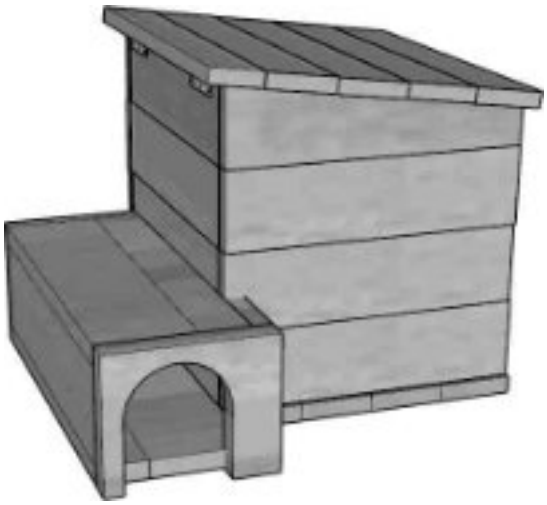
How to make a hedgehog house from a pallet

As of February 2018 it is reported that the number of UK hedgehogs is down 97% compared with the 1950s. Hedgehog houses like this one are essential shelters for winter hibernation and also nesting, and will help to increase numbers.

This design is a development of others found online, with modifications and enhancements to suit both ourselves and our prickly friends. It uses pallet material that is fairly plentiful in supply and can be picked up at builders' yards or businesses that receive heavy deliveries. Ours was supplied with fuel logs, and there was also suitable wood making up the packing case that the actual log burning stove was delivered in.



Features

- Made from free or cheap material
- Sloping roof to shed rain water
- Hinged roof to allow for placing bedding
- Tunnel entrance with inner doorway at far end to deter predators and provide shelter
- Optional arched entrance as further deterrent
- Fixed ventilation pipe
- Sturdier and more weather resistant than ready-made ones

Some places may want to charge for pallets, but are usually desperate to give away damaged ones, which can still be useful as a source of timber.

The one I made is based on wood that measures 95 x 20mm, though this can vary according to the pallet manufacturer. Just make certain that all pieces for the walls are of identical width and thickness.

Tools Required

Handsaw

Electric jigsaw or circular saw

Narrow blade for jigsaw (optional for shaping the arched entrance) or coping saw

Drill, preferably cordless

No. 2 point Supadriv screwdriver

Hammer

Drill bit for fitting ventilation pipe

Materials

Pallet(s) or packing case wood or reclaimed timber. Approx. 11 metres of boarding is required.

Roofing felt, 1 square metre approx.

15mm or 20mm galvanised roofing felt nails

Nails or screws for joining the pieces

2 x 50mm brass butt hinges and 12mm or 15mm screws

Making the House

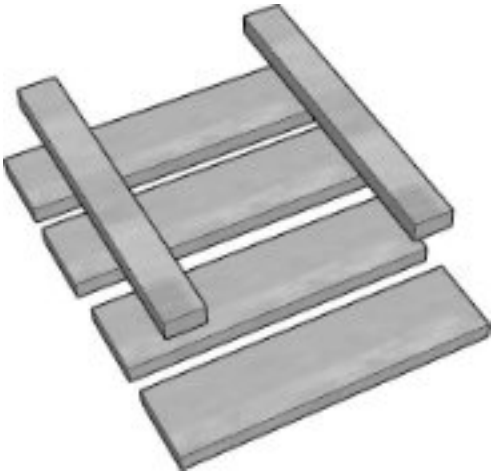
The main pieces are made from the pallet deckboards that often measure around 95mm by 20mm. I cut the lengths at 360mm, though this is optional. This design needs:

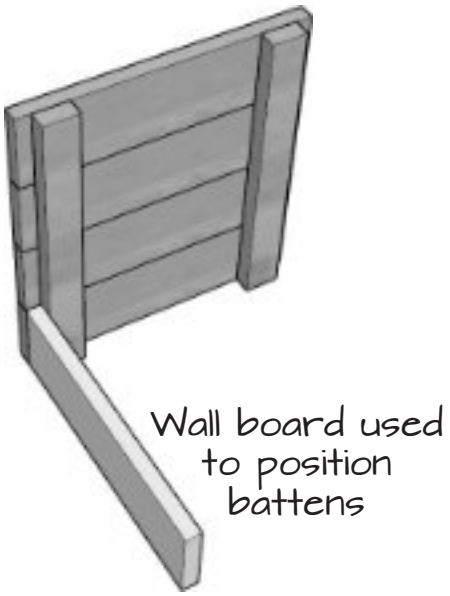
Cut to 360mm (depending on how much is available):
- 16 for the walls
- 4 to make the battens, narrower pieces preferred
- 4 to make the floor

Cut to 400mm (to provide an overhang all round):
- 4 or 5 for the top

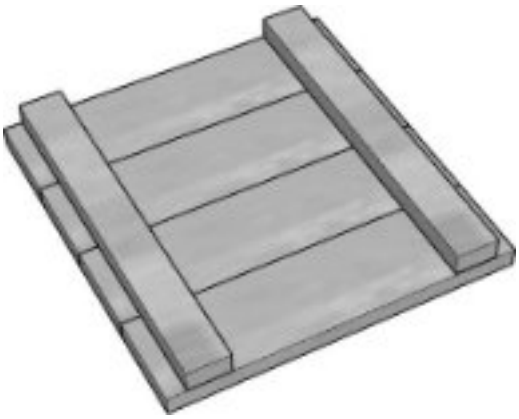
Front and rear walls

Put 4 boards together and fasten 1 batten at each side, spaced in from the edges by the thickness of the wall boards (not to be fastened on just yet).

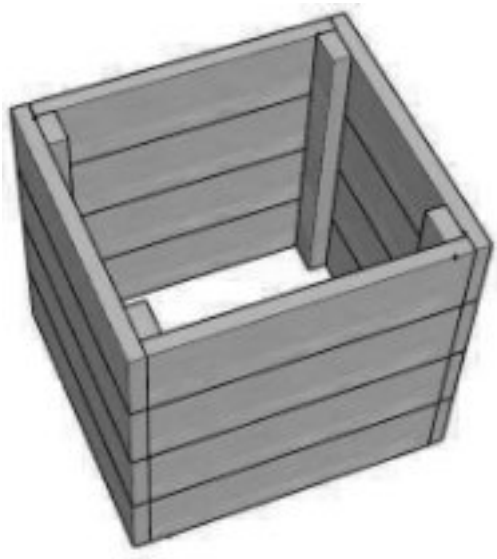




Make one more



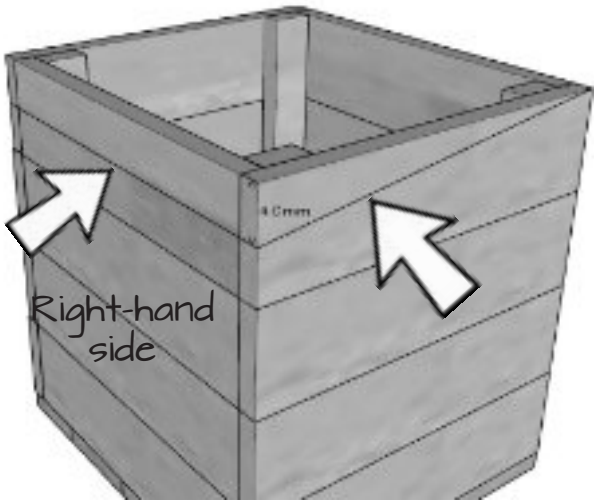
Stand the walls with the battens facing each other and fasten a wall board to the rebate in each of the front and rear walls.

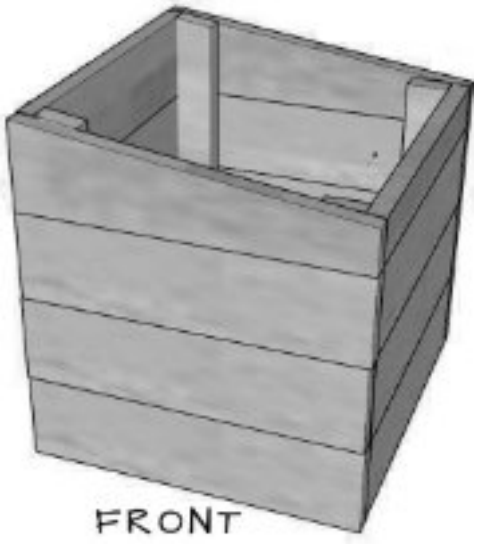


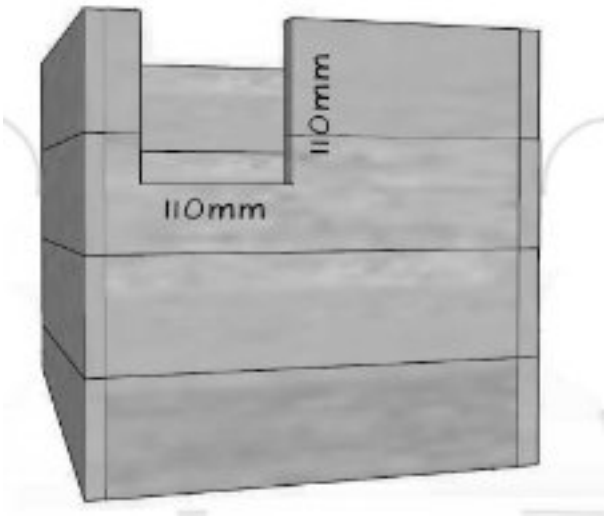
Fasten the remaining 6 boards to form the end walls..

Mark a line 40mm down from the top of what you want to be the right-hand side. Continue this line sloping upwards towards the top edge of the LH wall.

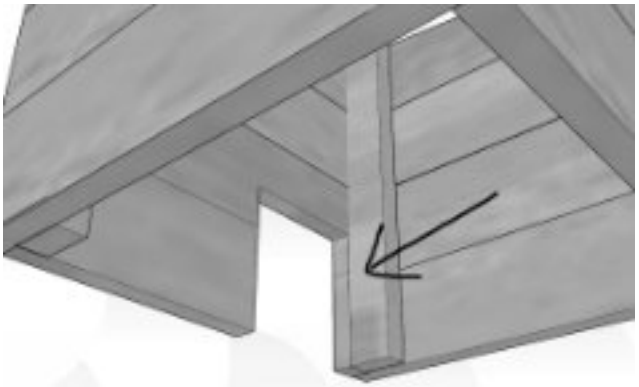
Cut away the section above the marks. First remove any nails or screws that are likely to come into contact with the saw blade.



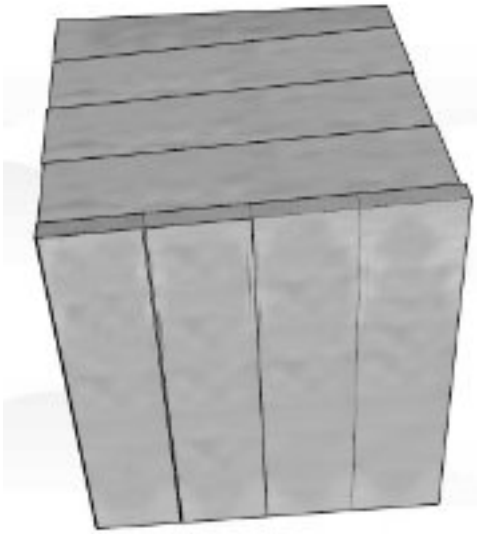




Turn the house upside down and mark the doorway at the rear of the left-hand wall.

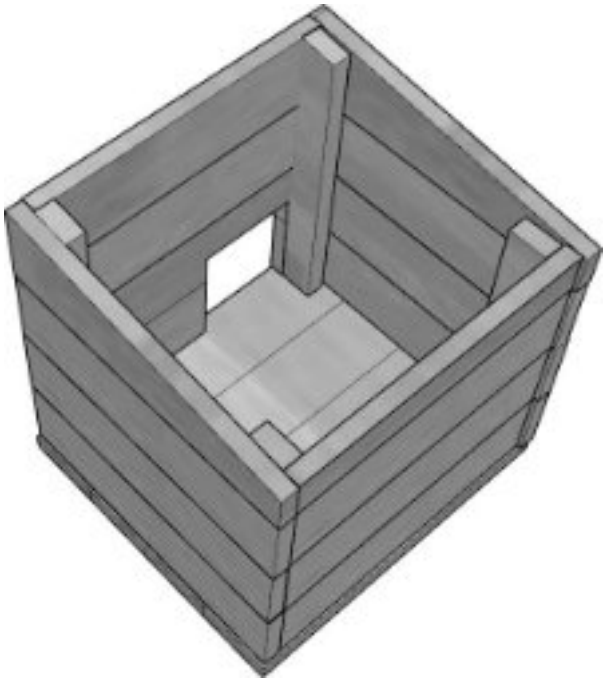


Its position will need to take account of the rear wall batten.



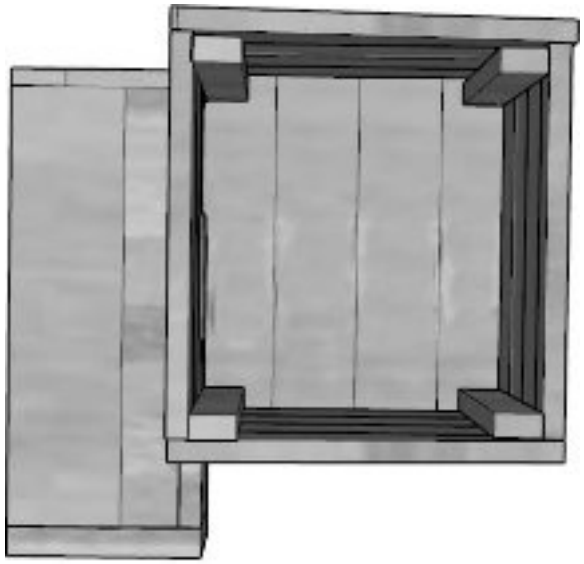
Fasten on the floor boards.

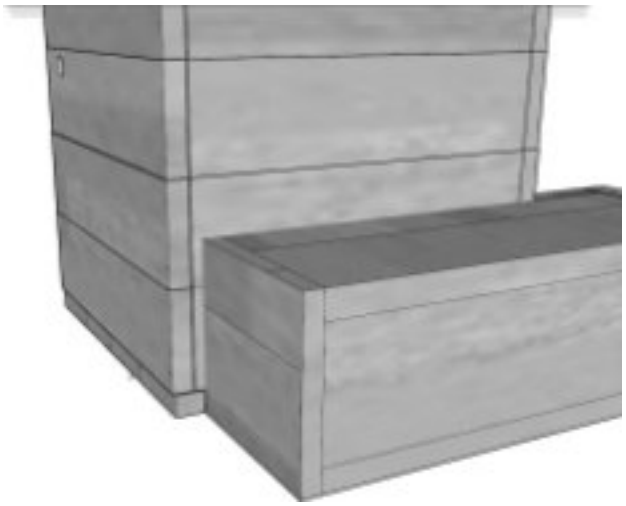
The story so far…

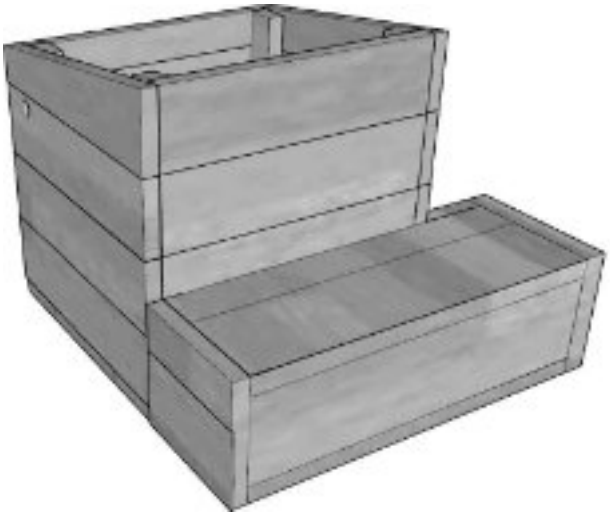


Entrance Tunnel

The entrance tunnel is a separate section fastened to the LH side of the house (my wife's idea, which provides a tunnel with a weather-protected doorway at the far end and doesn't restrict the amount of nesting and hibernation space). In the one I made the tunnel is staggered –

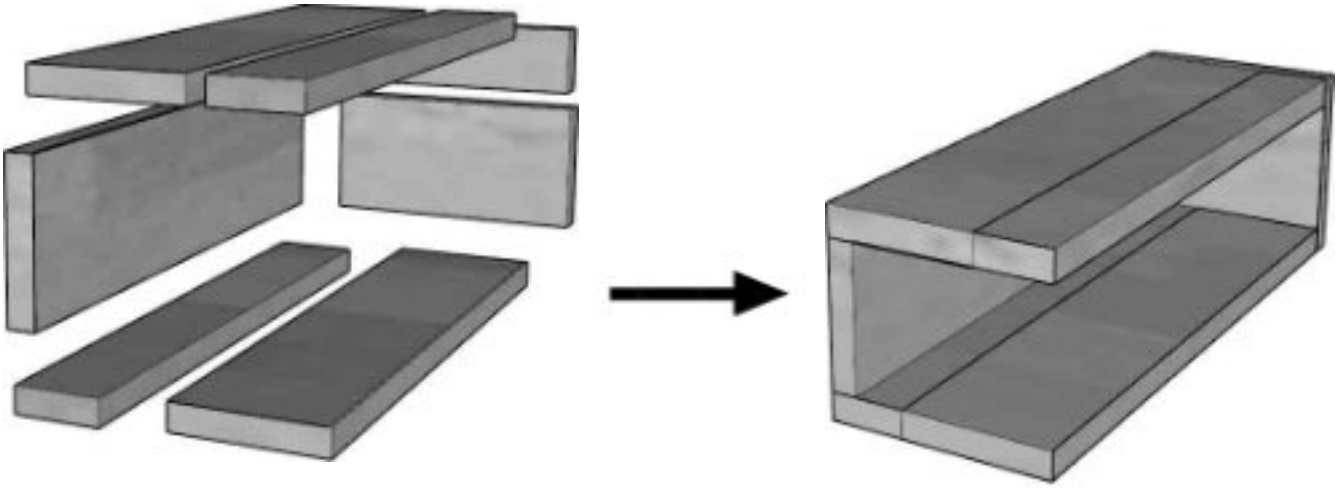


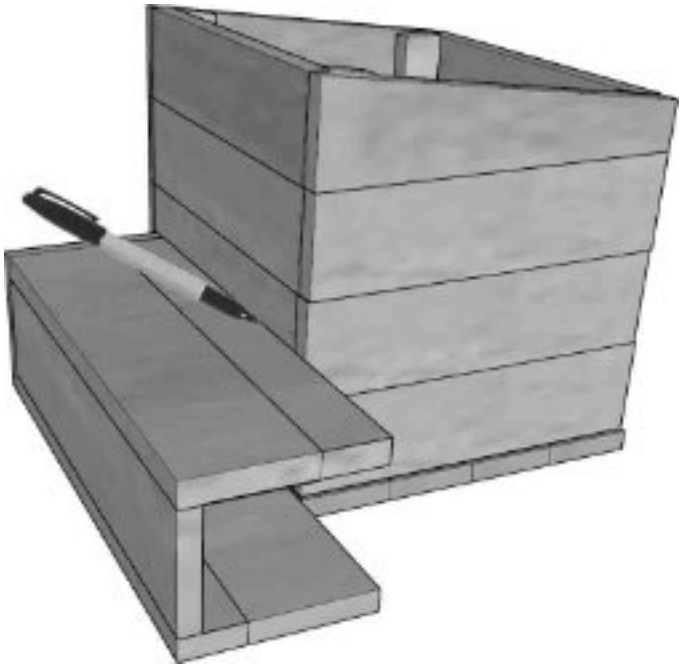




but could also be made with the back walls of both sections in line.

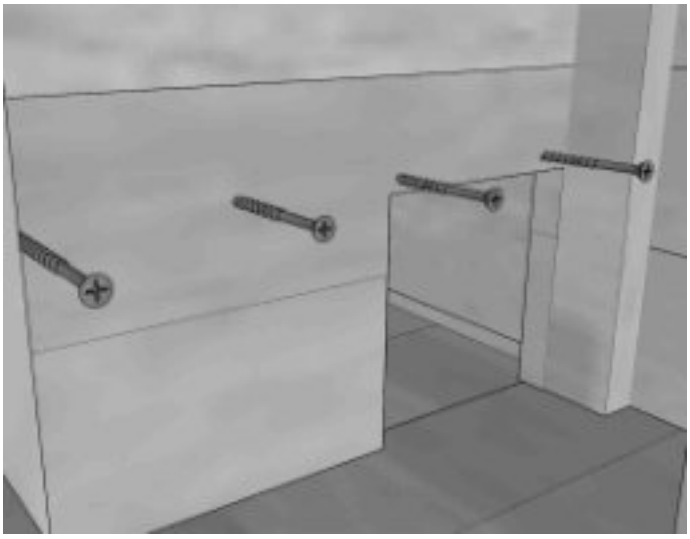
Making up the tunnel to a specific width and height (120mm **on the inside**) may require some narrower pieces to be jointed with the standard pallet boards.

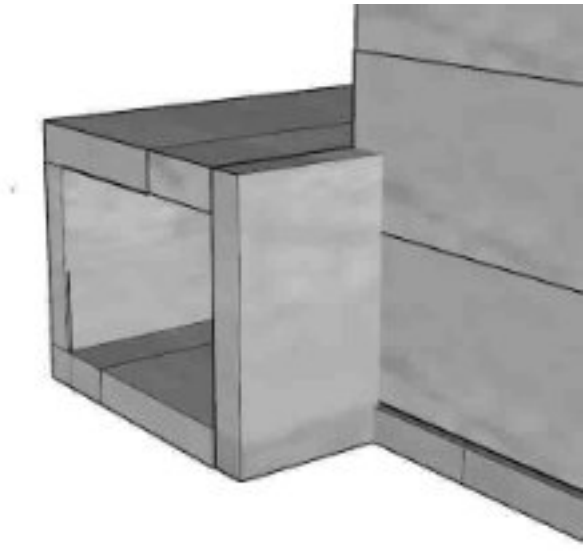




Placing the tunnel against the left-hand side of the house, and positioning so that the inner doorway is enclosed, mark a line where the tunnel roof runs along the house wall.

Below this line drill clearance holes for the screws that will be fastened from the inside of the house to join to the tunnel.



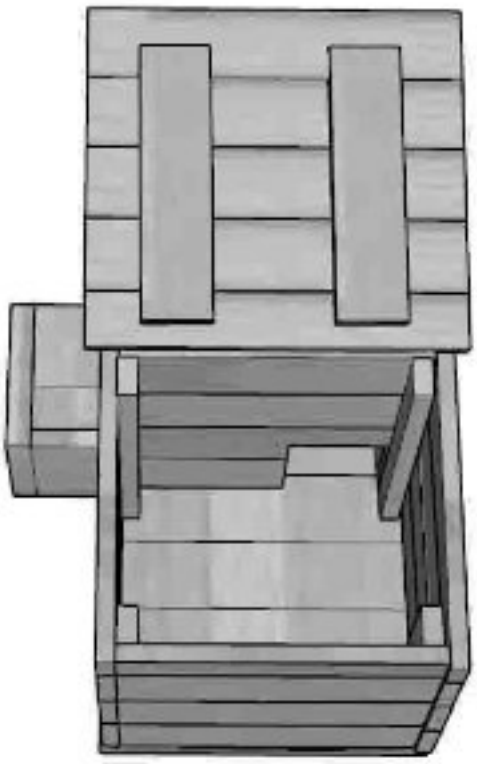


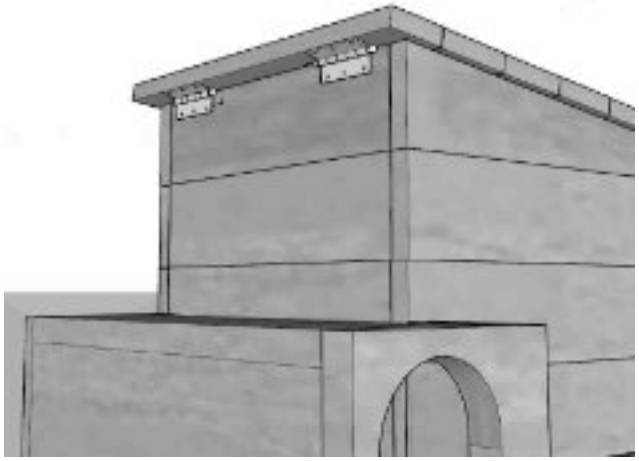
The tunnel is completed by fitting a board to the gap at the right-hand side…

and will be further secured when blocks are later fitted to the underside.

Lid

The house lid needs to overhang by around 20mm all around. Cut the boards and fasten together with 2 battens that will fit on the inside.



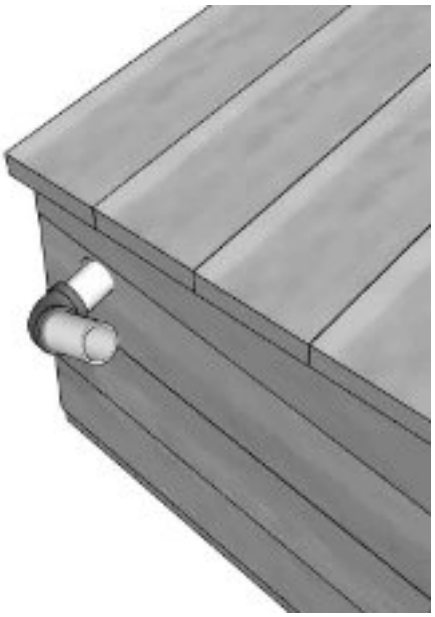


Fasten on the lid with hinges

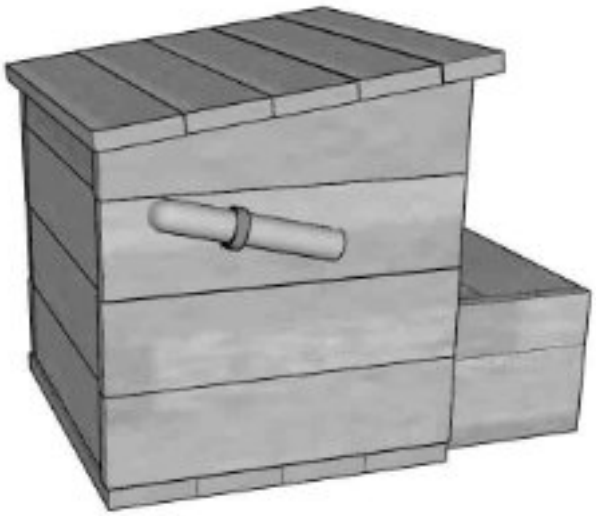
Ventilation

A pipe to provide adequate airflow is required. This can be a short piece of garden hosepipe (so long as it's not the type that stores flat), or maybe some rigid plumbing pipe. I used some offcuts of plastic overflow pipe (the type for toilet cisterns, water tanks or central heating condensate overflows). Luckily, I also had a 90-degree elbow connector to provide a bend that stops draught blowing straight in on the hibernating or nesting hedgehogs.

Drill a hole that makes the pipe a snug fit.

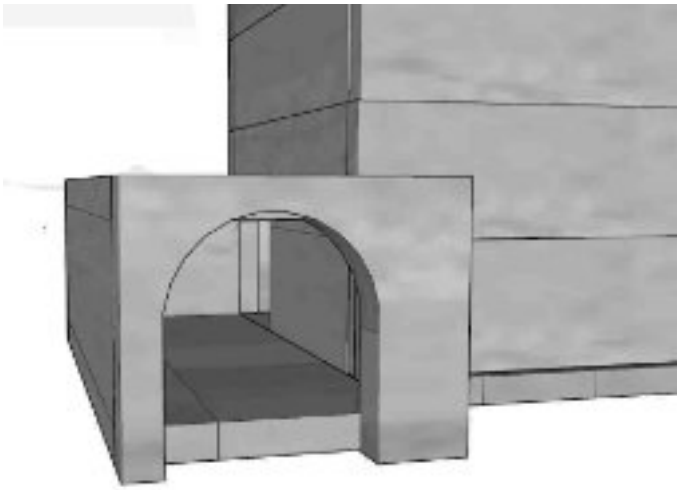


If using flexible pipe, such as garden hose, some means of making it bend will be needed, such as securing with a plumbing clip. Be careful that it doesn't kink and restrict airflow.



Note: If you intend to cover the hedgehog house in leaves, use a length of hose that will reach beyond the foliage and prop the end to keep it clear of obstructions.

The hedgehog house is almost there!



An optional arch may be fastened to the tunnel entrance. This further helps to keep out cats.

Use any offcuts to attach blocks underneath at each corner and particularly where the tunnel floor and house floors meet. This is to keep the hedgehog house off the ground, especially important if standing on concrete slabs. It provides an air gap to preserve warmth and prevent the floor from rotting. These shouldn't be too high or the hedgehogs will need climbing apparatus to get in and out.

Finishing the Roofs

Independent hardware shops (hurrah!) are likely to sell roofing felt by the square metre, which is about what is needed for this project; the DIY superstores are not so helpful. The stuff I used was left over from a shed roof job a few years ago. All that's needed is something to keep the rain from getting through the roof boards and also, if there's any felt left over, to wrap around some of the walls to stop draughts.

For an extra finishing touch this house has a ramp to help pregnant hedgehogs.

Do not use wood preservative or any sort of creosote alternative as this can be harmful. Roofing felt and shade should be sufficient to make these little houses last for some years.

Placing a bedding of dried leaves and some hay (available from pet suppliers) in the house will encourage hedgehogs to take up residence to hibernate (October or November in the UK) or to nest (June and July).

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