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<http://spookineering.com/torso.html>

## Basic Torso Frame

**with head rotation**

The use of PVC pipe for a prop frame is not a new idea, but I wanted a standardized design I could use regardless of prop size.

The frame itself is made up of standard PVC fittings and various lengths of schedule 40 PVC. Using a "+" shaped fitting at the top and a "T" at the bottom allows for a shaft to run vertically through the center for mounting of the head. I tried several different sizes of PVC until I came up with suitable "bushings". Electrical PVC conduit (the grey stuff) seemed to work best. The shaft is made using 1/2" heavy wall aluminum tubing. Standard 1/2" Schedule 40 fits very tightly over the aluminum tube so I used that at the top with a union fitting (double female) for mounting the head to. Collars were also made of 1/2" PVC with a set screw to secure them.

Mounting the servo requires only a length of aluminum angle cut out to fit. The crank arm mounted to the vertical shaft is simply a small piece of angle shaped with hack saw and file to clean it up. The shaft was drilled and tapped for mounting. The link rod is simply a piece of music wire with a "Z" bend on each end. R/C model rod ends can also be used. A light coating of Teflon grease should be applied to all moving parts, it will not harm PVC as most petroleum based lubricants will. I use mostly foam wig heads as a base so a super heavy duty servo is not necessary, any standard one will work just fine.

Obtained from  
Omarshauntedtrail.com



As you can see in the photo below, Standard PVC fittings make up the framework. This particular one is made from 1/2". I've used up to 2" for larger props.



Some detail of the servo installation



Detail of "bushing" at bottom



The finished props

These also have animated mouths

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