Build your own

Oval Poker Table (ver. 1)

Making the Cuts

Once you have the materials and the tools necessary. It's time to get started.

First thing's first. This design uses 3 boards. Two are birch, and one is Oak (all are plywood). I picked the oak because it looked the best, and so it will be the racetrack. Here's a break down of what each of the 3 boards will be used for:

1. **Oak - Lower rail, racetrack, center piece**
2. **Birch - Top rail**

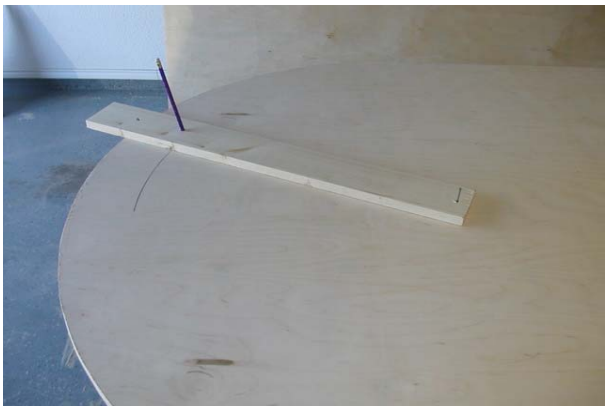
Birch - Base board

The first thing to do is cut the arcs for the round part of your table. I used 8' x 4' boards, so measure 24" from both the end and side and make a mark. Several techniques can be used to make an even arch. For this portion, I chose to use a board with a holes drilled in two places. On one end a nail is used as a pivot point, and the other a pencil draws the arch. A wire or metal ruler will do the same thing for you. I chose to start with board #2.

You're going to want to draw the arc on both ends using the same technique.

Here's a look at the first cut. Don't get in any hurry with the jig saw. Take your time and make your cuts right, you'll be happy you did later.

And here is our first board with both ends cut. Before moving on, it is very important to mark one end of the board on a side that is not visible. Do this on the same end of each piece so that you can easily put the puzzle back together.



While we have this board on the sawhorses, it makes sense to go ahead and mark it up. Since it will be used for the top rail it will be marked all the way around at 4". Use more or less depending on your personal preference.

I want a 5" wooden surface without sacrificing a lot of the playing surface. We're marking the rail now but we're not going to cut it until later.

Board #1 is up next. Marking this one is a little easier, just lay the board we just cut on top of it and mark around the outside. Be extra careful with every cut you make on this board. It is the only board that doesn't get covered up, and it needs to look good, even the parts that aren't showing.

After making the same cuts we made on the previous board, we need to mark the lower rail. I chose a 1.5" lower rail. Choose your favorite technique, and mark this off.

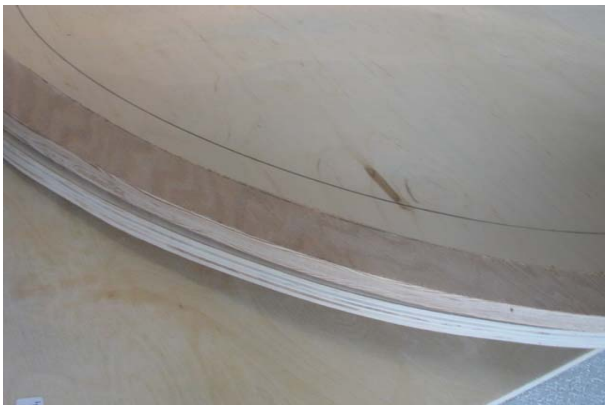
As I cut, I applied clamps to keep the rail from crashing to the ground, or ripping apart as it started to sag after being cut.

Once the rail has been cut, set it aside, we'll need it later.

Now it's time to measure the racetrack. I want mine to be 5" wide, so I measured from the outside edge. There is some tricky math here, so get your calculator ready. 4" rail + 5" racetrack = 9". Now subtract off the lower rail portion we already cut away: 9" - 1.5" = 7.5". Your calculations might differ slightly depending on what size you elected to go with.

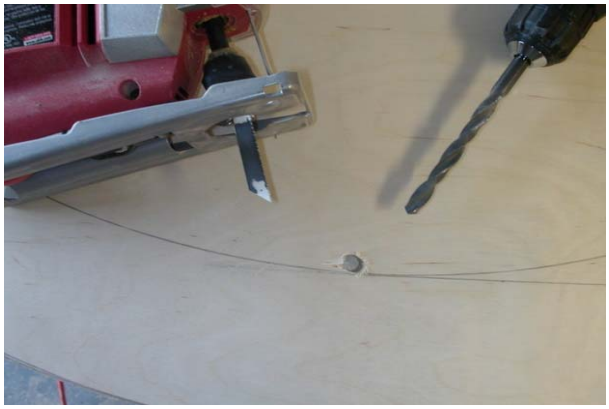
Mark your rail all the way around at the size you have chosen; I chose to use a metal ruler this time. Now might be a good time to go ahead and cut this board, but I decided to save that joy for later. I wanted a little more practice before I made what will be the most important cut of this project. The inside edge of the racetrack is the only jig saw cut that will show in the final product.

Here is a look at the bottom rail next to the piece that will become the top rail.



A close up shows that they are not perfect, but they don't have to be because later they will be covered with foam and vinyl. Once they are attached, go back and sand a bit if you don't like how it looks.

You can clearly see the line we will use to cut out the top rail.



The best way I could find to start this cut is to drill a hole on the inside that will accommodate the saw bit. This allows me to start the cut on a piece that is not used, and preserve a clean cut on the rail.

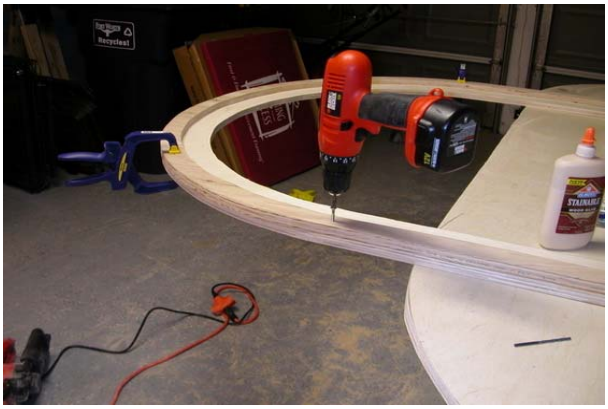
The piece we cut the top rail from can now be set aside, it will not be used on the table.

The next step is to attach the lower rail and the upper rail together. Start by lightly sanding, should just take a minute to go over the entire surface we will be gluing. Now go back over it with a rag and wipe off any dust.

Remember to use your marks and line up both pieces how they will eventually be glued. Apply the glue and set the pieces together how you want them.

My wife demonstrates proper gluing technique. Elmers makes a great wood glue, and there are several others available. Check your local hardware store.

Take plenty of time to go around the rail and make sure it is pressed together, and aligned how you want it. As you go, apply clamps and wipe away excess glue.



Let the glue dry for at least half an hour. Refer to the bottle just in case it should set longer. Leave the clamps on for security while you perform the next step.

Wood screws should now be used to attach the top rail to the bottom rail. The best way is to drill a pilot hole slightly smaller than your wood screw. I used a total of 8 screws spaced regularly to make the attachment.

Here is a view of the table on the saw horses with the attached rail resting on the racetrack. The next step will be to cut the racetrack away from the center piece.

This is the most important cut you will make. Take your time on this one as it will be out there for all of the world to see.

Start with the same technique as before, drill a hole on the insert side close to the line where the cut will be made. The hole should be big enough for the saw blade. From the hole proceed with the cut.

As the racetrack starts to sag, use something to make sure it does not fall. In the picture you can see I used my L Square, and later I used the clamps I had handy to hold up the racetrack as I completed the cut.

Make this cut on the outside of the pencil mark. This will allow any markings to be covered by the felt, and now out on your finished racetrack surface.

Here is the insert with the racetrack cut away.

Here is the racetrack

Now it's time to cut the base board. This will be board #3. To make this cut, simply trace around the outside of the racetrack. This cut should be made straight through your pencil mark.

Don't forget to mark the baseboard on the end corresponding to the mark on the underside of the racetrack.

Getting Attached

Now it's time to make some attachments. The felt insert is removable, but will be secured using T Nuts and bolts. Also, I decided that I want the rail to be removable, so it too will be attached in the same manner.

Any size can be used I suppose, but the 3/8" T Nut worked best for me. The inside measurement is 5/16", so make sure your bolts are the right size. It doesn't matter if you use fine or coarse thread, so long as the bolts match the nuts. For the insert I used 1.25" bolts, and for the rail, 1.75"

Start by drilling a 3/8" pilot hole

Next use a 1" bore bit to allow the nut to be below the surface. Don't go too far, or you'll end up with a big hole in your board.

Once your hole has been drilled and bored, the T Nut should be hammered into place. You don't want to damage the board during this process, so use something to drive the nut in. I chose to use a socket I had handy.

Drilling a pilot hole on the rail.

Here's a look at a nuts on the rail and on the insert.

Here is a shot of one of the bolts installed on the underside of the playing surface. Because the bolts are a little long, I used an extra washer to keep them from sticking up on the playing surface.

Note: Be sure to put all of your bolts in before covering the insert and the rail. It's better to find and correct any problems now rather than after the parts have been covered.

This is a shot of one of the bolts used to attach the rail.

The next step is to cover the nuts with duck tape. Doing so will prevent any sag in the rail and playing surface.

Here we see on end of the table

And here, the whole thing

Once the T-Nuts are all in place, it's a good time to put the legs on the base board. The reason you want to do this after installing the T-Nuts, is that you don't want to risk drilling through your legs with one of the pilot holes.

The set of legs I purchased from Lowes, and they are simple one size fits all legs that are generally used for replacement of broken folding table legs.

Your installation may differ slightly, but it shouldn't be anything earth shattering. My legs used 16 screws, 8 per set of legs.

It's probably a good idea to check ahead of time and make sure the screws are not going to poke out the top side of the base board. If this is the case, it's better to use a slightly shorter screw.

Another angle

Things are starting to shape up quite nicely. Here is the table with all the unfinished pieces.

The Racetrack

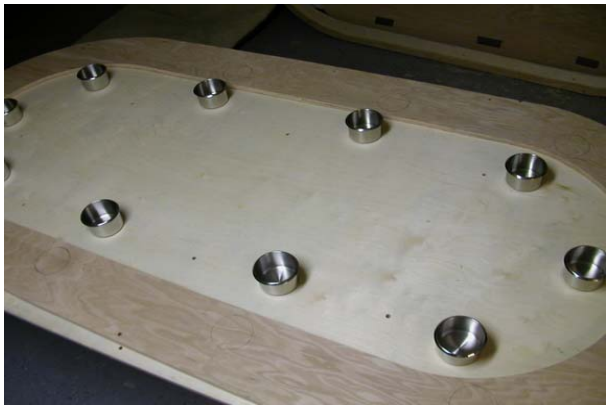
Adding cup holders is strictly optional. The table would still look spectacular without them. Knowing my friends and their affinity for beer, cup holders were a requirement.

Begin by figuring out where you want your cup holders, and make sure you have them spaced correctly as in the photo below.

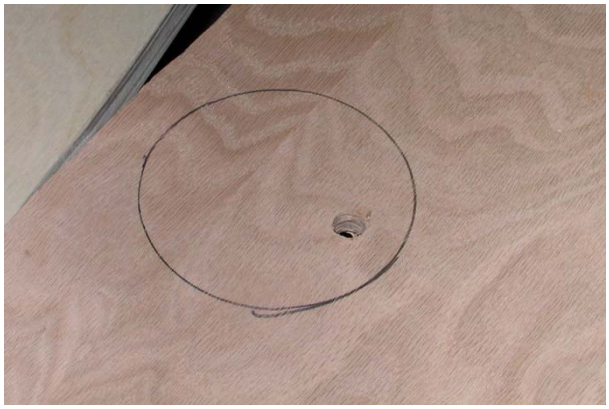
Before tracing, it's a good idea to test your positioning with the rail on to ensure that there won't be any overlap.

In the picture above, I have chosen a tuna can to be the closest fit to my cup holder, and the easiest way to draw my circles.

All of the holes have been stenciled, and are ready for cutting.



In these next few pictures I really showcase my lack of skill with a jig saw.



Like we did earlier when we cut the center insert, drill a hole on the inside of your stencil, and make an arched cut towards your line. Go slow, or you risk having your holes too wide, and you will end up with gaps.

After all the holes are cut in the rail, the rail should be placed on top of the baseboard. Use the holes in the rail to trace holes for the base board.

The holes in the rail need to be at least as big as the holes on the rail, but can be bigger to ensure you don't have any fit problems.

Here is what it looks like once the holes have been cut in both boards.

Don't forget to make sure you have some markings so you know which ends go together.

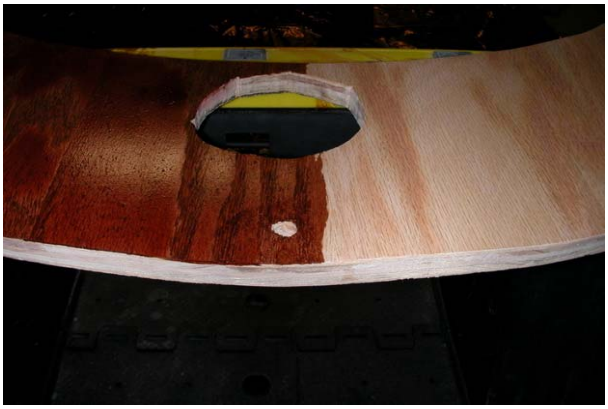
It's now time to begin the staining process. I'm not a stain expert, but since this is nice oak, I recommend doing a little research before just diving in. I began by using a minwax pre-stain treatment. It's also a good

idea to first sand, and clean with mineral spirits and a good tack cloth to make sure you have all the debris cleaned up.

I elected to use a staining rag. An old shirt, or even a foam brush would work fine.

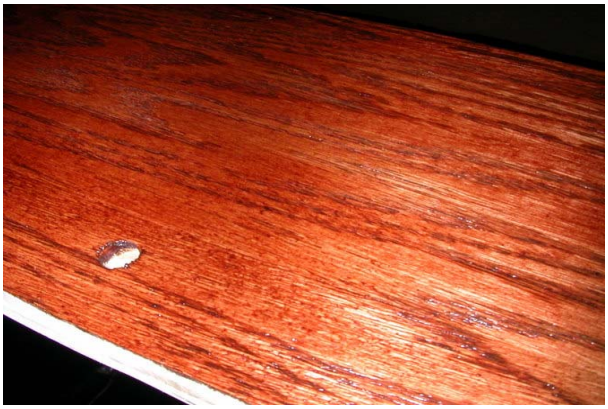
Apply the stain as evenly as possible. This may mean glopping some on and spreading it out evenly.

This shot really displays the contrast between the original finish, and the wet stain.



After the first coat, it's still a little light for my liking.

The flash lightens this shot up a bit, but here is a close up after the third coat.



The stained rail joins the rest of the table.

Overhead view of the table minus the rail.

The Rail

With the 2 rail pieces securely attached, it's not time to begin padding and covering the rail. Take your 3/4" foam, and spread it out on the floor.

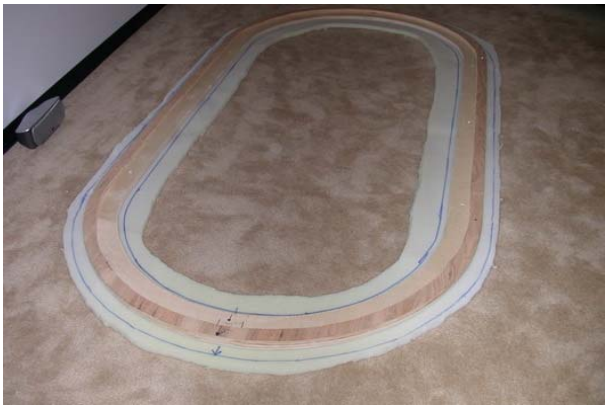
Next, cut away the excess, but make sure you leave a couple of inches, so we can make it wrap around the edges.

Be sure to cut inside and out.

On the inside use one of your 3/4" boards to make a line all the way around. This will allow the foam to wrap around the inside, but not too far.

Since the outside comes down farther, you need about 1.5". To make this easy, I nailed two of my 3/4" boards together.

Here is a look at the foam marked up all the way around



After the excess is stripped away I used scissors, but a razor blade would probably also do the trick.

I don't have a lot of pictures here, but to attach the foam to the rail, place the rail face up, and cover it with a spray adhesive. Give it a little time to get nice and tacky.

Slowly roll the foam onto the rail. Take special care to make sure that it is on even, and lines up with your inside and outside marks. Also, try not to stretch the foam. You don't want to get down to the far end and have 6" of extra foam left.

Allow half an hour or so for the adhesive to dry. Spread your vinyl out on the floor, and place the rail upside down on top of it.

Fold the vinyl over one end, and begin to staple it. I recommend being very liberal with the staples. Go outwards in both directions. As you go, pull the vinyl in towards the previous staples. It's ok to have a few wrinkles as long as they are on the bottom of the rail. You don't want them on the sides, and you definitely don't want them on the top.

Be sure to pull the vinyl tight as you go.

Once you've gone all the way around, the vinyl will be tight in the middle, and you'll basically have a giant drum head.

Trim away the excess with a razor blade. Probably want to trim on the *inside* of the staples.

Next cut a rectangle out of the middle. Be sure and leave plenty of room to wrap the vinyl inwards on the inside. The hole should go down on both ends to the point where the table starts to arch.

To make the arch easier, take your razor blade and make slits all originating from the center point of the arc (where your nail went when you made the arcs to cut your table earlier). These should be a few inches wide, getting narrower as you get closer to the sides of the table.

Once the cuts are made, start in the middle, and staple outwards in both directions. Once you finish one end, do the other, and finish with the sides.

The finished rail should slide right on the table. Remember to uses your marks to make sure you're putting it on the right way.

Without the insert

Playing Surface

This process is pretty simple, so I'm not going to put a lot of detail here. After getting the rail completed, this should be a breeze. Here is the foam spread out on the floor.

Here is the playing surface insert. Notice that the holes containing the top half of the T-Nuts are covered with tape to prevent sags in the surface.

Spray the adhesive liberally onto the insert, and give it a few minutes to get nice and tacky. Slowly roll the foam onto the insert making sure it's nice and even. Give it a half hour or so to dry then come back and lightly tug around the edge. If the edge lifts, spray some more and press it back down.

Once you're confident in the surface, use a razor blade to cut off the excess.

Next step is to attach the felt. A high quality suited felt from a casino supply company is recommended. Make sure to stretch the felt tight, and

use a lot of staples. Your process should be similar to the one used when padding the rail.

Here are all the pieces together for the first time.

Now all that's left to do is stain the rail! (ok, so some of the chapters are a little out of order, but you get the picture)

The Final Product

After a great deal of hard work, I must say, that it was all worth it. Here are a few shots of the finished product.

Close up of the race track. All major components can be seen here: playing surface, cup holder, rail, race track.

The table is currently in use for a monthly tournament. We regularly have 10 turn up, and start with a full table. I hope my work here helps you get rolling on a table of your own.