



Handheld routing

THE SIMPLE
FIXED-BASE ROUTER
IS A REAL WORKHORSE

BY GARY ROGOWSKI

Learning to use your first router is a little like getting acquainted with your first computer, cell phone, or iPod. You've heard they can do so many things so well that you wonder if they can make a nice cup of cappuccino, too.

Well, not quite. However, a handheld router with a simple fixed base can cut edge profiles, joinery, and curves quickly and cleanly. In fact, it used to be that a fixed-base router was the easy choice for anyone making their first purchase.

The smarter move nowadays is the combination kit, which packages a single router motor with both a fixed base and a plunge base (for mortises and stopped cuts). For a few dollars more, this gives you plenty of room to grow and a great place to start learning. Even if you never take the plunge base out of the box (highly unlikely), the fixed base is versatile enough to take you a long way in woodworking. Let's see how far.

A few shopping tips

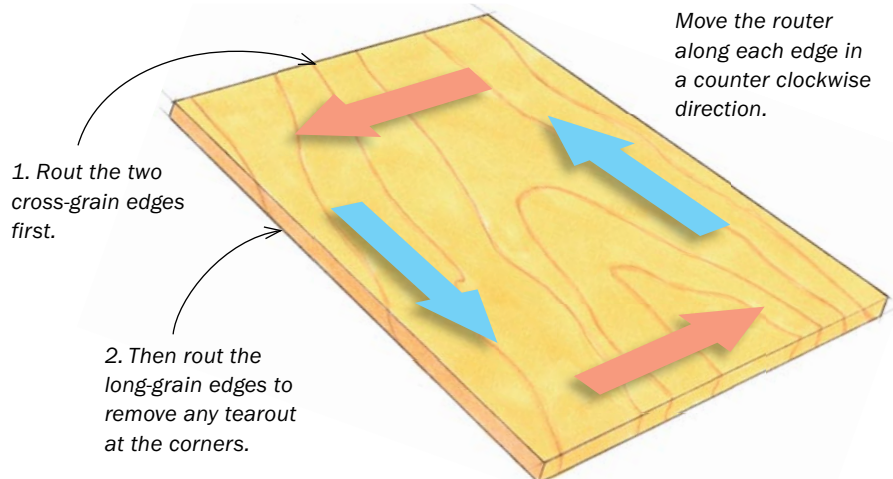
Routers come in different motor and collet sizes. Ignore the horsepower ratings and look for more amperage to get more power—12 amps should be plenty.

Most routers come with two interchangeable collets, 1/4 in. and 1/2 in. Be sure to get a 1/2-in. collet so you can use bits with the beefier 1/2-in. shank. This gives you better strength in tough routing conditions and more bits from which to choose. Also,



Bearing-guided bits for edge profiles

The bearing serves two functions. It limits the cut and it rides the edge of the workpiece to follow its shape. To cut a deeper profile, increase the bit's depth.



Add a fence for grooves

A fence attachment guarantees cuts parallel to an edge. A great way to modify this standard accessory is to add a straight piece of narrow stock for a longer, more stable fence (below).



Keep the fence tight against the workpiece. This ensures that the cut is straight, smooth, and parallel to the edge.

compare the ergonomics of the routers on your list before you buy. Feel how each fits your hands, where the on/off switch is, how well the locking handle works. These things will matter to you after you've spent hours making various types of cuts.

Cutting edge profiles

Bearing-guided bits cut molding profiles such as roundovers, coves, or ogees into edges using the bearing to limit the width of the cut. Some bits, like rabbeting bits, come with different-size bearings for making wider or narrower cuts.

Don't push the bearing all the way to the stock on the first pass. Make these

profile cuts in a series of light passes to minimize tearout and reduce wear on the router. In fact, this advice applies to any of the cuts described here. Taking aggressively deep passes is hard on the router-bit edges. In addition, be sure to move at a decent feed rate in long grain to avoid burning. Across end grain you want to move even faster, as end grain burns more readily.

Jigs keep the router on a straight path

Put a straight bit in a router, start a freehand cut in a board, and it will rout a sinuous course through the softest wood it can find. The router won't cut straight unless you make it cut straight.

Fortunately, there are many ways to accomplish this. Most routers, for instance, can be fitted with a fence that attaches to the base and rides along the edge of a workpiece.

This attachment is great for making straight cuts parallel to a nearby edge, such as grooves to accommodate supports for adjustable shelving. Attach a longer auxiliary fence made of plywood or straight stock to give it better stability.

For cutting dados, a shopmade edge guide with a right-angle fence gives you a way of making the cuts straight and at a perfect 90° angle to the edge of a workpiece. This is especially helpful if you're building a bookcase or cabinet

Make a jig for dados

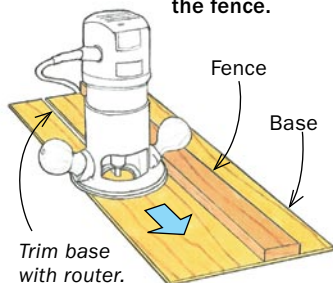
Create a right-angle jig by attaching a piece of ½-in. stock at 90° to a 1-in.-thick crosspiece. Routing through the crosspiece marks the cut location, making it easier to align the jig with layout marks.



Making the cut. The router's base rides the edge of the jig. To ensure a straight cut, avoid rotating the base.

Make a guide for straight edges

Attach a piece of straight 1/2-in.-thick plywood or MDF to a piece of 1/4-in. plywood. Use the router to trim the base parallel with the fence.



The guide keeps the router in line. Setup is easy, because the edge of the jig marks the edge of the cut.

with fixed shelves. The jig is a simple straightedge with a right-angle fence attached. Plowing through the right-angle crosspiece allows you to accurately align the fence with layout marks for each cut. Align the jig and clamp it to the work, with the fence snug against the edge of the workpiece.

One of the nicer tricks a handheld router can accomplish is jointing a straight, square edge on a board.

To do this, make a straightedge jig by screwing a straight piece of 1/2-in. plywood or MDF to a length of 1/4-in. plywood. Use the router and a straight-cutting bit to trim the baseplate parallel with the jig's fence. This type of jig can be used to make any kind of straight

cut, but it is especially useful for jointing an edge. Simply align the edge of the plywood platform along the edge you plan to joint, leaving a little rough stock showing along the board's entire length. Clamp the jig in place and rout the exposed surface with the same straight bit you used to make the jig.

When using this or any other straightedge jig, bear in mind that the router baseplate's outer rim might not be concentric with the bit. If not, then spinning the base during a cut will alter the distance between the bit and the fence, allowing the bit to go off line. To avoid this, take care to keep only one point on the base in contact with the fence as you move through the cut.

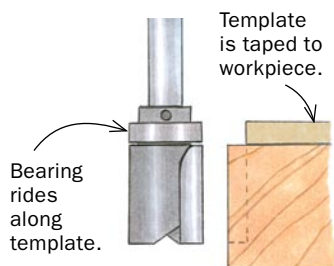
Cutting curves with a template

Pattern-routing or flush-trimming bits are straight bits with two or three flutes and a bearing mounted on them that is the same diameter as the bit. This allows the bit to trim a workpiece to exactly match the outline of an attached template, making it possible to cut multiple curved parts.

Carefully shape the template from hardboard or 1/4-in. plywood, then trace the shape onto your workpiece. Cut out the shape on the bandsaw, staying about 1/16 in. from the lines. Next, use clamps, screws, or double-sided tape to hold the template to your workpiece. Move the router quickly through sharply curved areas to avoid burning the end grain. □

Use a template for curves

A bearing-guided straight bit rides the template's edge. The bit trims the workpiece flush with the edge of the template.



Thick stock requires a second pass. Remove the template and increase the bit depth. The bearing will now reference against the already trimmed surface of the workpiece.

