

Project leaf box

Make a fun leaf box project with your family

What better way to capture the glorious colors of fall than in a beautifully crafted leaf box? The rich, warm tones of the finished pine frame complement the mixture of gold and scarlet maple leaves showcased inside.

While this attractive display is simple to build, if you measure accurately and make your mitre cuts precise, you'll showcase your woodworking skills as well.

I chose 3/4" x 2 1/4" solid pine for this project because it's easy to machine and glues up well. Start off by making a 3/8"-deep x 2"-wide recess along the entire length of the inside face of the outer frame top, bottom and sides. This creates a ledge to contain the display glass and inner frame you'll add later. Raise the blade on your table saw two inches above the bed and position the fence so it's 3/8" away from the blade. Next, feed all four outer parts-the top, bottom and side members-on edge over the blade to make the first of two cuts you need to make. Next, lower the blade to just 5/16" above the saw table and position the fence 1/4" away from the saw's blade. Feed the stock horizontally through the blade this time, with the unnotched side against the fence. This should leave you with a 1/4"-thick lip to support the glass at the front of the box. While you work, save the off-cuts for later use as the inner frame parts.

With the recesses complete, you're ready to mitre the outer frame pieces. Accurate, gap-free mitres provide the gluing surface necessary to produce strong, tight joints. This is especially important on this project because the mitres are unsupported. A close fit is essential to the strength of the finished piece because the glue does all the holding.

Before cutting, check that your mitre saw is set up to cut at exactly 45°. Just to be sure, grab some scraps and try a test cut, then dry-fit the test pieces together using a metal framing square to check accuracy. When you're satisfied with the results, mark and mitre your frame pieces to length. To make glue-up easier, dry-fit the frame and hold it together with strips of masking tape applied to each of the four corners. When it's fitting accurately, undo the tape on one corner and unfold the frame flat onto your bench. Apply glue to the mitres, leaving a 1/8"-wide dry strip along the inside of each cut. This space prevents glue from oozing inside the box during assembly. Bring the pieces together as they were before, then use a strap clamp to apply even pressure all around the frame. Let it dry overnight.

Next, measure and order the glass. Order it 1/16" smaller than the interior perimeter to ensure it fits easily inside the frame, but with a minimum amount of play. If you have any doubt about getting the size of glass correct, take the frame to the glass shop and let them deal with the challenge. Acrylic plastic is also an easier option because you can cut what you need in your own shop on your tablesaw.

Although I used Masonite for the frame back, any thin plywood or veneered particleboard will do the job. First, measure the space, then cut the back to size. I chose to laminate one side of the Masonite with an off-white, medium-weight fabric to make the inside of the box look better. The fabric reflects light, and the color contrasts with the leaves, helping to define their shape. The slight texture on the fabric also helps the leaves stay in place when the box is displayed vertically. You can paint or stain the plywood back if you prefer another color for the backdrop.

Next up, construct the inner frame using the off-cuts you saved earlier. First, measure and cut the pieces to length, then dry-fit them on top of the glass, around the inside perimeter of the outer frame. The distance between the glazing and back material dictates the front-to-back width of the inner frame, so cut the parts to fit. At the final assembly stage, the backing should sit flush with the back edge of the outer frame.

Simple butt joints using glue and nails will hold the inner frame together. When the glue is partially set, place the inner frame inside the outer frame to ensure it remains square as it dries overnight. Sand both frames before applying a finish.

Since pine is absorbent and of variable density, apply wood conditioner first to prevent blotching. To finish the frames, I used an oil-based stain in warm, reddish tones to complement the rich fall colours of the leaves showcased inside. After the stain, I put on a protective coating of oil-based polyurethane in a satin finish.

With the finishing complete, you're ready to install the picture frame hardware that holds the back in place. While turn buttons are commonly used for this application, they're difficult to find in stores. Save yourself the aggravation and purchase a package of heavy-duty picture-hanging eyelets instead. These can be used to hold the backing in place as well as to wall-mount your display. You'll need six eyelets to secure the back. Remove the triangular hanging ring from the eyelet stem and fasten the stems to the back edge of the outer frame with the screws provided. If you don't tighten the screws all the way, the stems will swivel around the screw. If you are wall-mounting your box, install picture hanging hardware as well.

When you're ready for assembly, clean and place the glass inside the frame, then position the inner frame on top of the glass. Fill the box with leaves (see sidebar), and then install the back on top of the inner frame. Swivel the long side of the eyelet stems over the back and tighten the screws. Gently shake the box to distribute the leaves, then sit back and enjoy the view.

Preparing leaves for display

Sunny autumn days are a great time to rally family and friends for a leaf-collecting expedition. Although there are about 40 medium-sized maple leaves inside this box, the number you need will vary depending on the size and species of leaves you collect. To dry and flatten the leaves, place them between pieces of absorbent paper. You can sandwich the paper between pieces of plywood weighted down with bricks, or you can place the leaves between paper towels and press them in a thick book. After seven days,

the leaves should be flat and dry.

Lee Valley has developed a way to speed up the process. Its drying press, made with wool and broadcloth sandwiched between two pieces of terra cotta, can dry fresh flowers and leaves in just a few minutes while retaining their color intensity.

After they're dry, add a thin wax coating to each leaf. Do this by positioning the dried leaves between two sheets of waxed paper. Place a dishtowel over the waxed paper and press with an iron, set on medium heat, for about four minutes. This transfers just the right amount of wax from the paper onto each side of the leaf.