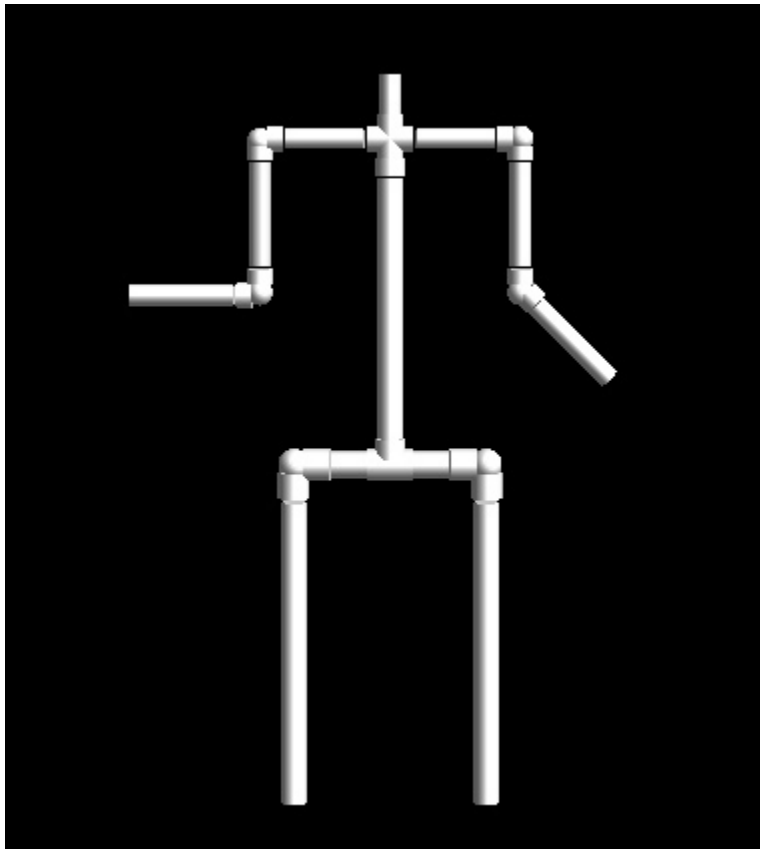




<http://members.tripod.com/~spookmaster/pvc.html>

PVC Frame Design



Obtained from
Omarshauntedtrail.com

This is the basic design for the PVC frame. To construct it, you will need the following materials:

(1) 10' length of 3/4" PVC

(1) 10' length of 1" PVC

****10' is the standard length for PVC at most home centers. Although you will not use the full amount, it helps to have a bit extra anyway just in case.****

(1) 3/4" 4-Way Cross Connector

(1) 1" 3-Way "T" Connector

(1) 1" to 3/4" Adapter

(2-4) 3/4" 90 Degree Joints (more on why the amount varies below)

(2-4) 1" 90 Degree Joints (more on why the amount varies below)

(2-4) 3/4" 45 Degree Joints (more on why the amount varies below)

(2) 1" End Caps

(2) 3/4" Straight Connectors

(2) 1" Straight Connectors

****Although not used in the construction, I recommend getting the 1" and 3/4" Straight Connectors anyway. These come in handy in case you end up cutting a section PVC too short, or glue a piece in place too soon. You can always cut the piece and adjust it, then reattach it with the straight connectors. It helps avoid having to cut a whole new piece.****

(1) Can of PVC Glue

(1) PVC Cutter

**** This is obviously optional since you can cut the PVC with a hack saw, however, it's worth the extra money since it cuts real easy and is much less work.****

Before you begin, use this handy [calculator from ZOMBIETRONIX](#) to help you determine the various PVC lengths you'll need (ie: upper arm, lower arm, shoulder width, backbone, etc.) This will keep your frame in proportion and will also prevent you from having to make additional cuts later on to adjust the look.

1) Start at the "neck" area. Use a 3/4" 4-way cross connector. From the top of the cross, attach a short piece of 3/4" PVC. This is where you attach the head. I use the standard Styrofoam wig heads, they fit perfect.

2) From the sides of the cross connector, attach 2 pieces of PVC to form the "collar bones". At the end of the "collar bones", attach a 3/4" 90 degree joint. This forms the "shoulders".

3) From the bottom of the cross, attach a length of 1" PVC for the "spine". I opted to go up in size to the 1" PVC for the "spine" and "legs" because I found that the 3/4" tended to bow a bit in longer lengths. Use a 1" to 3/4" adapter to connect the "spine" to the cross connector. It just slips on the top on the 1" PVC and will then fit into the bottom of the cross.

4) At the bottom of the "spine", attach a 1" 3-way "T" connector. From the sides of the "T" connector, attach 2 pieces of 1" PVC to form the "pelvis". At the end of the pieces, use 1" 90 degree joints to form the "hips".

5) To complete the "arms" and "legs", continue adding 3/4" or 1" PVC from the "shoulder" and "hip" joints.

****On the "arms", you can use either 90 or 45 degree joints depending on how much you want the arms bent. You can also use the 45 degree joints at the "shoulder" instead of 90 degree joints. This will allow for your figure to have more outstretched arms. I have a flying Dracula and he is holding out his cape using this method.****

****The "legs" can be either straight or bent depending on how it will be positioned. If you make one that will be sitting, just use the 90 degree joints for "knees".****

6) To fill out the figure, I bought a roll of foam rubber from a discount store. I cut pieces out and rolled them around each section of the "arms", "shoulders", "legs" etc. The foam attaches easy with duct tape. The wrapping tension of the tape will allow for contouring of the limbs. For the main body, I cut out a "torso" shape from plywood. I attached it to the "spine" with screws. This gives more of a base to wrap the foam around instead of just the PVC, plus it saves having to use a lot of it.

7) To make the figure stand, cut 2 pieces of heavy 2x10 wood about 18" long. Get some old shoes or boots and attach them to the pieces of wood, easily done with screws from the bottom side of the wood and then up through into the heel and toe of the shoes. Screw a 1" end cap inside the shoe at the heel area and then slip the ends of the "legs" into the caps. The weight is sufficient to stabilize the prop, although you may need to add some weight onto the stands if the prop is going to be outdoors and subjected to wind.

****An alternative method to attaching the shoes to the wooden stands is to pound sections of rebar into the ground. You can then slip the "legs" over the rebar without any shoes or drill holes with a hole saw through the heel of the shoes and slide them down first. For figures that would be set up on cement or a floor, you'd have to use the wooden stands.****

TIPS: I found that it wasn't necessary to glue all of the connections, especially in the "arms" and "shoulders". The joints are pretty snug and leaving them detachable allows for some posing and easy assembly when dressing the figure. You will want to glue the "pelvis", 3-way T connector and "hip" joints to prevent the figure from falling forward or backward. Just make sure it's positioned where you want it because the PVC glue sticks FAST.