

How to make a right-angle guide

Right-angles, used alone or with a connecting bar to make a 'U'-shaped guide, have a number of uses, such as helping you to prepare an area of soil, planting out and raking and feeding a lawn.



Making a plastic guide

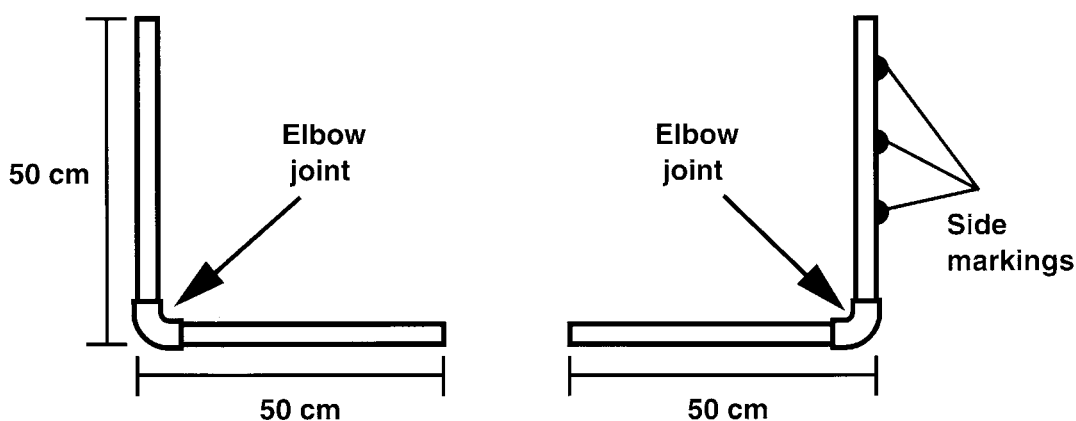
To construct a right-angle frame in plastic you will require (see Figure 1):

- 2 metres rigid (19mm diameter) plastic overflow piping
- 2 elbow joints to fit the piping
- 6 self-tapping screws (the shortest, No 6)
- A little solvent cement for PVC.

Cut the two-metre length of piping into four half-metre lengths making sure that the cuts are straight and clean.

Take two of the cut pieces and make holes with a bradawl in each at 10, 20 and 30cm from one end of each piece. The holes must be in a straight line. This will leave 20cm clear at the other end of the length. Insert the self-tapping screws into these holes and you have easy-to-feel marks for a variety of planting distances.

Figure 1



You now have two pieces of piping with raised marks for measuring, and two plain pieces. Take one marked piece and one plain piece and fit them into an elbow joint to make a right-angle. Make sure that the marked piece is fitted so that the clear end without screws is nearest the elbow joint. Twist the marked piece until the screws are on the outside of the right-angle, not on top.

Repeat the procedure with the remaining marked and plain piece and elbow joint. You have now made two right-angle guides with markings to give measurements for planting at 10, 20, 30 and 50cm.

To make sure that the right-angles do not fall apart, they can be fixed using solvent cement – the type for

PVC. Care should be taken when applying this as it dries quickly and is permanent.

It is important to be able to anchor the right-angles in position, so that they don't move. Metal pegs can be made in small 'walking stick' shapes, the hook part of which fits neatly over the piping. Metal tent pegs can be adapted for this purpose.

The right-angles can be joined together with a length of piping and straight plastic joiners to make a U-shaped guide to the length you require.

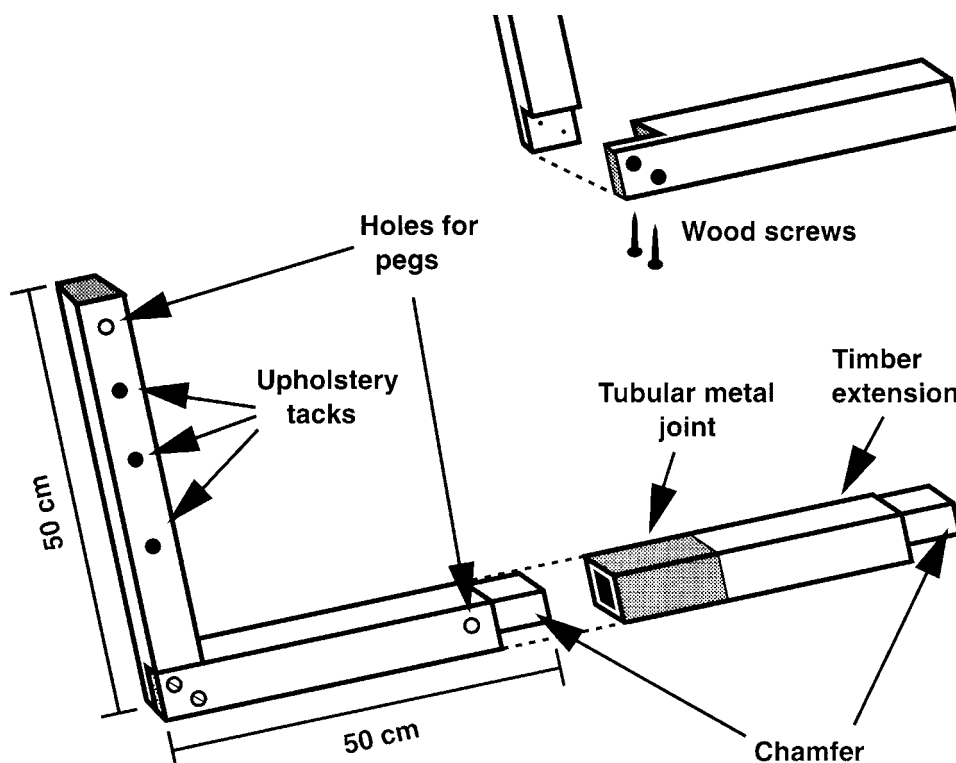
As an alternative, the right-angle guides can also be made using wood, which is more suitable for rigorous work, such as digging.

Making a wooden guide

The guide is made with the same measurements as for the plastic guide mentioned above (see Figure 2).

You will need a two-metre length of wood 4cm x 4cm (1 and a half inch square) which is cut into four half-metre lengths.

Figure 2



For the connecting bar between the right-angles, the length of timber required will be a matter of your own choice. If you want to work with a two-metre width of bed, the connecting bar should be one metre long. (With the two half-metre right-angles, the internal area will total 1 square metre.)

Other requirements:

- Round-headed upholstery tacks to provide the studded marks for measuring distances.
- A pair of square tubular joints for coupling the connecting bar to the right-angles.
- Some form of preservative. Many people paint their guide with white gloss paint. This will make it stand out against the soil and makes it easier to clean.
- Optional – two strong shelf brackets to strengthen the design. (These are optional if the right-angles are constructed with half-joints, but necessary if a more basic method of construction is used.)
- Pegs to hold the guide in position.

The two right-angles are made using the four half-metre lengths of timber. If you are a handy carpenter, you will construct them by making half-joints at the corners. If you are unskilled, there is a simpler, basic method of construction that will be described later.

The connecting bar must be shaped at both ends and coupling joints screwed to it at each end.

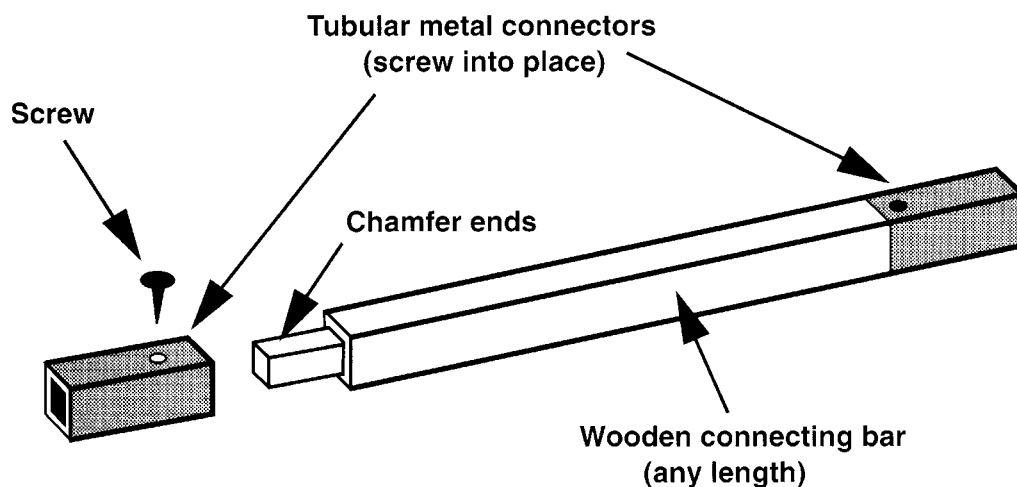
Some further construction details:

1. One arm of each right-angle should be marked with studs on both sides, thus providing equipment that can be turned over and also used for many different purposes (such as measuring distances between rows of vegetables).

It is suggested that the studs are placed at the intervals recommended for the plastic tubing – i.e. 10, 20 and 30cm. As with the plastic tubing method, one arm of the right-angle is studded and the other is left plain. The plain arm must be chamfered at the end to slip into the coupling joints fitted at the ends of the connecting bar (figure 3). A hole should be drilled at some reasonable distance on each arm to take a peg, so that the guide can be pegged down securely.

2. Optional: strengthening the right-angles. It could be a wise precaution to screw shelf brackets to the inside of each right-angle as the half joints can become damaged and weakened.
3. Making the connecting bar (see Figure 3). Both ends of this bar must be chamfered so that a coupling joint can be fixed firmly at each end. It is important that the fixture is really firm. It is advisable to treat the joints against rust.
4. Pegs similar to those recommended for anchoring the plastic piping right-angles will be suitable, the only difference being that for heavy work on the vegetable plot they should be longer – certainly no less than 30cm. Of course, this will depend on the sort of soil you have – the lighter the soil, the longer the peg to ensure that the guide is held firmly to the ground. Metal is the best material to use and good stout metal tent pegs can be suitable.
5. When finished, the guide can be treated with a suitable preservative. Many gardeners chose to paint their guide white.

Figure 3



An alternative method for constructing right-angles

This suggestion may help anyone unskilled in carpentry (see Figure 4).

It is a simple method for fixing the corners of the two right-angles without having to make half-joints. Although a basic method, it is more durable and accurate than a badly made half-joint.

First, be sure that all the ends of the cut pieces of timber for your right-angles are cut square and are smooth. You will need some good, strong wood glue. Take two of the pieces of wood, and glue the end of one piece neatly to the side at the end of the second piece. This forms a right-angle. Leave the glue to dry.

You will now need a strong shelf bracket of the type used for heavy shelves. Screw the bracket on the inside corner of the right-angle you have fixed with glue – and the job is done. The second right-angle can be constructed in the same way.

Using this method, you will have a right-angle with two arms of different lengths. If you leave them like this, be careful to put the measurement studs on the shorter arm and chamfer the end of the longer arm for attaching to the coupling joint. Alternatively, you can saw a piece off the end of the longer arm if you wish. Take off a length equal to that of the width of the wood.

Figure 4

