

Building a Rattan Weapon for SCA Youth Combat
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This article demonstrates one way to make rattan weapons for SCA Youth Combat Division 2 and 3 fighters. It is not the only way, but weapons made this way have passed inspection by Kingdom and Society level Youth Combat Marshals and proven to be durable and functional.

You will need the following supplies and equipment:

- A piece of rattan between $\frac{3}{4}$ " and 1" in diameter and appropriate in length for the weapon you wish to make. Weapon length should be proportional to the fighter. Great weapons have the following maximum length limitations:
 - Spear - 7.5'
 - Pole-arms - 6' - The striking edge shall not exceed $\frac{1}{3}$ of the weapons total length.
 - Great sword - 6' - No more than 18" haft (hilt).
- 1" inner diameter pipe foam that is at least $\frac{3}{8}$ " thick and long enough for the desired weapon
- Closed cell camp foam, any thickness from $\frac{1}{4}$ " to $\frac{3}{4}$ "
- A roll of duct tape
- A roll of electrical tape in a contrasting color to the duct tape
- Scissors
- A utility knife
- For single-handed weapons, a shoelace or other cord for a lanyard
- A ruler



STEP 1 – Making sure your rattan is properly sized

Using a ruler, verify that your rattan is at least $\frac{3}{4}$ " and no more than 1" in diameter. If it is too large, use a plane or draw knife to shave it down, then sand the entire shaft. If it is less than $\frac{3}{4}$ " in diameter, do not use that piece of rattan.



STEP 2 – Rounding the ends of the rattan

Using a utility knife, trim both ends of the rattan so they are rounded. If you do not round the edges, the rattan will cut through the foam padding very quickly and you will have to repad and retape the ends of your weapon frequently. Alternatively, you can glue a piece of cloth or lightweight leather onto the ends, forming a cap, to cushion them.



Trim both ends of the rattan with a utility knife



End of rattan after trimming

STEP 3 – Sliding the pipe foam onto the rattan and cutting the foam to length

Determine where you want the blade of your weapon to begin. Make sure to leave enough unpadded hilt so your gauntlet fits and you can hold the sword comfortably, taking into account that you will need to put some padding on the butt end of the sword as well. Slide the pipe foam over the rattan until the end of the foam is at the appropriate place on the rattan.



If you do not want a thrusting tip, use your scissors to cut the foam slightly past the end of the rattan.

OR

To add a thrusting tip to the weapon, find the end of the rattan that is inside the foam, then measure 2 $\frac{1}{2}$ " beyond that on the pipe foam and cut the foam to that length.



STEP 4 – (optional) building the thrusting tip

Cut circles of camp foam sized to fit inside the pipe foam. Depending on the thickness of the camp foam, you will need 4 to 8 of these circles.

Press the first circle inside the pipe foam where it extends beyond the end of the rattan, making sure the camp foam lies flat against the end of the rattan.



Insert each additional foam circle the same way until the last circle is level with the end of the pipe foam.

Cut a larger circle of camp foam, sized to the same diameter as the exterior of the pipe foam, so it covers the entire end of the pipe foam like a cap.

Using a short piece of duct tape (approx. 6”), tape the larger circle to the end of the pipe foam. **DO NOT COMPRESS THE FOAM.** For the moment, you just want to keep the cap in place.



STEP 5 – (optional) adding camp foam to the striking edges

You are not required to add more foam along the striking edges of your weapons. However, experience has shown that unreinforced pipe foam has a pretty short life. It tends to split or dent, requiring that you patch it or even completely repad the weapon after only a few weeks or months of regular use. Adding strips of camp foam to the striking edge greatly increases the life of the padding. The camp foam doesn't have to be any particular thickness; we've used foam as little as 1/4" thick to as much as 3/4" thick.

For a blade with two striking edges, cut two strips of camp foam approximately 1-1/2" wide and as long as the pipe foam blade. If your camp foam isn't long enough, it's ok to piece it.

Place the first strip on one side of the weapon and fix it in place with a few short pieces of duct tape. **DO NOT COMPRESS THE FOAM.** Then flip the weapon over and do the same with the

second strip of camp foam on the opposite side of the blade, making sure to place it 180 degrees from the first strip so your weapon is symmetrical.



Note that this will give your weapon a flat, rectangular profile – much like a real sword. Flat profile swords require the fighter to be more accurate in throwing blows, because a blow struck with the flat side of the sword instead of the edge is more easily detected. Of course, that makes them more like real swords as well.

Alternatively, if you prefer your weapon to have a cylindrical profile, you can cut a strip of camp foam wide enough to wrap the entire way around your weapon. This protects all of the pipe foam instead of just the striking edge, and makes the padded portion of the weapon larger in circumference.

STEP 6 – enlarging the thrusting tip (required for all thrusting tips)

A thrusting tip made solely of pipe foam will not meet the minimum diameter of 2-1/2”, so you must add more foam around the thrusting tip. This usually results in a “Q-tip” appearance to the end of the blade.

If you added strips of camp foam to the striking edges of the sword as we did, you can now add more camp foam to the flat sides of the thrusting tip in the same way. Those pieces need to be long enough to extend from the tip of the pipe foam to well below the end of the rattan, to prevent the thrusting tip from folding over. Cut two strips of camp foam about 4” long by 2-1/2 to 3” wide, and place one on each side of the thrusting tip as shown here. Duct tape the camp foam lightly in place. **DO NOT COMPRESS THE FOAM.**



If you did not add camp foam to the striking edge of your weapon, you can wrap camp foam around the entire thrusting tip in a cylinder shape. The camp foam should still extend well below the end of the rattan, so again, I recommend a 4” wide strip.

STEP 7 – taping the blade

Now that all of the foam is in place, make sure it's securely attached to the rattan. Run a long piece of duct tape lengthwise along the flat edge of the blade, over the thrusting tip, and back down the other flat edge, securing the tape to the rattan at the hilt below the foam blade. Do the same with the striking edge sides of the blade. DO NOT COMPRESS THE FOAM.



Once the foam blade is securely attached to the rattan, loosely duct tape the rest of the blade so that no foam is visible. For flat profile blades made with strips of camp foam on the striking edges, I recommend a spiral wrap, which helps keep the camp foam from shifting.



Beginning the spiral wrap



Spiral wrapped duct taping complete

STEP 8 – marking the striking edges and thrusting tip

Use electrical tape to mark the striking edges of the weapon. The electrical tape must contrast well with the duct tape, so that fighters can see where the weapon's striking edge is.



Mark the thrusting tip of the weapon as shown, with electrical tape placed at a right angle to the striking edge tape, forming an X on the top of the thrusting tip. Note that a single ring of electrical tape placed cylindrically around the thrusting tip denotes a Division 2/3 weapon. Do

not put a second row of tape on the end of the weapon – two rows of electrical tape indicate a Division 1 weapon, which is made of different materials.

STEP 9 – padding the butt of the weapon

For a simple sword, you need to pad the end of the hilt just enough to cover the rattan. Cut two strips of pipe foam approximately 1-1/2” wide by 3 to 4” long. Place each foam strip on a piece of duct tape about 8” long.



Fold the first strip of foam over the end of the hilt of the weapon as shown. Place the second strip on top of the first, at a 90 degree angle to the first strip, so the foam forms an X. Use additional duct tape to firmly secure the foam to the rattan and make sure none of the foam is visible.



Great weapons may have butt spikes at their hilt ends like the one shown at right. Butt spikes are used for thrusting only, not for striking. To add a butt spike to a great weapon, cut a piece of pipe foam that’s about 5” long, and slide it onto the rattan so that half of the length of the pipe foam is on the rattan and the remainder, at least 2-1/2”, extends beyond the end of the rattan, forming the thrusting tip. Then follow the procedures in steps 4 and 6 above for building and enlarging a thrusting tip. Secure the butt spike firmly to the rattan with duct tape. **DO NOT COMPRESS THE FOAM.** Mark the butt spike with contrasting electrical tape the same way you marked the thrusting tip in step 8.



STEP 10 – adding a lanyard (required for all single-handed weapons)

Make a loop of your shoelace or cord. Make sure it's big enough to fit your gauntleted hand into easily. Use a strip of duct tape to secure it firmly to the butt end of the weapon's hilt.



Note: Two-handed weapons like spears, polearms and great swords do not need lanyards.

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Your sword is done! You can decorate the hilt if you like, and of course you can use other colors of duct tape or duct tape with fancy designs instead of plain silver if you wish, as long as the striking edges are clearly marked in a contrasting color. See the pictures below for some examples of decorative sword taping.

Happy fighting!

