When I found this particular motor and attached gearbox, I knew right away it had possibilities. It’s from a retracting shuttle bus step that had gotten damaged. It has an arm that swings 180 degrees with a link attached to arms that made the step extend. It also had a short square drive shaft coming out the top of the gearbox that turned with the arm. After moving it back and forth a few times, I got the idea. One of the scenes in my home haunt is from The Nightmare Before Christmas. I try to add new characters each year and had been wanting to add The Mayor. He presented a unique challenge in that his head rotates 180 degrees to reveal a different face on the other side. I also wanted his arms to raise up as his head changed faces. This motor had just what I needed to get multiple movements from one source.

Motor and gearbox with some of original mount and linkage.

In the frame with linkages to arms and head pivot mount.
Body form framed out.

Wire formed over frame and head blank in place.

Normal face forward
The other face. This one has an animated mouth and the arms would normally be raised above his head.