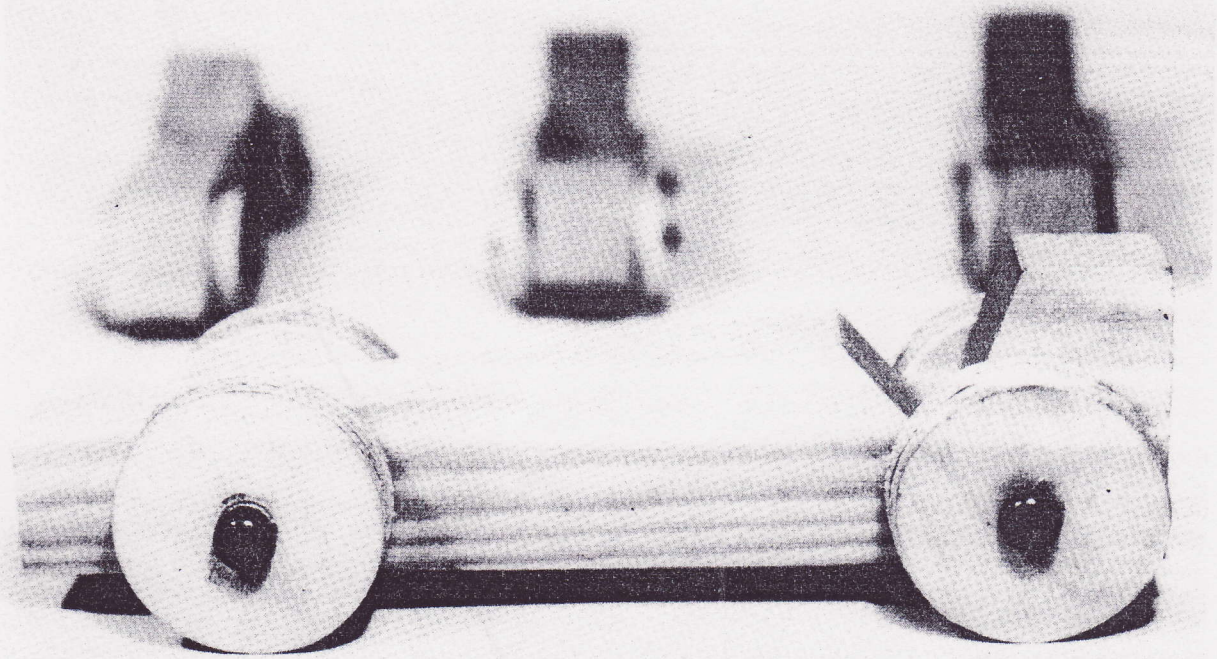
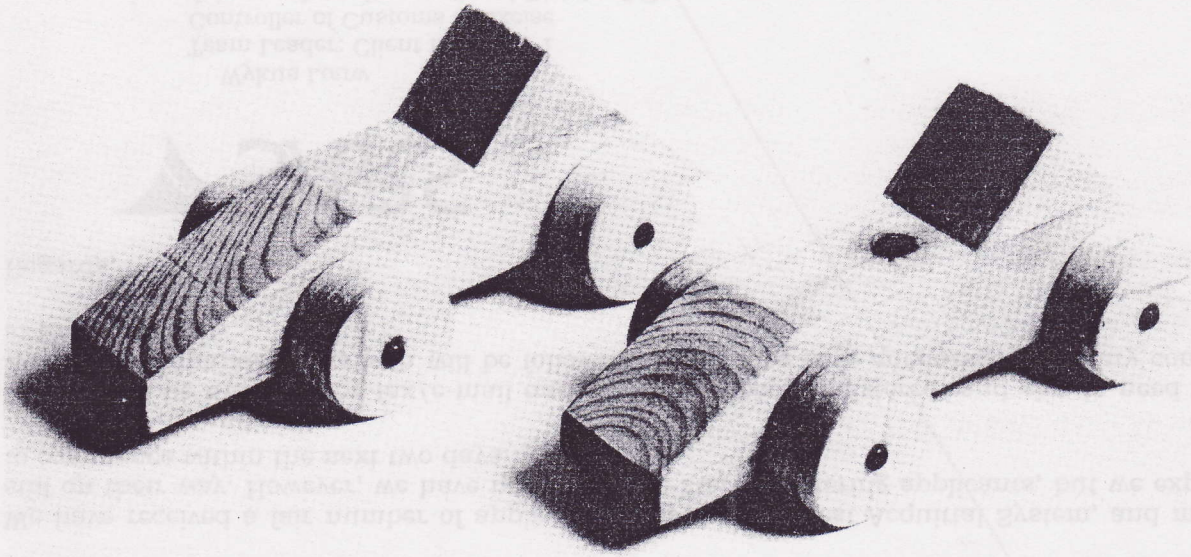




RACING CARS

Many different shaped cars can be made from a basic rectangle of wooden batten, and four wheels cut from dowel rod and attached with screws. Once completed, each racer can be painted in a different colour, or have a number printed on the side, or a clear polyurethane varnish can be applied to enhance the natural grain of the wood.

Streamlined Racing Car

Tools
Tenon saw, G-clamp or vice, drill with 1mm (1/16in.) and 5mm (3/16in.) bits, screwdriver, small paint brush, ruler, pencil

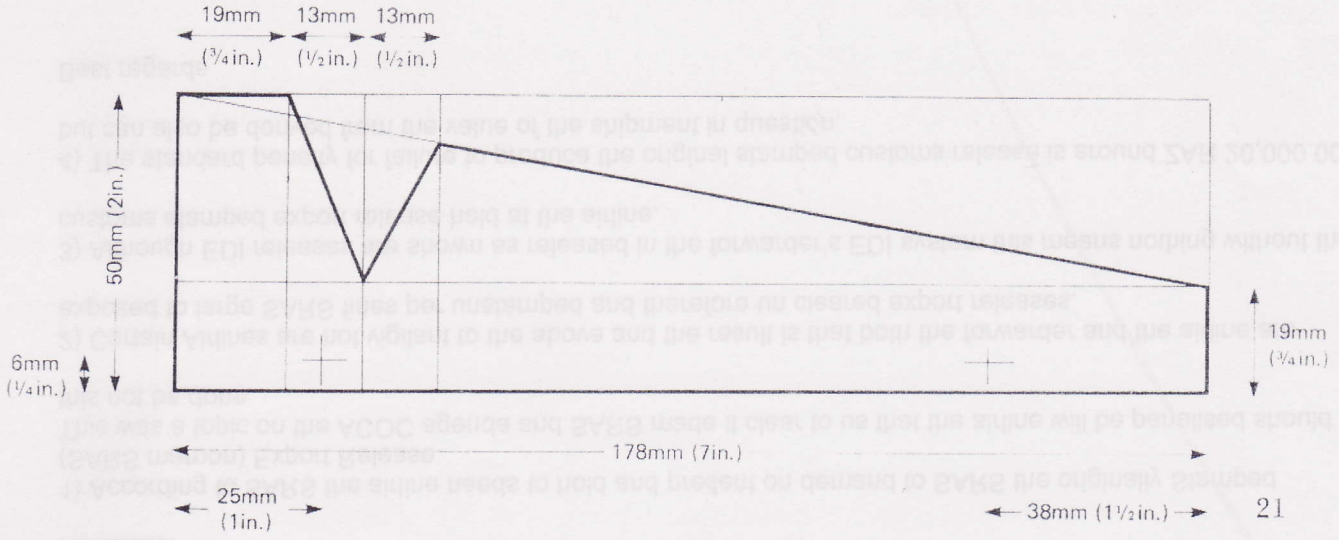
Materials
Wooden batten, 50mm x 25mm x 178mm (2in. x 1in. x 7in.)
Dowel rod, 38mm (1½in.) diameter
Four 25mm (1in.) round-headed screws
Clear polyurethane varnish
Masking tape
Fine grade sandpaper

To make the racing car
Transfer the measurements in figure 6 to the batten using the ruler and pencil. Secure it with the G-clamp and saw.
Drill four 1mm (1/16in.) holes at the marked points to accommodate the screws.
Sandpaper all over, removing rough and sharp edges.

To make the wheels
Divide the dowel into four 19mm (¾in.) sections.
Wrap masking tape around the dowel and saw.
Secure each piece in the vice and drill a 5mm (3/16in.) hole through the centre.
Attach the screws loosely so that the wheels can rotate freely.

Finishing
Apply clear polyurethane varnish or paint if desired.

Figure 6 Racing car body measurements



Small Racing Car Set

Tools
Tenon saw, G-clamp or vice, set square, bradawl, small screwdriver, ruler, pencil

Materials
Wooden batten, 25mm x 25mm x 305mm (1in. x 1in. x 12in.)
Dowel rod, 25mm (1in.) diameter
Twelve 19mm (¾in.) round-headed screws
Wood glue
Masking tape
Fine grade sandpaper

These instructions are for a set of three cars of varying shape: to obtain different shaped cars, vary the angles when making the body.

To make the racing cars
Divide the batten into three 102mm (4in.) sections.
Clamp, and saw the end off each piece at an angle.
Glue an off-cut on top of each body (see photograph).
On the bodies mark four points for the wheels 5mm (3/16in.) up from the base, 22mm (⅞in.) from the back and front: start the wheel holes with the bradawl.
Sandpaper all over, removing rough and sharp edges.

To make the wheels
Divide the dowel into twelve 8mm (5/16in.) sections.
Wrap masking tape around the dowel, and saw.
Secure each piece in the vice and drill a 3mm (⅛in.) hole through the centre.
Attach the screws loosely so that the wheels can rotate freely.

Large Racing Car

Tools
Tenon saw, G-clamp or vice, drill with 1mm (1/16in.) and 5mm (3/16in.) bits, screwdriver, set square, small paint brush, ruler, pencil

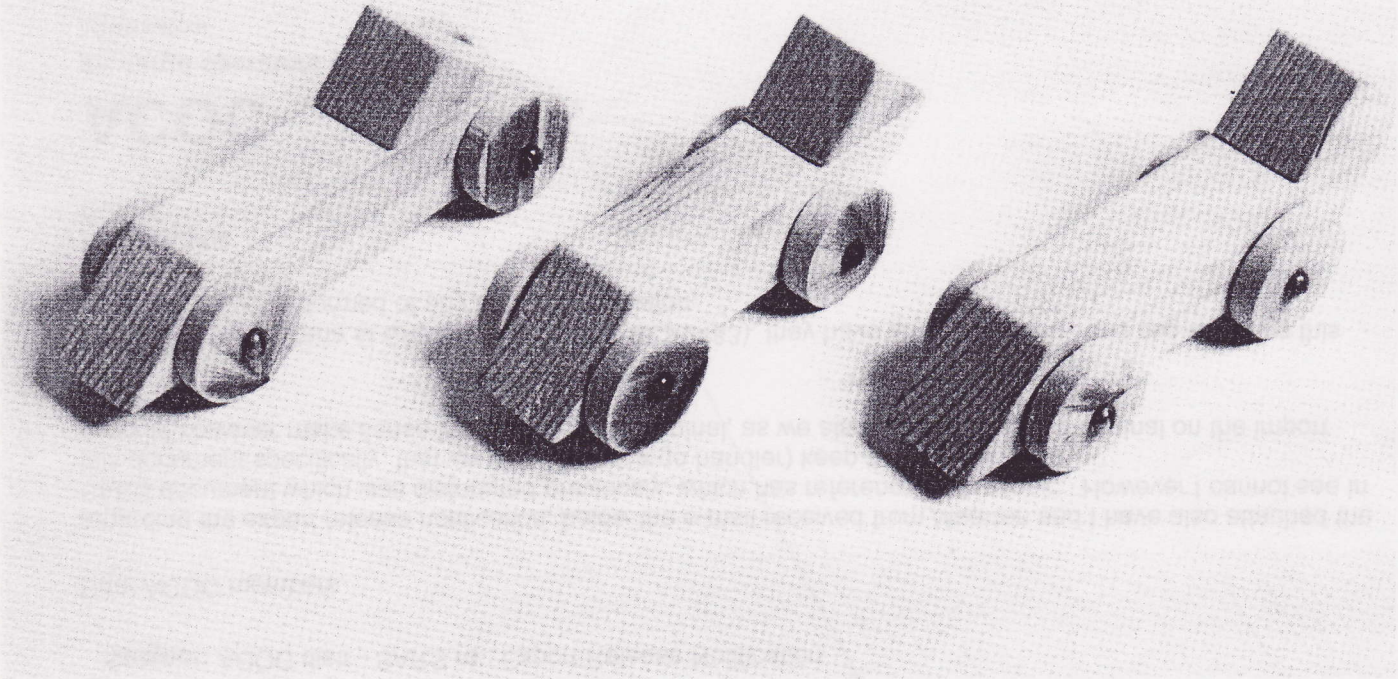
Materials
Wooden batten, 51mm x 51mm x 230mm (2in. x 2in. x 9in.)
Dowel rod, 51mm (2in.) diameter
Four 38mm (1½in.) round-headed screws
Wood glue
Clear polyurethane varnish
Masking tape
Fine and medium grade sandpaper

These chunky racing cars need only a gentle push to send them speeding across the floor. Their wide wheels give them extra stability.

To make the racing car
Secure the batten with the G-clamp and saw off one end at an angle of 45 degrees.
Glue the off-cut on top of the body (see photograph).
Saw off the front of the car at an angle.
On the body, mark four points 6mm (¼in.) up from the base, 51mm (2in.) from the back, and 64mm (2½in.) from the front: clamp, and drill 1mm (1/16in.) holes.
Sandpaper all over, removing all rough and sharp edges.

To make the wheels
Divide the dowel into four 22mm (⅞in.) sections.
Wrap masking tape around the dowel and saw.
Secure each piece in the vice and drill a 5mm (3/16in.) hole through the centre.
Attach the screws loosely so that the wheels can rotate freely.

Finishing
Apply varnish to enhance the natural grain of the wood.



Small racing cars, length 102mm (4in.)