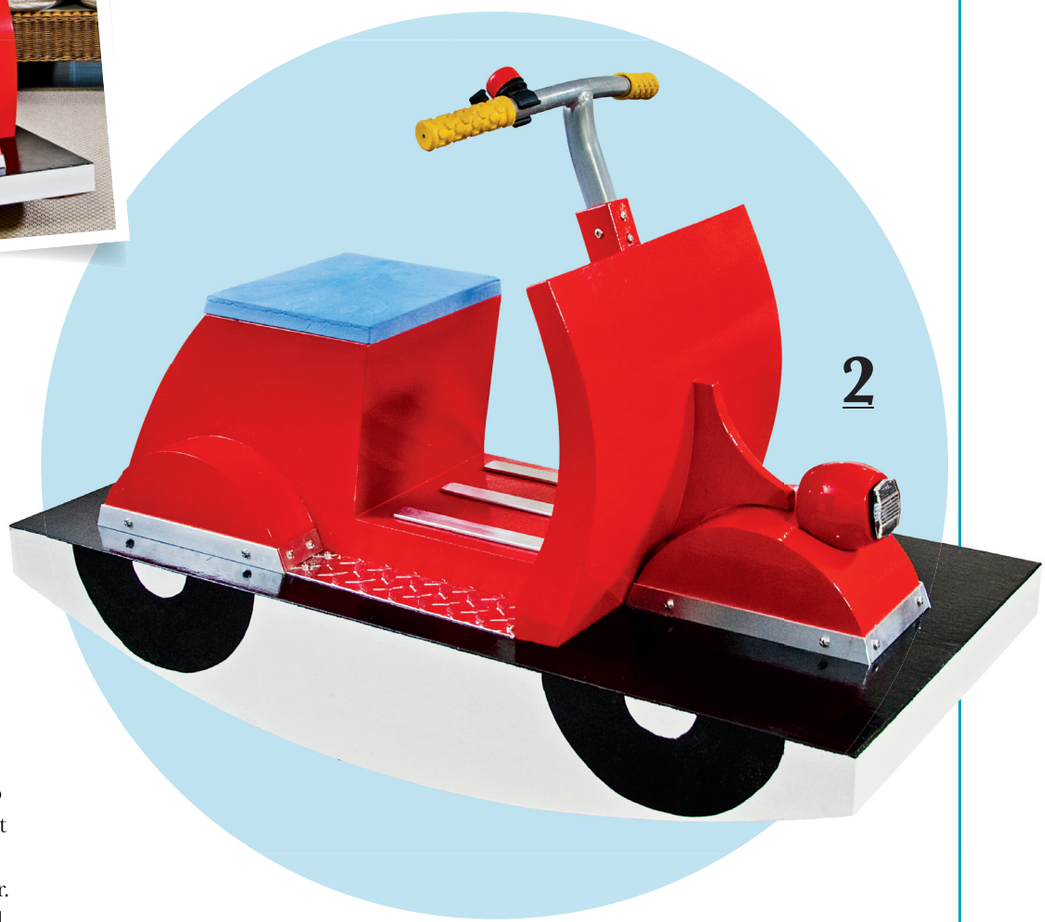
Better Homes and Gardens
AS SEEN ON 7

If you want to go places in this world you need a rockin' set of wheels. Give the kids their own moped and they'll take to the streets – well, the carpet – in style!

scoot around



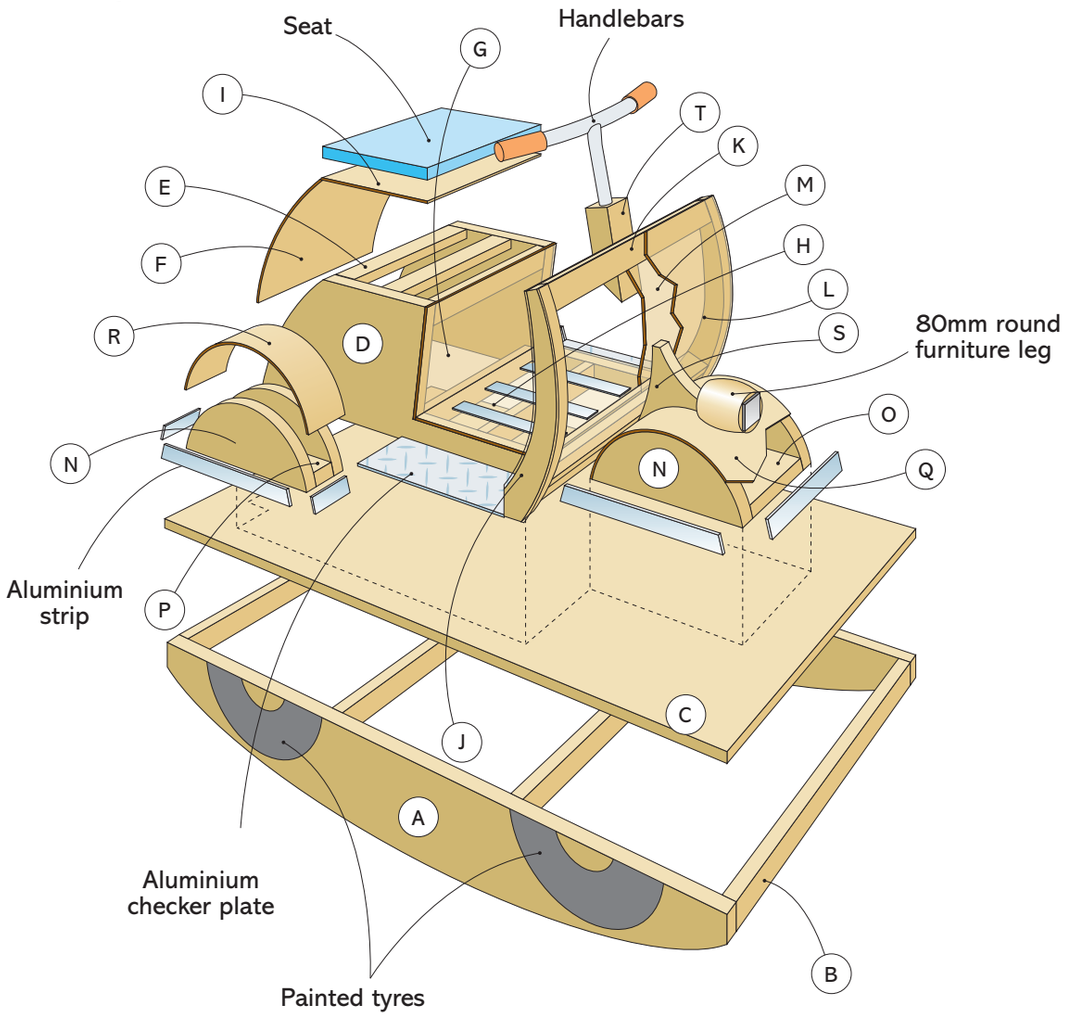
You have to hand it to the Italians – zooming around on their Vespas and Lambrettas, they have plenty of style. And you can bring that fun closer to home by making a rocking moped for the kids. That old horse is yesterday's toy – it's time to get (almost) motorised!

This wooden wonder is made of pine frames, with thin plywood bent to make the curves, and built in manageable sections that simply screw together. Aside from a cordless drill, it's easiest to make if you have a jigsaw and sander to shape the curves. Once finished, you can dress it up any way you like!

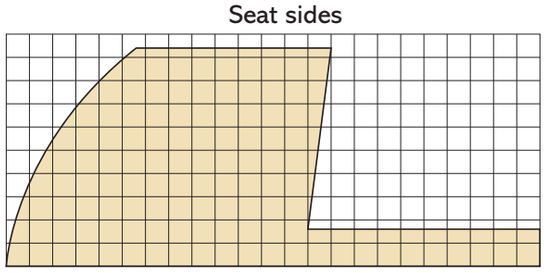
1. What littlies wouldn't love their own moped? (The real engine can come when they're older!)

2. The project is simple to make, using plywood and pine and, of course, high-gloss red paint.

Moped Diagram

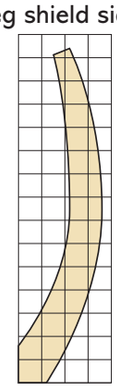


Seat sides



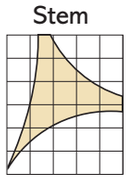
Each square = 25mm

Leg shield sides



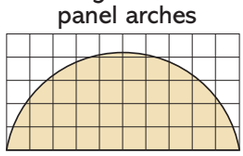
Each square = 25mm

Stem



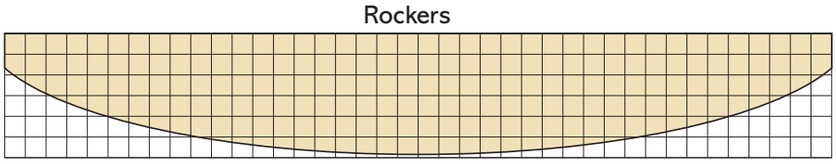
Each square = 25mm

Mudguard/side
panel arches



Each square = 25mm

Rockers



Each square = 25mm

scoot around

ROCKIN' MOPED

Gather your supplies

A Rockers (2) 1000 x 140 x 18mm plywood
B Spacers (4) 42 x 19 x 464mm pine
C Base 1000 x 500 x 18mm plywood
D Seat sides (2) 570 x 235 x 18mm plywood
E Seat spacers (8) 42 x 19 x 214mm pine
F Rear seat cladding 400 x 250 x 3mm plywood
G Seat front 192 x 250 x 3mm plywood
H Floor 247 x 250 x 3mm plywood
I Seat 220 x 250 x 3mm plywood
J Leg shield sides (2) 360 x 80 x 18mm plywood
K Leg shield spacers (3) 42 x 19 x 364mm pine
L Outer leg shield lining 400 x 480 x 3mm plywood
M Inner leg shield lining 400 x 400 x 3mm plywood
N Mudguard/side panel arches (6) 245 x 100 x 18mm plywood
O Front mudguard spacer 245 x 114 x 18mm plywood
P Rear side panel spacers (2) 245 x 34 x 18mm plywood
Q Front mudguard cover 150 x 610 x 3mm plywood
R Rear side panel covers (2) 70 x 610 x 3mm plywood
S Front stem 150 x 125 x 18mm plywood offcut
T Handlebar block 42 x 42 x 150mm pine

steps

You'll also need

PVA adhesive; drill and bits; belt sander; jigsaw; clamp; handsaw; fast-setting filler; 40mm screws; 20 x 1.25mm nails; assorted nails and screws; Speedbor bit; recycled handlebar with stem from scooter or dinky trike; 25 x 3mm aluminium strip; aluminium checker plate; tinted primer, sealer and undercoat; gloss enamel in black, white and red; 200 x 250 x 15mm high-density foam seat cover; M6 x 75mm cup-head bolts (2) with washers and M6 dome nuts; Loctite; 80mm round furniture leg; white reflector

Here's how

STEP 1 Cut rockers (A) to size with a gentle curve at bottom. To cut them out of 1000 x 140mm rectangles, use grid diagram (on previous page), or on 1 rocker mark 40mm down from top of each side and find centre of bottom. At each of these positions, partly drive a 50 x 2mm nail. Bend a thin batten or aluminium ruler around these nails and draw in curve.

STEP 2 Cut out curve using jigsaw. It's always easier to cut from a square edge towards a feathered edge, rather than try to start cut at feathered edge. Use this first curve as a pattern for second rocker, then cut.

STEP 3 Clamp 2 rockers together, then sand curves smooth so they are identical on both pieces.

STEP 4 Assemble rocker frames by gluing and screwing rockers to spacers (B), so end spacers are flush at ends and intermediate spacers are 325mm in from ends.

STEP 5 Glue and screw base (C) to rocker frame, pulling the frame square if not quite true.

STEP 6 Use diagram to mark out and cut seat sides (D). Use a circular or handsaw to make straight cuts, and jigsaw for back curve. Once the first is cut, use it to mark second seat side, then clamp in a vice and sand curves smooth so they are the same.

STEP 7 Mark out for seat spacers (E), 1 at back bottom then mark 18, 120, 138, 232 and 250mm from front bottom for 3 spacers that support floor of scooter. Also mark in spacer positions along top, putting 1 spacer aligned with back slope and 3 spacers across top for seat. Screw spacers to 1 side.

steps

STEP 8 Flip over, apply glue to ends of spacers, then bring in other seat side and screw down.

STEP 9 Part of the romance of motor scooters is curves. To achieve these, use thin 3mm plywood cut slightly long to clad the curves. Start with the rear seat cladding (F). Glue and nail on using 20mm nails. By making curves long it is easier to bend to shape. Once glue has set, trim off overhanging ends flush with bottom using jigsaw or handsaw.

STEP 10 Glue and nail on seat front (G), then butt floor (H) against the front and glue and nail in place. Sand top seat surface smooth all around, then glue and nail down seat (I). Again sand to smooth all corners and edges.

STEP 11 Using diagram, mark out and cut the leg shield sides (J) to shape. Glue and screw the sides to the 3 leg shield spacers (K) to form frame. Bottom back spacer is flush with bottom vertical edge of shield sides and the other bottom spacer runs across sides to support both inner and outer linings.

STEP 12 Clad frame with 3mm plywood outer and inner leg shield linings (L,M), using glue and 20mm nails.

STEP 13 Cut out mudguard/side panel arches (N), then also prepare front mudguard and rear side panel spacers (O,P) with a slight bevel at each end to match slope of arch. Predrill, then glue and screw mudguard sides and side panels to spacers.

STEP 14 Cut front cover (Q) for mudguard slightly long, then apply glue to edges of the arch and base ends. Use clamp and an offcut from cutting the arches as a curved clamping caul to push covers down onto arches. This allows you to glue the ply around quite a tight curve without having to only rely on nails. Let glue dry before removing clamp. Make another 2 arch assemblies for side panels using rear side panel covers (R).

STEP 15 Fill all screw and nail holes with fast-setting filler. When dry, sand all surfaces, including plywood edges that might be slightly proud, so joints will appear seamless. If necessary, refill sections that are not perfect and re-sand.

STEP 16 Glue and screw front leg shield to front edge of seat assembly, screwing on from inside of seat. This is easiest if you support seat assembly on 75mm blocks so it is centred on leg shield. Take care you do not pull the 2 out of alignment as screws need to go in at an angle.

STEP 17 To make front stem (S) either use grid diagram, or place seat and leg shield assembly (still with its 75mm blocks) on an offcut of plywood with some of ply overhanging at front. Align front mudguard with body so undersides of mudguard and seat assembly are in line. Trace shape of mudguard and leg shield, then add a third curve at the top using a rear side panel piece as a template. Also mark on leg shield the height at which it is to be fixed. Remove plywood, then cut out stem using jigsaw and test fit. Adjust as necessary to make it fit. This piece helps to support the front leg shield.

steps

Your kids will love their new set of wheels – they can rule the road (or carpet) from their room!

STOCKISTS
Project supplies: 15mm and 3mm plywood; 42 x 19mm pine; 42 x 42mm pine, **Bunnings Warehouse (03) 8831 9777, bunnings.com.au** Power tools, **Bosch Australia 1300 307 044, bosch.com.au** Dulux Prepcoat Primer, Sealer and Undercoat (tinted); Dulux Super Enamel in Black, White and True Red, **Dulux 13 25 25, dulux.com.au**

STEP 18 Screw rear side panel assemblies to sides of seat so they will be 30mm forward of back of seat at the base. Screw on from inside.

STEP 19 Glue and screw stem to front of leg shield at height you marked and centred between sides.

STEP 20 Cut handlebar block (T) with a 45° angle at bottom. Hold against top of leg shield on inside and pencil in shape of curve at top. Sand to shape, then bore a hole in top centre to suit diameter of handlebar you have, using Speedbor bit. Glue, centre and screw block to inside of leg shield so screws will find the 42mm framing timber and so block projects 60mm above leg shield. The screws will be replaced by bolts after painting.

STEP 21 Use 80mm round furniture leg as a headlight. Hold in place on front mudguard and draw in the rough curve, which you will need to fit the light so it 'shines' straight ahead. Cut this off using handsaw.

STEP 22 You will have to form a slight concave on underside of the light by clamping in vice, then using the end of a belt sander. It is only a few millimetres deep. Sand and test fit until it is right.

STEP 23 Sand all parts thoroughly so joins look seamless. Then coat with primer, sealer and undercoat tinted grey ready for final colour. When dry, paint in gloss enamel in red. Also paint top of base in gloss black and sides in gloss white. Once white paint is dry, paint on black tyres in line with mudguard and side panel positions when viewed from side. Tyres are 240mm diameter with a white centre hub of 80mm. Back wheel is 100mm in from back, and front wheel is 65mm from front.

STEP 24 Place motor scooter main assembly on rocker base so it is centred and 55mm forward of back. Screw on from underside. Then add front mudguard. Use double-sided tape to stick white reflector in centre of light, then use more tape to stick light to top of mudguard.

STEP 25 Cut 2 pieces of aluminium checker plate that taper from 65 to 75mm wide and are 288mm long to fit between leg shield and side panels. Cut 25 x 3mm aluminium strips to trim around bottom of mudguards and side panels at back. Glue on 15mm high-density foam seat.

STEP 26 Push handlebar into hole in block and secure with screws. Finally, remove temporary screws holding handlebar block in place, drill through with a 6mm bit, then insert 2 M6 cup-head bolts with washers and M6 dome nuts. Use Loctite so nuts do not readily undo.