

# LAZ'S LAIR 2!

<https://home.mchsi.com/~laz456/2006%20great%20mask/Levitation%20Rig/levitation.htm>

## Levitation



The levitation effect was something I wanted to do for over 20 years, but never had the right venue to present it.



This was an effect I'd read about in Starlog magazine when I was a kid, as part of a show put on by Bob Burns in one of his famous Halloween extravaganzas. Finally I had an excuse to try my hand at it. The article was VERY short on details about how it was accomplished, but it gave clues, and combined with 20+ years of thinking about it, I pretty much knew what my plan was.



The effect consisted of 2 parts, the body shell, which held our possessed actress, and the mechanism to lift her. On the left, you can see a scale model I made to work out the details. This see-saw version was the second model I made, the first being a much more complicated parallelogram.



Here is the full scale mechanism.

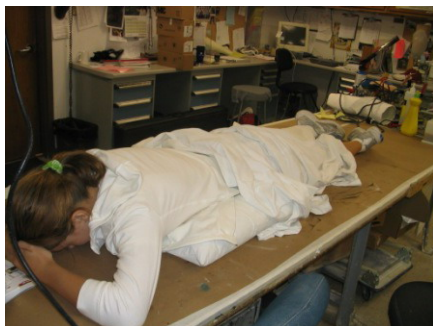
### Part 1 - The Body Shell



A

The material I used for the shell is a thermoformable plastic with a brand name of "KYDEX". It's heated in an oven on a Teflon sheet until pliable and then formed around your mold, or in this case the model herself, suitably protected.

I work in the medical prosthetics and orthotics field, so access to this kind of stuff is a definite plus. Add to that this stuff isn't very cheap. Fiberglass would work fine if you know how to work with that. Whatever you use, it has to be fairly stiff, but we'll be beefing it up with some steel later on anyway. (A) KYDEX sheet -1/4" thick.



(B) Model protected with layers of cloth.



(C) KYDEX molded to model.



A



B



C

Obtained from  
Omarshuntedtrail.com



This Shows 4 side struts that have been welded to the long piece. These will each have 2 holes drilled for connection to the shell with small bolts and nuts.



This picture Shows master welder Robert Neiryck, my father, at work on this project. I could have tried the welds myself, but since this thing had to hold my daughter Chelsea up in mid-air, I had to have someone I trusted do them.



This shows the frame attached to the 2X4.



As a final bit of safety overkill (is that possible?) This photo shows the two 1/4"X3/4" aluminum brackets I added from the wood to the steel. I also needed something to hold her legs up for her so she wouldn't have to try holding them herself.



This Photo shows this. It was a piece of 1" square stock tube, measured to length, bolted to the bottom of the shell bracket. To hold her feet, I bent up a piece of 1/8"X1" aluminum band stock and bolted that to the end just above her ankles.



This Photo shows it in it's approximate place in the bed frame. Click on the link below to see the next part!

## Part 2- The Lifting Mechanism



The lifting mechanism was a simple teeter-totter set up, adapted for the needs of the effect. Above you see it under the bed frame without the body shell attached. You can also see the 4x4 pieces I used to raise the bed high enough for the effect to fit under.



The frame for the fulcrum point consisted of 3 lengths of 2x4's screwed together and secured to a 1x8 base. A space was left in the middle for the long 2x4 to pivot through. In addition to being screwed to the base, "L" brackets and 1x2 supports were installed to add stability.



Obtained from Omarshaunted.com



The fulcrum point itself was a 1½" bolt with a steel bushing around it. Instead of drilling a hole in the long board, which I knew would create a weak point, I opted instead to secure it to the underside, thus using the entire thickness of the board.



The picture on the left shows how I attached the vertical board the body shell would attach to. It sits ON the pivot board to center the load. On the right is me behind the scenes working the rig. I used sand bags for a counter-weight to smooth the



One final thing. Before the levitation, the bed shakes violently up and down. In this shot, you can see how that worked. The bed corners sat on a 2x4 frame, with a piece connecting them in the back. Under this frame I put a piece of 1/2" conduit pipe just in back of the center of the bed. When I stepped on the back of the frame, the front of the bed rocked up and down. I was already in position for the levitation effect which followed so I didn't have to move around a lot.

Obtained from  
hauntedtrail.com