

Commando course

What you will need

ITEM PART	SIZE	MATERIAL
Log steps		
L1 Logs (6)	100mm dia x 650mm	Treated pine
L2 Logs (6)	100mm dia x 700mm	Treated pine
L3 Logs (6)	100mm dia x 800mm	Treated pine
L4 Logs (2)	100mm dia x 900mm	Treated pine
L5 Logs (2)	100mm dia x 600mm	Treated pine
L6 Logs (2)	100mm dia x 550mm	Treated pine
Balancing beam		
B1 Supports (2)	90 x 90 x 600mm	Treated pine
B2 Beam	90 x 90 x 3000mm	Treated pine
Pivoting beam		
S1 Pivot	150mm dia x 600mm	Round log
S2 Beam	90 x 90 x 2400mm	Treated pine
Adventure cubes		
C1 Long sides (2)	2400 x 900 x 17mm	Plywood
C2 Stiffeners (32)	900 x 25 x 17mm	Plywood offcuts
C3 Short sides (2)	1900 x 900 x 17mm	Plywood
C4 Long end	1180 x 900 x 17mm	Plywood
C5 Short end	1000 x 900 x 17mm	Plywood
C6 Bridge slats (9)	90 x 22 x 440mm	Treated pine
C7 Bridge chains (2)	28 x 15 x 3.5 x 1500mm	Steel
C8 Chain anchors (2)	100mm dia x 825mm	Half round log

You will also need five galvanised 10 x 175mm cup head bolts, 18 of 6mm bolts and double nuts, screws, four 75mm long eye bolts with washers and dome nuts.

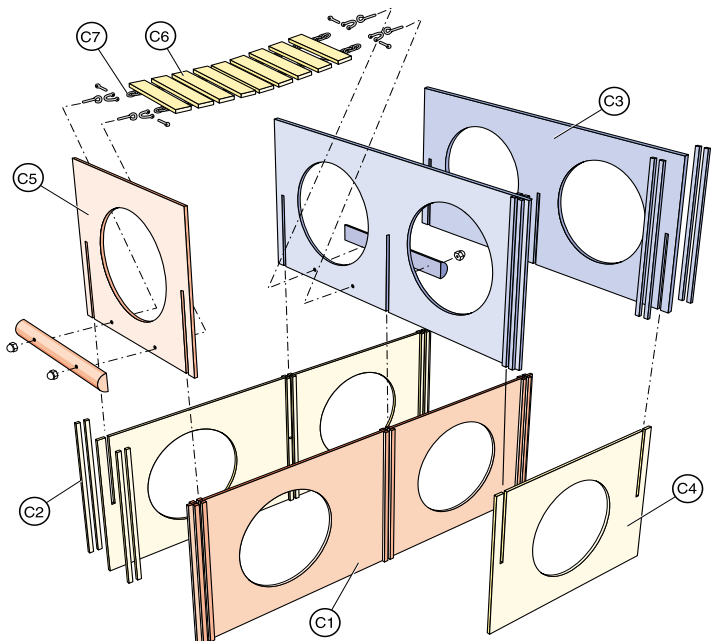
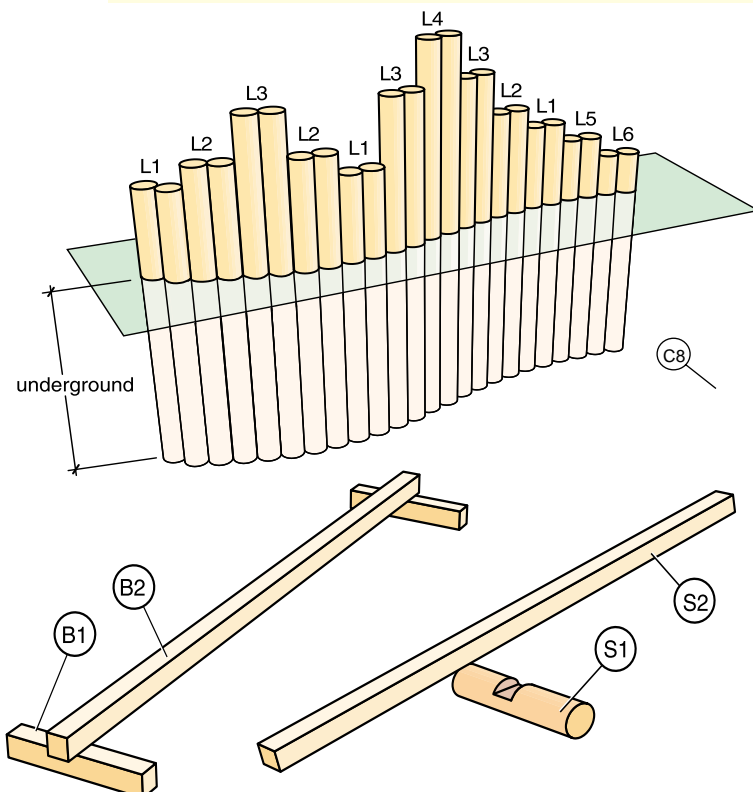
Get busy in the garden and knock up this commando course for your kids

One of the joys of childhood was the simple pleasure to be had in making obstacle courses and devising challenges to be overcome. Here, with a little help from an adult or two, is the Kids' Commando Course, a place where children can learn to pit their skills against a balancing beam, pivoting beam, a chain bridge, stepping logs and stepping stones. And, best of all, at the end of the day, it comes apart and can be stored away. By Dieter Mylius

Log steps

Dig a 450mm deep trench over a length of 2.4 metres. A slight curve will make the steps more interesting. As this is the only permanent

part of the course, place it out of the way, perhaps along a garden bed or near a fence. Use a trench digging shovel for a narrow excavating job. Set the logs in pairs in the trench, check they are vertical and back-fill as you go. Tamp down with the chisel end of a crowbar so that soil feeds into all nooks, then follow up with the blunt end to tamp well down. For a more permanent result you could





set the logs in concrete.

Balancing beam

Cut components to length and round off corners and edges. Find the centre of the supports (B1); mark 45mm to both sides. Repeat marks on underside. Draw a diagonal through the marked square and drill two holes for 10mm bolts along the diagonal line. Start with a 25mm spade bit



to make a 25mm deep hole, followed by the clearance hole. Place on beam (B2) 20mm from end and mark hole before drilling through beam as well. Join using 10 x 175mm galvanised cup head bolts, washers and nuts (see pic below left).

Pivoting beam

Cut the pivot (S1) to length and find the centre. Mark 45mm to both sides and use a sheet of paper wrapped around log with its edge on marks. Make sure ends join, then trace a line around the log at each mark. Clamp a level or straight edge between the marks and use the butt of a combination



square to measure where the straight edge is a distance of 50mm from the log. Mark both sides, then draw a line parallel to length of log at each of the marks. This is the housing that will need to be cut into the log. Cut down lines with a saw then chisel out the waste (see pic above). Check the fit of the beam (S2). Drill through and counterbore for

one 10 x 175mm cup head galvanised bolt.

Commando course (cont)

Adventure cubes



Step 1 Cut long sides (C1) to size. Mark a line down centre of board along its length. Drill a hole of a diameter that will hold a round pencil tightly in scrap timber. From centre of this hole mark 300mm, and drill a 3mm hole. Partly drive in a particleboard screw. This makes a handy compass for 600mm diameter holes. Place screw point on line 590mm from each end and draw circles (see pic overleaf) On bottom half of each board measure 50mm and 70mm from ends as well as 1110 and 1130mm from the right end. At each of these points use a builders square to draw lines between edge and centre line. Cut out slots. Drill a small hole on edge of each circle and cut circle with a jigsaw. Keep to circle as closely as possible as centre discs will be used for 'stepping stones'. Cut stiffeners (C2) from offcuts of plywood; glue and screw to both sides and front and back of all slots on long sides, all the way across each board.

Step 2 Make shorter sides (C3) with similar end slots and a centre lot spaced 940mm from one end. The centre of circles is located 500mm from each end. Add stiffeners, as before, but only to one end.

Step 3 Prepare long and short ends (C4, C5), with 600mm hole centred in panels. End pieces don't have stiffeners.

Step 4 Cut bridge slats (C6) to size; drill a 6mm hole 30mm from each end and centred. Push 6mm bolts through each hole and place slats in a row with bolt heads facing down. Feed each seventh link of bridge chain (C7) over a bolt, starting from centre and working out. Place on washer; tighten with a nut and a lock nut.

Step 5 Test fit units on a level surface to check for fit. Ease any slots as necessary with a jigsaw.

Step 6 Cut the bridge anchors (C8) to length, find centres, measure 190mm to both sides. Drill through for 6mm eye bolts. Place against outside edges of short end piece and drill through to fix eye bolts and bridge anchor to cube side. Do same at intermediate cross panel. Attach eyes with dome nut and washers, but only one or two turns of nut. Stretch bridge between anchors to get an even length of chain both ends. Fix in place with 'D' shackles, ensuring bridge does not drag on the ground.

Tighten dome nuts to lift the height of the bridge. Cut away excess chain with bolt cutters if required.

Step 7 Dismantle unit. Round all corners and edges. Undercoat with oil-based undercoat then paint with several coats of primary colours to suit. Paint stepping stones.

Step 8 Assemble items on a soft patch of lawn and let the fun begin.

