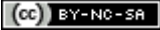


Maille and Plates Armour

By armourkris in Craft > Costumes & Cosplay  77,993  289  115 ★ Featured

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For my second instructable I'll be making some Maille and Plates armour. I've chosen this style of armour due to the fact that it requires only a couple more tools than maille, goes together fairly fast, is easy to make, and i think it's pretty damn awesome looking.

For this project you will need....

Maille supplies

-THIS covers making maille better than i ever would in here.

Plate supplies

-fabric measuring tape

-tin snips

-a metal punch

-as much 1 1/4" pallet banding as you can get your hands on.

-something to curve plates with (rubber mallet, soup can, chunk of pipe... it just needs to be round)

-duct tape

-a sharpie

and that should about cover everything you need.

Step 1: Making the Plates 1



Step one is working out how big to make your plates.

I did that by using a fabric measuring tape to measure my chest at nipple height, make sure you're taking a deep breath for this measurement or it will end up too small.

got that number? great. now divide it by how many columns of plates you will have.

I'm doing 8 in total so i wound up with plates that are just over 4 inches long.

step two will be prepping your pallet banding.

the first thing you'll want to do is cut your banding into manageable size. I

usually cut mine down to lengths around 3 or 4 feet. if you want to cut down on waste then cut them to the circumference of your chest plus $1\frac{1}{2}$ inch.

after you've done that you'll want to bend out any kinks as best you can. this

batch of banding was around small bundles of pipe at work, and is in worse shape than i usually find.

Now that you have manageable lengths of banding it's time to clean them.

Fortunately I clean metal for a living, so I have access to all sorts of fun machines to do this for me, odds are you'll have to do this by hand.

I'd recommend just hitting them with some emery cloth or sand paper and sanding them to a nice satin finish to remove the rust and paint on them. it's easier to sand a bunch of 3 foot lengths clean than to sand hundreds of 4 inch plates clean.

Ok, so you've got a bunch of shiny strips of metal now, right? Good.

now measure out the length of one plate, mark it, then take your tin snips and cut it as perfectly as you can. this will be your template. now just keep using this to measure and cut your plates until your ready to pull out your hair. i usually make my plates in batches of a hundred or so.

Step 2: Making the Plates 2



Now it's time to punch holes in your plates and give them a bit of shape.

To Start off you'll need to put the 5/32 bit into your punch, and set the depth gauge to the shallowest setting.

now punch 3 holes down down each end of the plate. i line the punch up flush to one side for the first hole, then line up the edge of the punch with each hole for the next.

you'll want to make about 50 or so that are only punched down one edge. they'll come in handy later.

next make 8 plates that have holes punched along the top edge as well as the sides. make these plates by punching the side holes first, then line the punch up with those holes to make the top row.

I'm afraid i don't have any pics of these plates since i didn't think about it until after i had it all put together, around step 8 or so.

Step 3: Making the Plates 3



now it's time to curve the plates.

curving the plates should be as simple as bending the plates over a round object. pallet banding however, can be stubborn since it is usually made from medium to high carbon steel and tempered to be a bit springy. Ideally I'd form these around a T stake, but i cant do that in my apartment, so i had to find a different way.

The method I came up with* was to lay the plate on my hand with one end resting on a solid surface. Then using a rubber mallet to act as a roller and rolling it along the plate while sliding my hand out from under it. the mallet should force the plate to curve between the edge of your hand and the surfaces it travels down, putting a curve along the whole length of your plate and not just the middle.

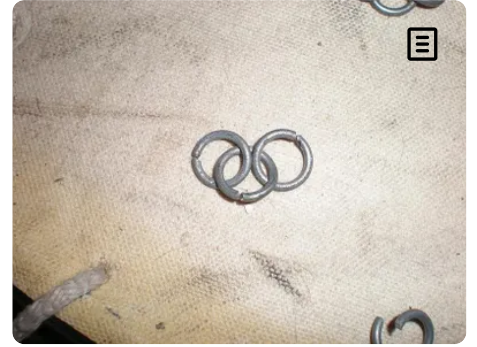
it took a few to get it to work smooth for me, and it still didn't work perfectly for every plate, but it worked good enough.

make sure you use a surface that can get scratched up. I used one of my shields.

now go curve a hundred or so plates.

looking back on this i realized that it was a needlessly difficult way of curving the plates. for later plates i just used the curved edge on my kitchen counter.

Step 4: Making the Mail



Making the maille is dead simple.

First things first, make sure you're using 14ga. 3/8" id. rings

Now just make one strand, make it about 3 or 4 feet long. We'll be using it to join all those plates you just finished making..

I think the pictures explain it well enough, but if not there are a few good maille instructables on the site. i don't think i need to repeat what they already say.

Step 5: Assembly 1-the Chest Band



Here is where it starts to get rewarding and look like you've accomplished something.

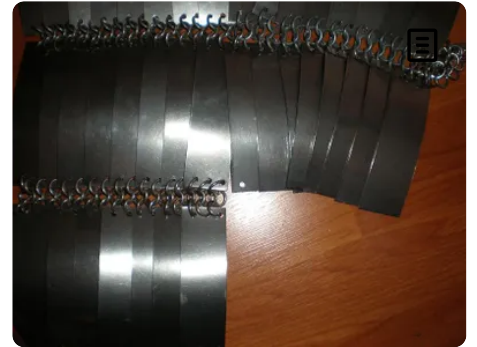
We're going to make a strip that is 8 plates tall and 4 columns wide.

Just lay out the end of that strip of maille and start connecting it to one side of your plates.

Remember that your third ring and every second ring after that will have to pass through 2 plates.

Keep adding plates until you have a column of 8 plates linked on one side by maille. Now break off the remainder of the strip and link it to the other side. From there just add more plates and repeat the process until you have 4 columns of 8.

Step 6: Assembly 2- the Upper Chest



Remember those plates that you only punched on one side? they are for your upper chest and back.

start off by adding a strand of maille up from the center of that strip. If you line the top of your armour up with your nipples the added strip of maille should come up just past where your collar bones meet.

Next add the half punched plates until they reach just below your collar bones, you'll need to punch the lowest hole on the first plate on each side and link it to the one below.

Now flip the whole thing over, line up the plates so they sit straight and run a strip of duct tape up the backside of them to hold them in place.

now were going to figure out the cutouts for your arms.

You'll want to be able to move your arms without having to push against the edges of the plates, after all, steel is harder than fabric, so it wont move out of your way, and will get uncomfortable if it doesn't fit right.