You don’t need a drawer full of router bits to create interesting profiles. Make all of these and more with just three basic bits.

Over the years I’ve accumulated a lot of different router bits. The “workhorse” bits that have standard profiles get used over and over, while the more exotic “big money” bits usually just gather dust. This led me to the realization that you don’t need a drawer full of expensive bits to rout complex profiles.

**JUST THREE BITS.** The photo above illustrates the point. Each of the molded edges shown (all examples are 3/4-inch-thick stock) can be made using just three common router bits. These are bits you’ll find in just about any woodworker’s collection. And as you can clearly see, the possibilities for putting them to use are pretty varied and impressive.

The three bits (shown at left) that I used to make these examples are a 1/2” roundover bit, a 1/4” roundover bit, and a 1/2”-dia. core box bit.
**Shop Tip: Design it**

As you can see, the layout tools I used to design these profiles are pretty basic. A section of 1/4"-dia. dowel is a great template for a 1/4" round-over or a 1/4" cove (1/2"-dia. core box bit). And a 1"-dia. dowel is my 1/2" roundover bit. Chances are, if you can draw a profile on paper, you can find a way to make it with a few common router bits.

---

**How-To: 7 Easy Profiles**

---

**One Setup**

---

**ONE BIT, SEVERAL CUTS.** Here and on the next two pages, you’ll see how to make seventeen of my favorite profiles. There’s really no great secret to the process. First, I try to avoid getting stuck on the idea that a single router bit can only make one type of cut. The truth is that many types of bits can produce a variety of shapes depending on how you put them to use. To make some of the profiles shown in the main photo on the previous page, I used different parts of the bit or changed the depth or height of the cut. For example, a core box bit (or cove bit) can be used to create a wide, shallow cove or a deep hollow.

**MULTIPLE BITS.** Some of the simple profiles you see on the first page were made using only a single bit. But to create the more complex shapes, you’ll need to use a combination of bits. For instance, a 1/2" roundover along with an accurately cut 1/4" cove creates a large reverse ogee.

**ACCURATE CUTS.** One of the keys to success is to make the cuts carefully and accurately. Two or three (or more) light cuts will often yield smoother results than one deep cut. This is more important than doing the job quickly. And finally, a little fine sanding is often needed to “blend” multiple cuts into one smooth, seamless profile.
Two Setups

1/2" dia. core box bit

1/4" roundover bit with bearing removed

1/2" roundover bit

1/2" dia. core box bit

1/2" roundover bit

1/2" dia. core box bit

1/2" roundover bit

1/2" dia. core box bit

1/2" roundover bit
Three Setups

1. ¼" roundover bit

2. ½" roundover bit

3. ½"-dia. core box bit

NOTE: Remove bearing

4. ¼" roundover bit

5. ½" roundover bit

6. ½"-dia. core box bit

NOTE: Remove bearing

7. ½" roundover bit

8. ½" roundover bit

9. ½"-dia. core box bit

10. ¼" roundover bit

11. ½" roundover bit

12. ½"-dia. core box bit

13. ¼" roundover bit

14. ½" roundover bit

15. ½"-dia. core box bit

16. ¼" roundover bit

17. ½" core box bit