

Pirate cubbyhouse



If you have fond memories of playing in a cubbyhouse when you were young, the why not make this one for your kids? It takes the idea just a bit further ...

Follow the instruction sheets and pick up tips from the photos.

Here's how



STEP 1 Set out the site. Make sure wherever you put it that you can get the mower around the back. The main part of the cubby is 2400 x 1800mm. It is supported on 90 x 90mm posts set in ground screws, so the centre of the screws will be about 50mm in from the edge all around to allow for the thickness of the posts. Therefore, the set-up will be 2300 x 1700mm. Drive in the pegs and check that the diagonals of the rectangle are equal so you know that the cubby will be square. Add a fifth peg at the front, centred, and 965mm out from a line between the front pegs.

STEP 2 Drive in a ground screw with the centre at each peg position and try to get it as plumb as possible by checking with a short level. Screw in at 5 screws. As the screws

go in deeper, they'll be more difficult to turn, so use a length of timber in the forks to drive them in. On a site that's almost flat, check the screws finish at about the same height using a long length of timber and a spirit level as these will make building the cubby easier.

STEP 3 Use a plane to take the sharp edges off the timber to be used for posts (A) and bearers and joists. The posts are made of LOSP pine and the other timber is plain pine. As the cubby is to be painted and is positioned off the ground, untreated pine should give 10-15 years of service. The use of CCA treated pine is not recommended in areas where there may be human contact. Planing off the sharp edges solves the problem of the anoles splintering.

STEP 4 Stand the posts in the U-shaped rectangle. Place a 10mm packer under each post, align the post and drill through the U and post to temporarily bolt the post in place. The packer ensures that water does not sit under the post and lead to early rotting.

STEP 5 Fit all 4 main posts in the same way and brace them in position with timber props to the ground and other posts so they are all plumb. Once secure, remove the bolts from 1 side.

STEP 6 Cut a long bearer (B) so the back end extends 45mm beyond the post. To get the best fit, notch out the inside face if the beam is low to the ground and sits

over the shoes of the ground screws. Clamp to the posts so the top of the bearer will be 220mm from the ground at the highest point on the ground. This gives a minimum of 30mm clearance to the ground. Check that it is level through to the other end, then drill through the U and post into the bearer to mark the bolt holes. As most drill bits are not long enough, move the bearer away and finish drilling through the bearer.

STEP 7 Put the bearer back in place and push the cuphead bolts through from the outside. Add a washer and a nut, and tighten. Wherever possible, offset the bolt holes diagonally. Repeat on the other side to permanently fix the posts and bearers to the ground screws. **Continued overleaf**



STEP 8 From the overhanging back end, measure 400mm intervals along the bearers as the positions for the joists (C). To fit joists with the tops flush with the bearers, use 4514D joist hangers to fix the 5 centre joists. This saves on height compared with joists sitting on bearers. Use an offset of the joist to set the position of the joist hanger, then nail one side of the hanger to the bearer. Nail all the joist hangers to both bearers.

STEP 9 Place the joists in the hangers, then nail off to the sides of the joist and into the bearers. Nail the back joist to the posts and from the bearers into the ends of the joist.

STEP 10 Set the bow post (D) in place and bolt on as with the other posts. Hold the 2 bow bearers (E) against the bow post and against the front face of the main posts to mark in the angles directly from the cubby (should be about 39° and 51°). This requires a little trial and error to get the length just right. Start long and work back slowly. Nail to the posts and across the joint at the front. Follow up with coach bolts into the posts.

STEP 11 Measure the length and cut the short joists (F) of varying length for the front with an approximate 51° angle at each corner and nail on from the outside. Also add a second joist with square ends between the

posts where the angled front starts so the floor sheets can be nailed where they are joined. Reinforce with batten screws.

STEP 12 Cut the 2 grooved plywood panels for the rear floor (G) and notch around the posts so the rear sheet will bear on half the joist. Apply the glue to the joists and bearers, then nail down with decking or galvanised flathead nails.

STEP 13 At the front, cut the floor sheet with a notch to fit around the bow post, and glue and nail down as before. Mark the angle of the bow bearers on the top surface, then cut off excess flooring so it will be flush with the edge of the bow bearers. Also add a small floor in-fill offset in front of the bow post.

STEP 14 Cut the main posts to a height of 1550mm (kid's height) above floor level and mark all the way around with a square. Head height could be increased and will only affect the length of the aft wall studs and sheeting. Similarly, mark and square around bow post so it finishes 600mm above floor level. Cut as far as you can with a power saw, then finish with a hand saw. Nail, then bolt the top beams (H1, H2) to the outside of the main posts.

STEP 15 Nail the side wall plates (I1) to the jack studs (I2). From the top of the full height

wall studs (I3), measure 190mm down the inside, join to the outside top and cut off the triangle. Nail stud to the ends of the plates, then nail the frame assembly to the back post and floor, as well as through the angled section of the stud to the top beam.

STEP 16 In a similar way, nail the aft wall plates (J1) to the studs (J2). Fit between the posts and nail in place. The top plate creates a small shelf at the top.

STEP 17 Cut more of the Plyline as side sheeting (K) and glue and nail to the side frames. Then cut the 2 pieces of aft sheeting (L), this time to the full height of the frame with the grooves running vertically and joined down the middle.

STEP 18 Hold a 1400mm-long piece of timber to use for a bow plate (M1) on top of the bow post and against the main post. Use a sliding bevel to transfer the angle between them to the plate and cut the angle. Repeat for the angle at the other end. Again, this requires a certain amount of trial and error to get the right length.

STEP 19 As the plates meet the posts at an angle, reduce the width of the plates by ripping them to a narrower width to suit the main and bow posts.

STEP 20 Nail down the bottom plate, add the 2 end studs (M2), with the broad face flush with the outside of the plates. Add the centre stud. Nail on the top plate and screw to the main and bow posts. Clad the front frame assembly with bow sheeting (N) as for the side panels.

STEP 21 Mark in two 200mm-diameter portholes in the aft wall using the base of a 4-litre paint tin. Or use a makeshift compass made of 2 lengths of timber screwed together at 1 end, with 1 length sharpened and a pencil taped to the other. Centre the portholes 250mm down from the top of the aft panels. After drawing the circle, pre-drill with a wide 10mm bit, then cut around the circles with a jigsaw.

STEP 22 Install an intermediate beam (O) between the top beams at the side wall studs. This is needed to support the roof structure.

STEP 23 Mark out the gable ends (P) by finding the centre of the top edge and squaring a line down. From the bottom of each side, measure up 100mm and join to the centre of the top edge. Cut off the triangles. This full-size gable is used at the back, but the front gable needs to have 45mm cut off from each end. To nail the front gable in place, temporarily nail a batten to the



beam, 100mm down from the top. Place the short gable on top and nail to the beam. This automatically gives the gap needed at the outer edge so the roof sheathing when fitted will also sit on the edge of the side beams. Repeat at the back, but as it is on the outside, the gable end corners can be aligned with outer edges of the beams.

STEP 24 Cut the ridge (Q) to length and screw in place so it is centred and the top edges of the ridge are flush with the slope on the gable ends.

STEP 25 Rafter (R1) are located at roughly 600mm centres. Take the length of the rafters from the distance between the ridge and top plate along the line of the gable end. Also, take the angle of the 'plumb cut' with a sliding bevel where the ridge joins the gable end. Cut 1 rafter and adjust until it fits perfectly. Then use it as a pattern to cut the other rafters. Support a rafter on the side beam so the top surface will be in line with the tops of the end gables, and nail to the beam. Do the same for its opposite rafter, then pull them into position, opposite each other at the ridge. Fix in place by screwing along. Repeat for the other pair of rafters. Cut roofing cleats (R2) to support the roofing at the gable ends and to fit between the ridge and the beams. Screw on from the outside.

STEP 26 Cut the roofing (S) to size and nail to the rafters, allowing a 45mm overhang at each end and butting the sheets at the top. This leaves about a 100mm overhang along the sides, which creates a handy wide drip line for when it rains. Seal the top joint with a bead of silicone after the outlay has been painted. If the 90° front corners are of concern to you as you walk past the outlay, cut off a 50 x 50mm triangle to save the adult heads.

STEP 27 Nail wheel wall plates (T1) to the studs (T2), and add the wheel mounting rail (T3) between the studs at the top. Screw in place against one of the studs, but set the flange back 12-13mm to allow for the lining.

STEP 28 Glue and screw on the inner wheel wall lining (U), then find the middle of the wall across the top and measure 100mm down. Drill a 10mm hole for a cuphead bolt to fix the steering wheel, but don't fix it until the wall has been painted. Screw on the outer lining without glue so you have access to the bolt.

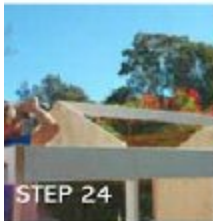
STEP 29 As a finishing touch, add a prow (V), or nose of the ship, by measuring 100mm down from the top on both pieces and joining this to the halfway mark across the bottom. Cut off the long narrow triangle

from each piece and screw together to make the equivalent of a 50 x 90mm-thick post. Screw this to the front of the bow post with 12.5mm batten screws.

STEP 30 Paint the good ship in the colours of your choice. The colour Black Pearl may be flavour of the month but, according to a survey, 60% of pirate ships include heavy lashings of red as well as black. We used Capricorn red and black, and clear decking oil for the deck. When dry, bolt the steering wheel to the rail, tightening it enough so young kids are unable to turn it and trap their hands in the spokes. As the kids get older, you could slacken off the nuts so the wheel can be turned. Apply silicone along the roof ridge to ensure it sheds rainwater.

STEP 31 No pirate ship is complete without a plank. Cut a cleat (W) and screw it to the side of the beam on the port side of the boat, 45mm from the top of the flooring. Drive in the fast ground screw about 900mm straight out from the opening in the side of the cubby. Wind down until the plank (X), placed on the cleat and shoe of the ground screw, slopes down from the cubby. Screw a block (Y) into the shoe to raise the plank to level, then screw the plank to the cleat and block. This is safer for young kids than a springy board.

Builder: Construction by John Riba, **Secretary:** Fu Wah, 0402 826 993 (Sydney only), **Clive Valley Carpentry** 0814 741 596, **Travis Riba** 0408 733 406, **Darren Swaink**, **DSD Construction**, (02) 9582 1288 **Ground screws** (see also 885 on internet) 200 each, **Kalbar Australia**, (02) 9584 0854 or www.kalbar.com.au and **Ironing by Water Ply&Wood**, 1300 138 721 or www.ironingbywater.com.au **Timber fasteners:** **part. Bunnings**, www.bunnings.com.au **stone nationally:** **Quicktop slabs** (with van), **Travis Riba**, available services across nationally 049 346 996, **D&B**, 1300 684 354 **Roof nails:** **Boach Australia**, 1300 307 044. **Traditional 60mm oak steering wheel**, (02) 62164 - 516490 **Wholesale Marine & Leisure**, (02) 9436 3118 or www.wholesalemarine.com.au **Prote-Rig** (600 x 1500mm), (40, At Page), (02) 9533 0885 or www.prote.com.au **At pirate gear** **Lombard The Pirate People**, (02) 9547 1599 **Ticorn hat**, **Home Truck Hire**, (02) 9564 1454



STEP 24



STEP 25



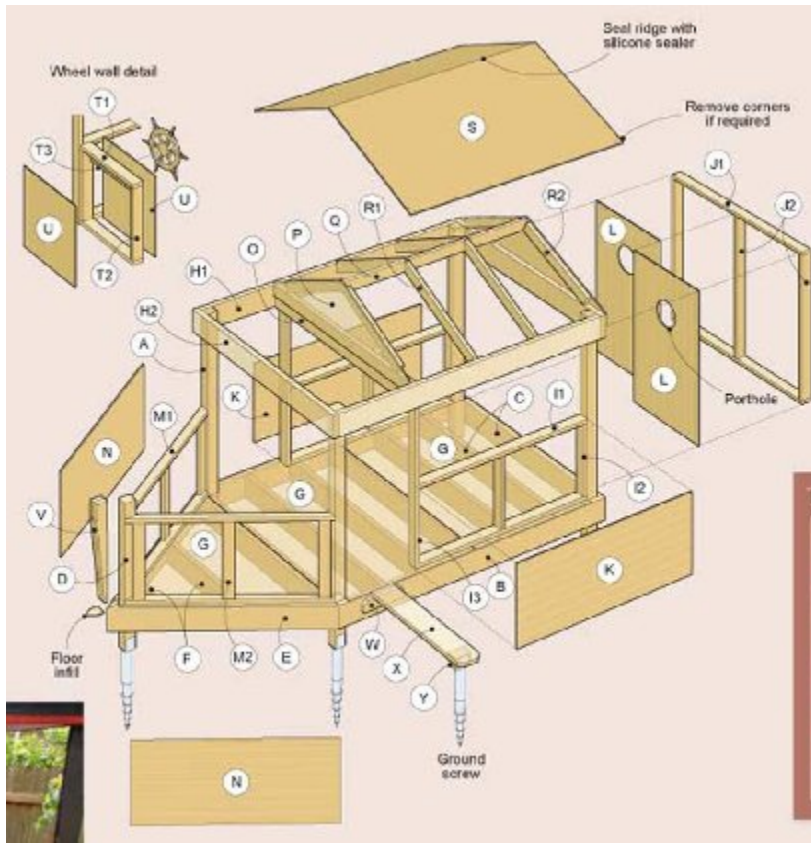
STEP 26



STEP 27



STEP 31



*Cut back later to 1550mm (A) and 800mm (D) above finished floor level. If higher off the ground at any point, allow extra length in items A and D.
 **Take exact size off cubby as it is being built.

You'll also need
 6 Kimer ground screws (855mm long will do in most cases on flat ground, other sizes available);
 175mm cuphead bolts, washers and nuts (10);
 75mm coach screws (10); 45 140 Physic joist hangers (10) and timber connector nails;
 150mm cuphead bolts, washers and nuts (8);
 125mm batten screws; paint (Capisun red, black); silicone sealer; timber steering wheel (optional)

Notes
 Check all dimensions against the cubby as it is being built, as small variations can creep in when building something this size on irregular ground.

Tradie's tip

Ground screws The pirate cubby is supported on Kimer ground screws. These screws are an alternative to digging a hole, pouring concrete and setting a post base in place. They come in various lengths and are screwed into the ground by hand or machine. As the screws are driven in, they compact the soil around the screw rather than digging it out like an auger. The ground screws can take up to two tonnes in weight, depending on the ground conditions. If you ever need to remove the structure, you simply unscrew the screws – there's no concrete footing to be dug up. The ground screws have a life of about 25 years in most situations.



Gather your supplies

- **A*** Posts (4) 90 x 90 x 2100-2400mm LOSP pine
- **B** Long bearers (2) 190 x 45 x 2445mm pine
- **C** Joists (6) 190 x 45 x 1800mm pine
- **D*** Bow post 90 x 90 x 1100mm LOSP pine
- **E**** Bow bearers (2) 190 x 45 x 1420mm pine
- **F** Short joists (total) 190 x 45 x 5400mm pine
- **G** Flooring (3) 1890 x 1200 x 12mm Plyline plywood
- **H1** Top long beams (2) 190 x 45 x 2400mm pine
- **H2** Top cross beams (2) 190 x 45 x 1890mm pine
- **I1** Side wall plates (4) 90 x 35 x 1565mm pine
- **I2** Side wall jack studs (4) 90 x 35 x 630mm pine
- **I3** Side wall studs (2) 90 x 35 x 1550mm pine
- **J1** Aft wall plates (2) 90 x 35 x 1620mm pine
- **J2** Aft wall studs (3) 90 x 35 x 1290mm pine
- **K** Side sheeting (2) 1600 x 700 x 12mm Plyline plywood
- **L** Aft sheeting (2) 1360 x 810 x 12mm Plyline plywood
- **M1**** Sow plates (4) 90 x 35 x 1400mm pine
- **M2** Bow studs (6) 90 x 35 x 630mm pine
- **N**** Bow sheeting (2) 1300 x 700 x 12mm Plyline plywood
- **O** Intermediate beam 190 x 45 x 1800mm pine
- **P** Gable ends (2) 1890 x 525 x 12mm Plyline plywood
- **Q** Ridge 90 x 35 x 1780mm pine
- **R1**** Rafters (4) 90 x 35 x 1050mm pine
- **R2** Roofing cleats (4) 90 x 35 x 850mm pine
- **S** Roofing (2) 1900 x 1200 x 12mm exterior plywood
- **T1** Wheel wall plates (2) 90 x 35 x 700mm pine
- **T2** Wheel wall studs (2) 90 x 35 x 630mm pine
- **T3** Wheel mounting rail 90 x 35 x 630mm pine
- **U** Wheel wall lining (2) 700 x 700 x 12mm Plyline plywood
- **V** Prow (2) 90 x 45 x 800mm pine
- **W** Cleat 90 x 35 x 350mm pine offcut
- **X** Plank 190 x 45 x 1100mm pine
- **Y** Block 90 x 90 x 180mm LOSP pine offcut