Build a Longboard

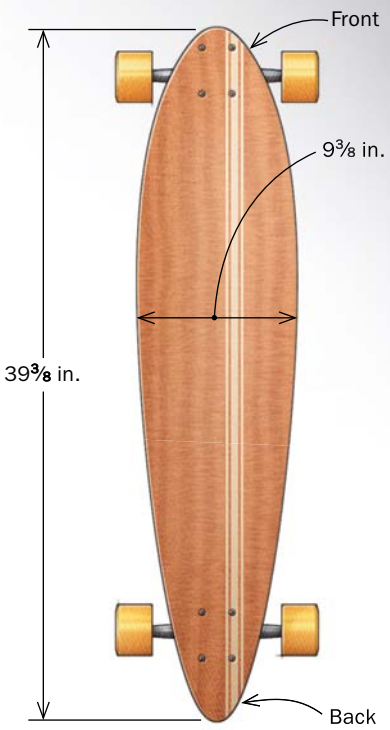
Make something fun while learning new skills

BY CHRIS GOCHNOUR

I owe a lot to skateboarding because it introduced me to woodworking, a craft I've loved for 40 years. My love for skateboarding led me to start my own business building and selling skateboards, which later transitioned to furniture making.

My children reintroduced me to board making recently because they wanted longboards of their own. Longboards, as their name implies, are longer than the standard skateboard deck and are made for the purpose of cruising downhill, rather than doing tricks.

This project is fun to make, whether it's for you, your children, or your grandchildren. Plus it's a great way to introduce yourself to new skills—like pattern making and routing, bent lamination, veneer work, and

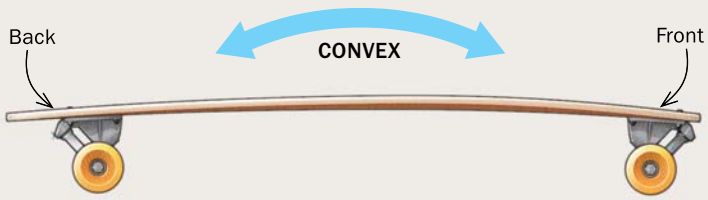


CLASSIC LONGBOARD

The surfboard-inspired board is a great gift or project for woodworkers and boarders. It's also an easy way to learn about bent-lamination and veneer on a small scale.

CURVED TWO WAYS

The convex curve from front to back gives the board strength and responsiveness, and the side-to-side concave curve improves handling.



Photos, except where noted: Dillon Ryan; this page: John Tetreault

SHAPE THE FORM

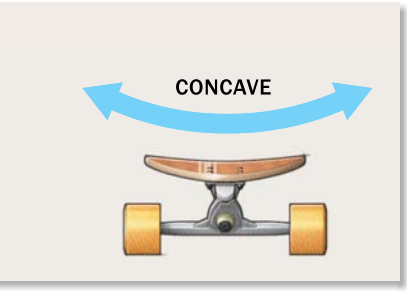
Long curve first. *You need two ¼-in. MDF templates for the convex curve of the deck. Screw them to the long edges of the foam block (left), making sure the flat sides are flush. The curve of each template runs against a finger jig attached to the bandsaw table (center). This allows a perfect "resawn" curve to be taken from the form (right).*

resawing—without a huge investment in materials. All these techniques can be used in your furniture making.

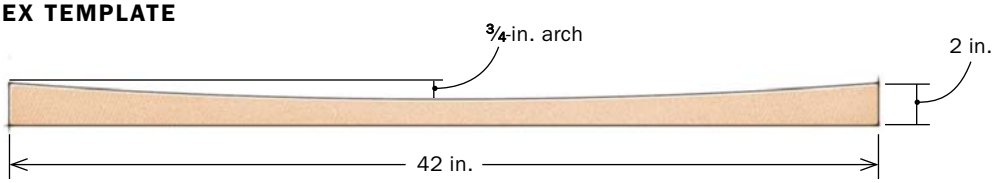
Building the form

The biggest part of building a board is building the deck, or platform, that supports the rider. It's curved in two directions, and the shape determines the responsiveness and stability of the board. Afterward, the trucks (which allow turning), wheels, and bearings are attached with hardware. To ensure this thin board is strong, board makers use maple or birch plies of alternating grain direction, pressed over a compound form.

I make the form from a sheet of rigid polystyrene foam. To cut the curves in the foam, you

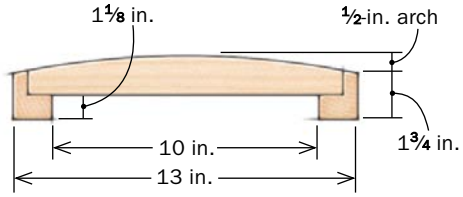


CONVEX TEMPLATE



Side-to-side curve next. *To make the concave shape in the deck, you need to give the foam form a convex shape side to side. For a consistent curve, Gochnour uses a simple jig with a ¾-in. bearing-guided straight bit. Be sure to insert and remove the router while it is turned off and in the center of the jig.*

ROUTER JIG FOR THE CONCAVE CURVE



Sand it smooth. *The router leaves light grooves in the form, so Gochnour gently sands them away with a sanding block and 180-grit sandpaper.*

Drawings: Christopher Mills

Preparing the face. *To make sure the face veneers won't get damaged or shift during glue-up, laminate each one to a core ply. Tape the thin veneers into their pattern, roll on some Titebond III to the maple core sheet, and then place the face veneer on it. Add a platen under the packet and put it in the vacuum bag with a piece of aerating mesh material on top. After an hour or two, the ply will be ready for use.*

need to make a couple of templates and a router jig. Draw the long convex curve on a strip of MDF (see drawing, p. 63) using flexible battens. Bandsaw the piece to shape, clean up the sawmarks with a spokeshave and sandpaper, and then resaw the strip to get two templates.

Screw one template to each long edge of the foam, and use a bandsaw to cut out the arch. To ensure a parallel cut, I use a simple finger jig. The jig gets clamped to the table or fence and the "fingers" straddle the blade and guide the two templates on the foam, cutting the form evenly across the profile. After cutting the long curve, remove the templates.

Next, you'll make a convex contour in the form to create the concave shape in the deck. I cut this curve across the form using a router jig. I make the jig from a piece of poplar. Lay out the arch on the board's edge and then bandsaw and sand it to shape. Bandsaw the board in two along its length. Now glue a rabbeted cleat onto each end of the jig, leaving a ¾-in. space for the pattern bit between the two top pieces. The rabbeted cleats serve as a fence to guide the jig along the form and they serve as stops to keep the router in the jig.

This jig straddles the form and, working from one end of the form to the other, the router shapes the curve. Be sure to overlap passes to avoid any missed sections. Also, it's helpful to use foam offcuts the same width as the form to help support the jig as it reaches the ends of the cut.

Cut and assemble the deck veneers

One of the aesthetic factors with longboards is that they harken back to vintage wooden surfboards. In that spirit, I chose a simple pinstripe pattern using pre-cut makore and maple veneers. To make sure the decorative top and bottom veneers aren't damaged during glue-up, I laminate the thin face veneer to one of the inte-

SOURCES OF SUPPLY

LONGBOARD PARTS
thelongboardstore.com

40/70 GROUND GLASS BLASTING MEDIA
harborfreight.com

rior plies while everything is still flat. The ply backs up the veneer and can now be glued up just like the standard plies.

Laminate the deck

I make the deck from eight plies of 1/16-in.-thick store-bought maple veneers, with two cross-grained plies balanced between the straight ones.

To laminate the board, spread out the plies on a panel of melamine backing material. With masking tape, secure them to the melamine to keep them from shifting.

Using a paint roller, apply Titebond III glue evenly to the plies. Then stack them, alternating the grain, with the decorative veneer plies on top and bottom. Put the packet onto the form followed by a platen. To keep the packet from shifting, drive a brad nail through the form at each end and secure the ends with stretch wrap. Now place the whole stack in the vacuum press. After a couple of hours, the board can come out of the bag for final shaping.

Shaping the board

Longboards come in a variety of shapes, but I stayed with the

LAMINATE THE DECK

Straighten out the plies. *Glue and stack the plies on the form, making sure they are parallel to each other and to the form's edge.*

Stake the plies. *To keep the packet from shifting, place a 1/4-in. MDF platen on the stack and secure each end of the packet with a brad nail to the form.*

Wrap it. *Before putting the whole form in the vacuum bag, wrap each end of the packet with plastic wrap to keep the sheet from moving.*

Hand-pump option

If you don't have a vacuum pump and bag, skateboard builder supply company Roarockit (roarockit.com) offers a variety of hand-pump powered bags that are perfect for pressing skateboard decks and other small projects. The setup is the same as with a standard vacuum bag, except when it comes time to draw the air out of the bag, an easy-to-use hand pump takes over. A few minutes of effort and the plies are drawn tight onto the form and can be left to dry.

Online Extra

To see a hand pump-powered vacuum bag in action, go to **FineWoodworking.com/extras.**

SAW OUT THE DECK

Lay out the deck. *After putting a centerline down the blank, trace the outline onto the blank. Gochnour uses a half-template made from MDF to ensure both sides are symmetrical.*

vintage surfboard shape with this one. The best way to get a symmetrical board shape is to make a half-pattern out of ½-in. MDF. The pattern can be drawn using flexible battens and circle templates.

Once the pattern's made, the deck can be shaped. Trace the halves onto the deck using a centerline and bandsaw it just proud of the lines. After sawing out the deck, I typically use a spokeshave followed by a final sanding to the line.

Once the deck is shaped, I rout a radius around the edge on both sides. It looks good, is more comfortable to hold, and strengthens the edge. I use a bearing-guided, ½-in. roundover bit, set so that it cuts to the center of the plies. It's important to keep the router as flat as possible.

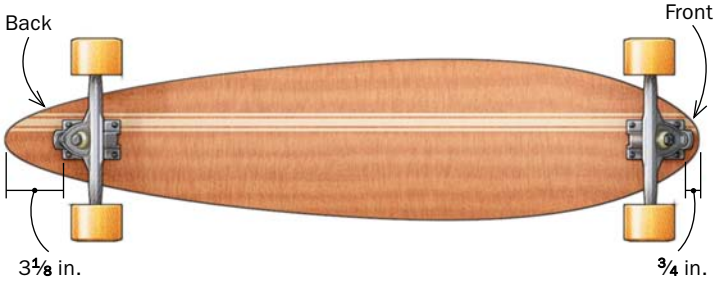
Mounting the trucks

The longboard's trucks control the turning of the board and it's vital to mount them solidly and in line with each other. For perfect holes, use the mounting plates of the truck as a

Cut it to shape. *Cut the deck shape from the blank at the bandsaw (left), leaving the pencil lines. Then use a spokeshave or sandpaper to level the edges to the traced lines. Ease the top and bottom edges of the deck with a bearing-guided roundover bit (above).*

Align and drill. *Center the trucks on the deck and use a jointed board as a straightedge to make sure both trucks are aligned. The hardware holes in the trucks act as a drilling guide.*

TRUCK PLACEMENT



drilling guide. The plates can be removed from the truck by unscrewing the kingpin and removing the axle section. Clamp the plates on the bottom of the deck and use a straightedge to align them. Now use a 3/16-in.-dia. drill bit to drill the holes, and the deck's ready for finish.

Finishing

Sand the entire deck one last time. I use DuraSeal Satin (dura seal.com) polyurethane floor varnish for its durability and apply it with a brush. While the finish is still wet on the top, I take a large salt shaker filled with crushed glass blasting media and sprinkle it on evenly. Now put a coat of varnish on the bottom and edges and let the varnish dry. Finally, brush one more coat of varnish over the crushed glass to cement the grip material into the finish.

When the varnish is dry, mount the trucks and wheels to the deck and enjoy the ride. □

Contributing editor Chris Gochnour is a professional furniture maker in Salt Lake City.

A thick coat. *After sealing the board with a 50% diluted coat of polyurethane, brush an even, heavy coat on the deck's top side (above). While it's still wet, apply a consistent layer of crushed glass blasting media to the surface using a salt shaker (left). A board with a nail in each corner keeps the board elevated. Once it's dry, put one more coat of polyurethane on the glass side to seal the abrasive to the top of the deck.*