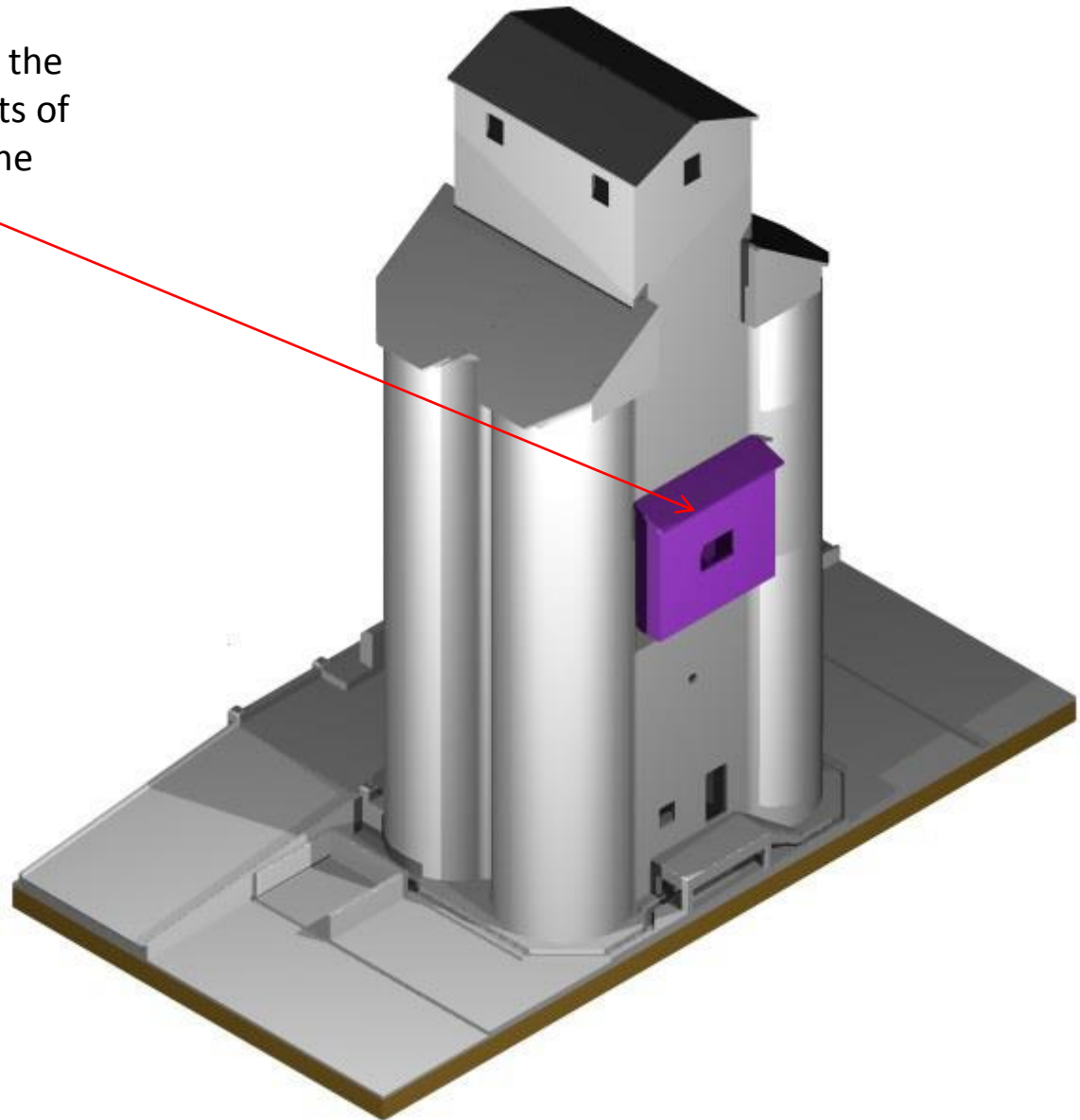
Fitting the Sub Assemblies Step 6

The following slides indicate the location of major components of the silo. This slide shows the location of the Silo sub Frame and Cupola Assembly



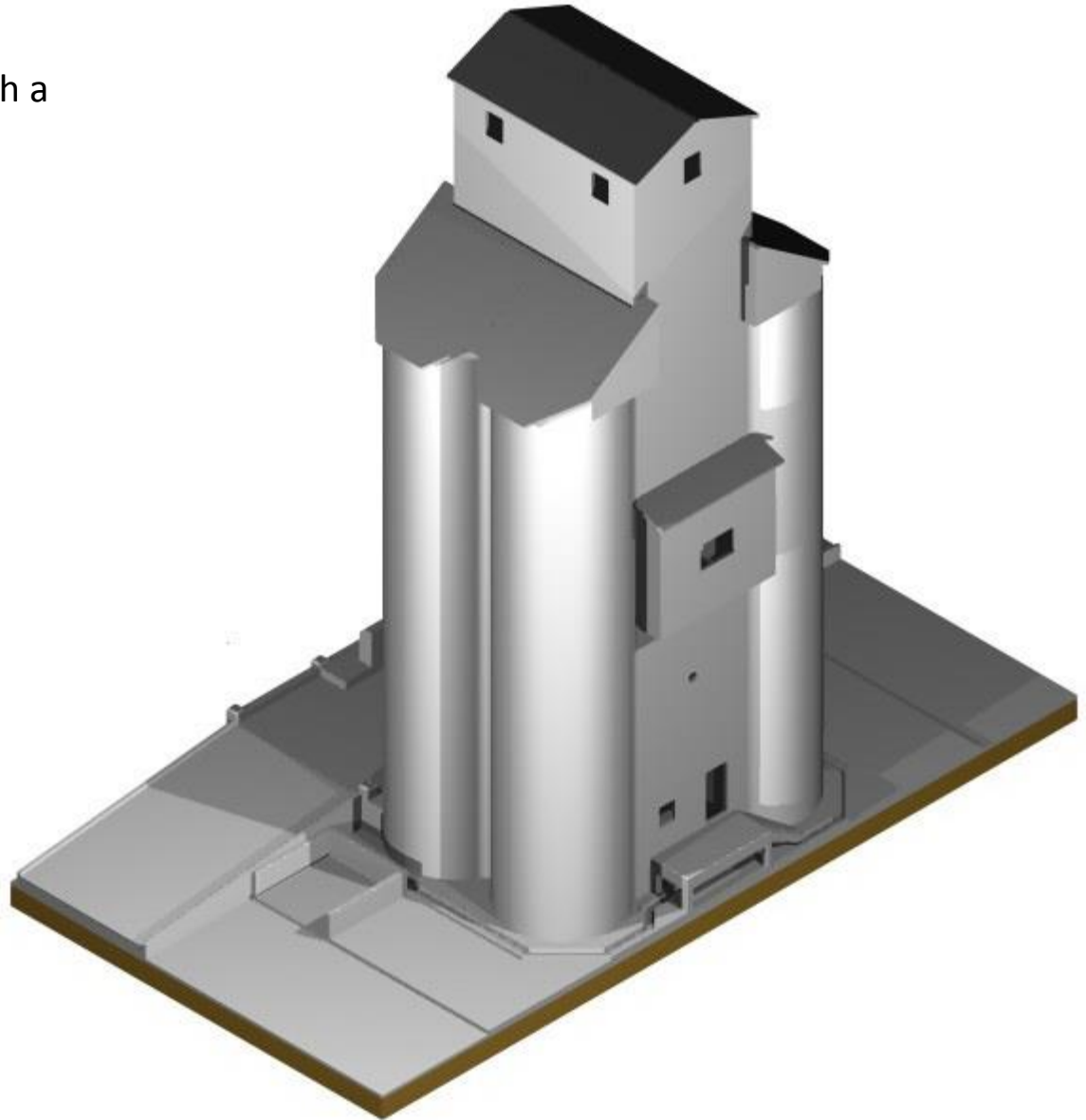
Fitting the Sub Assemblies Step 7

The following slides indicate the location of major components of the silo. This slide shows the location of the Annex.



Fitting the Sub Assemblies Step 8

The completed kit assembled with a few more bits to make and fit.



Putting it all together

- Although the sub-assemblies are now together, there is work to be done on each sub-assembly before they are joined permanently.
- By all means, test fit the parts, but be aware that there is much work to be done before they can be permanent.
- Some of the work will require other kits such as the KRM S04 Etched Brass Parts Kit, and the KRM S05 Accessory Parts Kit.
- These kits are available.
- Hints on cladding are also available in this presentation.
- The information in the next few slides is not comprehensive and more detail can be found in the original article in the AMRM.
- Let's start with the Silo Base.

Putting it all together - The Base

- The weighbridge and partitions need to be fitted (KRM S04 Etched Brass Parts Kit).
- The wagon shed frame feet need to be fitted into the 6 wagon shed footings.
- The base will need to be given an undercoat, joints and tab slots filled and sanded to represent concrete (new or old – your choice).

Putting it all together - The Sub Frame

- The Sub-Frame will need to have door holes cut in the bins.
- Down pipes will need to be fitted to all 4 Bins, made up from 1mm brass wire and the Astragals supplied in the KRM S04 Etched Brass Kit.
- The rear door will need to be fitted to the Sub-Frame (KRM S004 Etched Brass Kit).
- The front door and window and the bin doors will need to be fitted to the Sub-Frame (Bins) (KRM S04 Parts Kit).
- There is also a down pipe from the annex to the base of the silo that will need to be fitted.
- And a Ladder/ Ladder Guard will need to be fitted to the front of the silo on the right side of the Annex.
- The joints, bins and front and rear panels will need to be filled with a two-part auto body filler, using a 10mm rod to achieve a neat blended contour.
- The large joint on the sides, between the bins, needs to be filled by body filler, and can be done in a similar way to the other joints, using a 12mm dia. rod to obtain a nice even contour.
- And finally the Sub assembly will require sanding and painting then fitted in place.

Putting it all together – The Cupola, Bin Roof

- Glue the Cupola to the Sub-Frame.
- Fascia and guttering need to be secured to the cupola and bin roof. Fascia from 10"x 2" Evergreen Styrene, and guttering from small Evergreen "C" channel.
- The Cupola and Bin Roof needs to be completely clad with Campbell's Corrugated Aluminum. The cladding overhangs the silo bins by a scale 4" - 6".
- The cladding comes in various sheet lengths, but my preferred option is to obtain the 12ft length, as other sizes can be cut from the longer sheets. And always start the cladding at the lowest point and clad up to the highest point.
- Ridge capping made from 8"x 1" styrene with 0.025" styrene rod for the ridge.
- Down pipes are fitted on both sides of the Cupola, and are distributed onto the bin roof by a "T" piece. Two astragals each side secure the down pipes.
- Lead flashing can be made from masking tape, cut into thin slithers, and placed in the appropriate locations.
- Finally windows need to be fitted to the cupola. These are available in the KRM S05 cast part kit

Putting it all together - The Annex

- Fit the barge board and fascia. Fill the edge of the roof to remove the angle. This will allow the fascia to sit much easier.
- Fit the guttering to the fascia.
- Fit main beam and cross beams under the Annex, as well as a locating loop for the winch rope to go through
- Clad the Annex roof
- Clad the rest of the Annex from bottom to top
- Fit the down pipe (using photos for reference)
- Fit window and door after painting the Annex
- Only glue the Annex in place with a couple of dots of white glue so that it holds in place but can be removed if required.

Putting it all together - The Out loading Platform

- The Out loading platform can be modified with a pipe safety barrier if required.
- Use photos as references for various out loading platforms.
- Many photos are available in the USB Stick instructions, to use for reference.

Putting it all together – The Out loading Chute, Winch and Pulley

- The Out loading chute needs to be scratch built, as per the original article.
- The pulley and winch are available in the KRM S04, etched brass kit.
- There are 2 etches of both the pulley and winch available on the etch.

Putting it all together – The Wagon Shed

- The Wagon Shed is built from plans in the original article, as well as the template plans supplied on this USB Stick.
- The 6 square styrene tube pieces (rear road) can be trimmed down to the top of the rear walls.
- The frames for the wagon shed fit into the styrene tubes, supplied as footings.
- The vertical beams for the wagon shed can be made from commercially available H beam.
- The battens and purlins can be made from Special Shapes' 3/64" square brass, which gives more surface area to solder to the beams than brass angle would allow.

Corrugated Aluminum

- Campbell's Corrugated Aluminum is my preferred cladding material to use when cladding Australian buildings in HO scale. It comes in 4, 6, 8, 10 and 12 scale ft lengths, and the best value is the 12 ft packs.
- I make up a template with one full sheet, marked with a thin black Pentel pen. This is used to make the other sheets. I then cut the sheets with a ruler and sharp snap off blade. If small sized sheets are required, they can be cut from the 12 ft sheets. (13 corrugations)
- The material is then overlapped by 1 corrugation, and is glued to the building, using Selleys Gel Grip.
- The layering of the cladding is important. It must be layered from the bottom up, with the overlapping dimension not being all that important.
- Don't forget the corrugated material is proud of the gutter, and sits, with the edge of the material sitting in the middle of the gutter.
- The use of prototype photos is essential to achieve the correct look
- The material can be obtained from the retailers mentioned on the resources page.

Resources

➤ Brass Section

- [Special Shapes Brass](#)

➤ Styrene Section

- [Evergreen Styrene](#)

➤ Paint

- [Floquil Paints](#)

➤ Corrugated Aluminium

- [Model Railroad Craftsman](#)
- [The Railcar](#)

➤ Local Suppliers

- [Casula Hobbies](#)

- [Berg's Hobbies](#)