

## Appendix A

# Weapon Construction

*"...a weapon fit for a king, with an edge to cut through stone itself..."*

*- Tribute To The Ironforge Brothers*

### Creating A Safe Sword

Creating a safe game weapon is essential at Mythical Journeys. An unsafe "boffer" weapon could result in injury to yourself and others. Please follow these instructions carefully. We are always willing to help you create safe game weapons if you need it. All you need to do is purchase the

proper supplies and arrive at the game extra early. Creating a good, safe sword takes about a half hour.

There are also many links and additional information available on our web site. Post any questions you have on our message board as there are many cast and players willing to help you create your weapons.



### What You'll Need

⊗ **Duct Tape:** Often available in colors so you can customize your weapons. We prefer sword blades to be gray or silver. Electrical tape may be used for decoration but not for the entire blade. Kite tape may be acceptable if it seems secure.

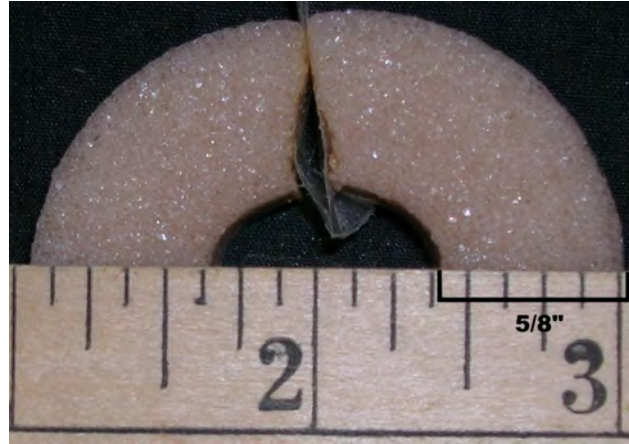
⊗ **Open Cell Foam:** (often referred to as mattress foam) Available at fabric or craft stores. You'll need at least 6 2"x2"x2" cubes.

⊗ **Pipe insulation with at least 5/8" wall thickness:** Available at plumbing stores (and occasionally electrical supply places). The most common reason weapons fail inspection is because of the use of thinner 3/8" wall thickness pipe foam.

⊗ **3/4" diameter CPVC pipe:** Available at plumbing stores (and occasionally electrical supply places). Smaller CPVC is not acceptable. Kite rod is also acceptable, with a minimum diameter of .505" for one-handed weapons or .610" for two-handed weapons. Kite rod must have end caps (available from most suppliers of kite rods) or be capped with leather strips.

⊗ **Hack saw or Pipe Cutter:** Pipe cutters work best for CPVC, while a hack saw will be needed when using kite rod.

⊗ **File:** To dull sharp or rough edges on piping.



⊗ **Utility Knife:** To cut tape and foam. Sharp scissors will be useful too.

⊗ **Marker:** To mark the pipe. A pencil may work as well.

## Sword Construction

1. Using either your hacksaw or pipe-cutter cut a piece of CPVC pipe 4 to 5" shorter than the total length of the sword you desire to create. File down any sharp

edges on the pipe (created by cutting it) using your file.



2. Take your gray colored duct tape and wrap it in a twirling manner (to make it like two-sided sticky tape with a bulging texture) along the top three feet of the pipe. This tape will help keep the foam safely attached

to the core, and is required. Suitable glue may also be used, as long as the blade foam is securely attached to the core.



3. Now take four pieces of equally sized duct tape and cover each end of the pipe with an 'X'. *Do not* tape pennies, coins, or other hard objects to cap the ends. If you must cap the end with something other than tape, use thin leather strips. If you are using kite rod, use leather strips or plastic end caps (preferred) instead; duct tape is not adequate for kite rod.

4. With the pipe ends covered, it is now time to slip your pipe insulation down over the top of your sword. This often involves twisting the piping in a clockwise or counter-clockwise manner as the two-sided tape sticks to the inside of the foam insulation. Be sure to let the foam extend an inch past the end of the pipe. (Later we will fill this space with foam.)



5. After your struggle with getting the pipe insulation past all that tape, the fun begins. You will begin by taking strips of duct tape and adhering them from the

pipe insulation to the sword grip area. Continue this process until you have gone all the way around the sword in this area.



6. Once you have finished fastening the pipe insulation to the pipe, take one last strip of tape and place it at the base of the sword "blade". From here pull it tightly around the sword to bind all the tape together from the previous step.

7. Remember when we mentioned to leave a one inch space at the top of the sword? Take one of your 2" foam cubes and stuff it into this area completely so it does not stick out of the tip. Tape the foam in cross-ways as you had done with the pipe itself earlier in Step 3.



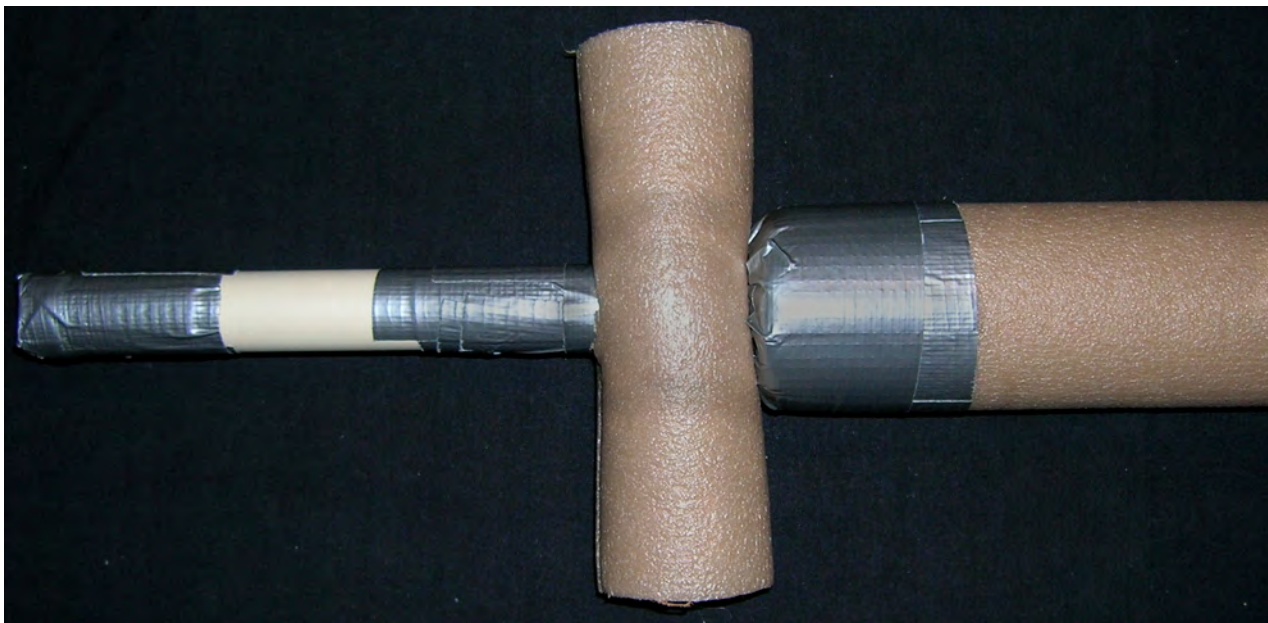
8. Place one of your 2" foam cubes at the top of the sword blade. Tape it down cross-ways without applying pressure to the foam block that would force it to crumple or squish. Pressure should be equally applied on all sides. When applied properly, the two strips of tape should be all you require to hold your tip safely in

place, and the tip should collapse directly toward the blade when pressed from its top. This piece of foam provides the thrusting tip of the weapon. Do not make it thinner (not enough padding) or thicker (the tip will fold over and not provide any protection) than 2".



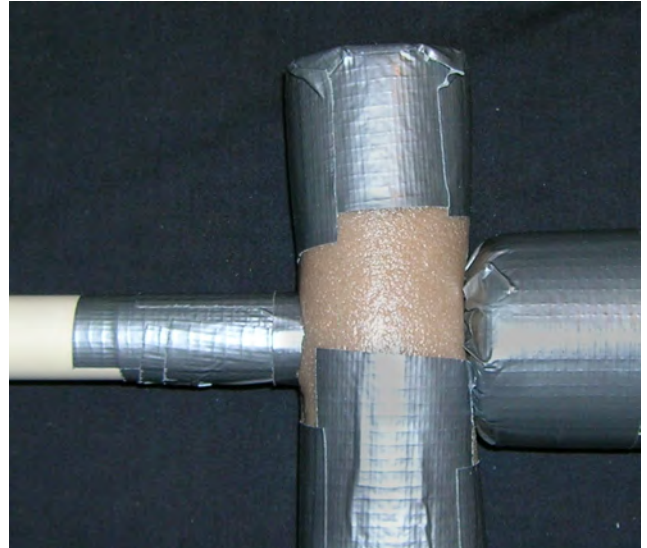
9. Cut your second length of pipe insulation down to about ten to twelve inches. This will be your crossguard. At the center of the crossguard, create a small hole (slightly smaller than your CPVC pipe) that completely penetrates the crossguard. This will

allow us to slide it onto the CPVC pipe. The crossguard is optional, but it makes the weapon look better as well as making it easier to sheath, and we recommend it. You can also design your own style of crossguard as long as it has no rigid materials.



10. Take your third piece of 2" foam and cut it up to equally distribute and stuff within the crossguard. Note: crossguards stuffed with hard objects will always fail safety inspections. Once filled, cross tape the ends of the crossguard and apply tape to decorate it. Place the pipe of your sword into your crossguard and slide the crossguard up to the blade. The crossguard can be taped to the blade and the handle of the sword (to prevent it from moving), but for purposes of this example, we will leave it free standing.

11. Begin to adhere long lengths of tape (they should be as long as it takes to go from the base of the sword tip to the crossguard.) to the blade. Tape should be applied from tip to crossguard and not wrapped around the sword blade. Improperly taped blades will not pass safety inspection.

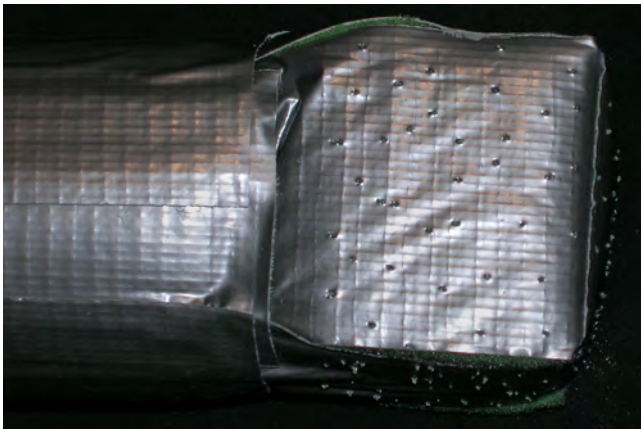


12. Your sword is nearly complete. Cut a 2 1/2 inch piece of pipe insulation away from your crossguard scraps. As with your sword tip, insert the foam onto the pipe leaving a one inch space at the end of the pipe insulation. Fill this one inch space with scrap foam and cross tape as you had done previously with your sword tip.

13. Tape the pommel of the sword as you did the tip in Step 8. The object is not to force it on too tightly or it will force the pipe through the bottom. As with Step 6, secure the tape that holds the pommel on around the handle.



14. Using a pin or similar object, poke numerous holes in the thrusting tip of the sword to allow air to be exhausted upon impact. This makes the tip softer, and also allows it to spring back to full size after a thrust.



If you followed all the steps shown you should now have a completed sword. Feel free to add colored tape to decorate it and make it uniquely yours. Be sure to wrap your handle with soft leather, dark tennis racket grip, or some form of rope or twine so you retain a firm grip on the handle during those long melees.

There are many advanced techniques to creating a good sword that we will happily show you on your many Mythical Journeys with us before or between events.

**Note: Sword Tethers**—Tethers used to prevent the 'Disarm skill are not allowed at Mythical Journeys.

## Weapon Guidelines

The following table lists the official weapon lengths of Mythical Journeys.

Table 1 Weapon Lengths

| Weapon Type       | Length     |
|-------------------|------------|
| Small Weapon      | up to 18"  |
| Short Blade/Blunt | 19" to 30" |
| Long Blade/Blunt  | 31" to 48" |
| Two Handed Weapon | 49" to 66" |
| Staff or Polearm  | 49" to 72" |
| Thrown Weapon     | 8"         |
| Thrown Javelin    | 24" to 36" |

**Note:** Overall maximum lengths include thrusting tip and pommel. Weapons that exceed their maximum length will need to be reduced in order to use them.

⊗ **Weapon Grips** on one-handed weapons may be no longer than 10". Staves must be padded on their entire length, as the entire weapon is a striking surface, while pole-arms must be padded over at least the upper half of the weapon as well as on the pommel. Other two-handed weapons may have grips up to 20"

in length, while the unpadded handle area on polearms must be no longer than one-half the length of the core (and the pommel must be padded, as for other weapons).

- ⊗ **Throwing Weapons** may not be weighted nor may they have CPVC pipe or hard objects in them. Thrown weapons may not be rock-shaped.
- ⊗ **Shield edges** must be covered with pipe insulation. Bucklers may be up to 18" diameter, with a hand grip; other shields must be larger than 18" diameter and have a hand grip and arm strap. Shields may be up to 30" diameter if round, or 24"x30" for other shapes. Tower Shields may be up to 21"x38".
- ⊗ **Blunt weapons** and axes should be constructed in the same way as swords, including the thrusting tip, with the addition of axe or hammer heads made from open cell foam and attached with duct tape. Holes may be required as in the thrusting tip.
- ⊗ **Custom weapon designs** will be considered on a case-by-case basis. Please note that we will not pass punching type weapons (e.g. tonfa, katar) for safety reasons.

For current information about vendors of approved weapons, please see our web site.

## Bow and Crossbow Guidelines

Three types of bows and crossbows are permitted: real bows firing safety arrows, Nerf-type bows, and finger arrows. No bow or crossbow of any type may be used to block any attack. If your bow or crossbow prevents an attack from hitting you, you must take the damage.

- ⊗ **Real Bows.** Real bows must not exceed 25 pound draw. Arrows to be used with real bows must be constructed according to the design specifications found on our web site. Before any of your arrows will be approved, you must complete one under the supervision of our safety coordinator, so bring the materials to make at least one arrow at the event. In addition, before using a real bow in-game, you must be approved by the safety coordinator. Real bows may not be used at night.

⊗ **Nerf-Type Bows and Crossbows.** Bows and crossbows designed to fire all-foam arrows or bolts may be used. Like all weapons, they must be approved at check-in each event. Acceptable weapons must look like a bow or crossbow, and all bright plastic colors must be covered or painted. These types of bows and crossbows may be used at all time, night and day.

⊗ **Finger Arrows.** A finger arrow is a foam arrow which is fired by means of a rubber loop or rubber band attached to the tip. Only finger arrows that use ordinary rubber bands are acceptable. Finger arrows of other types may not be used (typically these have a rubber loop at the end of a rubber cord).

Finger arrows may only be used in conjunction with a bow used as a prop. The bow must be held in hand as if it is being used, holding the loop of the finger arrow with the bow hand. Finger arrows may be used at all times, night and day, as long as they are of the correct type and are used properly with a bow prop.