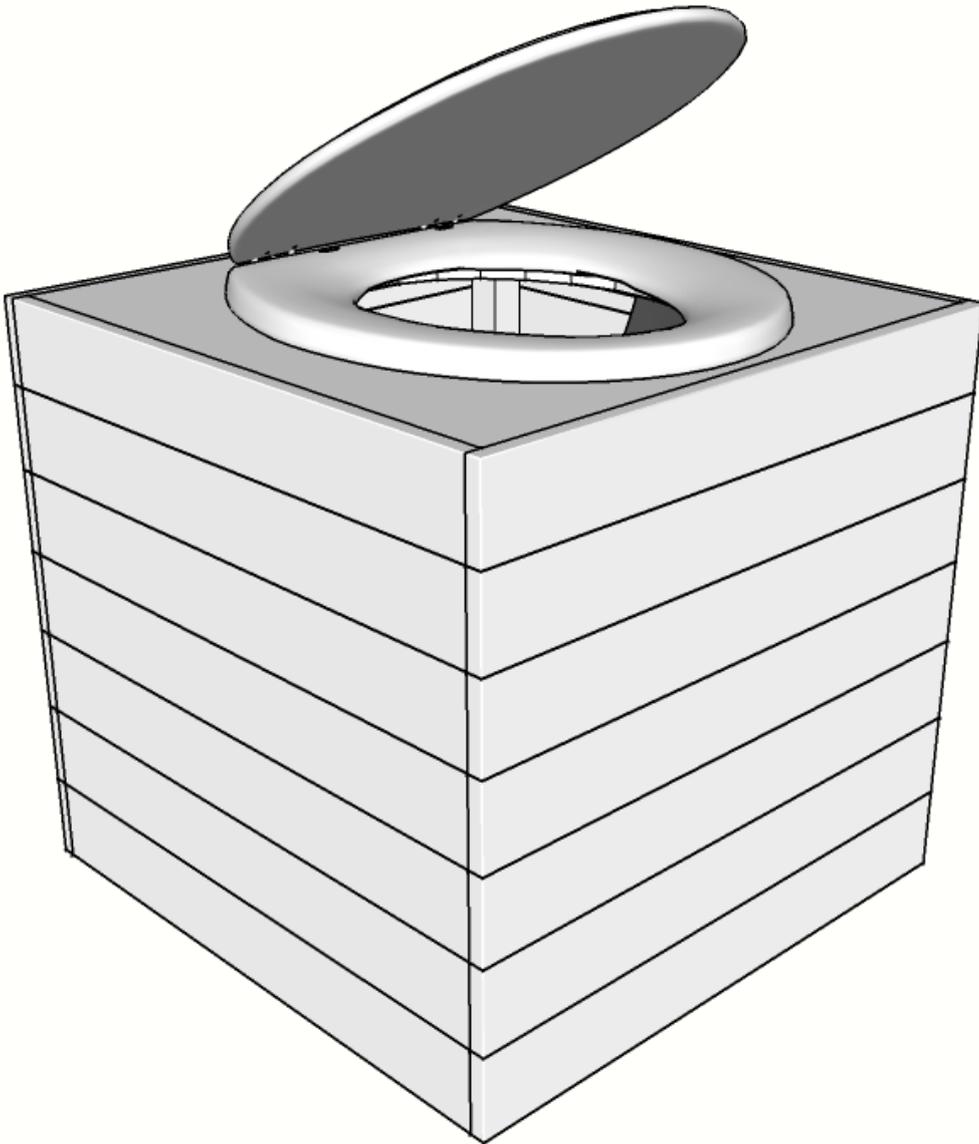


Compost Toilet Box



Assembly Instructions for a Compost Toilet Box,
designed by Free Range Designs

Introduction

This compost toilet box is the simplest complete composting system (apart from a hole in the ground of course). When using, add a handful of soak - saw dust, rice husks, wood shavings etc. - to balance the fibre content of the poo compost. Empty the bucket when full and use the urine fresh in small quantities on your flower beds and fruit tree beds as an excellent natural fertiliser.

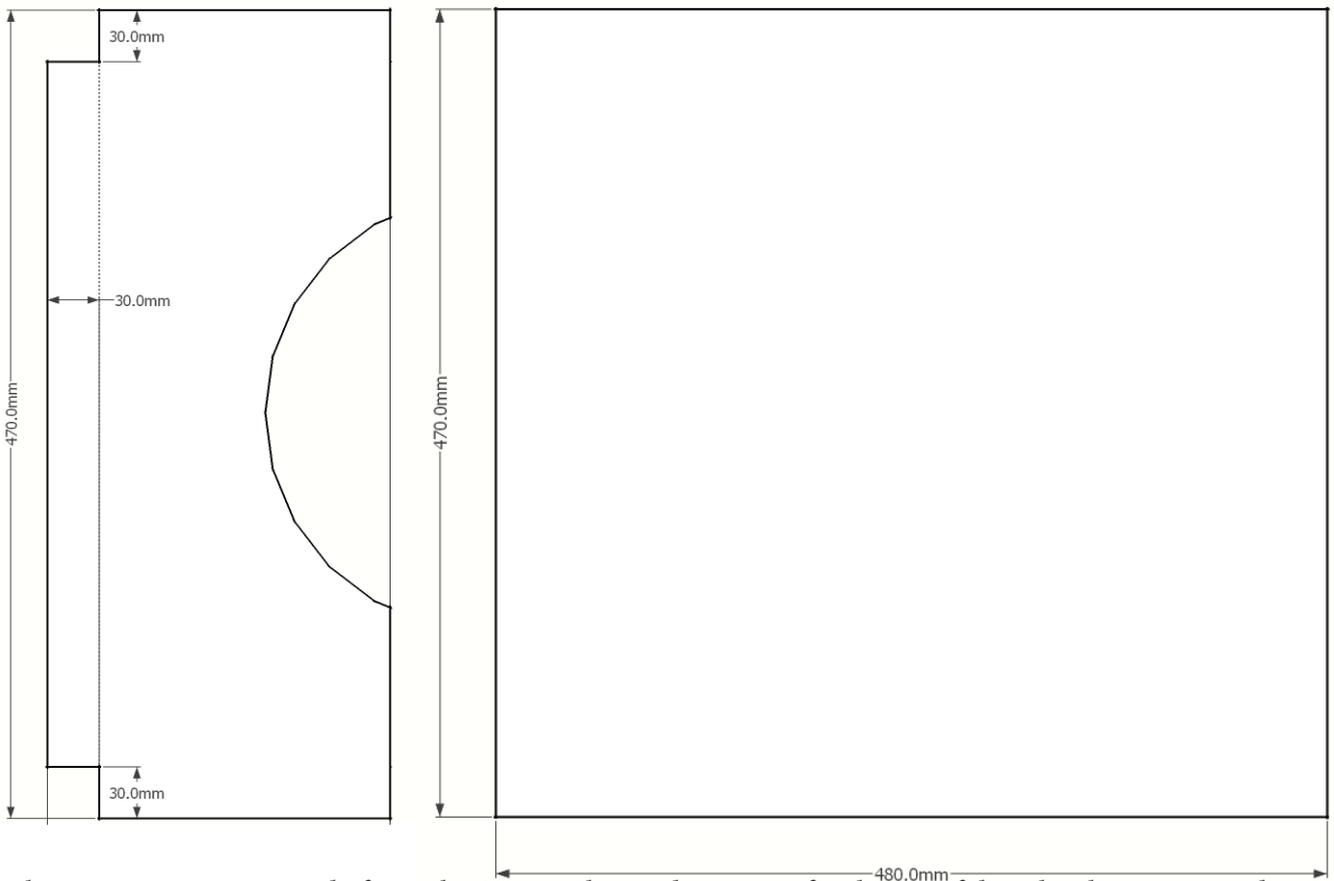
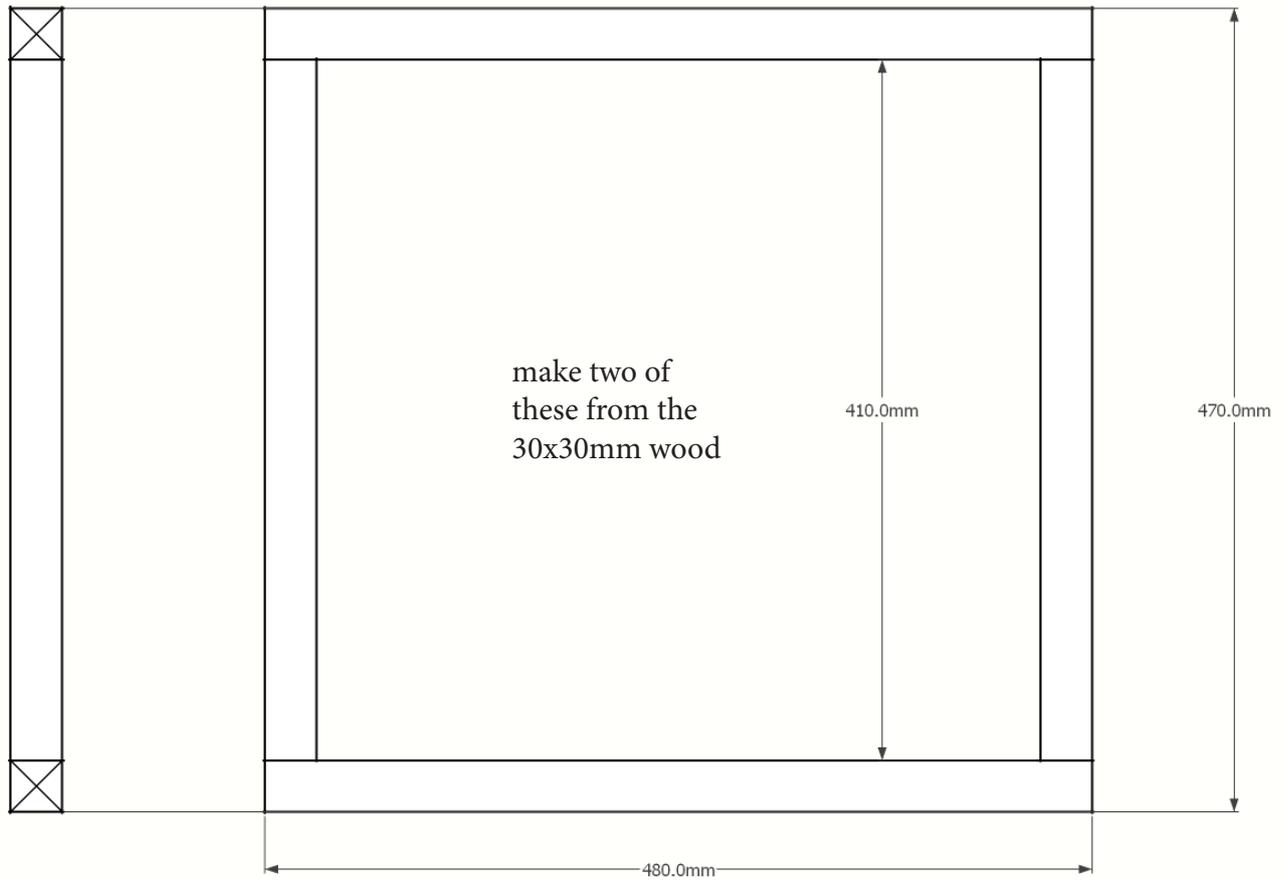
All you need to construct this are the instructions you are reading, a few hand tools and the materials listed below.

Minimum tools needed:

- Tape measure,
 - Pencil,
 - Hand saw,
 - Pozzi headed screw driver,
 - Set square,
 - Clamps
 - Hand plane,
- Waterproof wood glue,
 - Sand paper,
 - Danish oil
- (Power tools such as drill driver, mitre saw, table saw, sander, planer, finishing nailer etc. would be handy if you have them)

Materials:

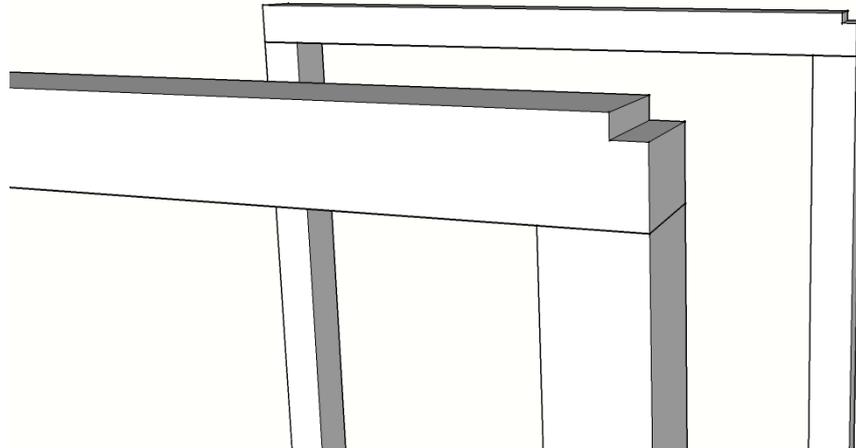
- Minimum of 4m of 30x30mm timber, spruce/pine or larch or douglas fir (for frame)
- 12mm plywood, good quality (birch topped or hardwood) minimum of 1200x450mm
- Suitable cladding timber, of your choice, enough to cover approx 0.9m², we used (alternating) lengths of 15mm Oak and Jarrah, but almost any wood type can be used, from Spruce to Holly, Sycamore to Mahogany. We recommend re-used or recycled high quality timber.
- 1 x wooden toilet seat (it must be made of solid wood so it can be adapted to create a more air tight seal)
- 2 x small brass or stainless steel hinges approx 40-50mm long and 30-35mm wide
- 25mm, 35mm and 80mm screws, and some suitable length panel pins for cladding.
- 1 x bucket purchased through eBay using suggested search term '20 Litre Plastic Bucket with Lid' (compost toilet designed to fit bucket of these dimensions - design change needed at various points if using different bucket).
- 1 x wide opening water container purchased through eBay using '5 Litre Stackable Jerrican & Cap' search term (compost toilet box designed around this container as above)
- 1 x urine separator provided by Free Range Designs.



above two pieces are made from the 12mm plywood coat in a few layers of danish oil once cut and sanded

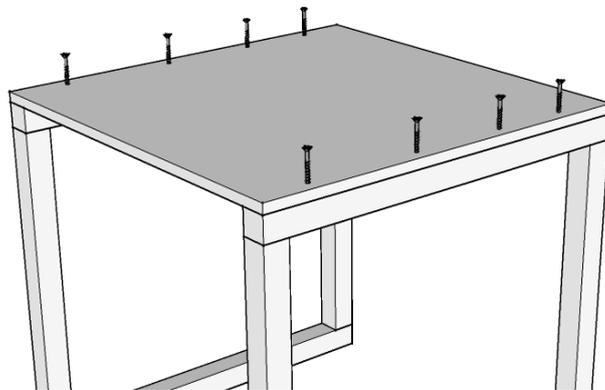
Fabricate frames to dimensions on page 3. Glue and screw. Make them as square as possible.

Create small rebate approx 7mm deep on frames in top rear corner, (for reducing camming action when removing toilet seat when servicing) as shown:

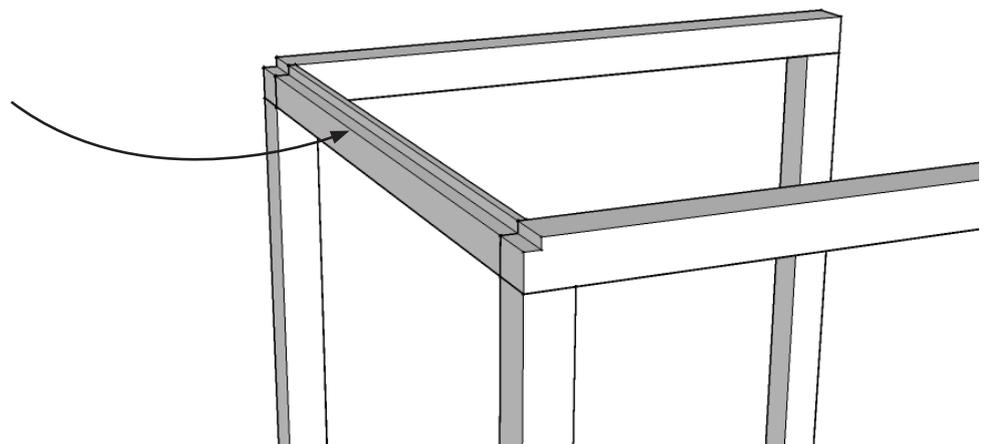


Cut ply to dimensions stated on page 3.

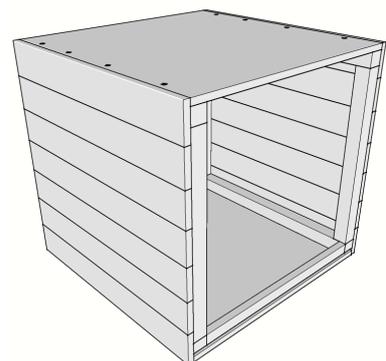
Choose a piece of plywood for the base, clamp each frame to it, then screw and glue each frame to plywood, edges flush to outside, as shown:



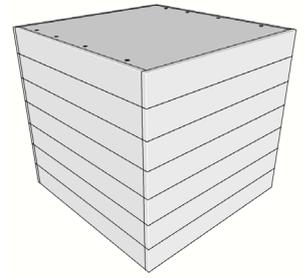
Next, cut a 15mm wide piece to fix in place as shown.



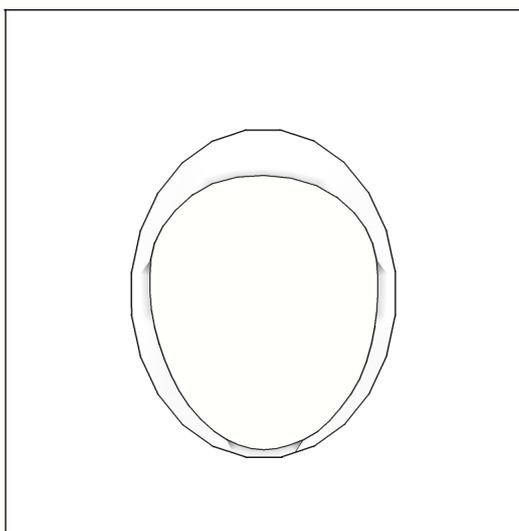
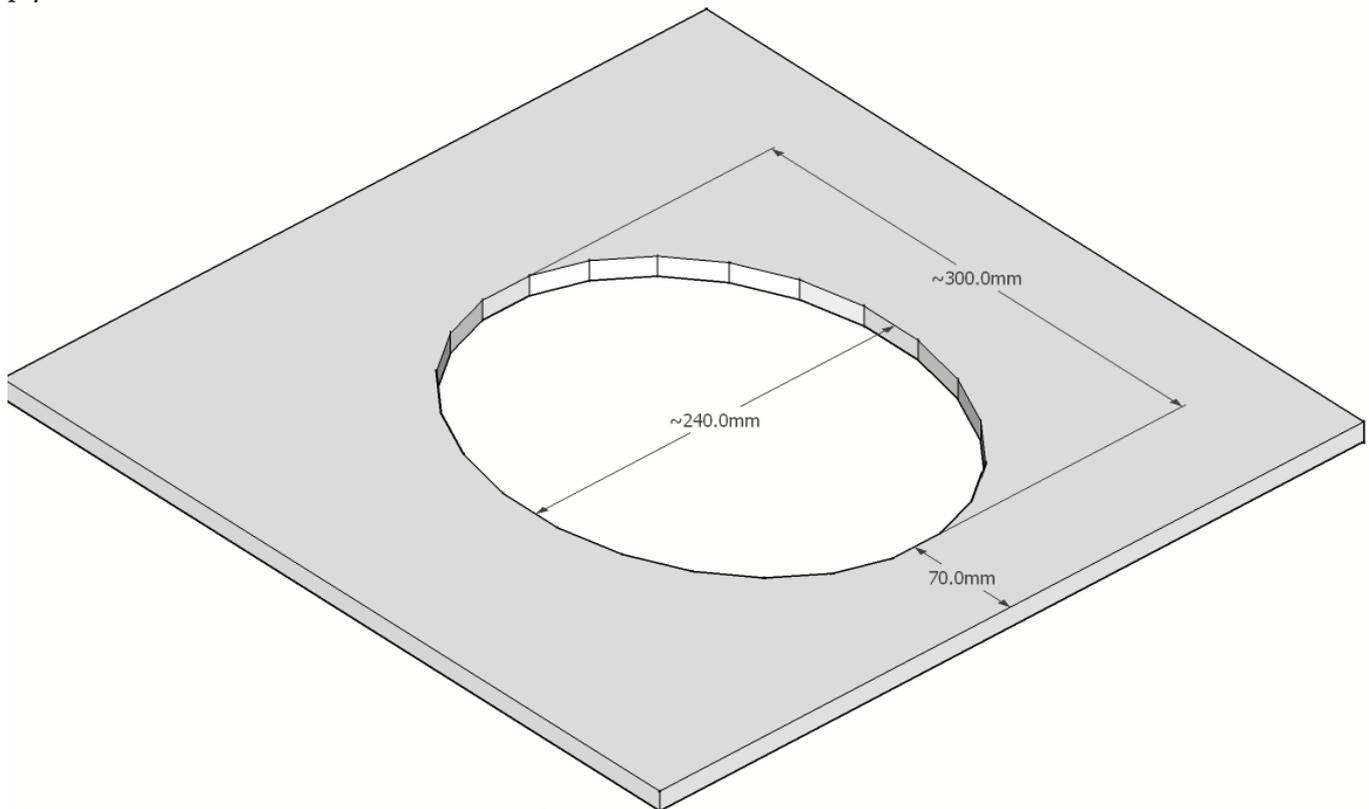
Place seat ply onto top of frames, turn whole thing upside-down on a flat surface. Ensure both frames are square. Take sufficient pieces of cladding timber to cover the two sides and cut to length of sides (480mm). Start with first piece resting on frame surface and fit first/top cladding strip flush so that it will be flush to top of ply seat. Fix in place from reverse with glue and pins. Result shown right.



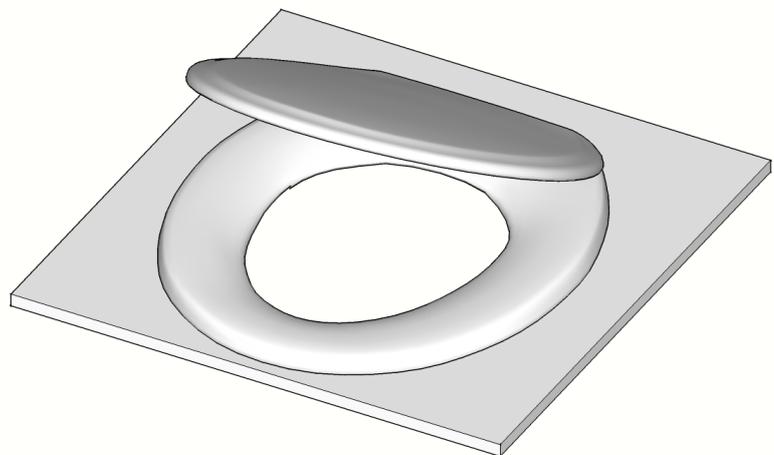
Ensure frames and side cladding are square to ply wood. Cut rest of cladding to fit flush over the ends of the side cladding and fix into frame with glue and pins. Result shown right.



Next, take the seat ply and cut an elliptical hole (you can draw round the inside of the toilet seat and increase the 'diameter' of the hole by approx 20mm) centrally and approx 7cm from front, as shown. Use these measurements as a guide only as your toilet seat hole size may differ. The hole should be situated such that the front of the toilet seat overlaps the edges of the hole and should be as close as possible to the front of the ply.



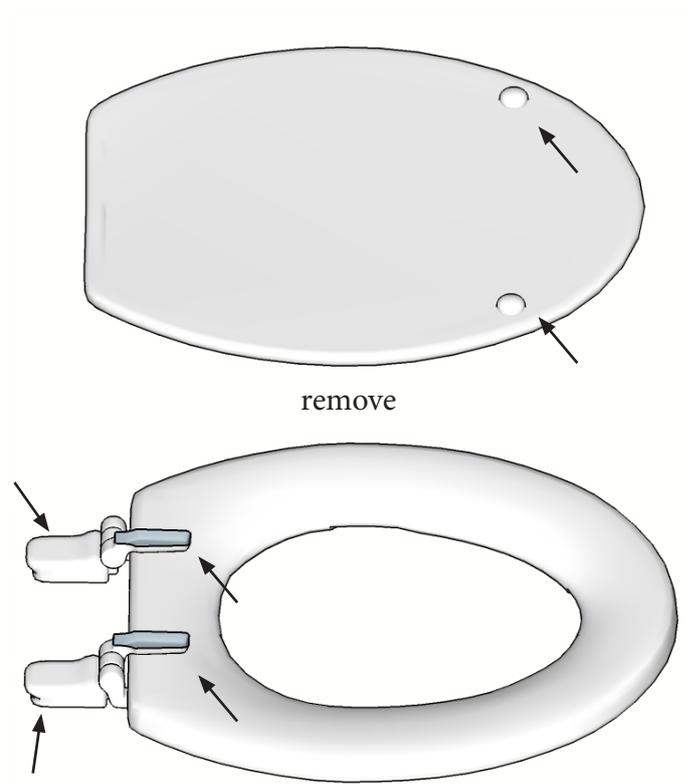
seen from below



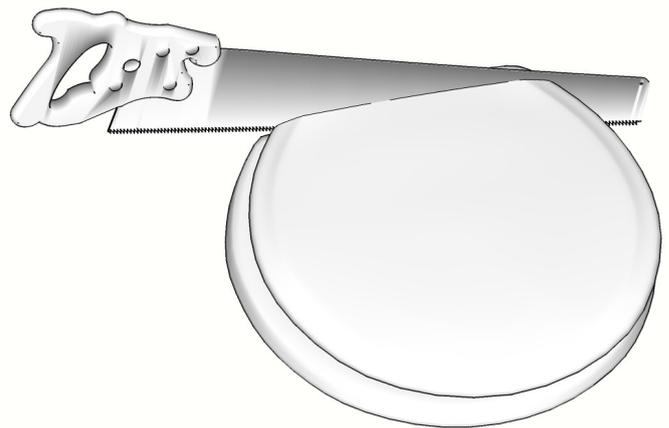
Before fixing the seat onto the ply it needs adapting. This is so the seat creates a more air tight fit that will function to stop any undesirable odours and stop flies from gathering. See next page on how to do this.

Remove all parts of the toilet seat except the seat itself and the lid. This means removing the pad/feet on the seat and lid and the hinges and fixings.

Then you should just have the bare lid and bare seat.



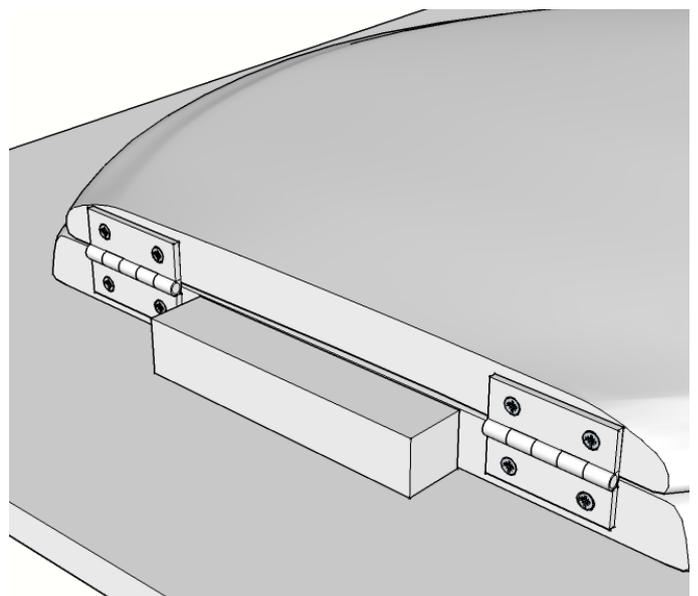
Next, draw a line at the rear of the seat and lid and cut the rear end off both. You only need to cut off enough so that the two will have a flat back (as shown right).



Now take your two small hinges and screw lid to the seat (as shown bottom).

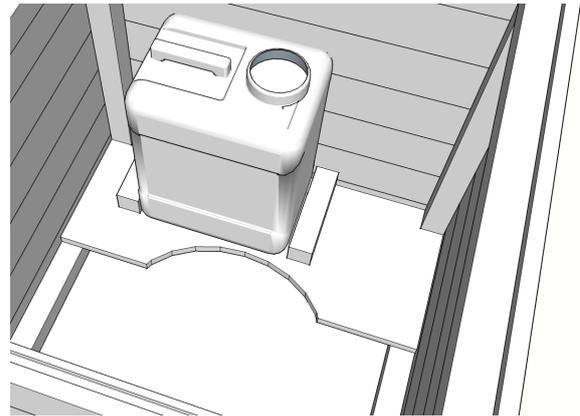
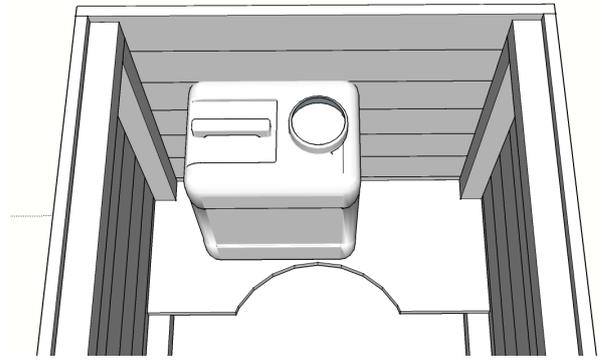
Now screw, from the underside of the ply, the seat to the seat plywood.

Cut a block to fit against the back of the toilet seat, in between the two hinges, as shown right.

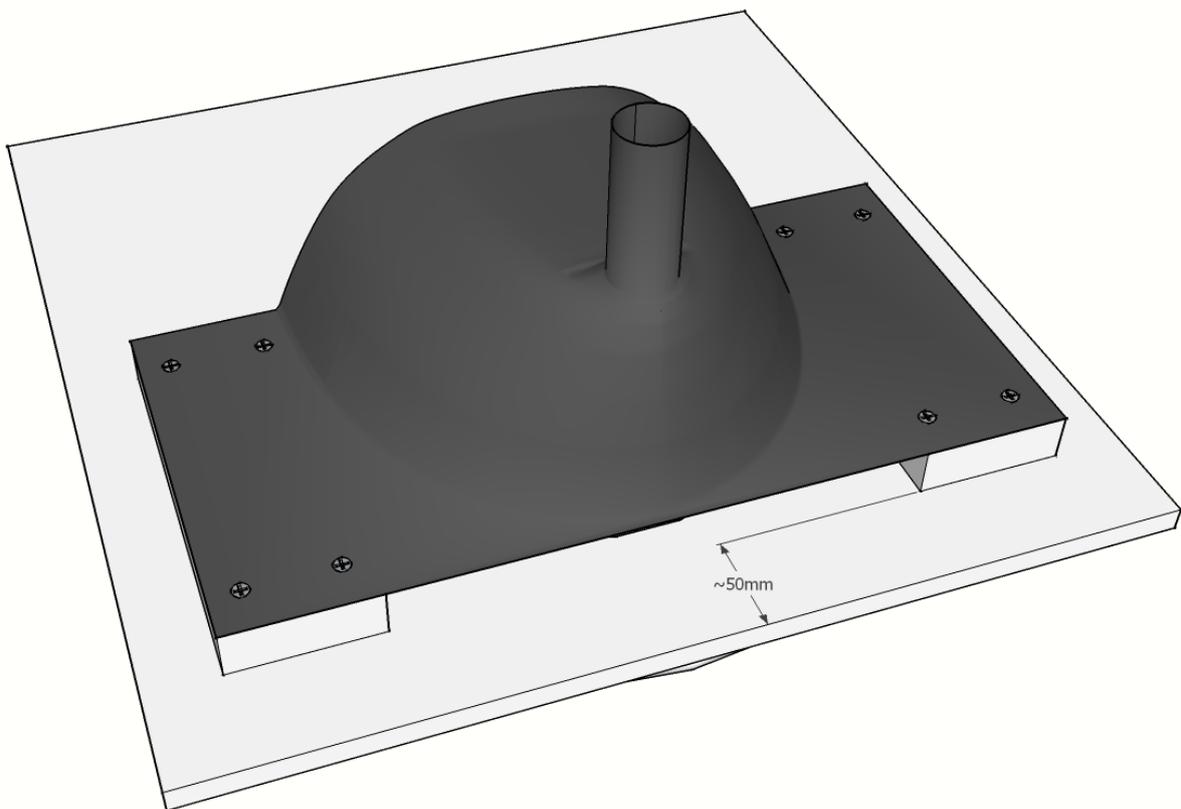


Cut the urine container platform as per the diagram on page 3 from ply wood. Place inside the box as shown, followed by the urine container.

Centre the urine container and make sure it's up against the front wall of the box. Mark either side of the plywood where the container sits, then screw a couple of blocks onto the ply to act as locators for the container.



Screw two blocks of off-cuts from the frame and/or cladding to make a packer 30mm high that can be fixed in between the urine separator and the underside of the ply seat, as illustrated below. Ensure the location is central on the ply from either side and that the spout of the separator will fit directly into the urine collector when the seat is fitted onto the box.



Coat the cladding in a few layers of Danish Oil (you may want to coat the inside of the box also), and wait for it to dry. Place the bucket inside, put the seat on and your compost toilet box is ready for use.